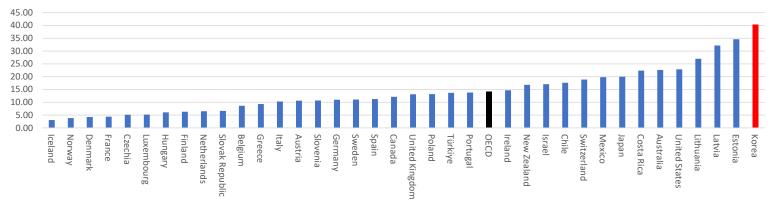


The Pressing Problem: Elderly Poverty in Korea

- South Korea: A Rapidly Aging Society
 - Became a "super-aged society" in Dec 2024 (20% aged 65+).
 - 65+ is anticipated to double by 2050.
- Highest Elderly Poverty(*) Rate in OECD
 - 40.4% of people aged over 65 live in income poverty.
 - * **Income** less than 50% of the median disposable income.



Source: OECD Income Distribution Database, www.oecd.org/social/income-distribution-database.htm (June 2023 version)

A Paradox

- Many elderly suffer from lack of income but possess illiquid assets: a residential house.
- Liquidating these assets via schemes like **home pension** could reduce poverty by 13-16 percentage points (Choi et al., 2023; Lee, 2023)
- The Striking Reality: Less than 2% Enrollment!
 - The reverse mortgage plans (the commercial bank equivalent of home pension) are never used.

Research Questions

- 1. What would facilitate elderly demand for liquidizing their homes?
 - Should the home pension scheme be improved?
 - Should positive aspects be better advertised?
- 2. Would the improvement of reverse mortgage plans (by commercial institutions) lead people to choose them over the home pension scheme?

Home Pension and Reverse Mortgage

(Korean Context)

Two key schemes for liquidating housing assets in South Korea:

- Home Pension (Government-backed)
 - Purpose: Lifelong annuity / Social insurance against longevity risk.
 - Eligibility: Aged >55, house value ≤ 1.2 Billion KRW (in official land value*)
 - Payments: Guaranteed by the government, continue until both spouses die.
 - Recourse: No recourse
- Reverse Mortgage (by Commercial Banks)
 - Purpose: Loan generating income flow.
 - Eligibility: Aged >40, no house value restrictions
 - Payments: Up to 30 years; can stop if bank goes bankrupt or loan exceeds value
 - Recourse: When sum of payments exceeds market value

^{*} The official value of 1.2B KRW is priced around 1.7B KRW in the market.

Some Facts about the Home Pension

- As of September 2024, the average home pensioner is
- 72 years old*,
 - * Younger one between spouses
- receives a monthly payment of 1.22M KRW (about 870 USD),
- living in a house worth 388M KRW.
- The number of enrollments: 133,364.

Our Methodology

- Information Provision Survey Experiment
 - providing a different set of information to survey participants and examining the difference (the treatment effect) among their responses
- Why?
 - Appropriate, especially when there have been no policy changes. Since the home pension reform has not been finalized, various virtual conditions can be presented, without raising a concern about the different information processing due to the participants' prior beliefs about the home pension reforms.
- Survey participants
 - 3,820 South Korean adults.
 - Aged 55-79, own a residential property, not currently enrolled in home pension.
 - Nationally representative sample.

Experimental Design

After being assessed initial awareness and intention to enroll, participants are randomly assigned to one of four information groups:

- G1: Placebo (Control)
 - Informed about a negligible(*) partial refund of the initial enrollment fee (10,000 KRW).
 - Purpose: Account for experimenter demand effects.
- G2: Varying Payments(**)
 - Informed about a reform where monthly payments periodically redetermine based on house price changes.
 - Addresses: Concern about constant payments.
- G3: Easing Bequests(**)
 - Informed about a reform where inheritors have longer repayment periods (3 years) and easier loans.
 - Addresses: Concern about inheritance difficulty.
- G4: Changing Perceptions
 - Informed that fixed monthly payments + rising house prices = increased bequeathed amount.
 - Addresses: The idea that the two main concerns (payment amount & bequest) can counteract each other.

^{*} The average initial enrollment fee is about 5,800,000 KRW.

^{**} Prior surveys highlight two major reasons for low uptake: (1) Concern about constant payments that don't reflect rising house prices. (2) Desire for children to inherit an uncollateralized home.

Commonly Provided Information (1/2)

A Home Pension is



collateralizing the home elderly citizens own



to allow them to receive a monthly payment as an annuity



operated by the Korea Housing Finance Corporation



When both spouses pass away, the KHFC sells the home to cover the annuity payments.



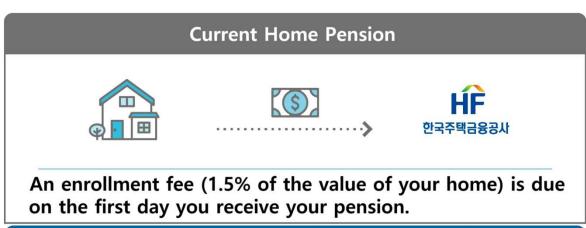
If the house value is greater than the annuity paid, the difference is inherited. If it is less, the loss is borne by the state.

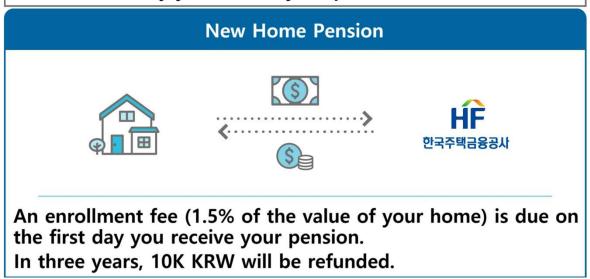
Commonly Provided Information (2/2)



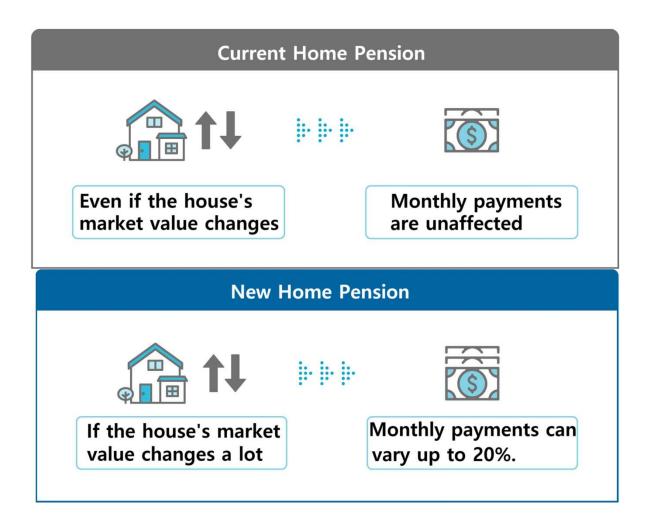
- * Official land value of 120B KRW is approximately 170B KRW in a market value.
- * An owner of multiple houses is eligible if the sum of values is less than 120B KRW.
- * An owner of multiple houses whose values exceed 120B KRW can be eligible if non-residing houses are sold in three years.

Information Provided to G1 (Placebo)

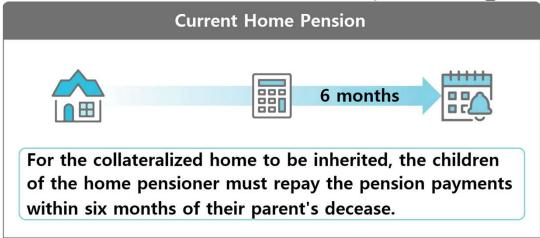


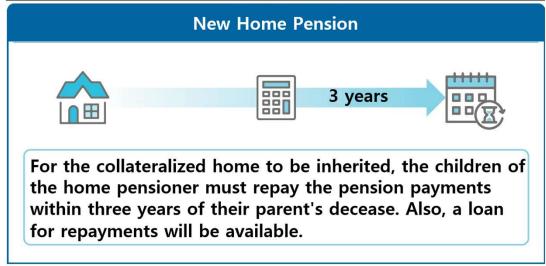


Information Provided to G2 (Varying Payments)



Information Provided to G3 (Easing Bequests)





Information Provided to G4 (Changing Perceptions)

Is the stable monthly payment bad when the house price fluctuates? \bigcirc \bigcirc





No, it is not.



Consumption smoothing when the house price fluctuates



Stable payments when price goes up



Bequeathed value of the house increases

Main Results: Changes in Intention

- G1 (Placebo): Intention increased by +0.74%p
 - Statistically insignificant (p=0.419).
 - Confirms no significant experimenter demand effect. Changes in other groups are due to information, not just receiving information.
- G2 (Varying Payments): Intention increased by +6.21%p
- G3 (Easing Bequests): Intention increased by +5.24%p
- G4 (Changing Perceptions): Intention increased by +7.46%p

Merely informing participants that concerns (e.g., fixed payments vs. bequest) counteract each other is as effective as direct policy reforms.

We can stop it here if time doesn't permit.

Provided Information about the Reverse Mortgage

Reverse Mortgage by Commercial Banks is collateralizing the home an individual owns to receive monthly payments as a loan operated by commercial institutions (Shinhan and Kookmin banks). The loan contract term is limited up to 30 years. O C(L The payment can be halted if the sum of the payments exceeds <a>↑ the market value of the collateral.

Public vs. Private Schemes: Awareness & Initial Preference

- Awareness:
 - Home Pension: 96% familiar.
 (So the treatment effect was not driven by making them aware.)
 - Reverse Mortgage: 54% familiar.
- Initial Preference (given identical conditions):
 - 67% preferred Home Pension.
 - Only 4% preferred Reverse Mortgage.
 - Primary Reason for Home Pension Preference: "Trust in government agencies".

Potential for Private Reverse Mortgages

- While public schemes are preferred, reverse mortgages show growth potential.
- When attractive features (mirroring G2/G3 treatments) were introduced to reverse mortgages:
 - Preference for Reverse Mortgage increased by ~14 percentage points (G2 & G3 treatments).
- Desirable features for Reverse Mortgages (beyond mirroring Home Pension):
 - Extending loan contract for life (mimicking home pension).
 - Incentives related to medical care expenses and taxes.
 - Flexible options, including emergency withdrawals.
- Private markets can flourish by offering competitive advantages and diverse features, not just by mimicking the public home pension.

Individual Differences: Initial Intention

Their intention to enroll in the home pension is

- weaker for relatively older respondents;
- weaker for single-family homeowners (as opposed to the apartment residents);
- stronger for the more educated;
- stronger for the more patient;
- weaker for the more loss averse;
- weaker for those who are prepared for retirement;
- stronger for those who live in greater Seoul area;
- stronger for those who have demand for insurance

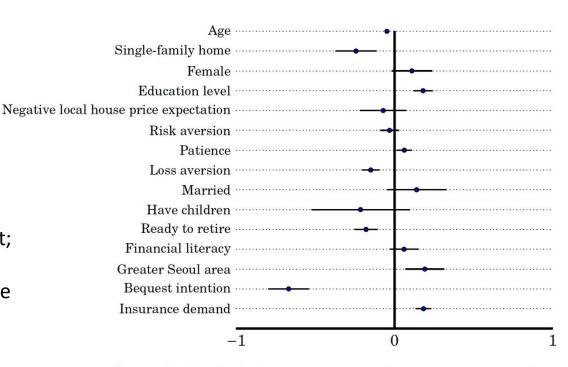


Figure 10: Effects of individual characteristics on the intention to enroll

Individual Differences: Response to Information

- While individual characteristics explain initial intentions, most do NOT significantly affect the positive change in intention as a response to the provided information,
- suggesting that the power of targeted information provision transcends many individual differences in influencing uptake.

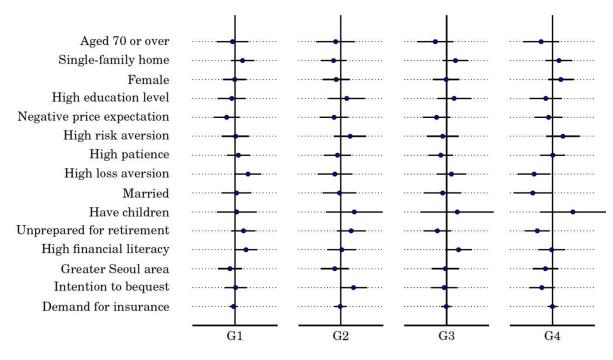


Figure 11: Effects of individual characteristics to the changes in intention, by treatment

Concluding Remarks

- Addressing Elderly Poverty in South Korea: Home pension is a vital tool for asset-rich, income-poor elderly.
- Boosting Home Pension Uptake:
 - Can be achieved through policy reforms (e.g., house price-responsive payments, easier inheritance).
 - Equally effective: Correcting misperceptions and addressing concerns through clear information (e.g., highlighting how fixed payments can increase bequeathed value when house prices rise).
- Future of Reverse Mortgages: Private sector can play a role by offering competitive advantages beyond simply mimicking the home pension, such as medical-related incentives and flexible withdrawals.