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Pension Reform Preferences in Germany: Does Information Matter?*

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EEA

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Introduction

Motivation

- ▶ Increasing life expectancy, decreasing fertility rates

- ▶ Average age of German population increases

- → Old-Age to working age ratio raises

- ⇒ Demographic change

Motivation

▶ German pay-as-you-go system pension system has to deal with this challenge

  ▶ Different reform measures are discussed, e.g. increasing the retirement age/ linking retirement age to life expectancy

⇒ Research question: Do salience and information about demographic change have an impact on preferences towards reforms in general and towards specific reform measures?

Literature

▶ Mixed evidence for effect of information provision via annual letters/ social security statements on pension provision behavior (Dolls et al. 2018; Mastrobuoni 2011)

▶ Information has a positive effect on pension provision behavior (Angelici et al. 2022)

▶ Information increases understanding, but the effect does not persist over time (Finseraas and Jakobsson 2014b; Finseraas and Jakobsson 2014a; Finseraas et al. 2017)

▶ Increased reform pressure reduces the opposition to an increase of retirement age (Naumann 2017)

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Survey, Design and Hypotheses

About the Survey

- ▶ CATI
- ▶ Survey period: November 2020 - May 2021
- ▶ Target population: Working population in Germany
- ▶ Sample size: 1000 individuals (600 West Germany, 400 East Germany)
- → Representative in terms of age, gender, state of residence
- ▶ Implementation of a survey experiment
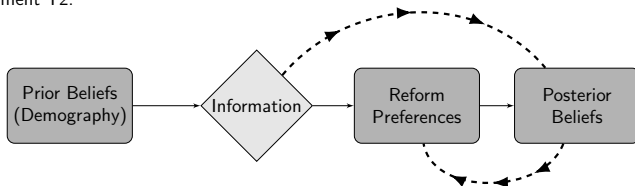
Survey Experiment

Old-age provision in Germany is based on the idea that the working generation finances the pensions of people in retirement. Therefore, it is important to look at the ratio of people of retirement age starting from 65 years of age to people of working age between 20 and 64 years of age.

In the year 1990 there were 24 people of retirement age for every 100 people of working age.

▶ What do you estimate: in 2020, how many people of retirement age are there for every 100 people of working age?

▶ And what do you estimate: in 2050, how many people of retirement age will there be for every 100 people of working age?

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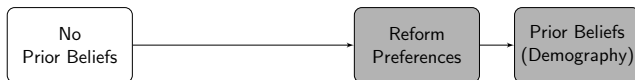
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Survey Experiment

Treatment T2:

Treatment T1:

Control C:

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Prior and Posterior Beliefs

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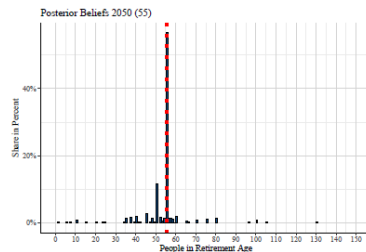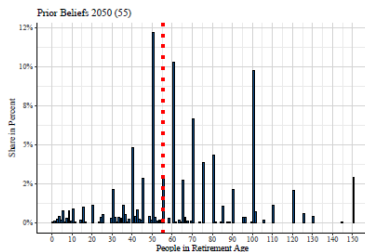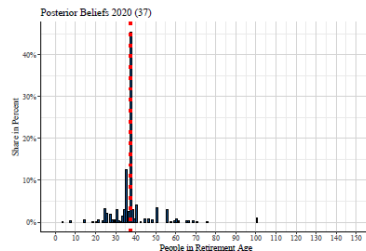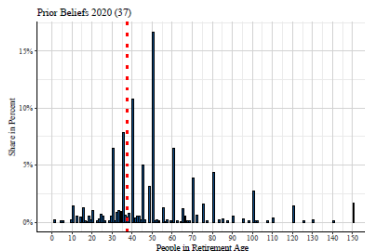
Idea & Hypotheses

▶ Idea:

  ▶ Both treatments T1 and T2 increase salience for the topic demographic change
  ▶ Treatment T2 additionally conveys (correct) information

▶ Hypotheses:

  ▶ Salience for the topic demographic change leads to
    ▶ Increased preferences for more reforms in general
    ▶ Increased preferences for reform measures that reduce the expenditures of the statutory pension insurance
  ▶ Information on the demographic change has a different effect on preferences towards reforms, depending on whether the participant over- or underestimates demographic change
    ▶ Overestimation: preference towards reforms decreases
    ▶ Underestimation: preference towards reforms increases

Methodology

Estimation Equation

$$y_i = \gamma_0 + \gamma_1 T1_i + \gamma_2 T2_i + \gamma^T X_i + \varepsilon_i \tag{1}$$

$$y_i = \gamma_0 + \gamma_1 T1_i + \gamma_2 T2_i + \gamma_3 T1_i \times P_i + \gamma_4 T2_i \times P_i + \gamma_5 P_i + \gamma^T X_i + \varepsilon_i \tag{2}$$

y_i	Outcome variable (reform preferences)
$T1_i, T2_i$	treatment indicators for both treatment arms
P_i	Standardized mean of prior beliefs
X_i	socioeconomic control variables (vector)
ε_i	error term

Results

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Necessity of Reforms

Do you think that reforms are necessary for the German pension system?

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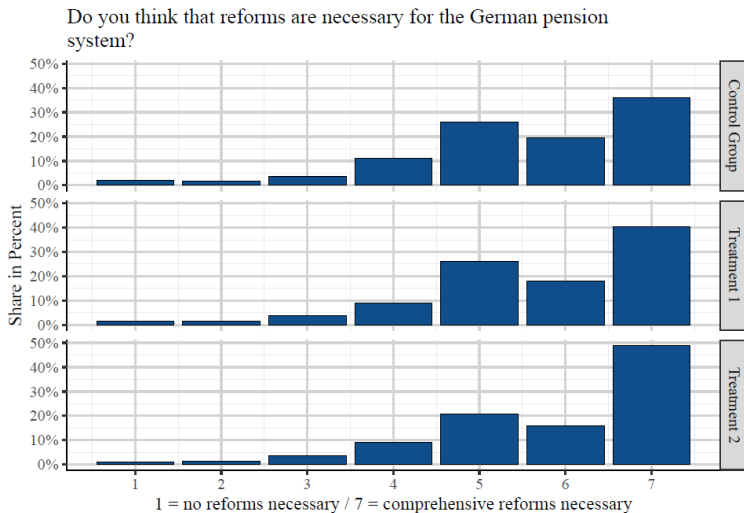
Necessity of Reforms

	(1)	(2)	(3)	(4)
		Reform	Necessity	
T1: Salience	0.164*	0.178**	0.166*	0.182**
	(0.088)	(0.085)	(0.087)	(0.084)
T2: Information	0.228**	0.225***	0.231***	0.232***
	(0.090)	(0.084)	(0.089)	(0.083)
Prior mean		0.020	0.085	0.071
		(0.037)	(0.059)	(0.052)
T1: Salience × Prior mean			0.054	0.050
			(0.081)	(0.075)
T2: Information × Prior mean			-0.177*	-0.195**
			(0.094)	(0.086)
Controls	No	Yes	No	Yes
Observations	851	851	851	851

Notes: The table shows the treatment effects on perceived reform necessity. Reform necessity is measured on a 7-point Likert scale and it is standardized using mean and standard deviation of the control group. Control variables include age, gender, socialization in East Germany, education, children, employment status, migration background, trust in public institutions, time preference, equality views, optimism towards old-age, interest in old-age provision, occupation with own old-age income, payments of contributions to the statutory pension insurance and the standardized mean of the prior beliefs. We drop outliers with prior beliefs above the 95th or below the 5th percentile. For Panel A we are using a weight that balances the oversampling of respondents from East Germany. Robust standard errors are displayed in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.
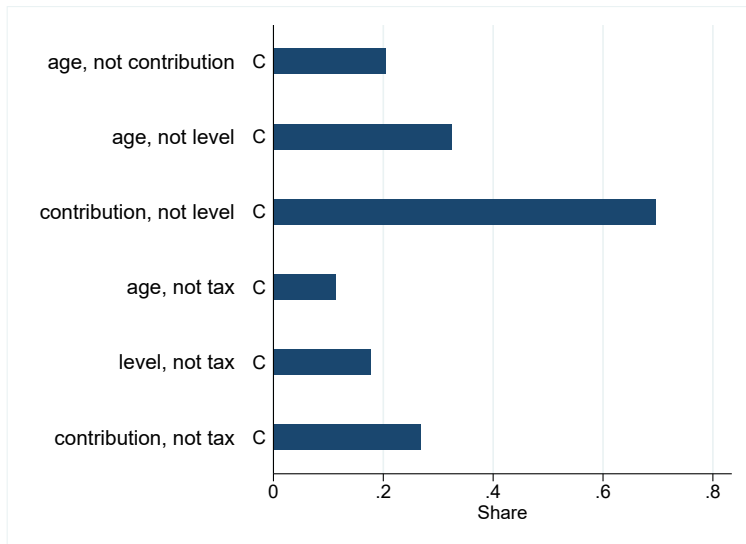
Preferences for Specific Reforms

Evaluation of four specific reform measures:

- ▶ Increasing the retirement age

- ▶ Decreasing the pension level

- ▶ Increasing contributions

- ▶ Increasing tax subsidies

- ⇒ 6 trade-off questions

- → E.g.: Should the retirement age be increased or the pension level be decreased?

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Trade-off Reform Measures - Control Group

Trade-off Reform Measures
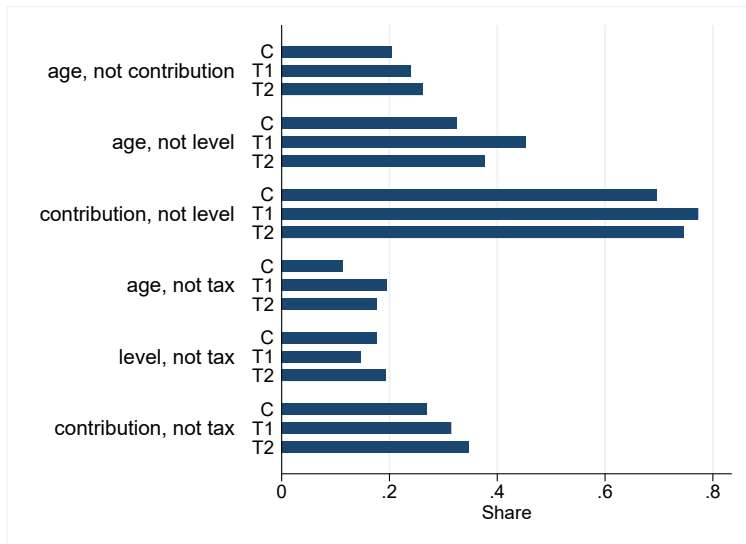
Trade-off Reform Measures

	(1)	(2)	(3)	(4)	(5)	(6)
	age, not contribution		age, not level		contribution, not level	
T1: Salience	0.038	0.039	0.129***	0.130***	0.073*	0.073*
	(0.038)	(0.038)	(0.045)	(0.045)	(0.041)	(0.041)
T2: Information	0.064	0.064	0.054	0.056	0.047	0.046
	(0.040)	(0.040)	(0.046)	(0.046)	(0.043)	(0.043)
Prior mean	-0.016	-0.029	-0.011	0.041	0.020	0.005
	(0.014)	(0.019)	(0.019)	(0.033)	(0.017)	(0.031)
T1: Salience × Prior mean		0.027		-0.076*		0.004
		(0.033)		(0.044)		(0.041)
T2: Info × Prior mean		0.012		-0.079*		0.042
		(0.034)		(0.046)		(0.040)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	793	793	752	752	783	783

Notes: The table shows the treatment effects on the pairwise choices for increasing the retirement age, decreasing the pension level and increasing contributions to the statutory pension insurance. All outcome variables are binary variables. Control variables include age, gender, socialization in East Germany, education, children, employment status, migration background, trust in public institutions, time preference, equality views, optimism towards old-age, interest in old-age provision, occupation with own old-age income, payments of contributions to the statutory pension insurance and the standardized mean of the prior beliefs. We drop outliers with prior beliefs above the 95th or below the 5th percentile. We are using a weight that balances the oversampling of respondents from East Germany. Robust standard errors are displayed in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Trade-off Reform Measures (incl. tax subsidies)

	(1)	(2)	(3)	(4)	(5)	(6)
	age, not tax		level, not tax		contributions, not tax	
T1: Salience	0.073**	0.073**	-0.034	-0.035	0.034	0.033
	(0.032)	(0.032)	(0.035)	(0.035)	(0.042)	(0.042)
T2: Information	0.061*	0.061*	0.013	0.014	0.073*	0.072*
	(0.032)	(0.032)	(0.037)	(0.036)	(0.043)	(0.043)
Prior mean	-0.011	-0.019	0.004	0.036	-0.006	0.002
	(0.012)	(0.015)	(0.014)	(0.025)	(0.018)	(0.029)
T1: Salience × Prior mean		0.019		-0.049		-0.037
		(0.029)		(0.034)		(0.041)
T2: Info × Prior mean		0.003		-0.048		0.013
		(0.028)		(0.035)		(0.046)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	827	827	816	816	816	816

Notes: The table shows the treatment effects on the pairwise choices for increasing the retirement age, decreasing the pension level, increasing contributions to the statutory pension insurance or increasing tax subsidies. All outcome variables are binary variables. Control variables include age, gender, socialization in East Germany, education, children, employment status, migration background, trust in public institutions, time preference, equality views, optimism towards old-age, interest in old-age provision, occupation with own old-age income, payments of contributions to the statutory pension insurance and the standardized mean of the prior beliefs. We drop outliers with prior beliefs above the 95th or below the 5th percentile. We are using a weight that balances the oversampling of respondents from East Germany. Robust standard errors are displayed in parentheses; * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Conclusion

Conclusion

▶ Both treatments increase perceived reform necessity significantly

   ▶ Higher prior beliefs cause a decrease in perceived reform necessity
     when receiving the information (T2) and vice versa for lower prior
     beliefs.

▶ Treatment T1: more support for an increase in retirement age compared
  to

   ▶ a decrease in pension level
   ▶ an increase in tax subsidies

▶ Treatment T2: less support for an increase in tax subsidies compared to

   ▶ an increase in contributions
   ▶ an increase in the retirement age

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Thank you for your attention!

Any kind of feedback is highly appreciated, now or later
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References

Angelici, Marta, Daniela Del Boca, Noemi Oggero, Paola Profeta, Maria Cristina Rossi, and Claudia Villosio (2022). "Pension information and women's awareness". *The Journal of the Economics of Ageing* 23, p. 100396.

Dolls, Mathias, Philipp Doerrenberg, Andreas Peichl, and Holger Stichnoth (2018). "Do retirement savings increase in response to information about retirement and expected pensions?" *Journal of Public Economics* 158 (6124), 168–179.

Finseraas, Henning and Niklas Jakobsson (2014a). "Does a simple information intervention change the perception of a reform?" *Applied Economics Letters* 21 (18), 1266–1268.

— (2014b). "Does information about the pension system affect knowledge and retirement plans? Evidence from a survey experiment". *Journal of Pension Economics and Finance* 13 (3), 250–271.

Finseraas, Henning, Niklas Jakobsson, and Mikael Svensson (2017). "Do knowledge gains from public information campaigns persist over time? Results from a survey experiment on the Norwegian pension reform". *Journal of Pension Economics and Finance* 16 (1), 108–117.

Mastrobuoni, Giovanni (2011). "The role of information for retirement behavior: Evidence based on the stepwise introduction of the Social Security Statement". *Journal of Public Economics* 95 (7-8), 913–925.

Naumann, Elias (2017). "Do increasing reform pressures change welfare state attitudes? An experimental study on population ageing, pension reform preferences, political knowledge and ideology". *Ageing and Society* 37 (2), 266–294.

Appendix

Balance

	(1) All Mean	(2) C Mean	(3) T1 Mean	(4) C vs. T1 p-Value	(5) T2 Mean	(6) C vs. T2 p-Value	(7) T1 vs. T2 p-Value
Age old (50+)	0.47	0.50	0.45	0.21	0.45	0.28	0.88
Female	0.50	0.51	0.49	0.56	0.50	0.79	0.75
East	0.40	0.38	0.42	0.36	0.39	0.75	0.54
East socialization	0.43	0.40	0.44	0.31	0.45	0.19	0.76
Educ:12th grade	0.54	0.55	0.52	0.44	0.57	0.66	0.22
Educ: uni	0.34	0.35	0.34	0.79	0.35	0.92	0.71
Risk attitude	3.06	3.12	3.00	0.38	3.09	0.82	0.51
Trust: finance	3.82	3.79	3.84	0.68	3.82	0.79	0.89
Trust: own decision	5.15	5.19	5.14	0.66	5.12	0.60	0.91
Children	0.67	0.70	0.64	0.14	0.67	0.38	0.56
Employed	0.84	0.83	0.84	0.71	0.84	0.62	0.89
Migration Background	0.14	0.13	0.16	0.31	0.13	0.98	0.31
Married	0.52	0.56	0.53	0.44	0.46	0.02**	0.11
Household size	2.54	2.59	2.50	0.39	2.54	0.63	0.70
Trust: public	4.45	4.40	4.51	0.42	4.44	0.77	0.62
Time Preference	2.94	3.05	2.89	0.29	2.88	0.25	0.95
Financial Equality	5.00	5.01	5.00	0.91	5.00	0.94	0.96
Contributions SPI	0.88	0.88	0.87	0.77	0.89	0.63	0.43
Optimism Old-Age	0.57	0.57	0.58	0.86	0.56	0.73	0.60
Interest topic	4.75	4.72	4.70	0.87	4.85	0.40	0.29
Amount Old-Age Income	0.76	0.78	0.76	0.47	0.75	0.33	0.78
Observations	856	268	306	574	282	550	588

Preferences for Specific Reforms

- ▶ Trade-off questions
    - ▶ Should the retirement age be increased or the pension level be decreased?
    - ▶ Should the retirement age be increase or the contribution rate be increased?
    - ▶ Should the contribution rate be increased or the pension level be decreased?
    - ▶ Should the tax-financed federal subsidy to the statutory pension insurance be increased or the retirement age be increased?
    - ▶ Should the tax-financed federal subsidy to the statutory pension insurance be increased or the contribution rate be increased?
    - ▶ Should the tax-financed federal subsidy to the statutory pension insurance be increased or the pension level be decreased?