

Pension information, financial literacy, and retirement saving behaviour in Germany

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Abstract

In Germany, the 2001 pension reform caused a shift from the monolithic pension system based on the statutory public pension scheme with a constant pension level safeguarding the standards of living in old age towards a multi-pillar system. This multi-pillar approach also shifted the responsibility for old-age income from the state towards individuals. In the wake of the reform, policy makers realized that the provision of transparent and comparable information on rights accrued within the first pillar deemed crucial as a basis for workers' decision about joining an additional occupational or private pension. For this reason, the German pension authority implemented an annual pension information statement in 2004. About 10 years after the introduction the German population is aware of the annual pension information statement. Nonetheless, the evaluation of different pieces of information varies. The forecast of the individual amount of regular old-age and invalidity pension are regarded most useful. Information hedged in a block of text is less often regarded useful or not read at all. In general, the information provided causes non changes in savings behaviour.

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1 Introduction

Pension reforms in Europe are giving increasing responsibility to individuals about the management of their retirement wealth. During the 1990s several countries made public pension benefits more actuarially fair and more closely linked to working histories. At the same time, the pension reform process substantially increased workers' uncertainty with regard to their replacement rates, typically by shifting from defined benefits to defined contribution formulae. Overall, reforms made future pensions not only less generous and more self-made, but also more uncertain and difficult to understand, thus imposing greater costs upon planning ahead. In a context of pension reforms and increasing financial complexity, large shares of the adult population do not appear to be sufficiently prepared to take sound financial decisions concerning their retirement savings. Both ignorance about pensions and financial illiteracy are widespread. A large body of evidence suggests that knowledge of concepts necessary to perform saving calculations, such as compound interest rates, the difference between real and nominal values, and the principle of risk diversification, should not be taken for granted in the population at large (Jappelli 2010; Monticone 2010). Not only does financial literacy appear to be scarce but it seems particularly lacking among specific groups, such as women, ethnic minorities, the poor and the less educated (Bernheim 1998; Jappelli 2010; Monticone 2010). Moreover, financial literacy is associated to greater planning and saving for retirement (Lusardi and Mitchell 2007; Bucher-Koenen and Lusardi 2011; Fornero and Monticone 2011), suggesting that workers lacking financial literacy are also more likely to lack specific information about pensions and social security.

In the German case, the 2001 pension reform caused a shift from the monolithic pension system based on the statutory public pension scheme (*Gesetzliche Rentenversicherung*) with a constant pension level safeguarding the standards of living in old age towards a multi-pillar system. The stabilization of contribution rates in the public pension scheme is reached by gradually reducing the pension level which is offset by supplementary (occupational and private) pensions. In order to provide additional incentives to save privately for old age, policy makers introduced subsidized private pension schemes in 2001, the so-called Riester pensions which are in contrast to other countries such as Sweden voluntary. According to BMAS (2012) about 15.5 Mio. Riester contracts are registered so far.

For many Germans the multi-pillar approach consisting of public, occupational and private pension schemes is new. Since responsibility for old-age income shifted due to the reform from the state towards individuals, a change in the information policy was necessary. Policy makers realized that the provision of transparent and comparable information on rights

accrued within the first pillar deemed crucial as a basis for workers' decision about joining an additional occupational or private pension. For this reason, the German pension authority implemented an annual pension information statement (*Renteninformation*) in 2004 while also improving the information and advice provided by the customer service centres. Since then all individuals who are at least 27 years old and have also been insured in the German public pension system for at least 5 years receive an annual statement with a variety of information on all aspects of their public old-age provision, such as accrued pension claims, disability pensions or the possible pension depreciation.

However, the effect of pension information on workers' knowledge and behaviour in Germany has not been studied up until now. The following questions need to be answered: To which degree is the information sent by the German pension authority read and understood by the insured? Which social groups are aware of the information provided, and does financial literacy have a role? Which pieces of information are the individuals aware of? Thus, is receiving and reading the information related to changes in savings behaviour?

This paper contributes to the existing literature in several ways. First, I investigate to which degree the German pension information is read and understood by the insured, using the SAVE study – a longitudinal household survey in Germany. According to a survey that was carried out by Stegmann et al. (2003) prior to the implementation of the information statement in order to assess how the insured evaluated it, about 87 per cent of those interviewed remembered receiving the statement. Out of those, about 5 per cent did not read it for reasons such as lack of time, complexity and incomprehensibility. Second, I will analyse which social groups are aware of the information provided and whether financial literacy has a role. And finally, I try to investigate whether receiving and reading the information is related to changes in savings behaviour. The study of Stegmann et al. (2003) found that only 16 per cent of the respondents planned to enroll in an additional occupational or private pension plan on the basis of the statement, while 30 per cent said they were already saving sufficiently for their retirement and 27 per cent claimed to have no money to put aside.

Answering these research questions, I hope to contribute to the ongoing debate about the question of whether pension information can be used as an effective tool to promote coverage in private pension plans. By conducting this study, I hope to be in a position to critically evaluate the role of pension information statements in Germany as a tool to reduce workers' status quo bias when default options or opt-out rules are not available. By gaining a clear picture of the groups who are not reached by the statement, I might also be able to derive recommendations how these groups can be targeted by different additional

measures. Further recommendations for the improvement of the statement and the information policy can also be derived.

The remainder of this paper is structured as follows. In the following section I will briefly review the literature on the increased informational need caused by the introduction of Riester pensions and the annual pension information statements. I will then state my hypotheses. Section 3 describes the SAVE data. Section 4 provides the empirical evidence on pension information and retirement savings behaviour in Germany. Section 5 summarizes and discusses my conclusions.

2 Literature and Hypotheses

In many countries, private pension plans are playing a growing role for individuals as reforms lead to a reduction of public pay-as-you-go schemes by moving forward to a more diversified pension system. As the additional private plans are voluntary in Germany, as it is also the case in many other countries, e.g. United Kingdom, the United States and the Czech Republic, “participation in and contributions to these plans are largely the result of decisions made by employers and individuals, leading to wide disparities in coverage and contribution rates across the population and between countries” (OECD 2012: 100).

To evaluate the uptake of private pensions as a complement to public schemes, the literature mainly focuses on enrolment rates (as a % of the working age population aged 15 to 64) as a measure of coverage. Using this measure, we see in table 1 that low private pension coverage (maximum of around 50 %) is most evident in countries where these schemes are not mandatory. By far the highest rates can be found in countries where private schemes are mandatory such as Iceland, Sweden, Finland and Switzerland.

Table 1: Coverage of private pension schemes by type of plan in 2010
(% of the working age population aged 15 to 64)

	Mandatory/Quasi-mandatory	Voluntary		
		Occupational	Personal	Total
Australia	68.5	n.a.	19.9	19.9
Austria	n.a.	12.3	25.7	..
Belgium	n.a.	42.3	..	..
Canada ¹	n.a.	33.5	33.1	..
Chile	73.7	n.a.	..	..
Czech Republic	n.a.	n.a.	61.2	61.2
Denmark	ATP: 83.8 QMO: 58.0	n.a.	23.6	23.6
Estonia	67.1	n.a.	..	..
Finland ²	75.5	7.4	21.3	28.8
France	n.a.	17.3	5.3	..
Germany	n.a.	22.5	36.9	47.1
Greece	n.a.	0.3	..	..
Hungary ³	45.4	n.a.	18.9	18.9
Iceland ¹	85.5	n.a.	42.0	42.0
Ireland ⁴	n.a.	31.0	12.0	41.3
Israel	75.9	..	..	..
Italy	n.a.	7.6	6.2	13.3
Japan	n.a.	..	..	..
Korea	n.a.	14.6	36.5	..
Luxembourg	n.a.	3.3	..	..
Mexico	57.7	1.6	n.a.	1.6
Netherlands	88.0	n.a.	28.3	28.3
New Zealand	n.a.	8.2	55.5	..
Norway	65.8	..	22.0	..
Poland	54.8	1.3	..	..
Portugal	n.a.	3.1	5.6	..
Slovak Republic ⁵	43.9	n.a.	..	..
Slovenia	n.a.	..	..	38.3
Spain ⁶	n.a.	3.3	15.7	18.6
Sweden ⁴	PPS: ~100 QMO: ~90	n.a.	27.6	27.6
Switzerland	70.1	n.a.	..	..
Turkey ⁷	0.9	0.2	4.2	..
United Kingdom	n.a.	30.0	11.1	43.3
United States	n.a.	41.6	22.0	47.1

Source: OECD (2012).

Given the growing role of private pension schemes, the OECD identified a need to improve their design and regulation to strengthen retirement income adequacy. To increase the coverage rate, they propose options such as compulsory and automatic enrolment, provision of financial incentives, facilitated as well as simplified access to and choice in

private pension systems. These measures should particularly be supported by financial literacy and education programs (OECD 2012).

Nevertheless, the evidence on the effectiveness of financial education to improve financial literacy and behaviour is far from conclusive as an array of programs have been introduced - primarily in the United States - ranging from employer-provided seminars to classes in adult education centres. In a recent article, Collins and O'Rourke (2010) reviewed 41 financial education and counselling programs finding cautiously optimistic effects. Van Rooij et al. (2011) suggest that financial education programs are likely to be more effective when targeted to specific groups of the population as financial literacy differs substantially depending on education, age, and gender. Additionally, Lusardi (2004) finds some evidence that at-work seminars increase coverage and contributions among low income workers. However, other researchers have found either just small effects of financial education on financial decision-making, especially in comparison to other factors such as social network effects (Duflo and Saez 2003) or find no conclusive evidence at all, in part due to biases, heuristics, and other non-rational influences on financial decisions (Willis 2011). Willis (2011) even argues that beefing up social security could produce the same results less expensively, and with greater certainty.

In contrast to opt-in financial education seminars where individuals have to actively enrol, pension authorities in several countries try to facilitate decision making by regularly sending statements to (selected groups of) workers about their pension position. It is considered suitable as some sort of first option to increase the financial literacy and education among the workforce. Some examples are the Social Security Statement in the United States and the Orange Envelope provided in Sweden. However, the literature on the impact of pension information on behaviour is far from conclusive. Chan and Stevens (2008) find that well-informed individuals are more responsive to pension incentives, while ill-informed individuals tend to respond to their own misperception of the incentives, rather than being unresponsive to any incentives at all. Mastrobuoni (2011) finds that the Social Security Statement has significant impact on workers' knowledge about their benefits but that this improved knowledge has negligible impact on retirement behaviour. On the contrary, Liebman and Luttmer (2011) find a positive effect of information on behaviour.

As the effect of pension information on workers' knowledge and saving behaviour has not been studied up so far for the German case, where the responsibility for old-age income shifted due to paradigmatic reforms from the state towards individuals, the question I would like to answer is: Is the annual pension information statement an appropriate tool to inform

individuals on rights accrued within the first pillar to promote private savings for old-age? The hypothesis to be tested is therefore:

Hypothesis 1: Individuals with lower levels of financial literacy are difficult to inform with measures such as the annual pension information statement. I expect individuals with lower financial literacy to be less often aware that they received the statement compared to people with higher financial literacy.

The annual pension information statement consists of different components such as projections about the full reduced earnings capacity pension and the regular old-age pension. Furthermore, there are remarks concerning losses of purchasing power and pension adjustments. At the bottom of the first page is also a note regarding the need for additional supplementary pensions to safeguard the individual standard of living. Therefore my second central question is: How are financial literacy and the valuation of different components of information related? I would like to test the following hypothesis:

Hypothesis 2: I expect to find a different awareness of the pieces of information. Less financially literate individuals consider the components of the annual pension information statement less often helpful compared to people with higher financial literacy.

3 Data and Methodology

For my analysis, I use the SAVE data set, a German longitudinal household survey focused on saving behaviour. SAVE was first conducted in 2001 by the Mannheim Research Institute for the Economics of Aging (MEA), now the Munich Center for the Economics of Aging (MEA, a department of the Max Planck Institute for Social Law and Social Policy. Since 2005 the study takes place annually. The survey collects detailed quantitative information on both the financial structure and relevant socio-psychological aspects of a representative sample of German households. In addition, several measures of financial literacy have been collected over the years. The data of the 2011 survey were collected during spring 2012 including three questions on the annual pension information statement providing the basis for my empirical analysis. The questionnaire is in paper and pencil format.¹

¹ A detailed description of the scientific background of the study and its design can be found in Börsch-Supan et al. (2009).

For my analysis, I use the random route samples of SAVE 2010 and 2011 and restrict them to respondents that are non-retired (by self-assessment) and have no missing answers in the schooling, occupational training and in the pension information section. Missing information on other variables is not imputed so far. It will be imputed using an imputation procedure based on a Markov-Chain Monte-Carlo method.² Table 2 describes the summary statistics of the respondents in my restricted sample (N=820).

Table 2: Summary statistics

Variable			Share in %
Gender	Male	353	43.05
	Female	467	56.95
Living with a partner	Yes	613	74.76
	No	207	25.24
Age	Younger than 35	118	14.39
	35-54	508	61.95
	55 and older	194	23.66
Schooling	Low	212	25.85
	Intermediate	362	44.15
	High	246	30.00
Occupational Training	No/Other	91	11.10
	Vocational training	576	70.24
	Tertiary education	153	18.66
Household Income	1.000 € and below	86	10.49
	1.000 to 2.500 €	329	40.12
	2.500 to 4.000 €	302	36.83
	More than 4.000 €	103	12.56

Source: Own calculation based on SAVE 2010 and 2011, data is weighted.

The following questions were included in SAVE 2011 to better understand the link between the provision of a pension information statement by the Germany pension authority and retirement savings behaviour. The new questions have been derived from a survey conducted by the Swedish pension authority and carried out annually since the introduction

² A detailed description of the imputation procedure can be found in Schunk (2008) and Ziegelmeier (2009, 2011).

of the Orange Envelope in 1999 to evaluate its effectiveness.³ The questions have been adapted to the German context and slightly modified. The exact wording is as follows:

1.) Remembering having received the annual pension information statement

“The German pension authority regularly sends so called “pension information statements” (Renteninformationen) with a variety of information on accrued and possible future pension claims: Have you received such individual pension information in 2010?” Yes, no, do not know/refusal.

2.) Evaluation of different pieces of information provided

“Which pieces of information from the statement did you consider useful?” Please rate the following items on a scale from 0 (not useful at all) to 10 (very useful) or haven’t read/don’t know.

- a) Forecast of the amount of your invalidity pension*
- b) Forecast of the amount of your regular old-age pension*
- c) Notice advising the loss of purchasing power*
- d) Forecast of the adjustment of pensions with indexation rates of 1% and 2% respectively*
- e) Notice advising the need for supplementary old-age provision*

3.) Changes in savings behaviour due to the information provided

“Have you changed your savings behaviour due to these pieces of information?” Multiple answers permitted.

- a) No*
- b) Yes, I finally made a specific plan for my old-age provision*
- c) Yes, I signed an occupational or private pension plan*
- d) Yes, I started saving more, but did not sign a supplementary pension plan*
- e) Other*

In the following analysis I will use the fact if individuals are aware of the information provided in general and of which pieces of information in detail as a first result to evaluate the effectiveness of officially provided information statements in Germany to promote supplementary savings for old-age.

³ For a detailed description of the Swedish annual pension statement see the Swedish pension website minpension.se, and for a discussion of how it can function as a role model for Germany see Haupt and Sesselmeier (2012).

4 Results

First of all, about 80 % of individual acknowledge having received a pension information statement in 2010, while about 8 % cannot remember having received the letter or refused to answer. As I have no working history of the individuals answering that they have not received a statement, I cannot control for the fact that they should have received it due to eligibility criteria (at least 27 years old and insured in the German public pension system for at least 5 years).

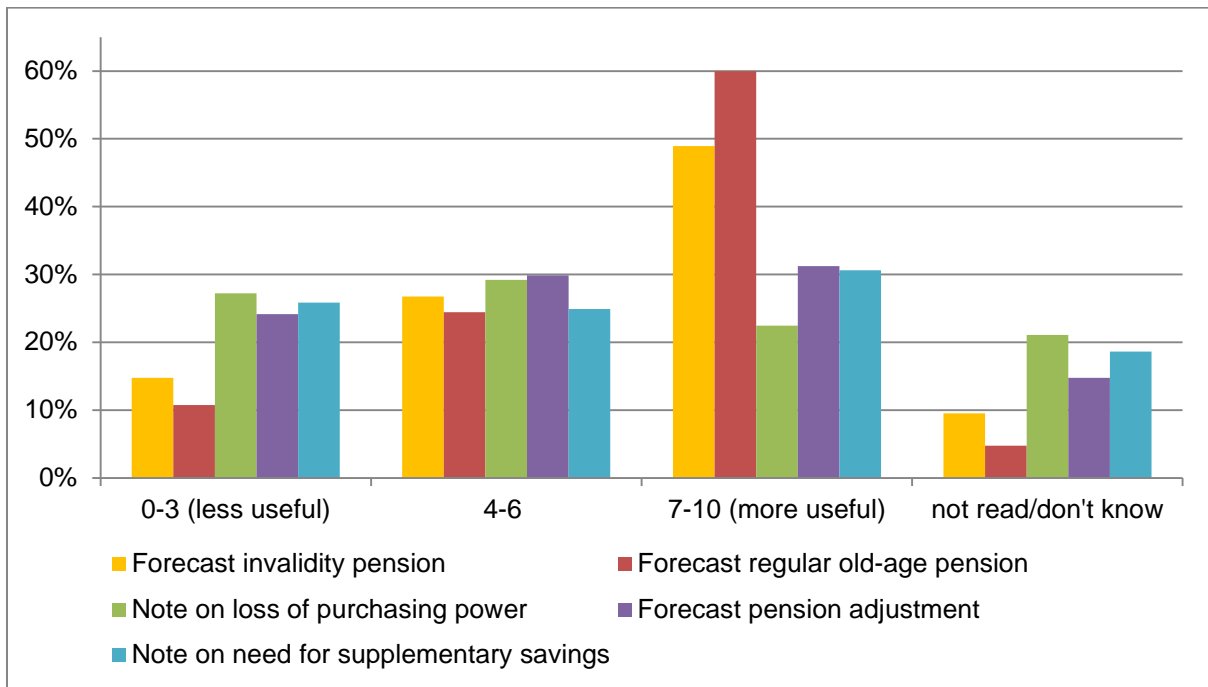
Table 3: Having received a pension information statement in 2010

Yes	79.27 %
No	12.93 %
Don't know/refuse to answer	7.80 %

Source: Own calculation based on SAVE 2011, data is weighted.

In the following analysis, I restrict my analysis to those individuals that acknowledged the pension information statement in 2010 (N=650). The respondents' awareness for different pieces of information varies a lot. As shown in table 4, they consider the forecast of their individual amount of regular old-age pension useful (60.0 %), followed by the forecast of the invalidity pension amount (48.92 %). This is particularly interesting as these are the two pieces of information in the statement expressed by single numbers (in Euros). The information hedged in a block of text, i.e. the notice advising the loss of purchasing power, the forecast of the pension adjustment and the notice advising the need for supplementary old-age provision, is less often regarded useful by respondents or not read at all. Given the growing role of private pension schemes to secure retirement income adequacy, an amount of about 18.62 % of the respondents answering that they were not aware of the notice advising the need for supplementary old-age provision, may be a cause of concern.

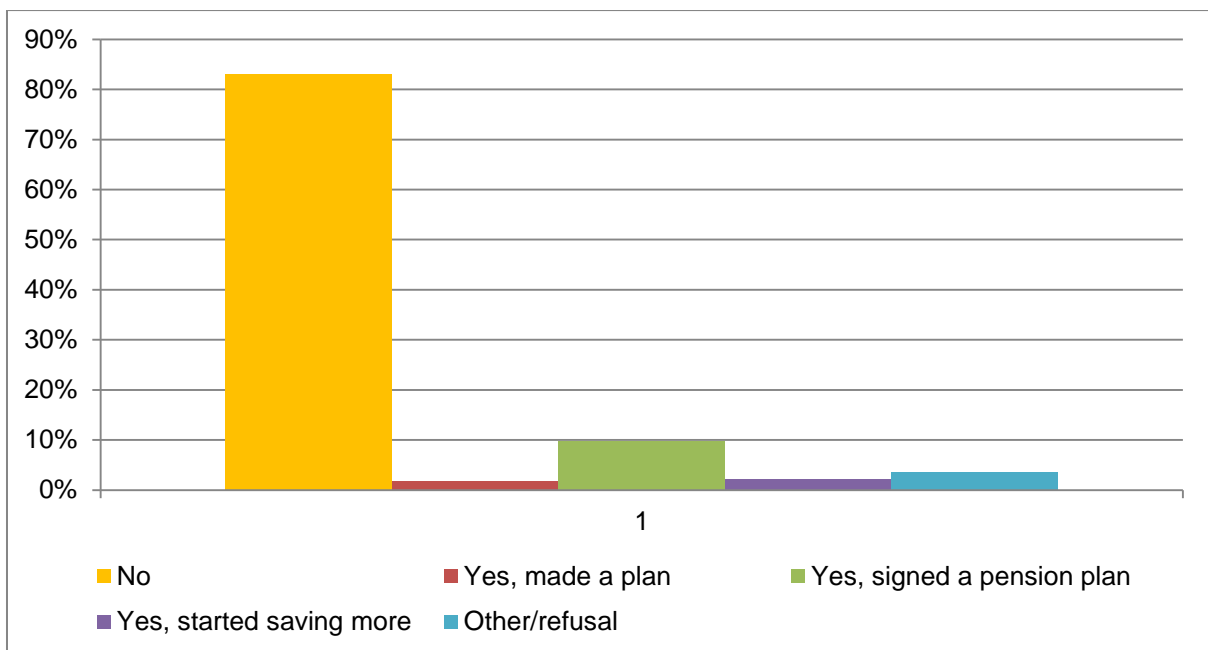
Table 4: Evaluation of different pieces of information



Source: Own calculation based on SAVE 2011, data is weighted.

When being asked whether the information provided caused changes in savings behaviour, about 83 % (82.92 %) of respondents answered that they didn't change their savings behaviour as shown in table 5. Just about 10 % (9.69 %) signed an occupational or private pension plan.

Table 5: Changes in savings behaviour



Source: Own calculation based on SAVE 2011, data is weighted.

5 Conclusion

Based on the descriptive statistics and some first results, the German population is aware of the annual pension information statement send annually by the German pension authority. Around 80 % remember having received such a statement. This also confirms studies by Sundén (2006, 2008) where slightly the same numbers were found for the Swedish population. Further research is needed to properly investigate which social groups (i.e. gender, age, education, household income and working status) are aware of the information provided.

The analysis of the respondents' evaluation of different pieces of information varies a lot. The forecast of the individual amount of regular old-age pension is ranked highest, followed by the forecast of the invalidity pension amount. This is of particular interest as these are the two pieces of information in the statement expressed by single numbers (in Euros). The information hedged in a block of text is less often regarded useful by respondents or not read at all.

When analysing whether the information provided caused changes in savings behaviour, more than four fifth of the respondents answered that they didn't change their savings behaviour. Just about 10 % signed an occupational or private pension plan. Given the growing role of private pension schemes to secure retirement income adequacy this may be a cause of concern. More research is needed to further investigate the role the annual pension information statement to facilitate decision making and whether financial literacy has a role.

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