



Network for Studies on Pensions, Aging and Retirement

**NETSPAR INDUSTRY SERIES**

# What comes to mind when considering looking into and/or adjusting one's pension?

An empirical study among UK and US residents

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**DESIGN PAPER 231**

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**Abstract**

Planning for retirement requires people to regularly examine their pension savings to see whether their plans are feasible (or still so) and whether adjustments need to be made. Little is known about how people perceive these decisions. We present the findings of a sample of US and UK participants, whom we probed for their underlying associations or motivations regarding these decisions. The findings reveal a wide range of associations that confirmed previous insights (e.g., concern for one's future, anxiety) but also identified variables that are rarely considered in pension planning research (e.g., positive emotions and feelings). A ranking in terms of prominence indicated that the relevance of associations was very similar for both types of decisions (inspecting current pension savings and adjusting the pension plan). An exploratory regression analysis suggests, however, that the actual decisions of looking into one's pension and adjusting it are differentially related to the underlying categories. The decision to look into one's pension was most strongly, and positively, related to evaluation of one's current situation. The decision to adjust one's pension was negatively related to the category of ensuring safety and security. The main results are discussed, as well as the potential implications for pension researchers and practitioners.

## **Samenvatting**

Een goede pensioenplanning vereist dat mensen regelmatig nagaan of hun pensioen toereikend is voor gestelde doelen, waarbij ze zo nodig hun pensioen aanpassen. Er is nog weinig bekend over hoe mensen deze beslissingen tot inspectie en eventuele aanpassing ervaren. We presenteren de bevindingen van een onderzoek onder Amerikaanse en Britse respondenten die we naar hun overwegingen t.a.v. beide beslissingen vroegen. De resultaten laten een grote variëteit aan associaties zien die deels eerdere bevindingen bevestigen (b.v. een zorg omtrent de toekomst, ongerustheid), maar ook een aantal variabelen die onderbelicht zijn in pensioenonderzoek (b.v. positieve emoties en gevoelens). Een rangorde gebaseerd op het aantal malen dat een associatie genoemd werd, liet sterke overeenkomsten zien tussen beide typen beslissingen. Een exploratieve regressieanalyse toonde aan dat de daadwerkelijke beslissing om het pensioen te bekijken en de beslissing tot aanpassing verschillend gerelateerd waren aan genoemde associaties. De beslissing om het pensioen in te zien was het sterkst, en positief, gerelateerd aan de associatie van het evalueren van de eigen situatie. De beslissing om het pensioen aan te passen was enkel negatief gerelateerd aan de associatie van voorzichtigheid en veiligheid. De belangrijkste resultaten worden besproken, evenals mogelijke implicaties voor pensioenonderzoekers en beleidsmakers.

## 1. Introduction

Retirement pensions are intended to provide and secure financial means after one's working life. Demographic developments such as increased life expectancies and an ageing population have resulted in changes and reforms in pension systems as well as in individual behaviors. Around the globe, people retire at a later age, whether voluntarily or due to being required to do so, while facing uncertainties about the adequacy of their pensions (see e.g., World Economic Forum's white paper, 2017). These pension-related changes are often accompanied by a shift of responsibility from the public sector to the individual (Hershey, Henkens, & Van Dalen, 2007; World Economic Forum, 2017, 2018).

Knowing what one's pension will look like and, based on this information, setting goals, planning savings, and regularly checking whether one's savings are on track, are essential ingredients in retirement planning decisions. That people indeed perform these acts when needed cannot be taken for granted. To understand, predict, and possibly guide the pension decisions that people make, it is important to understand what they think about pension saving and what the main drivers are of these decisions. Previous research has already identified many associations as well as potential determinants.

While the goal of planning for one's retirement can be considered as positive, pension decisions may also induce negative feelings, such as uncertainty about the value of one's future pension or worries about having an inadequate pension (e.g., Solinge & Henkens, 2017; Van Hekken, Hoofs, & Brügger, 2022). When asked in a telephone survey (Bell, 2016) to list their biggest financial regrets, a representative sample of Americans mentioned most often "not saving for retirement early enough". In a survey among the Dutch population (Wijzer in Geldzaken, 2016), close to 50% indicated that they felt they should have invested more time and effort in planning their personal pension, which is indicative of a similar regret.

In addition, it is important to consider what motivations drive people in planning their future pension and/or finding out ways in which such outcomes can be realized. These motivations may include the desire to secure future needs, but motivation may also be lacking, for example due to overly optimistic views of one's prospects, or due to a feeling that the decision is too complex and requires more financial knowledge (e.g., Elinder, Hagen, Nordin, & Säve-Söderbergh, 2022; Van der Schors & Warnaar, 2015). The above-mentioned survey by Wijzer in Geldzaken (2016) also reveals that 40% of the Dutch respondents indicated they never had taken the time to think about their post-retirement income and expenditures, that 59% had not looked at

their online pension overview, and that 63% had not looked at the annual pension statement that they received in the mail. This could be seen as indicative of a lack of motivation, but, as we explain later, other factors may also be involved (Krijnen, Zeelenberg, Breugelmans, & Van der Schors, 2022).

The myriad of possible determinants of pension saving behavior have invited a wide range of suggestions for intervention, ranging from educating people, to persuasive messages and campaigns, and to subtle nudges (e.g., Balasuriya & Yang, 2019; Carroll, Choi, Laibson, Madrian & Metrick, 2009; Clark & Strauss, 2008; Maloney & McCarthy, 2017; Rubaltelli & Lotto, 2021; Wiener & Doescher, 2008). What these proposed measures have in common is that they require people to look into their pension at some point in time. Thus, to assist and help people in making timely decisions to build and prepare for their retirement and to secure pensions, institutions and governments may first need to convince or persuade people to look into their current pensions, and only afterwards to follow up with measures to help them in adjusting their pension decisions (when deemed beneficial).

Taking the first step, to consider one's pension is, however, not one that people readily make. This may be due to uncertainty about one's financial capabilities or a general idea that the matter is too complex (see Krijnen et al., 2022; Van der Schors & Warnaar, 2015). Often such decision is postponed, but not necessarily out of a lack of motivation to consider one's pension. Postponement can result from attributing great importance to this decision (Krijnen, Zeelenberg, & Breugelmans, 2015; see also Krijnen, Breugelmans, & Zeelenberg, 2016; Krijnen et al. 2022), but other reasons may also be involved, such as excessive optimism (Balasuriya, Gough, & Vasileva, 2014). Similar associations may accompany subsequent decisions, such as whether to make adjustments.

The current Netspar Industry Paper aims to contribute to the understanding of these steps. The underlying idea is that, to design effective policy interventions concerning pension preparation, it is firstly imperative to have adequate insight into the associations that people have towards looking into their pensions savings, and towards making adjustment decisions. These associations may connect to the decision-making itself, but also to people's beliefs associated with pensions, their experienced or anticipated emotions, and their underlying motivations. We report here on a study that assessed these associations.

In this study, we used a survey approach to tap these associations. This involved a bottom-up approach. Rather than providing respondents with a preselected list of possible associations, we asked participants to self-generate their associations. This bottom-up approach has the benefit of not restricting oneself to the "usual

suspects", that is, to factors that are typically mentioned in the scientific literature. Such bottom-up approach thus explicitly allows for the possibility that people mention associations that are potentially important but that have not been addressed or have been overlooked in the previous literature and empirical research. Put differently, it has the potential of identifying blind spots that for some reason have received less attention from researchers and experts. In our analysis, we subsequently categorized and organized the self-generated answers that our participants provided us with into meaningful categories (for a similar approach in a different domain, see Hepper, Ritchie, Sedikides, & Wildschut, 2012).

We used this bottom-up approach to tap people's associations, both for the decision of looking into their pension savings (which is more a decision to gather information) and for the decision of adjusting their pension plan. On the one hand, one might expect that how such associations relate to checking their pension savings may overlap with how they relate to adjusting versus not adjusting their pension plan. For example, if an important association for looking into one's pension savings would be a concern about one's future, such association could also surface as a determinant of adjusting versus not adjusting one's pension plan. It is also possible, however, that some associations are more important in the checking phase than in the adjustment phase. For example, one could imagine that looking into one's pension is more than adjusting connected to a positive feeling – if one is assured that one's pension is adequate. For the actual adjustment decision people may anticipate more negative feelings (such as anticipated regret of insufficient preparation, see Croy, Gerrans, & Speelman, 2015; or anticipated regret of making the wrong adjustment, see Rickwood, White, & Hughes, 2007). The current literature does not provide us with definitive cues about such differences. For that reason, too, a bottom-up approach is appropriate in this case.

## 2. Approach

In this Netspar Industry Paper we present the results of an online study among 300 English-speaking participants aged between 18 and 65, in which we analyzed their associations regarding their financial decisions. Half of the participants were residents, the other half were residents of the US. In this online study, we assessed their associations regarding decisions in four financial domains: pension saving, healthcare plan, utility services, and banking. Participants were randomly presented with two of these four domains. We focus here on the findings obtained from those participants who were presented with the pension saving domain<sup>1</sup>. These participants all listed their thoughts and beliefs, emotions and feelings, behaviors and actions, and motivations regarding their decisions in this domain. Their answers to these open-ended questions were coded and categorized. The text of the questionnaire is included in Appendix 1.

1 The data we present here are part of a larger study that is funded by Netspar, in which we aim to identify the key associations regarding a broad range of financial decisions, not just pension decisions. The ultimate aim of this study is to develop a scale to measure individual differences in financial inertia, i.e., the inclination to avoid making financial decisions.

### 3. Method

#### 3.1 Sample

Participants were recruited via the research platform Academic Prolific for an online study on experiences with financial decision-making. Academic Prolific is one of the largest research platforms, with a good reputation for providing high-quality data (for a recent test see Douglas, Ewell, & Brauer, 2023). The respondents live in OECD countries, mostly in the UK and the US. This explains the composition of our sample; we strove for an equal number of participants from both countries, although it was not our goal to compare the UK and the US. For their participation, British participants received £1.89 (21 minutes), while American participants received £2.19 (25 minutes)<sup>2</sup>. The pre-set inclusion criteria for participation were to invite 300 participants, aged between 18 and 65, with English as first language, non-student, both nationality and current residence UK ( $N = 150$ ) or US ( $N = 150$ ). The data were collected in March 2020. The final sample that we analyze here consisted of 138 participants, who answered the questions with respect to their pension saving decisions. Table 1 includes the main demographic characteristics of this sample.

*Table 1. Demographics final sample.*

Gender,	
Male	$n = 55$
Female	$n = 81$
Other	$n = 2$
Average age, in years	$34.7$ ( $SD = 12.1$ ; range 18–66)
Residence	
UK	$n = 71$
US	$n = 67$

#### 3.2 Materials and Procedure

The questionnaire was developed using Qualtrics. After providing their informed consent to take part in the survey, participants first read a brief introduction in which they learned that we were interested in the associations they had with respect to four types of financial decisions: pension, healthcare, utility services, and banking services.

- 2 The payments to the US participants are also given in British pounds because Prolific pays all respondents in pounds, which are then converted into the currency of the respondent's home country. Exchange rate at the date of the questionnaire posting (March 30, 2020: 1 USD = £ 1.2393).

For their pension decisions, which this Netspar Industry Paper focuses on, we distinguished between two types of decisions: the decision *whether to look into one's pension savings*, and the decision *whether to adjust one's pension planning*. For each, we probed participants to list (a) their thoughts or beliefs, (b) their behaviors or actions, (c) their emotions or feelings, and (d) their motivations. For each question, participants could list up to five answers. If more than one association was included in the answer, these were split.

In addition, we obtained self-reported information on the participants' demographic aspects (gender, age, income, and residence, all separate for UK and US). After this, participants were asked to self-report whether they had looked into their pension in the previous twelve months and whether they had adjusted their pension during that time. At the end of the study, all participants were debriefed and thanked for taking part in the survey.

### 3.3 Categorizing the responses

The 138 participants generated in total 889 thoughts or beliefs, 829 behaviors or actions, 937 emotions or feelings, and 863 motivations (mean number of entries = 25.5;  $SD = 10.2$ ). The number of entries that participants provided was a bit higher for the decision whether to look into their pension savings ( $n = 1867$ ), compared to the decision whether to adjust their pension planning ( $n = 1651$ ).

A code tree (stepwise coding scheme) was created by eight coders, for which we followed the procedure in Hepper et al. (2012); this resulted in 109 categories. A high Cohen's Kappa ( $\kappa = 0.949$ ;  $N = 15856$ ,  $z = 733$ ,  $p < .001$ ) indicated high convergence/agreement in coding, at a level that is judged to be "almost perfect" (see Landis & Koch, 1977). Given the high convergence, the labels assigned by one of the coders were used (i.e., coder 2, whose coding we agreed most with). To enable further analyses, the number of categories was reduced to 20, by grouping the 109 categories into meaningful higher-order (i.e., overarching) categories.

## 4. Results

### 4.1 Overarching categories

Table 2 shows the 20 overarching categories, with an example for each category.

*Table 2. Overarching categories for associations related to pension decisions, with an illustrative exemplary response.*

Category	Exemplary response
Negative feelings, anxiety, worry, frustration	<i>Anxious about making a change</i>
Future	<i>Thinking about the future</i>
Confusion, misunderstanding, uncertainty	<i>Confused about my options</i>
Careful and considered decision-making	<i>Compare and weigh different options</i>
Positive feelings and motivation	<i>Feeling proud about planning one's future</i>
Money, financial situation	<i>Orientation on money</i>
Disinterest, unmotivated, procrastination	<i>Cannot be bothered</i>
Need for safety and security	<i>Financial security</i>
Cost or value of service	<i>Quality of services</i>
Evaluation of current situation	<i>Does the current plan cause problems</i>
No choices	<i>I cannot adjust</i>
Motivation by others	<i>My significant other</i>
Hassle	<i>Hassle of changing</i>
Job situation	<i>Job security</i>
Accessibility of service	<i>Ease of use</i>
Spending money	<i>Thinking of spending habits</i>
Health	<i>Family health history</i>
Characteristics of provider	<i>Is the service trustworthy and reliable</i>
Changing situation	<i>Growing family</i>
Not applicable <sup>1</sup>	

1. The category 'not applicable' included responses that could not be meaningfully associated with the question or topic at hand. These were excluded from further analyses

### 4.2 Frequencies and rank ordering of overarching categories

As a first analysis, we ranked the 20 overarching categories (leaving out the category 'not applicable') by how often associations were assigned to these categories. We created separate orderings for associations mentioned with regard to the decision whether to check one's pension savings, and the decision whether to adjust one's pension plan. Table 3 shows the rankings for the two decisions.

A first conclusion that can be drawn from Table 3 is that the rankings are very similar for both types of pension decisions (inspecting the savings and adjusting the plan). This was also evidenced by the high Spearman's rank correlation Rho Kendall's value for this comparison ( $\rho = .971, p < .001$ ). The correlation between the frequencies for these 20 categories, observed under both types of pension decisions, further confirms the high similarity (Pearson  $r = .97, p < .001$ ).

*Table 3. Ranking and frequency of categorized associations, separate for associations of looking into one's pension and for adjusting one's pension.*

	Looking into Pension		Adjusting Pension	
	Ranking	n (%) <sup>1</sup>	Ranking	n (%)
Negative feelings, anxiety, worry, frustration	1	115 (83.3)	1	102 (73.9)
Future	2	92 (66.7)	5	72 (52.2)
Confusion, misunderstanding, uncertainty	3	86 (62.3)	4	76 (55.1)
Careful and considered decision-making	4	81 (58.7)	3	79 (57.2)
Positive feelings and motivation	5	80 (58.0)	2	82 (59.4)
Saving or gaining money	6	58 (42.0)	6	60 (43.5)
Money, financial situation	7	55 (40.0)	8	47 (34.1)
Disinterest, unmotivated, procrastination *	8	55 (40.0)	10	35 (25.4)
Need for safety and security	9	44 (31.9)	9	41 (29.7)
Cost or value of service	10	36 (26.1)	7	49 (35.5)
Evaluation of current situation	11	28 (20.3)	11	29 (21.0)
No choices	12	28 (20.3)	12	22 (15.9)
Motivation by others	13	21 (15.2)	13	22 (15.9)
Hassle	14	17 (12.3)	14	20 (14.5)
Job situation	15	15 (10.9)	15	12 (8.7)
Accessibility of service	16	15 (10.9)	16	12 (8.7)
Spending money	17	8 (6.0)	18	7 (5.7)
Health	18	7 (5.7)	17	11 (8.0)
Characteristics of provider	19	7 (5.7)	20	5 (3.6)
Changing situation	20	5 (3.6)	19	6 (4.3)
Not applicable <sup>2</sup>		60		68

1. % denotes the percentage of total number participants who provided an entry in the specified category ( $n/138 * 100\%$ ).

\* For categories with an asterisk the percentage differed significantly between 'Looking into one's pension' and 'Adjusting one's pension' ( $\chi^2$ -analyses,  $p < .05$ ).

If we zoom in on the top five categories, it is clear that the participants provided us with a mix of associations in deciding whether to look into their pension savings, or whether to adjust their pension plans. For both decisions, negative feelings dominate, which is a common finding in behavioral science (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). Interestingly, however, a considerable number of participants also mentioned positive feelings. For the decision whether to adjust one's pension, positive emotions were the second most mentioned category. That associations regarding one's future are included in the top five ranking fits with the ultimate goal of pensions, namely securing future income. This association was mentioned significantly more often when participants considered whether to look into their pension than when they considered whether to adjust their pension ( $\chi^2(1) = 6.01, p = .014$ ). The top five categories also indicate that uncertainty is an important association, as well as the motivation to make a careful and considerate decision, which fits with the goal of planning.

Of the other categories that were regularly mentioned (rankings 6 to 10) there is one that conceptually stands out, namely the association of 'disinterest, unmotivated, and procrastination'. This reflects, for at least for a subset of the participants, that pensions are not of great interest. Moreover, this was more often mentioned by participants in considering whether to look into their pension than when considering whether to adjust their pension ( $\chi^2(1) = 6.60$ ,  $p = 0.10$ ). We will further elaborate on the issue of disinterest in our Discussion (section 5).

#### **4.3 Relation between associations to look into pension, and the decision to adjust one's pension**

We first examined whether our participants reported having looked into their pension savings and whether they reported having adjusted their pension planning. The findings show that 44.2% (61 of 138) of the participants reported having looked into their pension savings; 54.3% (75 of 138) reported not having looked into this, and 1.4% preferred (2 of 138) not to answer the question. These findings are comparable to those reported in a Dutch sample (Wijzer in Geldzaken, 2016).

The number of participants who reported having adjusted their pension plans was understandably lower: 13.5% (20 out of 138) reported that they had done so, while 83.3% (115 of 138) reported not having done so; 2.2% (3 out of 138) preferred not to answer.

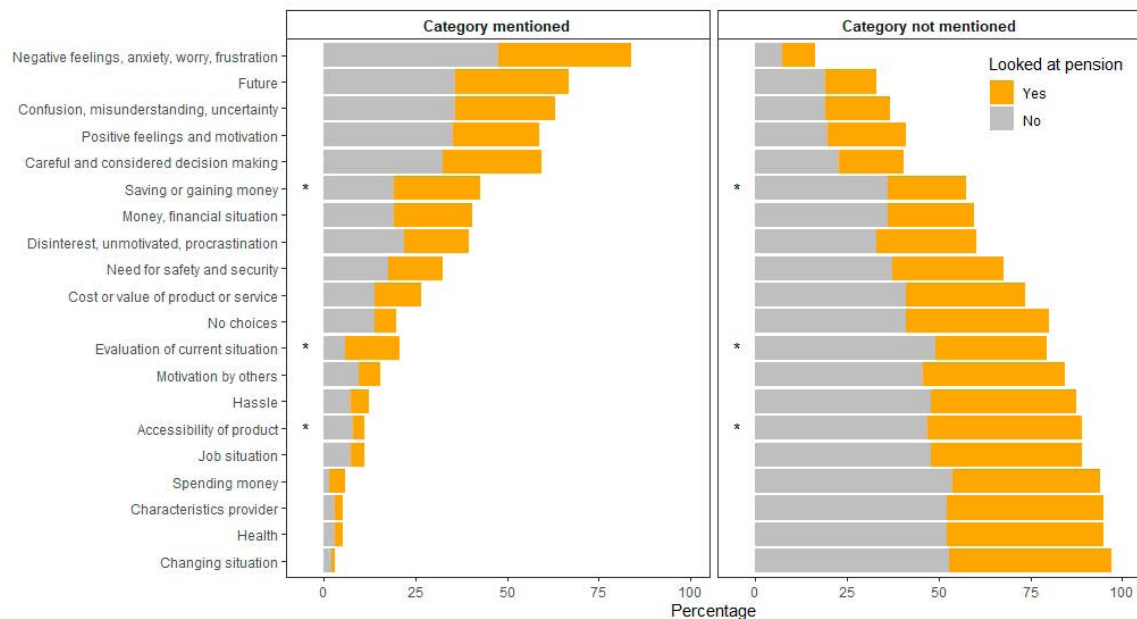
#### **Associations and looking into one's pension**

We then analyzed for each association whether participants who had mentioned that association, versus those who had not, also reported that they had looked into their pension, versus those who had not. Figure 1 depicts for each category, what percentage of the participants mentioned the category, subdivided into those who had versus those who had not looked into their pension.

The left panel bars of Figure 1 show the percentages of participants who mentioned a specific category; we then distinguished whether these participants had (yellow bar) or had not looked (grey bar) into their pension. The right panel bars show the percentage of participants who did not mention that category, where we again distinguished whether these participants had (yellow bar) or had not looked (grey bar) into their pension.

For example, the top row refers to the category mentioned most often, 'Negative feelings, anxiety, worry, and frustration'. The left panel depicts the percentage of respondents who mentioned that category, while the right panel depicts the remaining participants, who did not mention this category. The yellow and grey bars then

Figure 1. Percentage of participants who mention overarching categories for looking versus not looking into one's current pension.



Note: For categories with an asterisk, the logistic regression analysis indicated that mentioning versus not mentioning the category was a significant predictor ( $p < .05$ ) of the decision whether to look at one's pension. Participants who indicated that they preferred not to answer whether they had looked at their pension were excluded for this analysis ( $n = 2$ ).

show how these percentages are distributed over participants who did versus did not look into their pension.

We explored how the mention of the different categories was predictive of the decision of looking into one's pension savings. We did so by applying a logistic regression, in which we regressed the participants' decision of having looked into their pension savings (0 = no; 1 = yes) on whether the participants mentioned any of the 20 categories (0 = not mentioned; 1 = mentioned), supplemented with the demographic information on gender, age, and residence. These results should be interpreted with caution, given the large number of predictors with sometimes low frequencies, and the low numbers of participants who reported having looked into or adjusted their pensions. Below we report the significant results. In Figure 1, these are marked with an asterisk. The complete regression results are included in Appendix 2, Table A1.

The analysis showed that the decision to look into one's pension was positively related to participants' associations with the evaluation of the current situation ( $B = 1.97, SE = 0.62, Z = 3.19, p = .001$ ), and to a lesser extent to saving or earning money ( $B = 1.14, SE = 0.51, Z = 2.26, p = .02$ ). This suggests that these categories may

be motivators for action (i.e., to look into their pension to save money or to evaluate their current situation). The decision related negatively to mentioning the accessibility of the product ( $B = -1.88$ ,  $SE = 0.88$ ,  $Z = -2.14$ ,  $p = .03$ ). This suggests that this association may discourage action and may reflect that people associate this category with inaccessibility, thereby discouraging action.

In addition, the regression analysis showed that the decision whether to look into one's current pension savings was significantly predicted by age ( $B = 0.05$ ,  $SE = 0.02$ ,  $Z = 2.53$ ,  $p = .01$ ) and residence ( $B = -1.36$ ,  $SE = 0.53$ ,  $Z = -2.57$ ,  $p = .01$ ). The relationship with age indicated that older participants more often reported having looked more into their pension than younger participants. The relationship with residence indicated that US participants looked less into their pensions than UK participants.

### **Categories and adjusting one's pension**

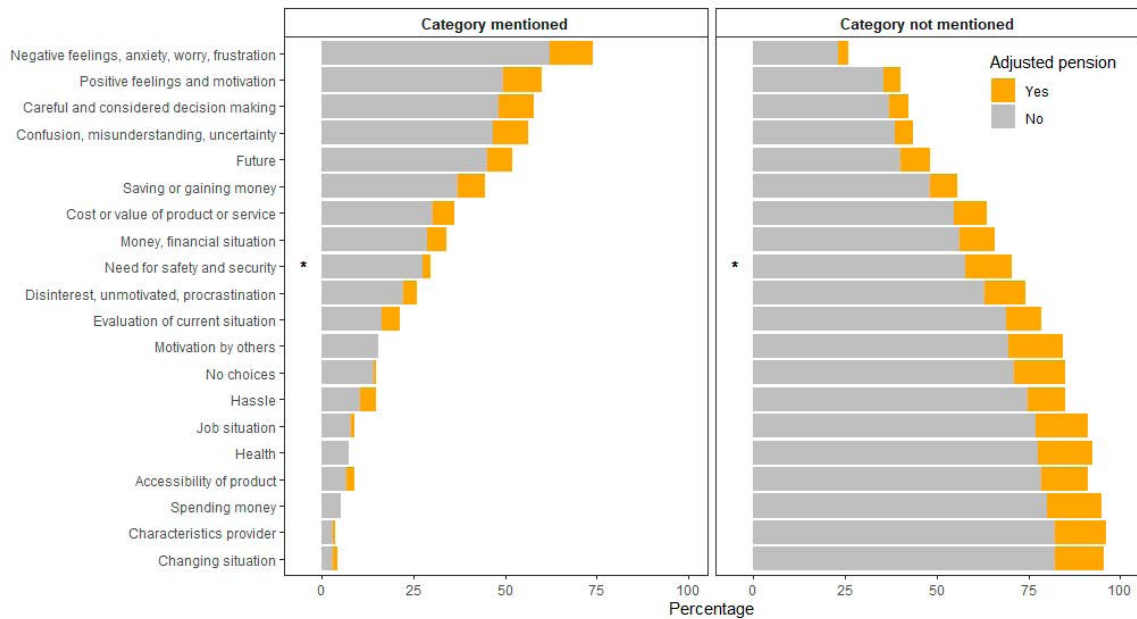
We analyzed the relation between the categories and the decision to adjust one's pension, doing so similarly as for the association with the decision to look into one's pension.

The left panel bars of Figure 2 again show the percentages of participants who mentioned a specific category, and the right panel bars again show the percentages of participants who did not mention that category. This time, however, we distinguished between whether these participants had (yellow bar) or had not adjusted (grey bar) their pension. Similar to Figure 1, the asterisks show whether we observed, for a specific category, a significant difference in the likelihood to take action, now referring to adjusting one's pension.

We explored how the mention of the different categories was predictive of the decision to adjust one's pension. We did so applying a logistic regression, in which we regressed the participants' decision to adjust pension settings (0 = no; 1 = yes) on whether they mentioned any of the 20 categories (0 = not mentioned; 1 = mentioned), supplemented with the demographic information on gender, age, and residence. Again, we wish to stress that these results should be interpreted with caution. The complete regression results are included in Appendix 2, Table A2.

This time we only observed a significant difference for the need for safety and security, which is marked by an asterisk in Figure 2. The decision to adjust one's pension was only significantly – and negatively – predicted by the association of need for safety and security ( $B = -2.20$ ,  $SE = 0.89$ ,  $Z = -2.48$ ,  $p = .01$ ). Participants who mentioned safety and security reported having adjusted their pension less often than participants who did not mention this category. A possible explanation for this finding may be that people who associate pension-related decisions with safety and

Figure 2. Percentage of participants who mentioned overarching categories, for adjusting versus not adjusting one's current pension.



Note: For categories with an asterisk, the logistic regression analysis indicated that mentioning versus not mentioning the category was a significant predictor ( $p < .05$ ) of the decision to adjust one's pension. Participants who had indicated that they preferred not to answer whether they had adjusted their pension were excluded from this analysis ( $n = 3$ ).

security consider changing their pension more risky, an interpretation that would connect this finding to recent research which shows that people who are risk averse are less likely to change their status quo (Bekir & Doss, 2020).

## 5. Discussion

In this Netspar Industry Paper we presented the results of a bottom-up inquiry into the associations that people have regarding their pensions, that is, when deciding whether to look into their pension savings and whether to adjust their pension planning to secure more (or less) savings for when they retire. This inquiry indicated that many different associations come to people's minds when considering these two types of decisions. Many can be related to variables that are typically part of studies on pension and retirement planning. In that sense, the bottom-up approach serves to corroborate factors that are also considered in the existing literature. Others are new and thereby may be considered one of the benefits of the bottom-up approach in terms of suggesting factors that might otherwise be overlooked. Both observations are important. It is important to know that factors that are considered important in the scientific literature resonate with how lay people perceive their decisions, just as it is important to know that lay persons sometimes bring up things that have not received a prominent place in the literature.

As to the corroboration of existing literature, the association with concern for one's future certainly concurs with empirical findings that suggest a pivotal role for this in retirement planning (e.g., Hershey et al., 2007). In addition, it is noteworthy that negative emotions and feelings dominate in the associations that people have with their pension decisions. People associate their pension decisions with worry and anxiety. This may of course reflect the uncertainties that people nowadays face, being confronted with ageing and changing pension structures. The association of anxiety fits with its assumed key role in retirement planning (Penn & Lent, 2020).

One of the more striking findings of our inquiry, regarding associations that have received less attention in the literature, is that it also indicated the potential role of positive emotions. It is interesting to compare these findings with the Netspar Industry Paper on emotions in pension service interactions by Eberhardt, Henkel, and Hoet (2020). Their analyses indicated that negative emotions dominated in these interactions, while positive emotions were rare. It should be noted, however, that their study did not address the emotions that people experience when considering their pension, as it focused on how people communicated with their service agents. It stands to reason that negative emotions (e.g., uncertainty, fear, regret) may be a more important driver for people to contact pension service agents (cf. Baumeister et al., 2001) and that positive emotions are less of a driver for such calls. Another issue to consider is that, in their study, the emotions were assessed by the service agents who

took the call, rather than by the callers. This setting is markedly different from the setting that we used.

The focus on negative rather than on positive emotions in pension decisions, however, is also apparent in other studies that more directly compare to this Netspar Industry Paper. Eberhardt, Post, Hoet, and Brügger (2022) recently published a conceptual model to understand people's engagement in retirement decisions. Their model specifically aims to capture people's engagement in collecting information, which includes regularly checking the sufficiency of retirement build-up for the living standard that they desire during retirement. The model did include retirement anxiety as an emotional factor that could contribute to retirement engagement, but it did not include positive emotions.<sup>3</sup>

Our findings make one wonder why positive emotions are so often overlooked. On a more general level, they concur with the broader observation that emotion research tends to concentrate more on negative than on positive emotions (Fredrickson, 2004). It could, however, also signal a biased approach, also on the part of researchers and experts, that pension decisions are assumed to be surrounded with negative associations. Stated differently, if we did not include positive emotions in our pension surveys, we would not be able to determine their potential relevance. If people also see their pensions in a positive light (and follow-up research should seek to address this matter), then measures aimed at increasing pension involvement could design new interventions (e.g., to increase or appeal to positive associations).

Our main purpose in this paper was to categorize the associations participants had with their pension. For this purpose, the current sample size was adequate, and it provided us with new insights. As we noted above, the results we obtained with respect to the relation with the actual decisions that our participants made should be seen as exploratory and interpreted with caution. Despite these limitations, our exploratory findings do suggest that associations may be different for decisions of looking into one's pension and decisions of adjusting one's pension. For example, as our preliminary findings suggest, safety concerns may be a stronger determinant of a decision to change one's pension than of a decision to look into one's pension. Accessibility of pension services may be more predictive of whether people look into their pensions than of whether they adjust their pensions. With all due reservations against overinterpretation of these findings, we suggest that it may be relevant for future research to more explicitly distinguish between these two types of decisions.

3 The model included trust in one's provider as an emotional factor, which could be seen as a positive contributor. However, we would not characterize trust as an emotion.

A call for future research is also warranted regarding other findings in the current survey. In this respect, we feel that the observed disinterest in pension decisions may require additional attention. This is not only based on our current findings, but it is also apparent in the surveys mentioned at the beginning of this paper (Bell, 2016; Wijzer in Geldzaken, 2016) and in other research in the Dutch market (e.g., Krijnen et al., 2016). In our Netspar-funded project "Development and tests of a model for inertia in retirement decisions" we aim to elaborate on this by constructing a questionnaire that taps the main determinants of the concept. Such questionnaire is based on a similar bottom-up approach as we presented here, and it will be used to predict people's actual rather than self-reported pension decisions in the context of the Netherlands. These follow-up studies will also enable us to include variables that we did not include in the current study but which could certainly be relevant, such as people's occupational status (e.g., distinguishing between employment and self-employment).

Finally, our main aim of the current study was to provide a structured and systematic inventory of the associations people in general may have regarding their pensions. For this purpose we used a combined UK and US sample. Studying and/or explaining differences between these two countries was beyond the scope of the current article. The limited number of cases for each country would also not allow reliable comparison. This does not mean that we feel that between-country differences are unimportant. Pensions differ from country to country (see e.g., OECD, 2021, 2022), and so may people's associations. In this respect it would be interesting for future research to zoom in on possible differences between the UK and the US, but with larger samples. This could also be useful to test whether the residence effect we observed in the current sample, with US residents reporting lower levels of looking into their pensions than UK residents, is robust.

It would also be interesting to expand the approach to other countries. For example, it would also be interesting for future Netspar research to investigate to what extent associations can be generalized to the Netherlands. The Dutch pension system is generally regarded as one of the best systems worldwide in terms of adequacy, sustainability, and integrity. To illustrate, in its recent comparison of 44 countries, the Global Pension Index 2022 by the Mercer CFA Institute ranked the Netherlands 2nd, the UK 10th, and the US 20th (Mercer, 2022). The quality of pension systems could, of course, affect peoples' associations. But how exactly remains to be tested. Would the sense of security about having a good pension system lead, for example, to fewer negative and more positive associations, and possibly to lower levels of looking into one's pension? We could envisage such differences. However, one should also

be aware that associations are probably not just a function of the overall quality of pension systems. It will no doubt also matter to what extent pensions consist of state pensions, occupational pensions, and personal pensions. These three pillars of retirement income differ between countries, as documented in the OECD Report 'Pensions at a Glance' (OECD, 2021). While the Netherlands and the UK show a very similar distribution over the three pillars, the US relies less on occupational pensions and more on personal pensions and savings. Moreover, pension systems around the globe are currently changing rapidly. The current pension reforms in the Netherlands will, we assume, increase interest in one's pension and probably lead to new uncertainties. It may thus more than ever be relevant to monitor differences between countries. In a broader perspective, it would also be interesting to further expand the investigations and to include not only Western countries, such as the US, UK and the Netherlands, but also non-Western countries.

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## **Appendix 1: The text of the questionnaire**

Below we report the text as presented to the participants regarding their pension decisions (the texts for the other three domains were similar). Also note that for each open question, participants were presented with 5 boxes in which they could then type their answers. In the texts below these boxes are not included, but represented by 5 dots (.....)

### **Overview survey**

During this part of the survey, we will ask you questions about your experiences with financial decision making. To this end, we will ask you questions about 2 financial domains. For each domain, we will ask you 8 open questions. As a guideline, we advise you to take about 1 minute to answer each open question.

### **Introduction pension**

In this part of the survey, we are interested in your experience with pension decisions. Some people have the option to change one or more of their pension settings while others might have no choice in the matter. For example, some people can select their monthly inlay amount or choose a risk profile that determines how much risk the pension fund can take while investing the pensions. In contrast, people who have no choice with regards to their pension have a default setting that has been preselected by their pension provider. We are interested in your thoughts and beliefs, emotions and feelings, behaviors and actions, and motivation with respect to your pension decisions; also if you have not looked into your options or made an adjustment. Please answer the following questions by typing as many responses as you can think of in the response boxes below the questions. Use only one response box per answer. If you can think of more than five responses, you can put multiple responses in one of the boxes. If you can think of less than five examples, that is fine too.

### **Thoughts and beliefs**

When you consider whether or not to look into your pension, what do you think about? Try to be as specific as possible. For example, instead of "nothing", explain what you think about instead.

.....

When you consider whether or not to adjust your pension, what do you think about?

.....

**Emotions and feelings**

When you consider whether or not to look into your pension, what do you feel? What emotions would describe you best? Try to be as specific as possible. For example, instead of "good" or "bad", describe the specific emotions you experience (e.g., fearful, anxious, happy, angry) or the feeling you have (e.g., empowered, sad, disinterested).

.....

When you consider whether or not to adjust your pension, what do you feel? What emotions would describe you best?

.....

**Behaviors and actions**

When you consider whether or not to look into your pension, which behaviors would describe you best? Try to be as specific as possible. For example, instead of "nothing", explain what you do instead.

.....

When you consider whether or not to adjust your pension, which behaviors would describe you best?

.....

**Motivation**

When you consider whether or not to look into your pension, what motivates you? Try to be as specific as possible. For example, why would you make this decision? Do you want to make this decision? What would prompt you to make this decision?

.....

When you consider whether or not to adjust your pension, what motivates you?

.....

**demographics**

Thank you for filling in the open questions about your experiences with financial decision making. In this (short) final part of the survey, we are interested in a select number of background variables and information regarding your past behavior with regards to financial decisions.

What is your gender?

Male

Female

Other

What is your age in years?

Age in years

Do you live in the United States of America or the United Kingdom?

USA

UK

I don't live in the USA or UK

Do you receive your income in US Dollars or British Pounds?

US Dollars (\$)

British Pounds (£)

I receive my income in a different currency

What is your (estimated) net monthly income? This includes benefits.

0-1000

1001-2000

2001-3000

3001-4000

4001-5000

5001-6000

6001-7000

7001-8000

8001-9000

9001-10000

more than 10000

Prefer not to say

### **Past action**

In this part of the survey, we are interested in whether or not you looked into specific financial domains. These questions are with respect to the past 12 months.

Did you look into your pension?

No

Yes

Prefer not to answer

Did you adjust your pension?

No

Yes

Prefer not to answer

## Appendix 2: Complete sets of results of the logistic regressions that predict looking into and adjusting one's pension

*Table A1. Logistic regression results: Regressing decision to look into one's pension on demographic variables and the 20 categories.*

	<i>B</i>	<i>SE</i>	<i>Z</i>	<i>p</i>
(Intercept)	-1.478	1.131	-1.306	0.192
Age	0.049	0.019	2.527	0.012
Residence	-1.358	0.529	-2.566	0.010
Gender Dummy 1 (male)*	0.965	0.500	1.930	0.054
Gender Dummy 2 (other)*	-13.529	1455.398	-0.009	0.993
Accessibility of product	-1.885	0.880	-2.142	0.032
Careful and considered decision-making	0.185	0.489	0.378	0.706
Changing situation	-0.777	1.400	-0.555	0.579
Characteristics of provider	-0.515	1.073	-0.4797	0.631
Confusion, misunderstanding, uncertainty	0.060	0.501	0.119	0.906
Cost or value of product or service	-0.515	0.603	-0.854	0.393
Disinterest, unmotivated, procrastination	0.434	0.532	0.816	0.415
Evaluation of current situation	1.971	0.617	3.194	0.001
Future	0.120	0.492	0.243	0.808
Hassle	0.091	0.779	0.117	0.907
Health	0.404	0.970	0.417	0.677
Job situation	0.287	0.862	0.333	0.739
Money, financial situation	0.638	0.501	1.273	0.203
Motivation by others	-0.565	0.636	-0.888	0.375
Need for safety and security	0.069	0.512	0.136	0.892
Negative feelings, anxiety, worry, frustration	-1.093	0.678	-1.611	0.107
No choices	-1.078	0.658	-1.638	0.101
Positive feelings and motivation	-0.625	0.483	-1.294	0.196
Saving or gaining money	1.142	0.506	2.257	0.024
Spending money	1.441	0.997	1.446	0.149

\* Dummy-coding was used with female as the reference category

*Table A2. Logistic regression results: Regressing decision to adjust one's pension on demographic variables and the 20 categories.*

	<i>B</i>	<i>SE</i>	<i>Z</i>	<i>p</i>
(Intercept)	-3.096	1.464	-2.114	0.035
Age	0.033	0.026	1.292	0.196
Residence	-0.831	0.685	-1.212	0.226
Gender Dummy 1 (male)*	0.019	0.694	0.028	0.978
Gender Dummy 2 (other)*	-16.386	10754.013	-0.002	0.999
Accessibility of product	-0.0002	1.136	-0.0002	1.000
Careful and considered decision-making	0.771	0.710	1.086	0.278
Changing situation	2.794	1.682	1.661	0.097
Characteristics of provider	-0.566	1.562	-0.362	0.719
Confusion, misunderstanding, uncertainty	0.052	0.645	0.080	0.936
Cost or value of product or service	0.034	0.794	0.043	0.966
Disinterest, unmotivated, procrastination	0.503	0.790	0.636	0.525
Evaluation of current situation	0.336	0.779	0.430	0.667
Future	-0.226	0.670	-0.338	0.736
Hassle	0.501	0.887	0.565	0.572
Health	-19.119	2736.354	-0.007	0.994
Job situation	-0.377	1.466	-0.257	0.797
Money, financial situation	0.236	0.742	0.318	0.750
Motivation by others	-18.282	1981.402	-0.009	0.993
Need for safety and security	-2.199	0.886	-2.481	0.013
Negative feelings, anxiety, worry, frustration	0.056	0.860	0.065	0.945
No choices	-1.621	1.195	-1.357	0.175
Positive feelings and motivation	0.959	0.723	1.327	0.184
Saving or gaining money	0.013	0.653	0.021	0.984
Spending money	-17.921	3296.402	-0.005	0.996

\* Dummy-coding was used with female as the reference category

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