

# Eliciting pension beneficiaries' sustainability preferences

Citation for published version (APA):

Bauer, R., Ruof, T., & Smeets, P. (2022). Eliciting pension beneficiaries' sustainability preferences: Netspar Design Paper 207. Netspar. Netspar Design Paper No. 207

## Document status and date:

Published: 01/01/2022

## Document Version:

Publisher's PDF, also known as Version of record

## Document license:

Unspecified

## Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

[Link to publication](#)

## General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal.

If the publication is distributed under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license above, please follow below link for the End User Agreement:

[www.umlib.nl/taverne-license](http://www.umlib.nl/taverne-license)

## Take down policy

If you believe that this document breaches copyright please contact us at:

[repository@maastrichtuniversity.nl](mailto:repository@maastrichtuniversity.nl)

providing details and we will investigate your claim.



Network for Studies on Pensions, Aging and Retirement

# Eliciting Pension Beneficiaries' Sustainability Preferences

*Rob Bauer  
Tobias Ruof  
Paul Smeets*

**DESIGN PAPER 207**

**NETSPAR INDUSTRY SERIES**

**DESIGN PAPERS** are part of the **refereed Industry Paper Series**, which are refereed by the Netspar Editorial Board. Design Papers discuss the design of a component of a pension system or product. A Netspar Design Paper analyzes the objective of a component and the possibilities for improving its efficacy. These papers are easily accessible for industry specialists who are responsible for designing the component being discussed. Authors are allowed to give their personal opinion in a separate section. Design Papers are presented for discussion at Netspar events. Representatives of academic and private sector partners, are invited to these events. Design Papers are published at the Netspar website.

### **Colophon**

Netspar Design Paper 207, April 2022

### **Editorial Board**

Rob Alessie – University of Groningen  
Mark-Jan Boes – VU Amsterdam  
Paul Elenbaas – Nationale Nederlanden  
Andries de Grip (voorzitter) – Maastricht University  
Arjen Hussem – PGGM  
Agnes Joseph – Achmea  
Bert Kramer – University of Groningen & Ortec Finance  
Serge Mans – AEGON  
Raymond Montizaan – Maastricht University  
Alwin Oerlemans – APG  
Maarten van Rooij – De Nederlandsche Bank  
Mariëtte Sanderse – PMT  
Peter Schotman – Maastricht University  
Peter Wijn – APG  
Jeroen Wirschell – PGGM  
Marianne Zweers – a.s.r.

### **Design**

B-more Design

### **Lay-out**

Bladvulling, Tilburg

### **Editors**

Frans Kooymans, Frans Kooymans–Text and Translation  
Netspar

Design Papers are publications by Netspar. No reproduction of any part of this publication may take place without permission of the authors.

# CONTENTS

|   |    |
|---|----|
| <i>Abstract</i>   | 4  |
| <i>Samenvatting</i>   | 5  |
| 1. <i>Introduction</i>  | 6  |
| 2. <i>Why Measure Sustainable Investment Preferences?</i>                 | 8  |
| 3. <i>Examples of Member Involvement</i>                                  | 9  |
| 4. <i>Case Study: A Field Survey with Pensioenfonds Detailhandel (PD)</i> | 10 |
| 5. <i>Eliciting Beneficiaries' Preferences</i>                            | 11 |
| 6. <i>Practical implications</i>  | 17 |
| <br>  |    |
| <i>References</i>   | 18 |

## **Acknowledgments**

This activity is (partly) financed with the PPP allowance from the Dutch Ministry of Economic Affairs and Climate from CLICKNL. CLICKNL is the top consortium for Knowledge and Innovation (TKI) of the Creative Industry.

**Eliciting Pension Beneficiaries' Sustainability Preferences** Executive summary of the paper

"Get Real! Individuals Prefer More Sustainable Investments" *Published in the Review of Financial Studies*

## **Affiliations**

Rob Bauer – Maastricht University

Tobias Ruof – Maastricht University

Paul Smeets – Maastricht University

**Abstract**

Pension funds are under social and political pressure to integrate sustainability in their investment policies. The legal context also plays an important role: European legislation is moving in a direction where pension funds and other financial institutions must measure more explicitly what preferences participants and customers have regarding sustainability in their investment policies. We conduct two field experiments in which a pension fund gives its participants a real voice in its policy to advance sustainable investment. Two-thirds of the participants in the fund support its proposal to engage in more frequent and more intensive dialogue with companies in which it invests, even if this leads to lower returns. This support remains strong after the implementation of the engagement policy. The analysis shows that the choice is mainly determined by the strong social preferences of the fund's participants.

## **Samenvatting**

Pensioenfondsen staan onder maatschappelijke en politieke druk om duurzaamheid te integreren in het beleggingsbeleid. Daarnaast speelt de juridische context een belangrijke rol: de Europese wetgeving beweegt in een richting waarin pensioenfondsen en andere financiële instellingen explicieter moeten meten en melden welke preferenties deelnemers en klanten hebben met betrekking tot duurzaamheid in het beleggingsbeleid. We voeren twee veldexperimenten uit waarin een pensioenfonds haar deelnemers een echte stem geeft in het duurzaam beleggingsbeleid. Tweederde van de deelnemers van het fonds steunen het voorstel van het fonds om vaker en intensiever een dialoog aan te gaan met ondernemingen waarin het belegt, ook als dat leidt tot lagere rendementen. Deze steun blijft onverminderd groot na de implementatie van het engagementbeleid. De analyse laat zien dat de keuze voornamelijk bepaald wordt door de sterke sociale preferenties van de deelnemers in het fonds.

## 1. Introduction

Many employees across the globe entrust their pension contributions to occupational or employment-based pension funds. Jointly, these funds hold some USD 50 trillion in assets under management (Willis Towers Watson 2020). Slightly less than half of these assets is managed in defined-benefit (DB) schemes, while the other half is managed in defined-contribution (DC) plans, in which plan participants bear the investment risk. Irrespective of plan design, pension funds universally promise to deliver stable and adequate solutions for retirement incomes to their participants.

In the vast majority of cases, pension plan beneficiaries are not directly involved in any of the strategic choices made by fund managers. This lack of involvement holds for strategic decisions on the design and governance of DB and DC plans, but also for strategic choices on the investment programs of the funds. Notably, beneficiaries generally do not participate in the debates on sustainable investments, where non-financial preferences often play a prominent role. For this reason, this paper shows a concrete example of a pension fund that directly involved its members by giving them a vote on the sustainable investment mandate of their fund.

Only in a very limited number of funds are the actual owners of the entrusted investments directly involved in the decision-making process. The reasons for not 'democratizing' this process revolve around legal interpretations, cultural and societal perspectives, the low financial literacy of participants, the capacity constraints of pension funds, pure habit, or simply unwillingness on the part of decision makers.

Nevertheless, it is becoming increasingly clear that pension funds cannot simply ignore the many calls for action by substantial parts of their membership. For example, half of British universities have now committed to divesting their fossil fuel investments (Guardian 2020). Universities have started dialogues with their individual endowments, and NGOs increasingly engage directly with pension funds and their participants. Fossil Free UK, for example, is in continuous dialogue with the University Superannuation Scheme (USS) in the UK, with the goal of screening for and then excluding the fossil fuel industry from its investment portfolio (USS 2018, USS 2020) and immediately freezing any new investment in fossil fuel companies (Fossil Free Campaign UK 2020). Another recent example of an NGO that targets pension funds directly is Tobacco Free Portfolios (Tobacco Free Portfolios, 2021). Many pension funds and asset managers, partially based on interactions with TFP, have decided to dispose of their investments in the tobacco manufacturing industry.

Across the globe, younger generations are calling on pension funds and other financial institutions to deploy their assets in such a way that it has a positive effect

on the trajectories of climate change. In some cases, pension funds proactively signal in their mission statements that they take this dialogue very seriously. For example, PGGM, the Dutch pension delivery organization for the healthcare sector, states on its website: 'Our ambition: to provide for good pensions in a livable world' (PGGM 2020). Interestingly, only rarely is the direction of the sustainable investment program, including the inherent dilemmas involved, based on direct interaction with pension fund beneficiaries. In the majority of cases, pension boards alone handle the decision making.



## 2. Why Measure Sustainable Investment Preferences?

In a retail investment context, investors can individually choose which funds they buy or sell, and when. In the past three decades, many mutual funds have created sustainability profiles that allow individuals to select funds that match their sustainability or nonfinancial preferences at least to some extent. An earlier study (Riedl and Smeets 2017) showed that many retail investors are motivated by strong social preferences, and that they are willing to accept lower expected returns on socially responsible investments and to pay higher management fees. Pension fund participants, contrary to retail investors, generally do not have the freedom to join a plan that matches their personal sustainability preferences. In 2018, a large number of Dutch pension funds, in cooperation with NGOs, trade unions, and the national government, signed the Agreement on International Responsible Investment for the Pensions Sector (IRBC 2018: 5). This stipulated:

*The implementation of this Agreement should contribute to, and may not prejudice, the fulfillment of the pension funds' fiduciary duty arising from Article 135(1) of the Dutch Pensions Act; the pension fund's board must ensure that there is support among participants for choices made regarding responsible investment. Taking material Environmental, Social, and Governance (ESG) factors into account in investment decisions is consistent with risk assessment and risk management and is in line with the fiduciary duty of pension funds. Such factors can become material in the short, medium, and long term.*

Signing this agreement is likely to mean that the Dutch pension regulator will check whether funds actually comply with these promises.

### 3. Examples of Member Involvement

Some Dutch pension funds regularly engage their members regarding their preferences on sustainable investment. For example, ABP, the pension fund for civil servants, uses surveys to explore beneficiaries' preferences in all important matters in the design of the pension deal, such as risk attitude. Since recently, these surveys also contain questions regarding the sustainability preferences of beneficiaries. For instance, ABP (2020) reported that 59% of its participants was in favor of sustainable investments, provided that financial returns are not negatively affected.

Another example is the Philips corporate pension fund (PPF 2021). The company conducted an extensive survey in 2020 on sustainable investments among its participants and found that PPF's beneficiaries overwhelmingly supported the idea of integrating sustainability into the pension fund's investments. Moreover, participants signaled that they expected that this integration would take place, as sustainability was also a cornerstone in the daily routines of Philips and Signify, the publicly listed companies for which they worked. Many other Dutch pension funds are in the process of preparing or executing similar interactions with their beneficiaries.

These examples indicate that many funds use surveys to explore the preferences of their participants. Still, the academic literature on surveys shows that eliciting true preferences requires consequential choices (Vossler et al. 2012) that satisfy a number of other criteria, such to ensure that the results are not biased (Carson and Groves 2007). Consequently, one must be very careful in setting up these surveys and interpreting their results.

#### 4. Case Study: A Field Survey with Pensioenfonds Detailhandel (PD)

Pensioenfonds Detailhandel (PD), the Dutch pension fund for the retail sector, is probably the first pension fund in the world that has granted its participants a real vote in shaping the direction of the fund's sustainable investment agenda. PD is a medium-sized industry-wide defined benefit fund, with more than one million participants and approximately USD 35 billion of assets under management. The PD board consists of representatives of employers, employees, and retirees, and it is supported by a management team (bestuursbureau) of around 10 staff members. The board and management team jointly prepare and execute the pension fund's main activities. Guided by realism and pragmatism, they run a relatively straightforward investment program (Pensioenfonds Detailhandel 2020).

In 2018, PD decided to directly involve participants in the strategic direction and prioritization of the voting and engagement programs. With Maastricht University researchers, it granted participants a real vote through a method similar to a referendum (Bauer, Ruof and Smeets, 2021). By means of a survey, PD first asked participants whether it should extend and intensify the current voting and engagement program by adding a fourth sustainable development goal (SDG), and by extending the number of engagements based on these SDGs. Second, the board *ex ante* committed itself to a **real vote** to implement the majority's decision.

The vast majority of survey respondents voted in favor of extending and intensifying the voting and engagement program and approved the proposed fourth SDG put forward by the board. One week after the survey, the board implemented the voting results.

In the meantime, PD developed its sustainable investment agenda further. Inspired by the overwhelming participant support, the board decided to integrate the four SDGs. With FTSE Russell, the fund developed an SDG-aligned index with the objective of creating a simple, transparent way to align a broad portfolio in both the developed and emerging markets, that would include specific aspects of the SDGs. This approach was based on a detailed mapping exercise of FTSE Russell's sustainable investment research unit and the SDG framework (FTSE Russell 2020).

## 5. Eliciting Beneficiaries' Preferences

To further describe the two field surveys in which PD granted participants a real vote on its sustainable investment policy, we next provide additional details on what was dubbed the 'Get Real' study (Bauer, Ruof and Smeets, 2021).

### The elicitation method

In the field surveys with PD participants, we used a method to elicit participant preferences truthfully and with relatively little effort. First, we conducted a field survey with 1,669 participants (Study 1). Pension benefits and monthly contributions by participants in the Dutch regulatory context depend on the financial health of the pension fund. If the coverage (asset/liability) ratio of the fund is poor, then pension benefits may need to be cut and monthly pension contributions may increase, a situation that is not new to Dutch pension participants. PD's participants have already had to pay higher pension contributions in recent years as the result of the global financial crisis, continuously decreasing interest rates, and strict solvency supervision by regulatory authorities. In addition, PD has cancelled indexation (as an adjustment for inflation) in eight of the past ten years, similar to what participants of most other pension funds in the Netherlands have experienced.

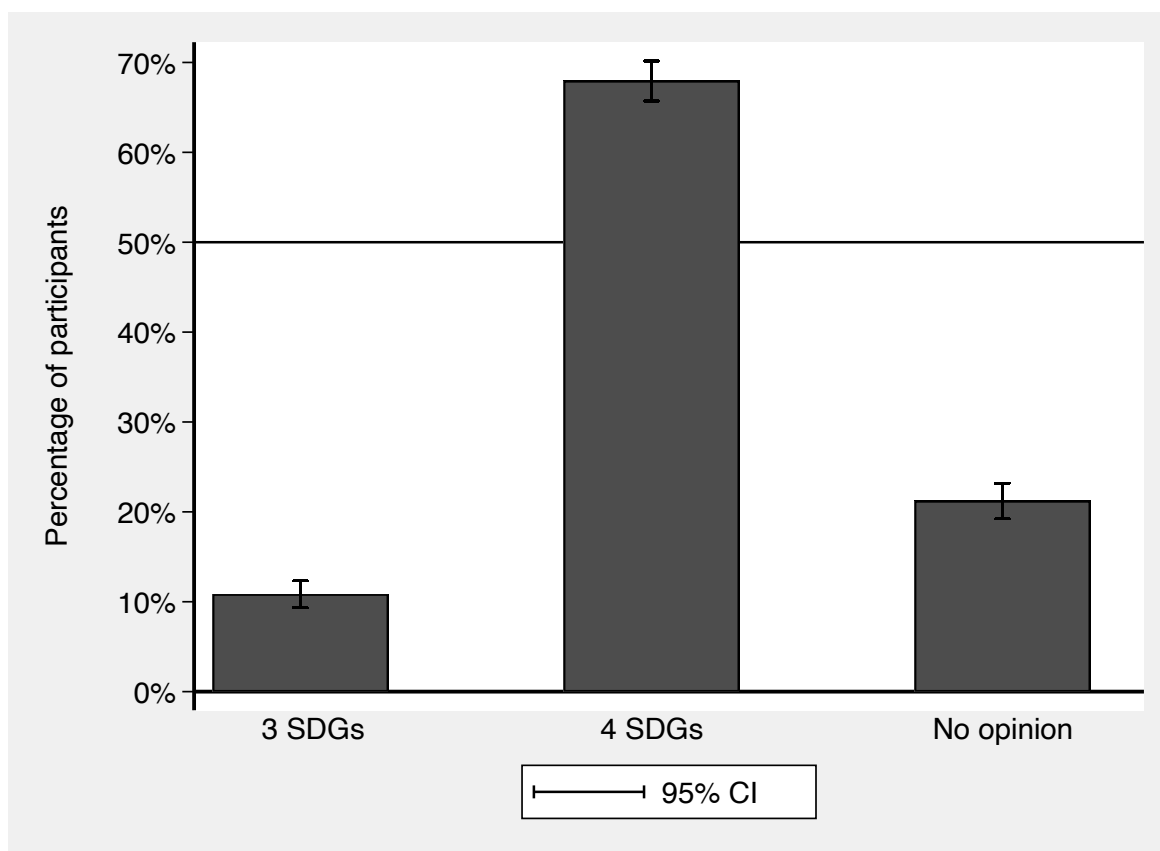
The academic literature on surveys has extensively addressed the so-called 'hypothetical gap', meaning the gap between what people *say* they do and what they *actually* do (List and Gallet, 2001). Therefore, it is crucial to examine real behavior rather than hypothetical choices. As part of Study 1, the board gave its members a real vote on the fund's future sustainable investment policy. Because of the above features, participants' benefits were directly at stake, making the vote highly relevant to their future financial situation. We informed participants that implementing sustainable development goals meant that the financial returns were not the only factor to consider. Making investments with these goals in mind meant that considering the effect of investing on the environment and overall society was important as well.

### Empirical results

In Study 1, we found that 67.9% of participants favored increasing the pension fund's engagement to boost sustainability in investments. Only 10.8% were against the increase, while 21.2% had no opinion (see Figure 1). This voting outcome gave PD a clear mandate to increase and intensify its engagement program.

In addition to engagement, another frequently used investment strategy is screening portfolios on sustainability criteria (EUROSIF 2018). In PD's case, portfolio screening

Figure 1. Preferences for sustainable investments (Study 1)

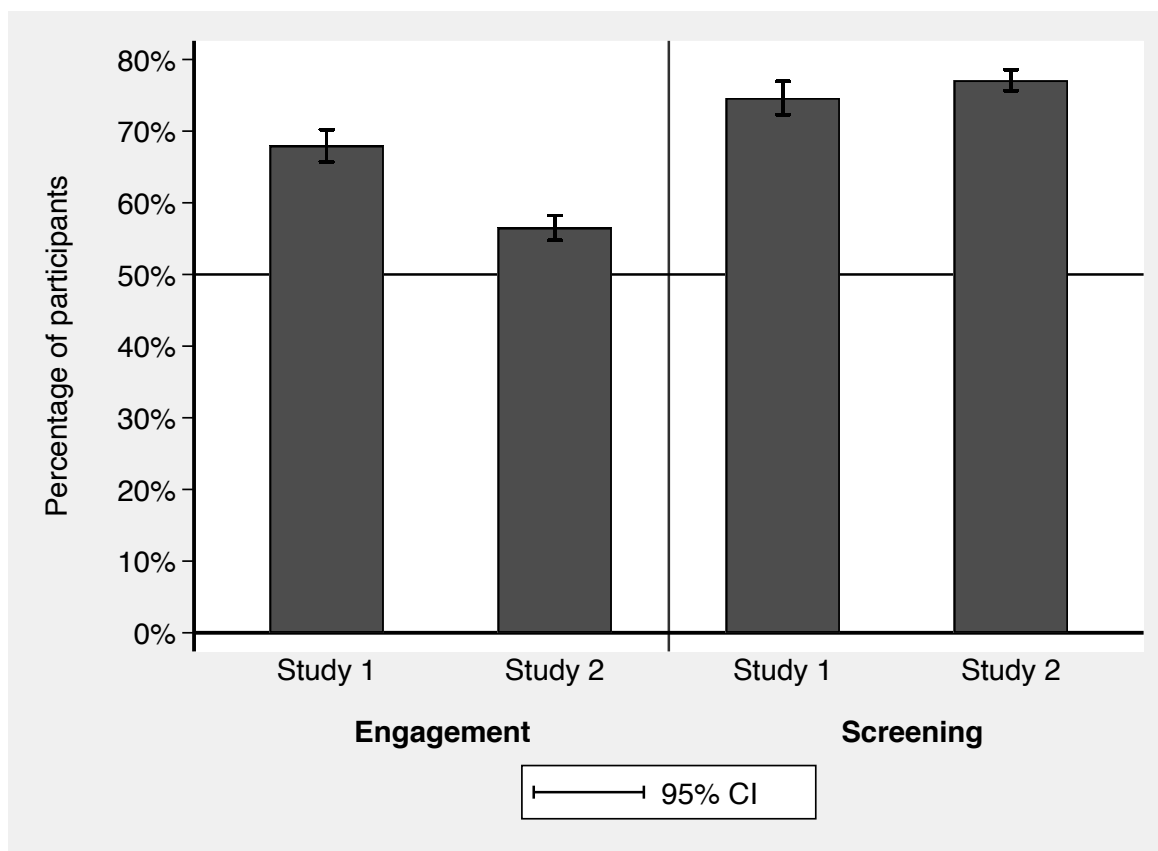


This graph presents the distribution of choices for the following question: 'Do you want Pensioenfonds Detailhandel to add the fourth sustainable development goal of "Responsible consumption and production"? Yes, add; No, do not add; I have no opinion regarding this matter,' and takes on the corresponding three values: '3 SDGs,' '4 SDGs,' and 'I have no opinion regarding this matter.' 3SDGs refers to the sustainable development goals of 'Climate action,' 'Decent work and economic growth,' and 'Peace, justice, and strong institutions,' which the pension fund had already focused on prior to 2018. 4 SDGs refers to the three SDGs just mentioned plus the fourth SDG, that of 'Responsible consumption and production,' which participants are introduced to during the survey. The above question refers to the default treatment where participants can add the fourth SDG. The default where participants can remove the fourth SDG is treated analogously, for brevity purposes, without providing further explanation here. Choices are guaranteed to be implemented by the pension fund if more than 50% of respondents choose in favor of three (four) SDGs. Error bars represent 95% confidence intervals.

Source: Bauer et al. (2021).

meant that it invested more in companies that scored high on the four SDGs, and less in companies that scored low. The results from a non-consequential question (no commitment by the board) in Study 1 show that 74.4% of respondents also favored portfolio screening based on the four SDGs (see Figure 2).

Figure 2. Preferences for Engagement and Screening (Studies 1 and 2)



This graph presents the share of participants who favor engagement and screening, respectively. Results for Studies 1 and 2 are shown separately. The question on engagement in Study 1 is, 'Do you want Pensioenfonds Detailhandel to add the fourth sustainable development goal of "Responsible consumption and production"?' Answer options are 'Yes, add,' 'No, do not add,' and 'I have no opinion regarding this matter.' The fourth SDG refers to 'Responsible consumption and production,' which participants are introduced to during the survey; it is in addition to the SDGs 'Climate action,' 'Decent work and economic growth,' and 'Peace, justice, and strong institutions,' which the pension fund already focused on prior to 2018. For a full distribution of answers, see Figure 1. The question on screening in Study 1 is, 'Do you prefer Pensioenfonds Detailhandel to invest more in companies that score high on environmental, social and governance factors and less in companies that score low?' Answer options are 'Yes,' 'No,' and 'I do not know.' For a full distribution of responses, see Figure A1, panel A. The question on engagement and screening in study 2 is, 'With which of the two parts of the sustainable investment strategy of Pensioenfonds Detailhandel do you agree?' Answer options are (1) 'More intensive dialogue with companies,' (2) 'Investing more in companies that score well on sustainability,' (3) 'Both,' (4) 'None,' and (5) 'I do not know.' For a full distribution of responses, see Figure A1, panel B. The fraction that supports engagement is the sum of participants who agree only to more engagement and those who agree to both engagement and screening. The fraction that supports screening is the sum of participants who agree only to more screening and those who agree to both screening and engagement. Error bars represent 95% confidence intervals.

Source: Bauer et al. (2021).

We then explored three possibilities that could explain the support for sustainable investments. First, participants might strongly believe that sustainable investments financially outperform conventional investments. Second, participants could have strong social preferences to favor sustainable investments, in which case they may support sustainable investments even when these investments are financially costly. Third, subjects might not have taken their real choice seriously, or they could have been simply confused.

We concluded that social preferences, rather than financial beliefs about sustainable investments or confusion, drove participants to choose for more engagement. Moreover, a validated measure of social preferences (Falk et al. 2018a; Falk et al. 2018b) was positively related to the choice for more sustainable investments. Even among participants who expected lower returns, 58% chose an extension of the engagement program. Additionally, people who voted for a political party with an agenda that focused more on sustainability were more likely to support the vote. Importantly, the choice for more engagement was not influenced by various defaults, confusion, or a lack of information.

One week after we presented the findings of our study (November 2018), the pension fund's board of trustees took action, by starting a voting and engagement program with a larger number of companies, increasing the intensity of engagement interactions with these companies, and voting more often at shareholder meetings to improve the sustainability of the companies in question. Supported by 74.4% of PD's beneficiaries, the board began considering introducing portfolio screening as part of its sustainable investment strategy, even though it had not *ex ante* committed to the question on portfolio screening. Several months later, PD launched the SDG-aligned index on developed equity markets.

In June 2020, we conducted a second field survey with 3,186 respondents (Study 2), to investigate whether participants supported the actual implementation of sustainable investments by PD. Study 2 helped us to understand whether the support for sustainable investments would last over time. It also allowed us to test whether participants agreed with the actual implementation of the extended engagement program. Study 2 furthermore allowed us to separately address support for engagement and portfolio screening.

Figure 2 displays the results of Study 2. These show that neither time, nor the actual implementation, nor the differentiation between engagement and portfolio screening diminished the strong support for sustainable investments. A majority of participants, although a bit smaller (56.5%), still supported the intensified

engagement program<sup>1</sup>. The actual introduction of portfolio screening in the SDG-aligned index was supported by 77.1%. Participants still favored further intensification of sustainable investments after finding out how PD implemented its previous commitment. Again, social preferences emerged as the key driver of the support.

Panel A of Figure 3 shows the distribution of participants' financial beliefs within our sample in Study 2. It documents greater heterogeneity in the beliefs about the financial consequences of more sustainability elements in the investment portfolio. Participants were slightly more positive about the financial effect of portfolio screening than about the influence of engagement for their retirement benefits. On average, return expectations were clearly not very favorable toward sustainable investing. Panel B of Figure 3 shows that participants are generally in favor of engagement and portfolio screening, regardless of return expectations. A small group of individuals (less than 10%) expected engagement and screening would result in much lower pension benefits. The same held for individuals who were unsure about the effects of engagement on their retirement benefits.

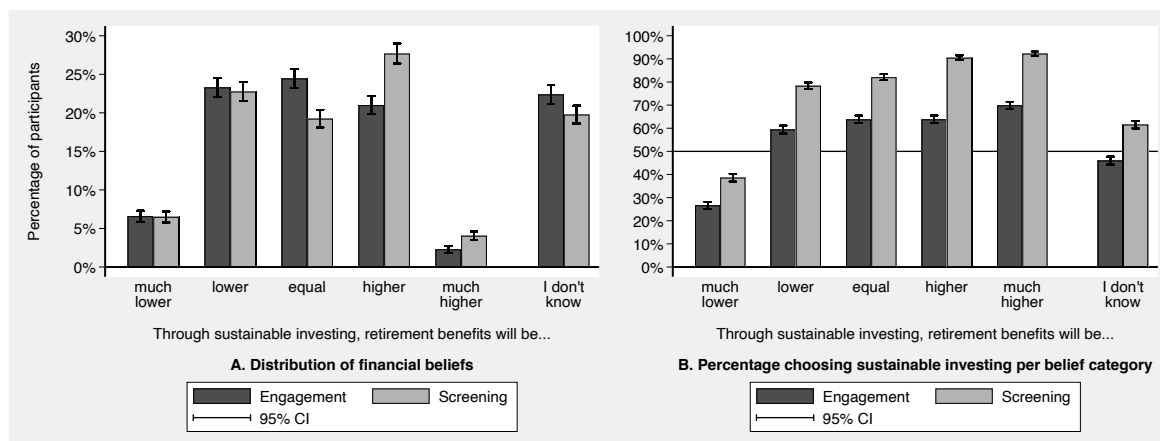
These findings are fully consistent with the results of Study 1 and provide initial evidence to support the idea that sustainable investments are strong over time. The special circumstances during the time of the second study allowed us to go one step further. In June 2020, when the second study was conducted, the COVID-19 pandemic had led to a significant economic downturn that negatively affected the balance sheets of Dutch pension funds. This environment gave us the opportunity to investigate how beliefs about an economic crisis affected the support for more sustainable investments. We find that the support for sustainable investments remained strong during the global pandemic.

An important question is whether our results are representative for the population of PD members. The PD surveys had relatively low response rates of 6.7% and 6.3%, respectively. Response rates for similar surveys in the pension industry are equally low, since people rarely interact with their pension funds (Debets et al., 2018). For this reason, it is important to establish how representative the respondents are. Since the political preferences of our sample proved to be similar to the outcome of the most recent Dutch national parliamentary election, we believe that there is little bias in our sample. We present further representativeness checks in the published paper (Bauer, Ruof and Smeets, 2021).

1 See the Get Real academic paper (Bauer et al. 2021, p. 4035) for more background on how this was explained to survey participants (intensified engagement and screening).



Figure 3. Financial beliefs about sustainable investment (Study 2)



Panel A shows the distribution of financial beliefs. Return expectations for engagement are elicited by asking participants the following questions: 'How would you think that the dialogue that Pensioenfond's Detailhandel enters into with companies to enhance their sustainability influence your retirement benefit once you retire?' Return expectations for screening are elicited through the question 'How would you think that the choice to invest more in companies that score high on sustainability and less in companies that score low on sustainability influence your retirement benefit once you retire?' Answer options in both cases are (1) 'lowers my retirement benefits a lot,' (2) 'lowers my retirement benefits a little,' (3) 'has no influence on my retirement benefits,' (4) 'increases my retirement benefits a little,' (5) 'increases my retirement benefits a lot,' and (6) 'I don't know.' Panel B presents the percentage of participants who agree to engagement or screening for each return expectation separately. The share of sustainable investment refers to the question, 'With which of the two parts of the sustainable investment strategy of Pensioenfond's Detailhandel do you agree?' Answer options are (1) 'More intensive dialogue with companies,' (2) 'Investing more in companies that score high on sustainability,' (3) 'Both,' (4) 'None,' and (5) 'I don't know.' For a full distribution of responses, see Figure A1, panel B. The fraction that supports engagement is the sum of participants who agreed only to more engagement and those who agree to both engagement and screening. The fraction that supports screening is the sum of participants who agree only to more screening and those who agree to both screening and engagement. Error bars represent 95% confidence intervals.

Source: Bauer et al. (2021).

## 6. Practical implications

In many cases, investment policy remains strictly an executive board matter, and, at best, most DC participants can select a pension fund that supports sustainability. Generally, however, the features of this option are solely determined by asset managers and the asset owners who hire them. Beneficiaries do not have a direct vote. In some countries, mostly in the EU and the UK, pension fund boards are increasingly being pushed to emphasize engagement with participants on strategic matters, as well as on sustainability in investments. Particularly in the Netherlands, a number of pension funds have started a dialogue with their participants, mainly through surveys.

We suggest that, irrespective of a fund's legal position and the beliefs and preferences of its board, knowledge of how participants think about sustainable investments is valuable. Trust in the financial sector, including the pension fund sector, plummeted during the global financial crisis. A better understanding of the beliefs and preferences of the clients of financial services is an important tool to regain confidence in the financial sector. Beyond this argument, earlier research shows that financial services clients who strongly identify with their service provider are more likely to be loyal customers (Bauer and Smeets 2015). Since collective pension systems experience much pressure, paying attention to beneficiaries' preferences and beliefs may help the funds to come up with more sustainable plans in the traditional meaning of the word.

Many young millennials across the globe actively press decision-makers on global challenges such as climate change, inequality, and human rights violations of all sorts. This cohort will demand a greater voice, but it does not feel heard. Pension systems may lose the intergenerational commitment that is needed to provide adequate and sustainable retirement solutions for all of us. Ultimately, trustworthiness is a pension fund's most valuable asset.

---

### Academic publication

The above is an executive summary of the paper "Get Real! Individuals Prefer More Sustainable Investments" that was published in the *Review of Financial Studies* (2021). Further details of the analysis are available in that paper.

## References

- ABP (2020). 'Duurzaam en Verantwoord Beleggingsbeleid ABP vanaf 2020'. ABP, The Netherlands. <https://www.abp.nl/images/dvb-beleid-abp.pdf>.
- Bauer, R., T. Ruof, and P. Smeets (2021). 'Get Real! Individuals Prefer More Sustainable Investments.' Forthcoming in *Review of Financial Studies*.
- Bauer, R. and P. Smeets (2015). 'Social identification and investment decisions.' *Journal of Economic Behavior & Organization*, 117: 121–134.
- Carson, R. T. and T. Groves (2007). 'Incentive and Informational Properties of Preference Questions.' *Environmental and Resource Economics*, 37(1): 181–210.
- Debets, S., H. Prast, M. Rossi, and A. van Soest (2018). 'Pension Communication in the Netherlands and Other Countries'. *Netspar Discussion Paper*, 07/2018–036.
- EUROSIF (2018). 'European SRI Study 2018'. <http://www.eurosif.org/wp-content/uploads/2018/11/European-SRI-2018-Study-LR.pdf>.
- Falk, A., A. Becker, T. Dohmen, D. Huffman, and U. Sunde (2018a). 'The Preference Survey Module: A Validated Instrument for Measuring Risk, Time, and Social Preferences.' Working Paper, Bonn University.
- Falk, A., A. Becker, T. Dohmen, B. Enke, D. Huffman, and U. Sunde (2018b). 'Global Evidence on Economic Preferences.' *The Quarterly Journal of Economics*, 133(4): 1645–1692.
- Fossil Free Campaign UK (2020). 'Universities Superannuation Scheme Divest from Fossil Fuels'. <https://campaigns.gofossilfree.org/petitions/university-staff-for-fossil-fuel-divestment>.
- FTSE Russell (2020). 'Case Study: Pensioenfonds Detailhandel and FTSE Russell'. [https://content.ftserussell.com/sites/default/files/case\\_study\\_-\\_pensioenfonds\\_detailhandel\\_as\\_written\\_v1\\_o.pdf?\\_ga=2.236125569.1891467829.1613833726-1540910117.1613833726](https://content.ftserussell.com/sites/default/files/case_study_-_pensioenfonds_detailhandel_as_written_v1_o.pdf?_ga=2.236125569.1891467829.1613833726-1540910117.1613833726).
- The Guardian (2020). 'Half of UK universities have committed to divest from fossil fuel'. January 13, 2020. <https://www.theguardian.com/environment/2020/jan/13/half-of-uk-universities-have-committed-to-divest-from-fossil-fuel>.
- Hartzmark, S. M. and A. B. Sussman (2019). 'Do Investors Value Sustainability? A Natural Experiment Examining Ranking and Fund Flows.' *The Journal of Finance*, 74(6): 2789–2837.
- IRBC (2018). 'Dutch Pension Funds Agreement on Responsible Investment'. <https://www.imvoconvenanten.nl/en/pension-funds>.
- List, J. A. and C. A. Gallet (2001). 'What Experimental Protocol Influence Disparities Between Actual and Hypothetical Stated Values?' *Environmental and Resource Economics*, 20(3): 241–254.
- Pensioenfonds Detailhandel (2020). 'Verklaring Beleggingsbeginselen' [https://www.pensioenfondsdetailhandel.nl/content/pdfs/1886310667-TPW-Beleidsstuk-PFDH\\_v5\\_Spreads-gecomprimeerd.pdf](https://www.pensioenfondsdetailhandel.nl/content/pdfs/1886310667-TPW-Beleidsstuk-PFDH_v5_Spreads-gecomprimeerd.pdf). Utrecht, The Netherlands.
- PGGM (2020). 'Responsible Investment'. <https://www.pggm.nl/en/our-services/responsible-investment>.
- Philips Pension Fund (2021). 'Veel Draagvlak voor Duurzaam Beleggen'. *Generaties Magazine*, Philips, Netherlands.
- Riedl, A. and P. Smeets (2017). 'Why do investors hold socially responsible mutual funds?' *The Journal of Finance*, 72(6): 2505–2550.
- Tobacco Free Portfolios (2021). The Pledge. <https://tobaccofreeportfolios.org/the-pledge/>
- USS (2018). 'The Universities Superannuation Scheme statement on responsible investment'. USS Responsible Investment Statement June 2018, UK.

- USS (2020). '*USS to make first divestments after long-term investment review*', UK. [https://www.uss.co.uk/news-and-views/latest-news/2020/06/06012020\\_uss-to-make-first-divestments-after-long-term-investment-review](https://www.uss.co.uk/news-and-views/latest-news/2020/06/06012020_uss-to-make-first-divestments-after-long-term-investment-review).
- Vossler, C. A., M. Doyon, and D. Rondeau (2012). 'Truth in Consequentiality: Theory and Field Evidence on Discrete Choice Experiments.' *American Economic Journal: Microeconomics*, 4(4): 145-71.
- Willis Towers Watson (2020). '*Global Pension Assets Study 2020*.' Available at <https://www.thinkingaheadinstitute.org/en/Library/Public/Research-and-Ideas/2020/01/Global-Pension-Asset-Study-2020>.

## OVERZICHT UITGAVEN IN DE DESIGN PAPER SERIE

- 1 Naar een nieuw pensioencontract (2011)  
Lans Bovenberg en Casper van Ewijk
- 2 Langlevensrisico in collectieve pensioencontracten (2011)  
Anja De Waegenaere, Alexander Paulis en Job Stigter
- 3 Bouwstenen voor nieuwe pensioencontracten en uitdagingen voor het toezicht daarop (2011)  
Theo Nijman en Lans Bovenberg
- 4 European supervision of pension funds: purpose, scope and design (2011)  
Niels Kortleve, Wilfried Mulder and Antoon Pelsser
- 5 Regulating pensions: Why the European Union matters (2011)  
Ton van den Brink, Hans van Meerten and Sybe de Vries
- 6 The design of European supervision of pension funds (2012)  
Dirk Broeders, Niels Kortleve, Antoon Pelsser and Jan-Willem Wijckmans
- 7 Hoe gevoelig is de uittredeleeftijd voor veranderingen in het pensioenstelsel? (2012)  
Didier Fouarge, Andries de Grip en Raymond Montizaan
- 8 De inkomensverdeling en levensverwachting van ouderen (2012)  
Marieke Knoef, Rob Alessie en Adriaan Kalwij
- 9 Marktconsistente waardering van zachte pensioenrechten (2012)  
Theo Nijman en Bas Werker
- 10 De RAM in het nieuwe pensioenakkoord (2012)  
Frank de Jong en Peter Schotman
- 11 The longevity risk of the Dutch Actuarial Association's projection model (2012)  
Frederik Peters, Wilma Nusselder and Johan Mackenbach
- 12 Het koppelen van pensioenleeftijd en pensioenaanspraken aan de levensverwachting (2012)  
Anja De Waegenaere, Bertrand Melenberg en Tim Boonen
- 13 Impliciete en expliciete leeftijdsdifferentiatie in pensioencontracten (2013)  
Roel Mehlkopf, Jan Bonenkamp, Casper van Ewijk, Harry ter Rele en Ed Westerhout
- 14 Hoofdlijnen Pensioenakkoord, juridisch begrepen (2013)  
Mark Heemskerk, Bas de Jong en René Maatman
- 15 Different people, different choices: The influence of visual stimuli in communication on pension choice (2013)  
Elisabeth Brügggen, Ingrid Rohde and Mijke van den Broeke
- 16 Herverdeling door pensioenregelingen (2013)  
Jan Bonenkamp, Wilma Nusselder, Johan Mackenbach, Frederik Peters en Harry ter Rele
- 17 Guarantees and habit formation in pension schemes: A critical analysis of the floor-leverage rule (2013)  
Frank de Jong and Yang Zhou
- 18 The holistic balance sheet as a building block in pension fund supervision (2013)  
Erwin Fransen, Niels Kortleve, Hans Schumacher, Hans Staring and Jan-Willem Wijckmans
- 19 Collective pension schemes and individual choice (2013)  
Jules van Binsbergen, Dirk Broeders, Myrthe de Jong and Ralph Koijen
- 20 Building a distribution builder: Design considerations for financial investment and pension decisions (2013)  
Bas Donkers, Carlos Lourenço, Daniel Goldstein and Benedict Dellaert

- 21 Escalerende garantietoezeggingen: een alternatief voor het StAr RAM-contract (2013)  
Servaas van Bilsen, Roger Laeven en Theo Nijman
- 22 A reporting standard for defined contribution pension plans (2013)  
Kees de Vaan, Daniele Fano, Herialt Mens and Giovanna Nicodano
- 23 Op naar actieve pensioenconsumenten: Inhoudelijke kenmerken en randvoorwaarden van effectieve pensioencommunicatie (2013)  
Niels Kortleve, Guido Verbaal en Charlotte Kuiper
- 24 Naar een nieuw deelnemergericht UPO (2013)  
Charlotte Kuiper, Arthur van Soest en Cees Dert
- 25 Measuring retirement savings adequacy; developing a multi-pillar approach in the Netherlands (2013)  
MARIKE KNOEF, Jim Been, Rob Alessie, Koen Caminada, Kees Goudswaard, and Adriaan Kalwijn
- 26 Illiquiditeit voor pensioenfondsen en verzekeraars: Rendement versus risico (2014)  
Joost Driessen
- 27 De doorsneesystematiek in aanvullende pensioenregelingen: effecten, alternatieven en transitiepaden (2014)  
Jan Bonenkamp, Ryanne Cox en Marcel Lever
- 28 EIOPA: bevoegdheden en rechtsbescherming (2014)  
Ivor Witte
- 29 Een institutionele beleggersblik op de Nederlandse woningmarkt (2013)  
Dirk Brounen en Ronald Mahieu
- 30 Verzekeraar en het reële pensioencontract (2014)  
Jolanda van den Brink, Erik Lutjens en Ivor Witte
- 31 Pensioen, consumptiebehoeften en ouderenzorg (2014)  
MARIKE KNOEF, Arjen Hussem, Arjan Soede en Jochem de Bresser
- 32 Habit formation: implications for pension plans (2014)  
Frank de Jong and Yang Zhou
- 33 Het Algemeen pensioenfonds en de taakafbakening (2014)  
Ivor Witte
- 34 Intergenerational Risk Trading (2014)  
Jiajia Cui and Eduard Ponds
- 35 Beëindiging van de doorsneesystematiek: juridisch navigeren naar alternatieven (2015)  
Dick Boeijen, Mark Heemskerk en René Maatman
- 36 Purchasing an annuity: now or later? The role of interest rates (2015)  
Thijs Markwat, Roderick Molenaar and Juan Carlos Rodriguez
- 37 Entrepreneurs without wealth? An overview of their portfolio using different data sources for the Netherlands (2015)  
Mauro Mastrogiacomo, Yue Li and Rik Dillingh
- 38 The psychology and economics of reverse mortgage attitudes. Evidence from the Netherlands (2015)  
Rik Dillingh, Henriëtte Prast, Mariacristina Rossi and Cesira Urzì Brancati
- 39 Keuzevrijheid in de uittreedleeftijd (2015)  
Arthur van Soest
- 40 Afschaffing doorsneesystematiek: verkenning van varianten (2015)  
Jan Bonenkamp en Marcel Lever
- 41 Nederlandse pensioenopbouw in internationaal perspectief (2015)  
MARIKE KNOEF, Kees Goudswaard, Jim Been en Koen Caminada
- 42 Intergenerationele risicodeling in collectieve en individuele pensioencontracten (2015)  
Jan Bonenkamp, Peter Broer en Ed Westerhout
- 43 Inflation Experiences of Retirees (2015)  
Adriaan Kalwijn, Rob Alessie, Jonathan Gardner and Ashik Anwar Ali
- 44 Financial fairness and conditional indexation (2015)  
Torsten Kleinow and Hans Schumacher
- 45 Lessons from the Swedish occupational pension system (2015)  
Lans Bovenberg, Ryanne Cox and Stefan Lundbergh

- 46 Heldere en harde pensioenrechten onder een PPR (2016)  
Mark Heemskerk, René Maatman en Bas Werker
- 47 Segmentation of pension plan participants: Identifying dimensions of heterogeneity (2016)  
Wiebke Eberhardt, Elisabeth Brüggem, Thomas Post and Chantal Hoet
- 48 How do people spend their time before and after retirement? (2016)  
Johannes Binswanger
- 49 Naar een nieuwe aanpak voor risicoprofiel-meting voor deelnemers in pensioenregelingen (2016)  
Benedict Dellaert, Bas Donkers, Marc Turlings, Tom Steenkamp en Ed Vermeulen
- 50 Individueel defined contribution in de uitkeringsfase (2016)  
Tom Steenkamp
- 51 Wat vinden en verwachten Nederlanders van het pensioen? (2016)  
Arthur van Soest
- 52 Do life expectancy projections need to account for the impact of smoking? (2016)  
Frederik Peters, Johan Mackenbach en Wilma Nusselder
- 53 Effecten van gelaagdheid in pensioen-documenten: een gebruikersstudie (2016)  
Louise Nell, Leo Lentz en Henk Pander Maat
- 54 Term Structures with Converging Forward Rates (2016)  
Michel Vellekoop and Jan de Kort
- 55 Participation and choice in funded pension plans (2016)  
Manuel García-Huitrón and Eduard Ponds
- 56 Interest rate models for pension and insurance regulation (2016)  
Dirk Broeders, Frank de Jong and Peter Schotman
- 57 An evaluation of the nFTK (2016)  
Lei Shu, Bertrand Melenberg and Hans Schumacher
- 58 Pensioenen en inkomensongelijkheid onder ouderen in Europa (2016)  
Koen Caminada, Kees Goudswaard, Jim Been en Marike Knoef
- 59 Towards a practical and scientifically sound tool for measuring time and risk preferences in pension savings decisions (2016)  
Jan Potters, Arno Riedl and Paul Smeets
- 60 Save more or retire later? Retirement planning heterogeneity and perceptions of savings adequacy and income constraints (2016)  
Ron van Schie, Benedict Dellaert and Bas Donkers
- 61 Uitstroom van oudere werknemers bij overheid en onderwijs. Selectie uit de poort (2016)  
Frank Cörvers en Janneke Wilschut
- 62 Pension risk preferences. A personalized elicitation method and its impact on asset allocation (2016)  
Gosse Alserda, Benedict Dellaert, Laurens Swinkels and Fieke van der Lecq
- 63 Market-consistent valuation of pension liabilities (2016)  
Antoon Pelsser, Ahmad Salahnejhad and Ramon van den Akker
- 64 Will we repay our debts before retirement? Or did we already, but nobody noticed? (2016)  
Mauro Mastrogiacomo
- 65 Effectieve ondersteuning van zelfmanagement voor de consument (2016)  
Peter Lapperre, Alwin Oerlemans en Benedict Dellaert
- 66 Risk sharing rules for longevity risk: impact and wealth transfers (2017)  
Anja De Waegenaere, Bertrand Melenberg and Thijs Markwat
- 67 Heterogeniteit in doorsneeproblematiek. Hoe pakt de transitie naar degressieve opbouw uit voor verschillende pensioenfondsen? (2017)  
Loes Frehen, Wouter van Wel, Casper van Ewijk, Johan Bonekamp, Joost van Valkengoed en Dick Boeijen
- 68 De toereikendheid van pensioenopbouw na de crisis en pensioenhervormingen (2017)  
MARIKE KNOEF, JIM BEEN, KOEN CAMINADA, KEES GOUDSWAARD en JASON RHUGGENAATH

- 69 De combinatie van betaald en onbetaald werk in de jaren voor pensioen (2017)  
Marleen Damman en Hanna van Solinge
- 70 Default life-cycles for retirement savings (2017)  
Anna Grebenchtchikova, Roderick Molenaar, Peter Schotman en Bas Werker
- 71 Welke keuzemogelijkheden zijn wenselijk vanuit het perspectief van de deelnemer? (2017)  
Casper van Ewijk, Roel Mehlkopf, Sara van den Bleeken en Chantal Hoet
- 72 Activating pension plan participants: investment and assurance frames (2017)  
Wiebke Eberhardt, Elisabeth Brüggem, Thomas Post en Chantal Hoet
- 73 Zerotopia – bounded and unbounded pension adventures (2017)  
Samuel Sender
- 74 Keuzemogelijkheden en maatwerk binnen pensioenregelingen (2017)  
Saskia Bakels, Agnes Joseph, Niels Kortleve en Theo Nijman
- 75 Polderen over het pensioenstelsel. Het debat tussen de sociale partners en de overheid over de ouderdagvoorzieningen in Nederland, 1945–2000 (2017)  
Paul Brusse
- 76 Van uitkeringsovereenkomst naar PPR (2017)  
Mark Heemskerk, Kees Kamminga, René Maatman en Bas Werker
- 77 Pensioenresultaat bij degressieve opbouw en progressieve premie (2017)  
Marcel Lever en Sander Muns
- 78 Bestedingsbehoeften bij een afnemende gezondheid na pensionering (2017)  
Lieke Kools en Marike Knoef
- 79 Model Risk in the Pricing of Reverse Mortgage Products (2017)  
Anja De Waegenaere, Bertrand Melenberg, Hans Schumacher, Lei Shu and Lieke Werner
- 80 Expected Shortfall voor toezicht op verzekeraars: is het relevant? (2017)  
Tim Boonen
- 81 The Effect of the Assumed Interest Rate and Smoothing on Variable Annuities (2017)  
Anne G. Balter and Bas J.M. Werker
- 82 Consumer acceptance of online pension investment advice (2017)  
Benedict Dellaert, Bas Donkers and Carlos Lourenço
- 83 Individualized life-cycle investing (2017)  
Gréta Oleár, Frank de Jong and Ingmar Minderhoud
- 84 The value and risk of intergenerational risk sharing (2017)  
Bas Werker
- 85 Pensioenwensen voor en na de crisis (2017)  
Jochem de Bresser, Marike Knoef en Lieke Kools
- 86 Welke vaste dalingen en welk beleggingsbeleid passen bij gewenste uitkeringsprofielen in verbeterde premieregelingen? (2017)  
Johan Bonekamp, Lans Bovenberg, Theo Nijman en Bas Werker
- 87 Inkomens- en vermogensafhankelijke eigen bijdragen in de langdurige ouderenzorg: een levensloopperspectief (2017)  
Arjen Hussem, Harry ter Rele en Bram Wouterse
- 88 Creating good choice environments – Insights from research and industry practice (2017)  
Elisabeth Brüggem, Thomas Post and Kimberley van der Heijden
- 89 Two decades of working beyond age 65 in the Netherlands. Health trends and changes in socio-economic and work factors to determine the feasibility of extending working lives beyond age 65 (2017)  
Dorly Deeg, Maaïke van der Noordt and Suzan van der Pas
- 90 Cardiovascular disease in older workers. How can workforce participation be maintained in light of changes over time in determinants of cardiovascular disease? (2017)  
Dorly Deeg, E. Burgers and Maaïke van der Noordt
- 91 Zicht op zzp-pensioen (2017)  
Wim Zwinkels, Marike Knoef, Jim Been, Koen Caminada en Kees Goudswaard
- 92 Return, risk, and the preferred mix of PAYG and funded pensions (2017)  
Marcel Lever, Thomas Michielsen and Sander Muns



- 93 Life events and participant engagement in pension plans (2017)  
Matthew Blakstad, Elisabeth Brügggen and Thomas Post
- 94 Parttime pensioneren en de arbeids-participatie (2017)  
Raymond Montizaan
- 95 Keuzevrijheid in pensioen: ons brein wil niet kiezen, maar wel gekozen hebben (2018)  
Walter Limpens en Joyce Vonken
- 96 Employability after age 65? Trends over 23 years in life expectancy in good and in poor physical and cognitive health of 65–74-year-olds in the Netherlands (2018)  
Dorly Deeg, Maaïke van der Noordt, Emiel Hoogendijk, Hannie Comijs and Martijn Huisman
- 97 Loslaten van de verplichte pensioenleeftijd en het organisatieklimaat rondom langer doorwerken (2018)  
Jaap Oude Mulders, Kène Henkens en Harry van Dalen
- 98 Overgangseffecten bij introductie degressieve opbouw (2018)  
Bas Werker
- 99 You're invited – RSVP! The role of tailoring in incentivising people to delve into their pension situation (2018)  
Milena Dinkova, Sanne Elling, Adriaan Kalwij en Leo Lentz
- 100 Geleidelijke uittreding en de rol van deeltijdpensioen (2018)  
Jonneke Bolhaar en Daniël van Vuuren
- 101 Naar een model voor pensioen-communicatie (2018)  
Leo Lentz, Louise Nell en Henk Pander Maat
- 102 Tien jaar UPO. Een terugblik en vooruitblik op inhoud, doelen en effectiviteit (2018)  
Sanne Elling en Leo Lentz
- 103 Health and household expenditures (2018)  
Raun van Ooijen, Jochem de Bresser en Marike Knoef
- 104 Keuzevrijheid in de uitkeringsfase: internationale ervaringen (2018)  
Marcel Lever, Eduard Ponds, Rik Dillingh en Ralph Stevens
- 105 The move towards riskier pension products in the world's best pension systems (2018)  
Anne G. Balter, Malene Kallestrup-Lamb and Jesper Rangvid
- 106 Life Cycle Option Value: The value of consumer flexibility in planning for retirement (2018)  
Sonja Wendel, Benedict Dellaert and Bas Donkers
- 107 Naar een duidelijk eigendomsbegrip (2018)  
Jop Tangelder
- 108 Effect van stijging AOW-leeftijd op arbeid-songschiktheid (2018)  
Rik Dillingh, Jonneke Bolhaar, Marcel Lever, Harry ter Rele, Lisette Swart en Koen van der Ven
- 109 Is de toekomst gearriveerd? Data science en individuele keuzemogelijkheden in pensioen (2018)  
Wesley Kaufmann, Bastiaan Starink en Bas Werker
- 110 De woontevredenheid van ouderen in Nederland (2018)  
Jan Rouwendal
- 111 Towards better prediction of individual longevity (2018)  
Dorly Deeg, Jan Kardaun, Maaïke van der Noordt, Emiel Hoogendijk en Natasja van Schoor
- 112 Framing in pensioenkeuzes. Het effect van framing in de keuze voor beleggingsprofiel in DC-plannen naar aanleiding van de Wet verbeterde premieregeling (2018)  
Marijke van Putten, Rogier Potter van Loon, Marc Turlings en Eric van Dijk
- 113 Working life expectancy in good and poor self-perceived health among Dutch workers aged 55–65 years with a chronic disease over the period 1992–2016 (2019)  
Astrid de Wind, Maaïke van der Noordt, Dorly Deeg and Cécile Boot
- 114 Working conditions in post-retirement jobs: A European comparison (2019)  
Ellen Dingemans and Kène Henkens

- 115 Is additional indebtedness the way to increase mortgage–default insurance coverage? (2019)  
Yeorim Kim, Mauro Mastrogiacomio, Stefan Hochguertel and Hans Bloemen
- 116 Appreciated but complicated pension Choices? Insights from the Swedish Premium Pension System (2019)  
Monika Böhnke, Elisabeth Brügggen and Thomas Post
- 117 Towards integrated personal financial planning. Information barriers and design propositions (2019)  
Nitesh Bharosa and Marijn Janssen
- 118 The effect of tailoring pension information on navigation behavior (2019)  
Milena Dinkova, Sanne Elling, Adriaan Kalwij and Leo Lentz
- 119 Opleiding, levensverwachting en pensioenleeftijd: een vergelijking van Nederland met andere Europese landen (2019)  
Johan Mackenbach, José Rubio Valverde en Wilma Nusselder
- 120 Giving with a warm hand: Evidence on estate planning and bequests (2019)  
Eduard Suari–Andreu, Raun van Ooijen, Rob J.M. Alessie and Viola Angelini
- 121 Investeren in menselijk kapitaal: een gecombineerd werknemers– en werkgeversperspectief (2019)  
Raymond Montizaan, Merlin Nieste en Davey Poulissen
- 122 The rise in life expectancy – corresponding rise in subjective life expectancy? Changes over the period 1999–2016 (2019)  
Dorly Deeg, Maaïke van der Noordt, Noëlle Sant, Henrike Galenkamp, Fanny Janssen and Martijn Huisman
- 123 Pensioenaanvullingen uit het eigen woningbezit (2019)  
Dirk Brounen, Niels Kortleve en Eduard Ponds
- 124 Personal and work–related predictors of early exit from paid work among older workers with health limitations (2019)  
Nils Plomp, Sascha de Breij and Dorly Deeg
- 125 Het delen van langlevensrisico (2019)  
Anja De Waegenaere, Agnes Joseph, Pascal Janssen en Michel Vellekoop
- 126 Maatwerk in pensioencommunicatie (2019)  
S.K. Elling en L.R. Lentz
- 127 Dutch Employers’ Responses to an Aging Workforce: Evidence from Surveys, 2009–2017 (2019)  
Jaap Oude Mulders, Kène Henkens and Hendrik P. van Dalen
- 128 Preferences for solidarity and attitudes towards the Dutch pension system – Evidence from a representative sample (2019)  
Arno Riedl, Hans Schmeets and Peter Werner
- 129 Deeltijdpensioen geen wondermiddel voor langer doorwerken (2019)  
Henk–Wim de Boer, Tunga Kantarcı, Daniel van Vuuren en Ed Westerhout
- 130 Spaarmotieven en consumptiegedrag (2019)  
Johan Bonekamp en Arthur van Soest
- 131 Substitute services: a barrier to controlling long–term care expenditures (2019)  
Mark Kattenberg and Pieter Bakx
- 132 Voorstel keuzearchitectuur pensioensparen voor zelfstandigen (2019)  
Jona Linde
- 133 The impact of the virtual integration of assets on pension risk preferences of individuals (2019)  
Sesil Lim, Bas Donkers en Benedict Dellaert
- 134 Reforming the statutory retirement age: Policy preferences of employers (2019)  
Hendrik P. van Dalen, Kène Henkens and Jaap Oude Mulders
- 135 Compensatie bij afschaffing doorsnee–systematiek (2019)  
Dick Boeijen, Chantal de Groot, Mark Heemskerk, Niels Kortleve en René Maatman
- 136 Debt affordability after retirement, interest rate shocks and voluntary repayments (2019)  
Mauro Mastrogiacomio

- 137 Using social norms to activate pension plan members: insights from practice (2019)  
Joyce Augustus-Vonken, Pieter Verhallen, Lisa Brügggen and Thomas Post
- 138 Alternatieven voor de huidige verplichtstelling van bedrijfstakpensioenfondsen (2020)  
Erik Lutjens en Fieke van der Lecq
- 139 Eigen bijdrage aan ouderenzorg (2020)  
Pieter Bakx, Judith Bom, Marianne Tenand en Bram Wouterse
- 140 Inrichting fiscaal kader bij afschaffing doorsneesystematiek (2020)  
Bastiaan Starink en Michael Visser
- 141 Hervorming langdurige zorg: trends in het gebruik van verpleging en verzorging (2020)  
Pieter Bakx, Pilar Garcia-Gomez, Sara Rellstab, Erik Schut en Eddy van Doorslaer
- 142 Genetic health risks, insurance, and retirement (2020)  
Richard Karlsson Linnér and Philipp D. Koellinger
- 143 Publieke middelen voor particuliere ouderenzorg (2020)  
Arjen Hussem, Marianne Tenand en Pieter Bakx
- 144 Emotions and technology in pension service interactions: Taking stock and moving forward (2020)  
Wiebke Eberhardt, Alexander Henkel en Chantal Hoet
- 145 Opleidingsverschillen in levensverwachting: de bijdrage van acht risicofactoren (2020)  
Wilma J. Nusselder, José Rubio Valverde en Johan P. Mackenbach
- 146 Shades of Labor: Motives of Older Adults to Participate in Productive Activities (2020)  
Sonja Wendel and Benedict Dellaert
- 147 Raising pension awareness through letters and social media: Evidence from a randomized and a quasi-experiment (2020)  
Marieke Knoef, Jim Been and Marijke van Putten
- 148 Infographics and Financial Decisions (2020)  
Ruben Cox and Peter de Goeij
- 149 To what extent can partial retirement ensure retirement income adequacy? (2020)  
Tunga Kantarcı and Jochem Zweerink
- 150 De steun voor een 'zwareberoepenregeling' ontleed (2020)  
Harry van Dalen, Kène Henkens en Jaap Oude Mulders
- 151 Verbeteren van de inzetbaarheid van oudere werknemers tot aan pensioen: literatuuroverzicht, inzichten uit de praktijk en de rol van pensioenuitvoerders (2020)  
Peter Lapperre, Henk Heek, Pascal Corten, Ad van Zonneveld, Robert Boulogne, Marieke Koeman en Benedict Dellaert
- 152 Betere risicospreiding van eigen bijdragen in de verpleeghuiszorg (2020)  
Bram Wouterse, Arjen Hussem en Rob Aalbers
- 153 Doorbeleggen met garanties? (2020)  
Roderick Molenaar, Peter Schotman, Peter Dekkers en Mark Irwin
- 154 Differences in retirement preferences between the self-employed and employees: Do job characteristics play an explanatory role? (2020)  
Marleen Damman, Dieuwke Zwier en Swenne G. van den Heuvel
- 155 Do financial incentives stimulate partially disabled persons to return to work? (2020)  
Tunga Kantarcı and Jan-Maarten van Sonsbeek
- 156 Wijzigen van de bedrijfstakpensioenregeling: tussen pensioenfondsbestuur en sociale partners (2020)  
J.R.C. Tangelder
- 157 Keuzes tijdens de pensioenopbouw: de effecten van nudging met volgorde en standaardopties (2020)  
Wilte Zijlstra, Jochem de Bresser en Marieke Knoef
- 158 Keuzes rondom pensioen: implicaties op uitkeringssnelheid voor een heterogeen deelnemersbestand (2020)  
Servaas van Bilsen, Johan Bonekamp, en Eduard Ponds

- 159 Met big data inspelen op woonwensen en woongedrag van ouderen: praktische inzichten voor ontwerp en beleid (2020)  
Ioulia V. Ossokina en Theo A. Arentze
- 160 Economic consequences of widowhood: Evidence from a survivor's benefits reform in the Netherlands (2020)  
Jeroen van der Vaart, Rob Alessie and Raun van Ooijen
- 161 How will disabled workers respond to a higher retirement age? (2020)  
Tunga Kantarcı, Jim Been and Arthur van Soest
- 162 Deeltijdpensioenen: belangstelling en belemmeringen op de werkvloer (2020)  
Hanna van Solinge, Harry van Dalen en Kène Henkens
- 163 Investing for Retirement with an Explicit Benchmark (2020)  
Anne Balter, Lennard Beijering, Pascal Janssen, Frank de Jong, Agnes Joseph, Thijs Kamma and Antoon Pelsser
- 164 Vergrijzing en verzuim: impact op de verzekeringsvoorkeuren van werkgevers (2020)  
Remco Mallee en Raymond Montizaan
- 165 Arbeidsmarkteffecten van de pensioenpremiestystematiek (2020)  
Marieke Knoef, Sander Muns en Arthur van Soest
- 166 Risk Sharing within Pension Schemes (2020)  
Anne Balter, Frank de Jong en Antoon Pelsser
- 167 Supporting pension participants: Three lessons learned from the medical domain for better pension decisions (2021)  
Jelle Strikwerda, Bregje Holleman and Hans Hoeken
- 168 Variable annuities with financial risk and longevity risk in the decumulation phase of Dutch DC products (2021)  
Bart Dees, Frank de Jong and Theo Nijman
- 169 Verloren levensjaren als gevolg van sterfte aan Covid-19 (2021)  
Bram Wouterse, Frederique Ram en Pieter van Baal
- 170 Which work conditions can encourage older workers to work overtime? (2021)  
Raymond Montizaan and Annemarie Kuenn-Nelen
- 171 Herverdeling van individueel pensioenvermogen naar partnerpensioen: een stated preference-analyse (2021)  
Raymond Montizaan
- 172 Risicogedrag na een ramp; implicaties voor pensioenen (2021)  
Martijn de Vries
- 173 The Impact of Climate Change on Optimal Asset Allocation for Long-Term Investors (2021)  
Mathijs Cosemans, Xander Hut and Mathijs van Dijk
- 174 Beleggingsbeleid bij onzekerheid over risicobereidheid en budget (2021)  
Agnes Joseph, Antoon Pelsser en Lieke Werner
- 175 On the Resilience of ESG Stocks during COVID-19: Global Evidence (2021)  
Gianfranco Gianfrate, Tim Kievid & Mathijs van Dijk
- 176 De solidariteitsreserve juridisch ontrafeld (2021)  
Erik Lutjens en Herman Kappelle
- 177 Hoe vertrouwen in politiek en maatschappij doorwerkt in vertrouwen in pensioeninstellingen (2021)  
Harry van Dalen en Kène Henkens
- 178 Gelijke rechten, maar geen gelijke pensioenen: de gender gap in Nederlandse tweedepijlerpensioenen (2021)  
Suzanne Kali, Jim Been, Marieke Knoef en Albert van Marwijk Kooy
- 179 Completing Dutch pension reform (2021)  
Ed Westerhout, Eduard Ponds and Peter Zwaneveld
- 180 When and why do employers hire and rehire employees beyond normal retirement age? (2021)  
Orlaith C. Tunney and Jaap Oude Mulders
- 181 Family and government insurance: Wage, earnings, and income risks in the Netherlands and the U.S. (2021)  
Mariacristina De Nardi, Giulio Fella, Marieke Knoef, Gonzalo Paz-Pardo and Raun van Ooijen

- 182 Het gebruik van data in de pensioenmarkt (2021)  
Willem van der Deijl, Marije Kloek, Koen Vaassen en Bas Werker
- 183 Applied Data Science in the Pension Industry: A Survey and Outlook (2021)  
Onaopepo Adekunle, Michel Dumontier and Arno Riedl
- 184 Individual differences in accessing personalized online pension information: Inertia and a digital hurdle (2021)  
Milena Dinkova, Adriaan Kalwij & Leo Lentz
- 185 Transitie: gevoeligheid voor veronderstellingen en omstandigheden (2021)  
Anne Balter, Jan Bonenkamp en Bas Werker
- 186 De voordelen van de solidariteitsreserve ontrafeld (2021)  
Servaas van Bilsen, Roel Mehlkopf en Antoon Pelsser
- 187 Consumption and time use responses to unemployment (2021)  
Jim Been, Eduard Suari-Andreu, Marike Knoef en Rob Alessie
- 188 Wat is inertie? (2021)  
Marijke van Putten en Robert-Jan Bastiaan de Rooij
- 189 The effect of the Dutch financial assessment framework on the mortgage investments of pension funds (2021)  
Yeorim Kim and Mauro Mastrogiacomio
- 190 The Recovery Potential for Underfunded Pension Plans (2021)  
Li Yang, Antoon Pelsser and Michel Vellekoop
- 191 Trends in verschillende gezondheidsindicatoren: de rol van opleidingsniveau (2021)  
Wilma J. Nusselder, José Rubio Valverde en Dorly Deeg
- 192 Toedeling van rendementen met spreiding (2021)  
Anne Balter en Bas Werker
- 193 Occupational pensions, macroprudential limits, and the financial position of the self-employed (2021)  
Francesco G. Caloia, Stefan Hochguertel and Mauro Mastrogiacomio
- 194 How do spouses respond when disability benefits are lost? (2021)  
Mario Bernasconi, Tunga Kantarci, Arthur van Soest, and Jan-Maarten van Sonsbeek
- 195 Pension Payout Preferences (2021)  
Rik Dillingh and Maria Zumbuehl
- 196 Naar de kern van pensioenkeuzes (2021)  
Jelle Strikwerda, Bregje Holleman en Hans Hoeken
- 197 The Demand for Retirement Products: The Role of Withdrawal Flexibility and Administrative Burden (2021)  
Pim Koopmans, Marike Knoef and Max van Lent
- 198 Stapelen van keuzes; interacties in keuze-architectuur en tussen tijd en risico (2021)  
Jona Linde en Ingrid Rohde
- 199 Arbeidsmarktstatus tussen de 65ste verjaardag en de AOW-leeftijd: verschillen tussen opleidingsgroepen (2021)  
Wilma J. Nusselder, Marti K. Rado en Dorly J.H. Deeg
- 200 Geheugenloos spreiden met gelijke aanpassingen (2021)  
Sander Muns
- 201 Bevoegdheidsverdeling sociale partners en pensioenfondsen bij stelseltransitie (2022)  
René Maatman en Mark Heemskerk
- 202 Matchmaking in pensioenland: welk pensioen past bij welke deelnemer? (2022)  
Marike Knoef, Rogier Potter van Loon, Marc Turlings, Marco van Toorn, Floske Weehuizen, Bart Dees en Jorgo Goossens
- 203 Inkomenseffecten bij en na invaren in het nieuwe pensioencontract (2022)  
Sander Muns, Theo Nijman en Bas Werker
- 204 Pensioenvoorbereiding van zzp'ers tijdens de coronacrisis (2022)  
Marleen Damman en Gerbert Kraaykamp
- 205 Een reële oriëntatie van het nieuwe pensioencontract (2022)  
Rens van Gastel, Niels Kortleve, Theo Nijman en Peter Schotman
- 206 Infographics and financial decisions: an eye-tracking experiment (2022)  
Hong Phuoc (Michael) Vo, Reinier Cozijn and Peter de Goeij

207 Eliciting Pension Beneficiaries'  
Sustainability Preferences (2022)  
Rob Bauer, Tobias Ruof and Paul Smeets



Network for Studies on Pensions, Aging and Retirement

This is a publication of:  
Netspar  
Phone +31 13 466 2109  
E-mail [info@netspar.nl](mailto:info@netspar.nl)  
[www.netspar.nl](http://www.netspar.nl)

April 2022