

Eliciting Pension Beneficiaries' Sustainability Preferences

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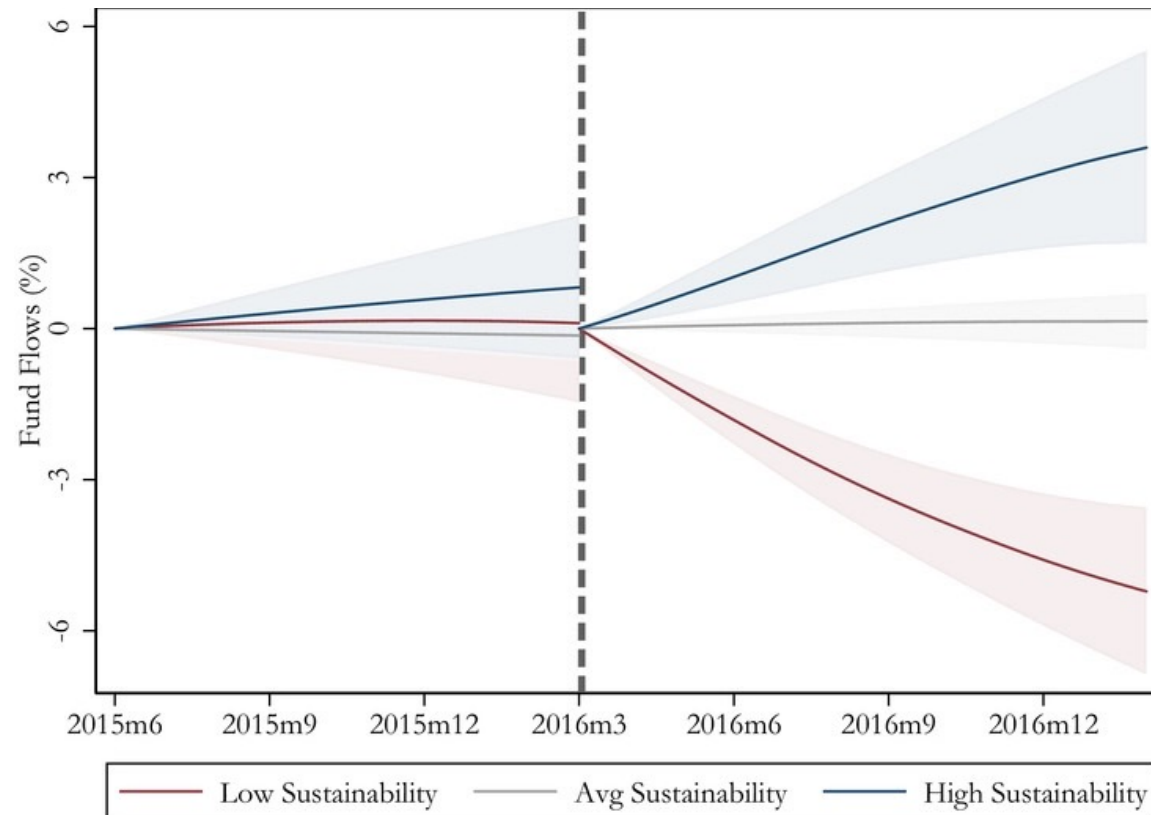
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In a mutual fund context, there is choice ...



Source: Hartzmark and Sussman (2019)



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**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

**EU Taxonomy, Corporate Sustainability Reporting, Sustainability Preferences and Fiduciary
Duties:
Directing finance towards the European Green Deal**

VI. SUSTAINABILITY PREFERENCES AND FIDUCIARY DUTIES

The Commission is today introducing the assessment of client's sustainability preferences in existing delegated acts under the Markets in Financial Instruments Directive (MiFID II)¹⁷ and the Insurance Distribution Directive (IDD)¹⁸, as a top up to the suitability assessment. Insurance and investment advisers will be required to obtain information not only about the client's investment knowledge and experience, ability to bear losses, and risk tolerance as part of the suitability assessment, but also about their sustainability preferences. This will ensure that sustainability considerations are taken into account on a systematic basis when the advisers assess the range of financial instruments and products in their recommendations to clients.

This action will empower retail investors to decide where and how their savings should be invested. This way, everyone will have a chance to make a tangible positive impact on the climate, environment and society if they desire to do so. The change will increase the demand for financial instruments and products with sustainable investment strategies and those that consider adverse impact on sustainability.

By amending existing rules on fiduciary duties in delegated acts for asset management, insurance, reinsurance and investment sectors, the Commission is clarifying the current rules to also encompass sustainability risks such as the impact of climate change and environmental degradation on the value of investments.

Should participants of pension plans be involved in setting a fund's sustainable investment agenda? If so, how can that be done in a meaningful way?

• Responses from Dutch Pension Funds

- Many funds use the survey instrument when asking beneficiaries about their preferences and beliefs regarding sustainable investments.
- Some funds have focus groups or ad hoc interviews with members.
- Some funds do not (directly) engage with their participants on the topic of responsible investments.
- Many potential pitfalls: social desirability bias (hypothetical gap), selection bias, representation bias, board bias etc.

Bauer, Ruof and Smeets (2021)

- Pension fund Detailhandel, field experiment
- Vote to add a 4th SDG



Get Real! Individuals Prefer More Sustainable Investments

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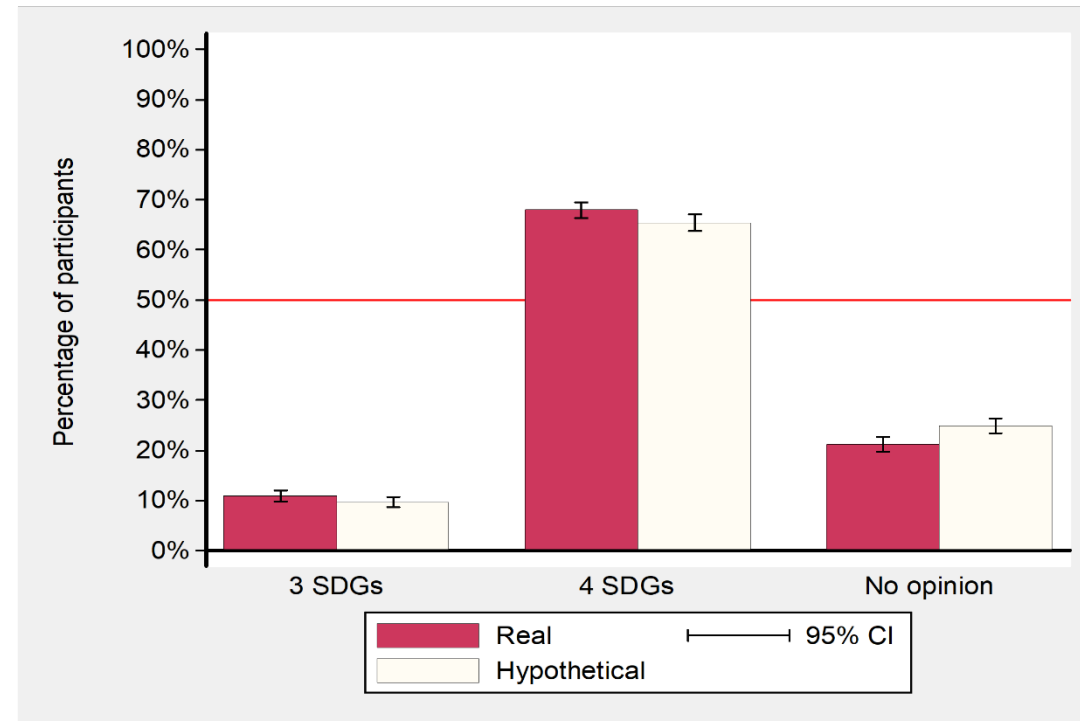
The United Nations' Sustainable Development Goals (SDGs) have created societal and political pressure for pension funds to address sustainable investing. We run two field surveys (n = 1,669; n = 3,186) with a pension fund that grants its members a real vote on its sustainable-investment policy. Two-thirds of participants are willing to expand the fund's engagement with companies based on selected SDGs, even when they expect engagement to hurt financial performance. Support remains strong after the fund implements the choice. A key reason is participants' strong social preferences. (*JEL G02, G11, G20, G23, G28*)

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But what is **Sustainability Preference**?

➤ **Social Preference**

- ❖ Altruism, warm glow (e.g. Fehr and Fischbacher, 2003; Riedl Smeets, 2017)

➤ **Social Identification and Signalling**

- ❖ Correlation of social identification and investment allocation (Bauer and Smeets, 2015)

➤ **Construal Level Theory and Psychological Distance**

- ❖ Once investors attain a certain level of return, they are more sensitive and value SRI more highly (Trope and Liberman, 2010; Barreda-Tarrazona et al. 2011)

- Hartzmark and Sussman (2019) also find that investors expect funds rated high in sustainability to **perform better** and have **lower risk**.

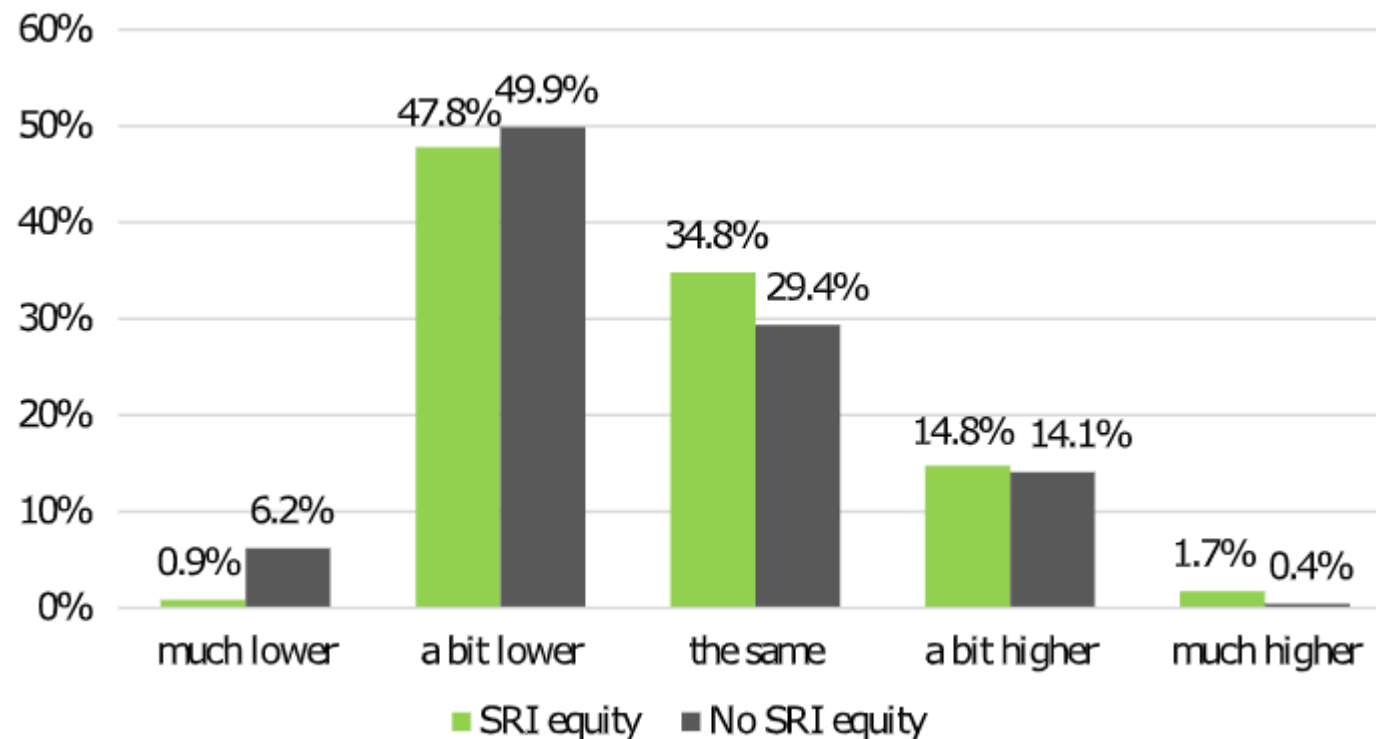
What do we learn?

- Sustainability “Preference” is actually a mix of preferences and beliefs
- Simply asking is probably not enough:
 - True benefits and costs are unknown ... even to researchers
 - People don't know about their preferences ... or beliefs
- Preferences: social preference is not the only thing
- Beliefs: we can't assess whether investors are willing to trade off financial performance for sustainability until we have a good measure of investor beliefs
- The following slides are mainly based some works in progress of Bauer, Dong, and Jiao.
- Methodology: lab and field experiments.

#1 Beliefs

- Existing measures of beliefs are not good enough:

Example (Riedl and Smeets, 2017): I expect that the returns of socially responsible equity funds compared to conventional equity funds are:



Source: Riedl and Smeets, 2017

#1 Beliefs

- **Survey results could be systematically biased**

- Wishful thinking → overstate ESG fund return
- Image Concern → understate ESG fund return

- **What we do**

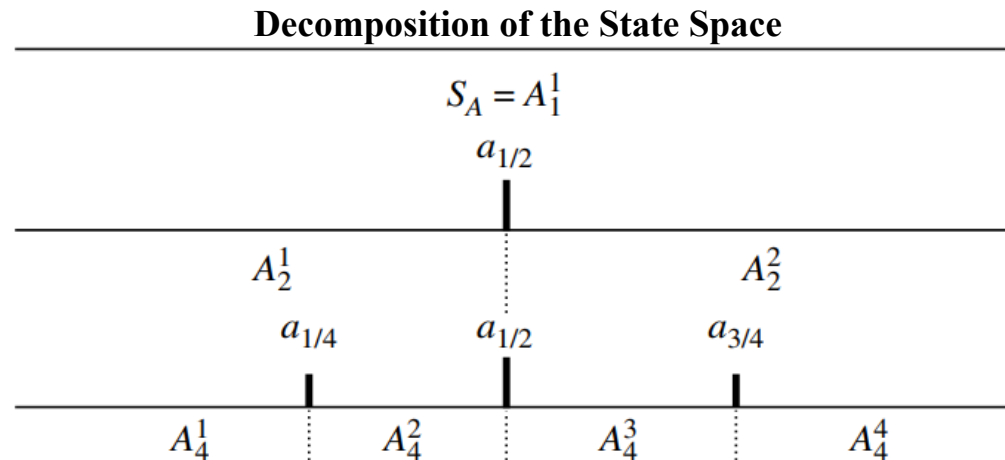
- An adapted exchangeability method (Baillon, 2008; Abdellaoui et al., 2011; Abdellaoui et al., 2021).
- Lab experiment with students
- Field experiment with index fund investors

- **What we get**

- Quantitative and incentivized measurement of return beliefs associated ESG
- Robust to risk/ambiguity attitudes, and probability weighting
- Additionally, risk perception, SR and LR, belief updating given pos/neg info

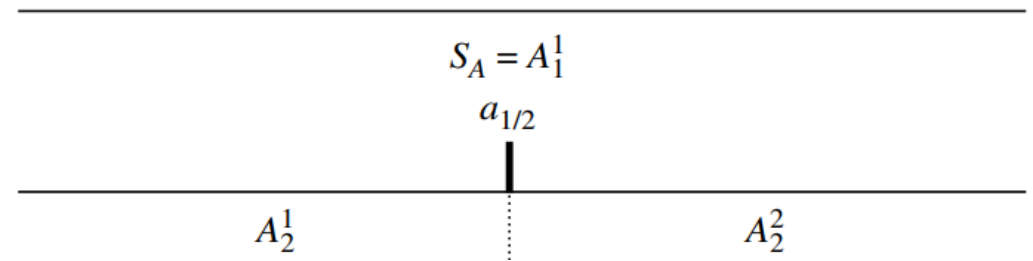
#1 Beliefs: Methodology

- We provide annual returns of the past 6 years, and ask subjects to guess the 7th year return.
- To do so, we follow 3 steps:
 1. Range: min and max possible return
 2. Median: 3 binary lottery choices between equal-sized subranges
 3. Quartiles: further divide into equal-sized subranges



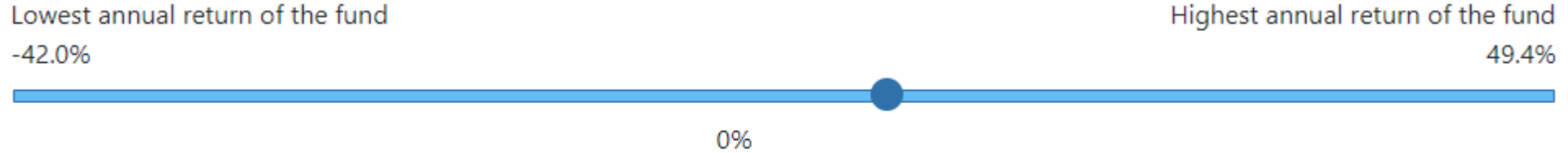
#1 Beliefs: Methodology

- Suppose S_A is the set of all possible states.
- (E, x) is a binary prospect that yields payoff ϵx if event $E \subset S_A$ occurs, and 0 otherwise.
- Utility function: $u(x)$ with $u(0) = 0$.
- Source dependence and subjective expected utility:
 - Prospect (E, x) yields $w_A(P(E))u(x)$
- To elicit Median: $(A_2^1, x) \sim (A_2^2, x)$
 - $w_A(P(A_2^1))u(x) = w_A(P(A_2^2))u(x)$
 - $P(A_2^1) = P(A_2^2) = \frac{1}{2}$



#1 Beliefs: Example Task

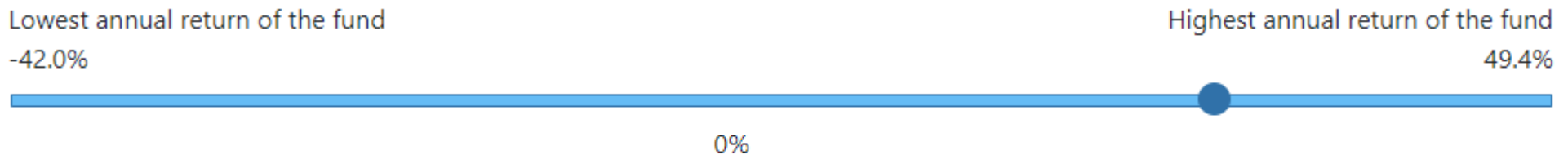
Example: 1-year horizon Minimum Possible Return



Your expected minimum annual return of the fund for Y7: 10%



Maximum Possible Return



Your expected maximum annual return of the fund for Y7: 30%

#1 Beliefs: Example Task

This fund is randomly selected from Morningstar. Its investment philosophy is to maximize capital growth by optimizing the return-risk profile. Its Sustainability Rating is the highest 5 "Globe" and ranks among the top 5% of funds.



Option 1: give me €5 if $20.0 \leq Y7 \leq 30.0$.

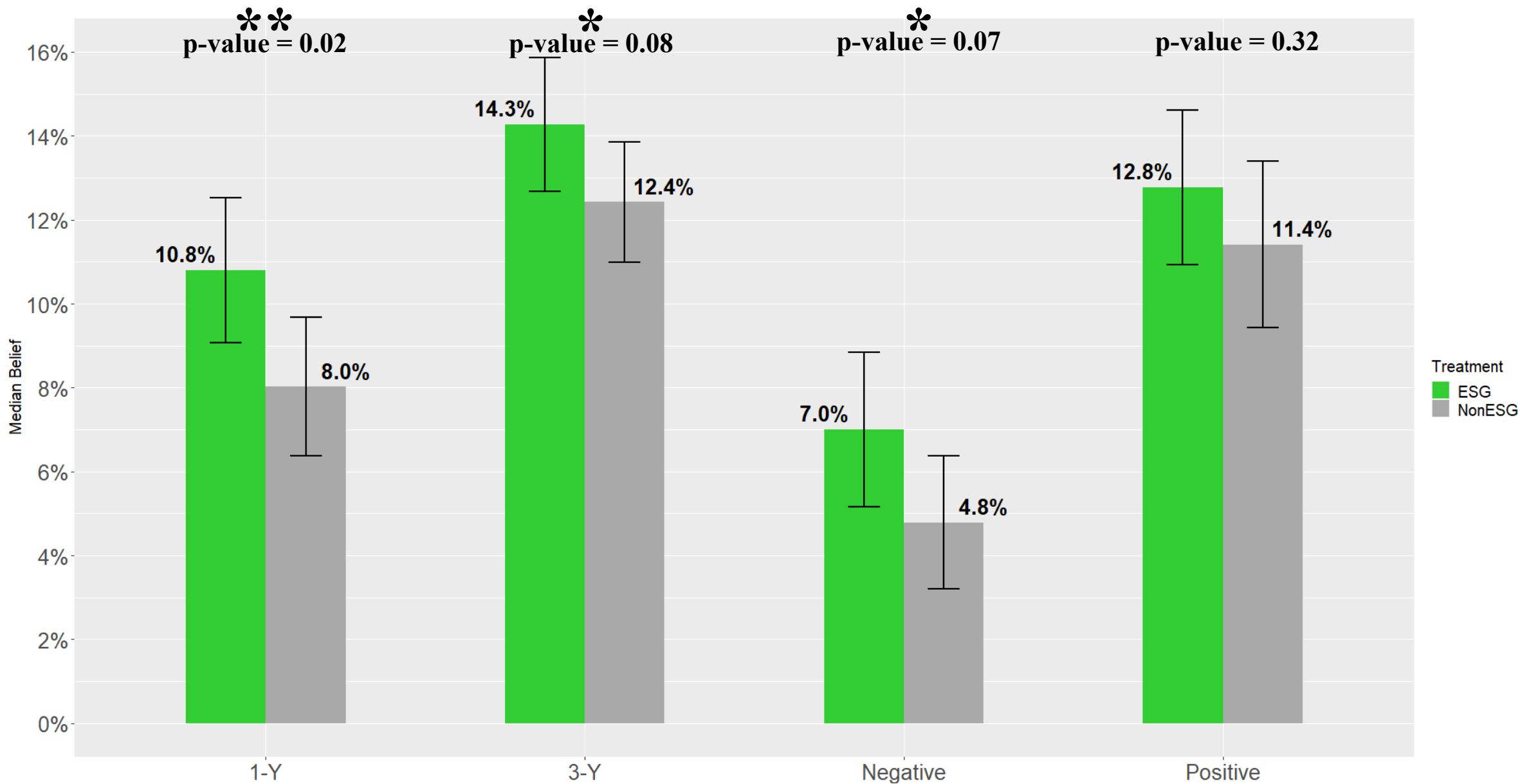
Option 2: give me €5 if $10.0 \leq Y7 < 20.0$.

Please select one from the above two options.

- Option 1
- Option 2

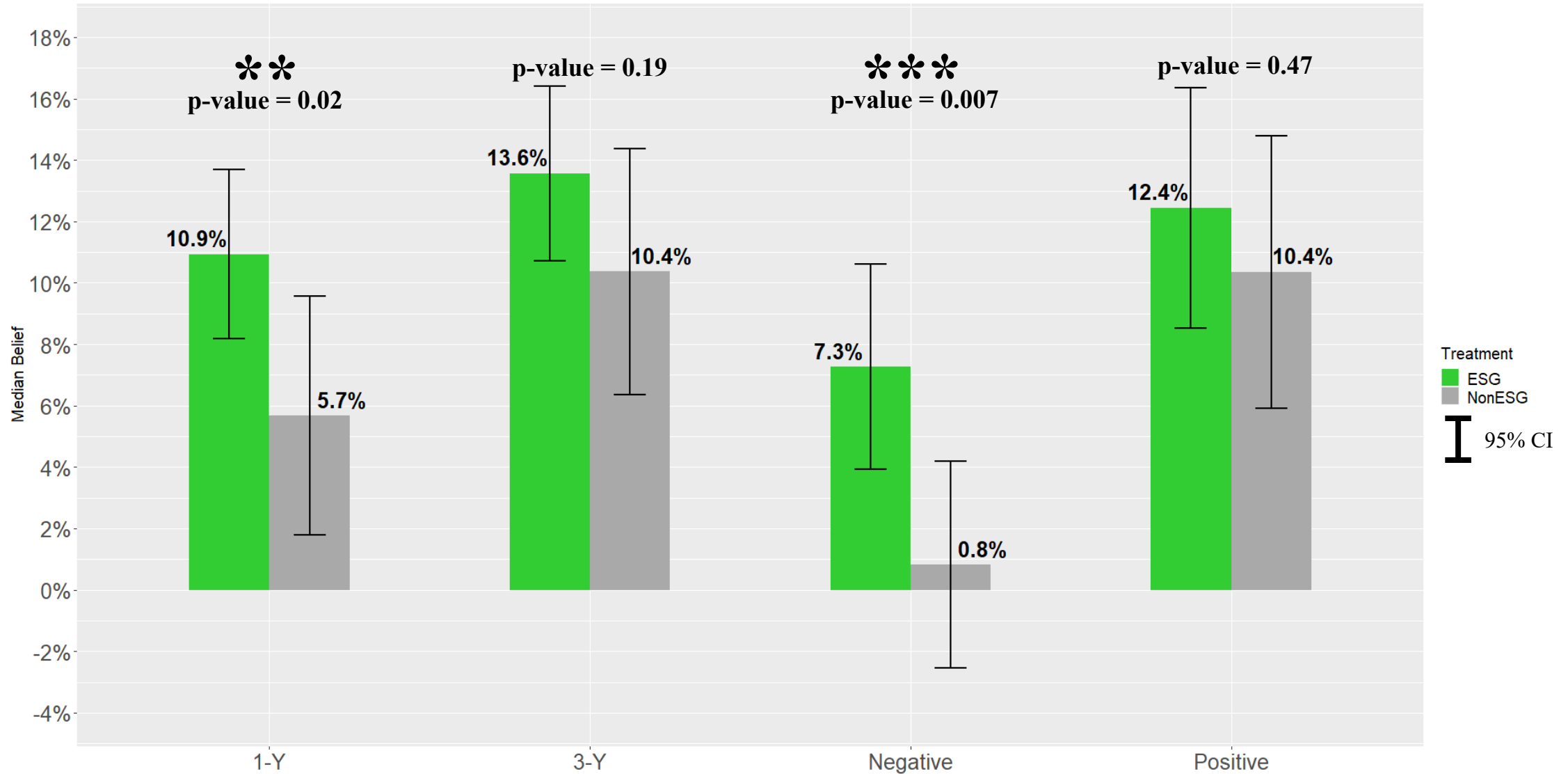
Repeat 3 times
Precision within 1.43%

#1 Beliefs: Results, Median Belief

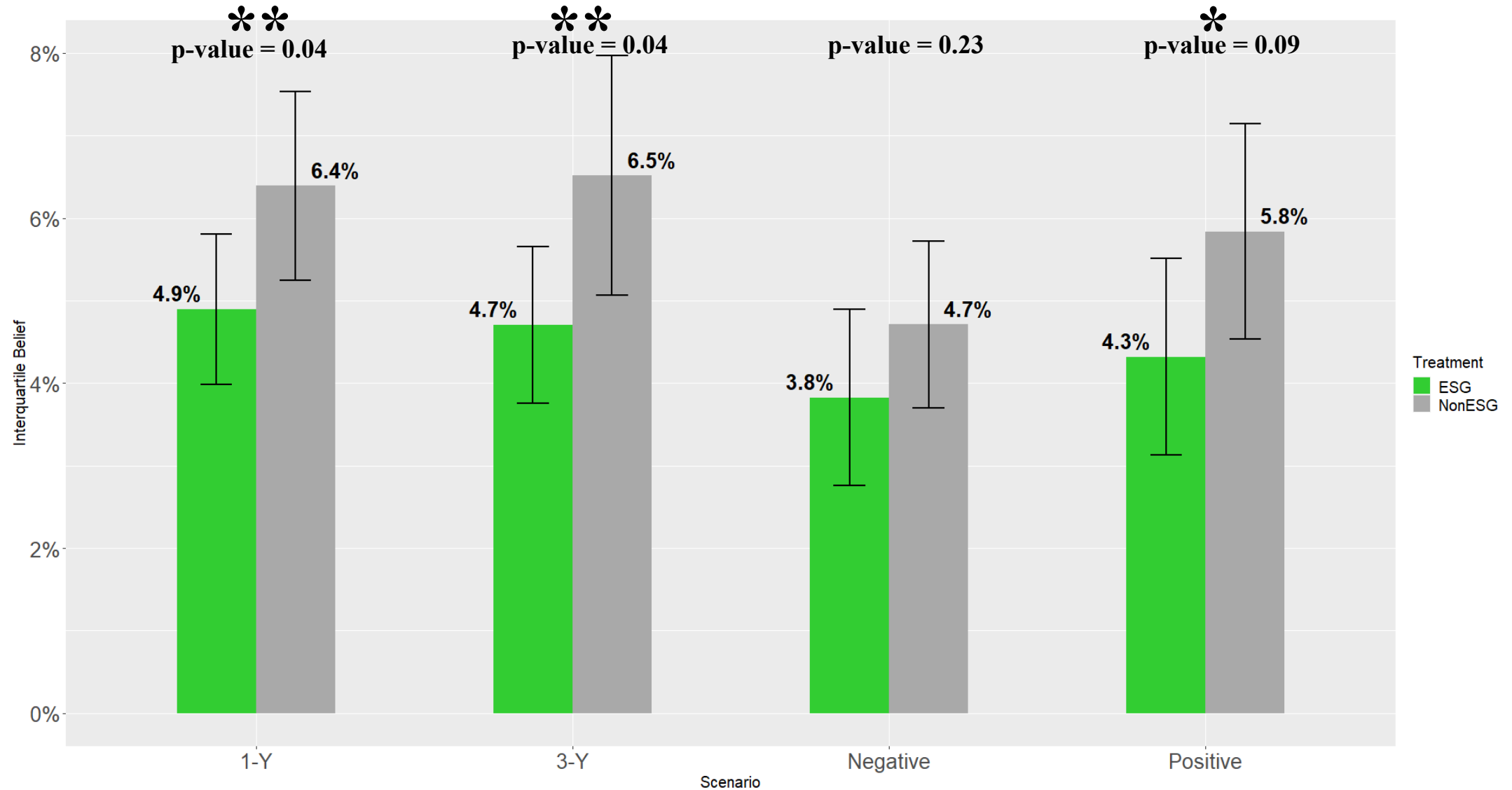


#1 Beliefs: Results, Sub-Sample Analysis

People who said performance is lower with ESG in the survey ...



#1 Beliefs: Results, Risk Perception (Interquartile Range)



#2 Ambiguity Preferences

- Financial markets are characterized by ambiguity.
 - The ESG label may **resolve** some ambiguity.
 - OR, it may **increase** ambiguity.
- Financial performance is ambiguous in SRIs
 - positive effect (Margolis and Walsh, 2003; Eccles et al., 2014)
 - no significant effect (Surroca, Tribo, and Waddock, 2010)
 - negative effect (Renneboog et al., 2008a)
 - mixed results (Peloza, 2009; Aguinis and Glavas, 2012; Revelli and Viviani, 2015)
- **What we do**
 - We use an adapted Ellsberg urn method to elicit attitudes towards ambiguity in returns with and without a high ESG label.
 - Lab experiment with students
 - Field experiment with index fund investors

#2 Ambiguity Preferences: General

$$Ambiguity_Attitude_i = \frac{WTP_{risk_i} - WTP_{ambiguity_i}}{WTP_{risk_i}}$$

List 0 - 1:

The most that I would be willing to pay for a ticket to play the game with this bag (5 black; 5 white) is:

(Please choose the highest price you are willing to pay for the bet)

----- v

If this list is selected as your Part 2 payment, at the end of the experiment, the computer program will randomly draw a chip from the bag described above to determine your payoff.

List 0 - 2:

The most that I would be willing to pay for a ticket to play the game with this bag (? black; ? white) is:

(Please choose the highest price you are willing to pay for the bet)

----- v

€0 selected as your Part 2 payment, at the end of the experiment, the computer program will randomly draw a chip from the bag described above to determine your payoff.

€0.5

€1

€1.5

€2

€2.5

€3

€3.5

€4

€4.5

€5

Ne

#2 Ambiguity Preferences: ESG-related

First, we elicit participants' return expectation towards funds.

- Funds in general in non-ESG group.
- High ESG funds in ESG group.

100 funds were randomly selected from funds listed in Morningstar. All of them invest according to ethical criteria for business activity and care about the environment, social and governance issues. They have the highest Sustainability Ratings, with 5 "Globe".

Next, we compare their annual returns with "0".

Option 1: give me €5 if $50 \leq \text{Number of funds with positive return} \leq 100$.

Option 2: give me €5 if $0 \leq \text{Number of funds with positive return} < 50$.

Please select one from the above two options.

Option 1

Option 2

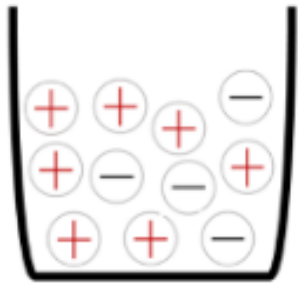
**Repeat 4 times;
Precision within 3% (3 funds)**

#2 Ambiguity Preferences: ESG-related

Second, we obtain subjects' willingness to pay for a bet with known proportions, or risk, using the elicited belief.

In the box below, we particularly selected 100 funds labeled from 1 to 100 from Morningstar funds with the highest ESG rating. All of them invest according to ethical criteria for business activity and care about the environment, social and governance issues. Their Sustainability Ratings are the highest 5 "Globe".

Among these 100 funds, 67 of them have annual returns higher than "0" (Return > 0), and the rest (33 of them) have annual returns equal to or less than "0" (Return ≤ 0).



There are 100 balls in the urn.

67 balls with "+" represent funds with annual return > 0

33 balls with "-" represent funds with annual return ≤ 0

#2 Ambiguity Preferences: ESG-related

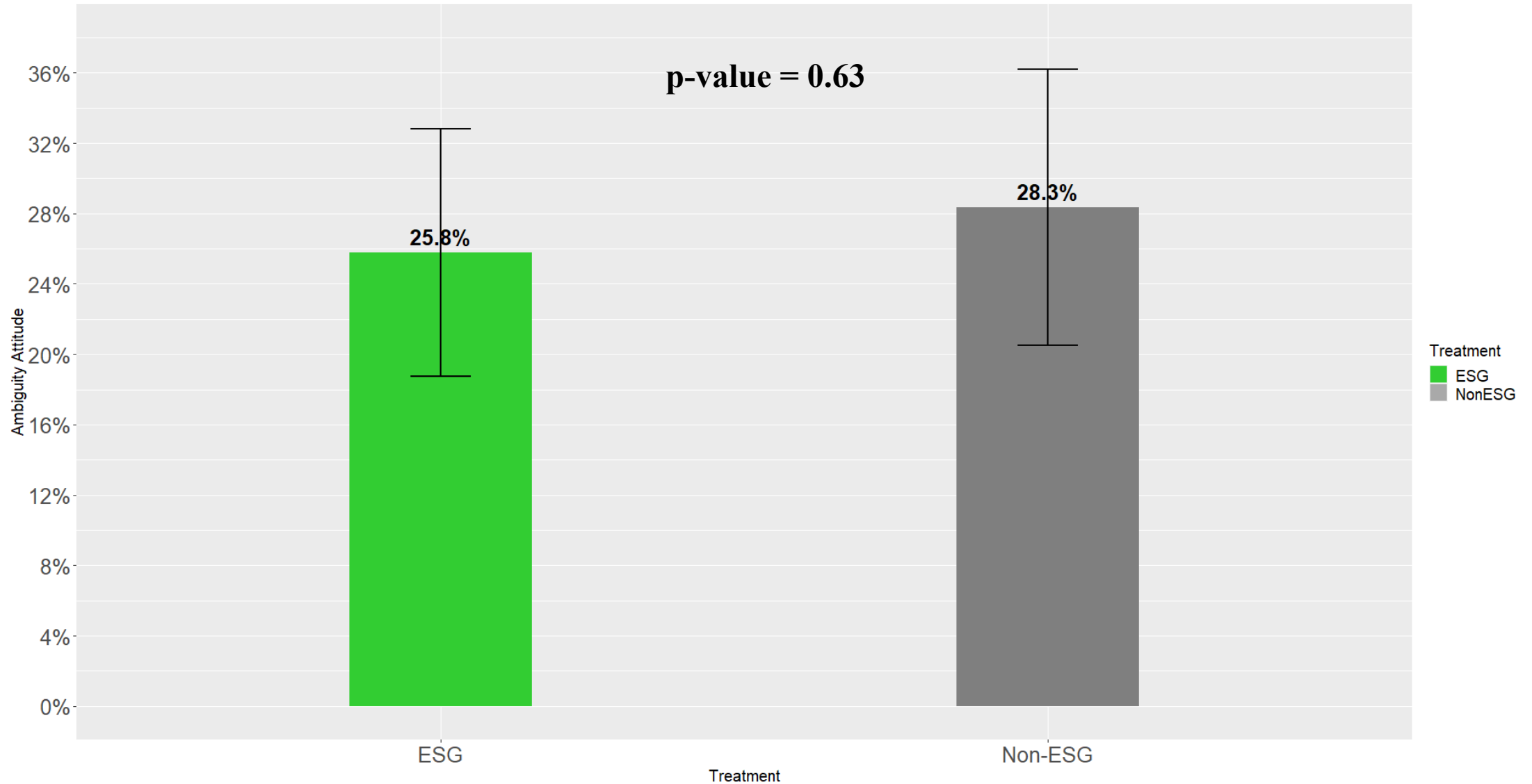
Third, we obtain subjects' willingness to pay for a bet with unknown proportions, or ambiguity.

In the box below, we particularly selected 100 funds labeled from 1 to 100 from morningstar funds with the highest ESG rating. All of them invest according to ethical criteria for business activity and care about the environment, social and governance issues. Their Sustainability Ratings are the highest 5 "Globe". But we don't know their annual returns.

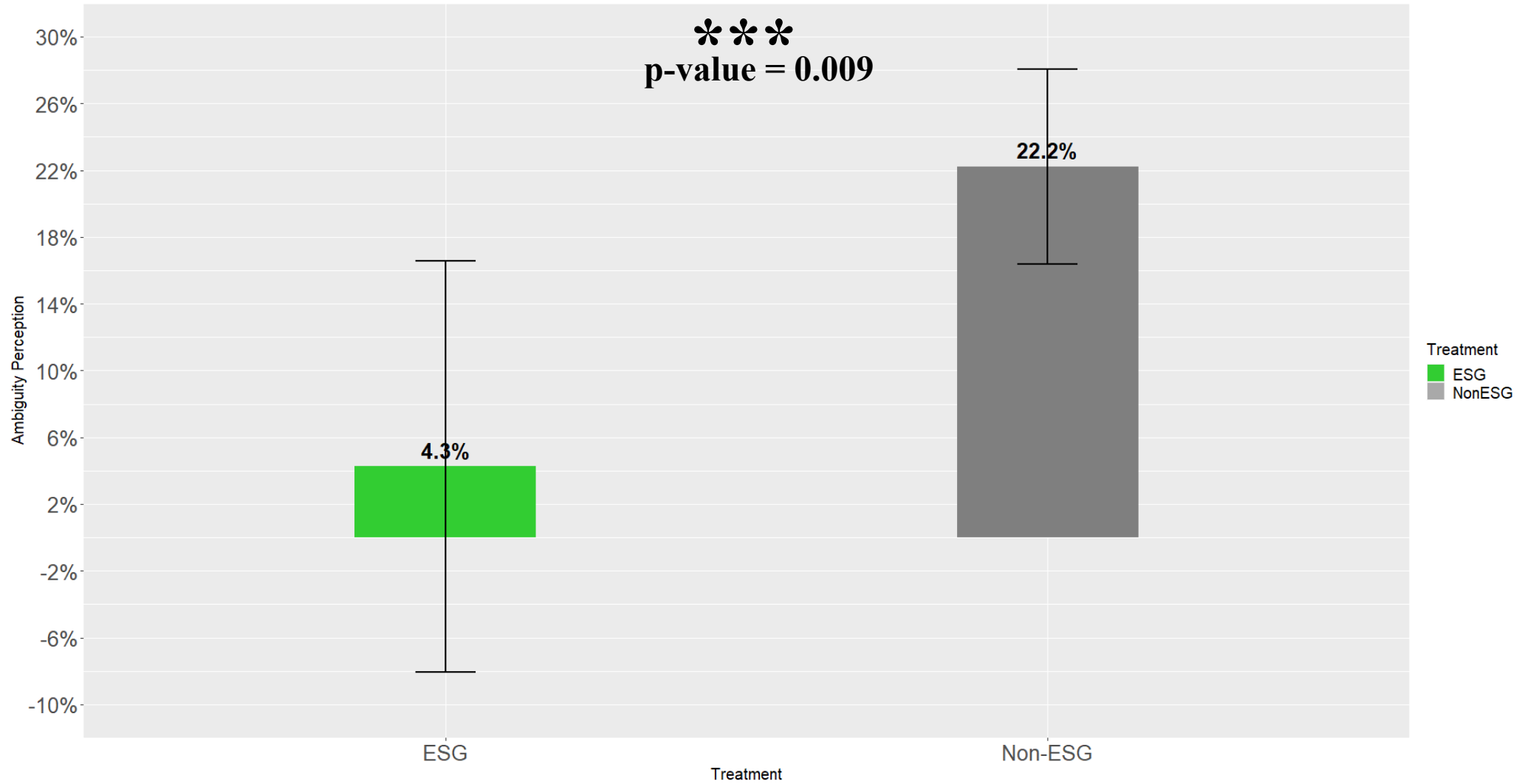


There are 100 balls in the urn.

#2 Ambiguity Preferences: Results, General



#2 Ambiguity Preferences: Results, ESG-related



#3 The Tradeoff

- How do people tradeoff ESG with financial performance?
- How much return are investors willing to sacrifice to pursue higher sustainability?
- **What we do**
 - Discrete Choice Experiment: willingness to pay for sustainability
 - Field experiment with index fund investors

#3 The Tradeoff: Example Task

Attributes	Fund 1	Fund 2	Fund 3
ESG score category			
Management fee			
ESG strategy			
Return and risk (annual)			

- Which fund do you prefer?

Keuze Vraag 1

Attribuut	Beleggingsfonds 2	Beleggingsfonds 3	Beleggingsfonds 1
ESG-score Categorie	Lichtgroen	Donkergroen	Grijs
Beheervergoeding	1.5% per jaar	1.0% per jaar	0.5% per jaar
ESG Selectie Strategieën	Actieve betrokkenheid: De beheerders van het beleggingsfonds maken gebruik van hun stemrecht op algemene vergaderingen en kunnen in gesprek gaan met het management om het bedrijfsgedrag in een duurzame richting te beïnvloeden	Negatieve screening: Het beleggingsfonds of de index sluit sectoren of bedrijven uit die niet als duurzaam worden beschouwd. Typische bedrijven die uit de portefeuille kunnen worden geweerd zijn tabak, alcohol, pornografie, controversiële wapens en bedrijven die internationale normen schenden	Geen
Rendement-Risico (Jaarlijks)	Rendement: 4% verwacht jaarlijks rendement; Risico: Tot 20% verlies van piek tot dal (max drawdown*)	Rendement: 10% verwacht jaarlijks rendement; Risico: Tot 20% verlies van piek tot dal (max drawdown*)	Rendement: 7% verwacht jaarlijks rendement; Risico: Tot 20% verlies van piek tot dal (max drawdown*)
Welk beleggingsfonds heeft uw voorkeur?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

#3 The Tradeoff: Results

- Investors prefer higher ESG: Willingness to pay for
 - Light green funds: 3.7%
 - Dark green funds: 4.3%
- They prefer negative screening strategy.
- They prefer lower management fees.
- They care about the return-risk attribute the most.
- Importance (from high to low): return-risk, ESG, management fee, and ESG strategy.

	<i>Dependent variable:</i>		
	Probit	RIS	WTP
ESG Category		0.103 (2)	
Grey (Ref)	(-2.774)		
Light Green	1.279*** (0.070)		3.711%
Dark Green	1.495*** (0.071)		4.336%
Management Fee		0.053 (3)	
0.5% per year (Ref)	(1.399)		
1.0% per year	-0.578*** (0.134)		-1.676%
1.5% per year	-0.821*** (0.071)		-2.383%
ESG Strategy		0.014 (4)	
None (Ref)	(-0.344)		
Negative Screening	0.219** (0.098)		0.636%
Positive Screening	0.125 (0.076)		0.362%
Active Engagement	NA (0.000)		
Return-Risk	34.473*** (0.911)	0.830 (1)	
Observations	13,284		
R ²	0.237		
Max. Possible R ²	0.519		
Wald Test	2,437.150*** (df = 7)		
LR Test	3,586.672*** (df = 7)		
Score (Logrank) Test	3,724.183*** (df = 7)		

Note: *p<0.1; **p<0.05; ***p<0.01; RIS, relative importance score; Active Engagement is omitted because of collinearity; The attribute level estimate of the reference categories can be calculated as -1*(sum of the other attribute level estimates);

Conclusion

- Simply asking pension beneficiaries whether they like ESG or not may not work.
- Sustainability preference is the outcome of several preferences and beliefs
- From our recent findings, a high ESG label leads to
 - Higher expected return, but lower expected risk
 - Resilience to negative information
 - Lower perceived ambiguity
- Importance
 - Theoretical foundation of SRI
 - Portable measures of multidimensional sustainability attitudes

Other issues/confounds?

- Norm preferences (norm following propensity)
- Are investors aware of the potential costs of ESG?
- How resilient are ESG preferences to experienced losses?
- ESG preferences in a market environment versus individual decision?

Thank You!

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