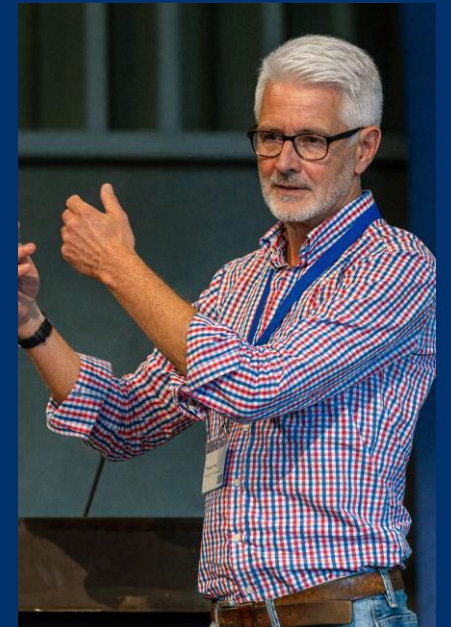


# Defaults and other (smart and less smart) pension nudges

Thomas Post, Maastricht University, Netspar

# The pension customer journey



Start to work ☹️

Still working ☹️

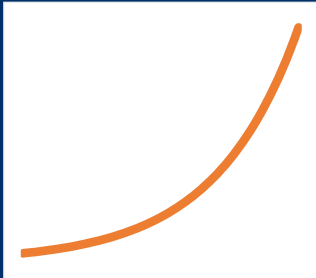
Age 69 😎

Look for information  
How much to save?  
How to invest?

Information update  
Am I on track?

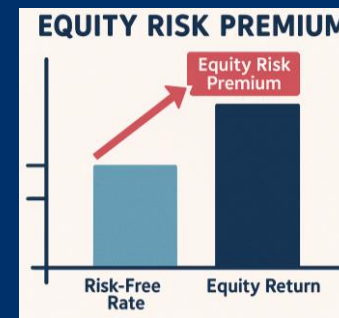
What to do with my  
savings?

# Starting the pension journey



Age	Probability of death between Age x & x+1	Number starting to age x	Number living between ages x & x+1	Pension level between ages x & x+1	Total number of payments received above age x	Expectation of life at age x
	$q_x$	$l_x$	$l_{x+1}$	$P_x$	$T_x$	$e_x$
64	0.00060	100,000	99,939	99,284	7,743,016	27.4
65	0.00069	99,939	99,870	99,203	7,688,802	27.0
66	0.00078	99,870	99,792	99,118	7,634,587	26.6
67	0.00087	99,792	99,705	99,029	7,580,372	26.2
68	0.00097	99,705	99,609	98,936	7,526,157	25.8
69	0.00107	99,609	99,514	98,840	7,471,942	25.4
70	0.00117	99,514	99,419	98,741	7,417,727	25.0
71	0.00127	99,419	99,324	98,639	7,363,512	24.6
72	0.00137	99,324	99,229	98,534	7,309,297	24.2
73	0.00147	99,229	99,134	98,426	7,255,082	23.8
74	0.00157	99,134	99,039	98,315	7,200,867	23.4
75	0.00167	99,039	98,944	98,201	7,146,652	23.0
76	0.00177	98,944	98,849	98,084	7,092,437	22.6
77	0.00187	98,849	98,754	97,965	7,038,222	22.2
78	0.00197	98,754	98,659	97,843	6,984,007	21.8
79	0.00207	98,659	98,564	97,719	6,929,792	21.4
80	0.00217	98,564	98,469	97,593	6,875,577	21.0
81	0.00227	98,469	98,374	97,465	6,821,362	20.6
82	0.00237	98,374	98,279	97,335	6,767,147	20.2
83	0.00247	98,279	98,184	97,203	6,712,932	19.8
84	0.00257	98,184	98,089	97,069	6,658,717	19.4
85	0.00267	98,089	97,994	96,933	6,604,502	19.0
86	0.00277	97,994	97,899	96,795	6,550,287	18.6
87	0.00287	97,899	97,804	96,656	6,496,072	18.2
88	0.00297	97,804	97,709	96,515	6,441,857	17.8
89	0.00307	97,709	97,614	96,373	6,387,642	17.4
90	0.00317	97,614	97,519	96,229	6,333,427	17.0
91	0.00327	97,519	97,424	96,084	6,279,212	16.6
92	0.00337	97,424	97,329	95,938	6,225,000	16.2
93	0.00347	97,329	97,234	95,791	6,170,785	15.8
94	0.00357	97,234	97,139	95,643	6,116,570	15.4
95	0.00367	97,139	97,044	95,494	6,062,355	15.0
96	0.00377	97,044	96,949	95,344	6,008,140	14.6
97	0.00387	96,949	96,854	95,193	5,953,925	14.2
98	0.00397	96,854	96,759	95,041	5,899,710	13.8
99	0.00407	96,759	96,664	94,888	5,845,495	13.4
100	0.00417	96,664	96,569	94,735	5,791,280	13.0


-   
**HOUSE**
-   
**FOOD & DRINK**
-   
**TRANSPORT**
-   
**HOLIDAYS & LEISURE**
-   
**CLOTHING & PERSONAL**
-   
**HELPING OTHERS**



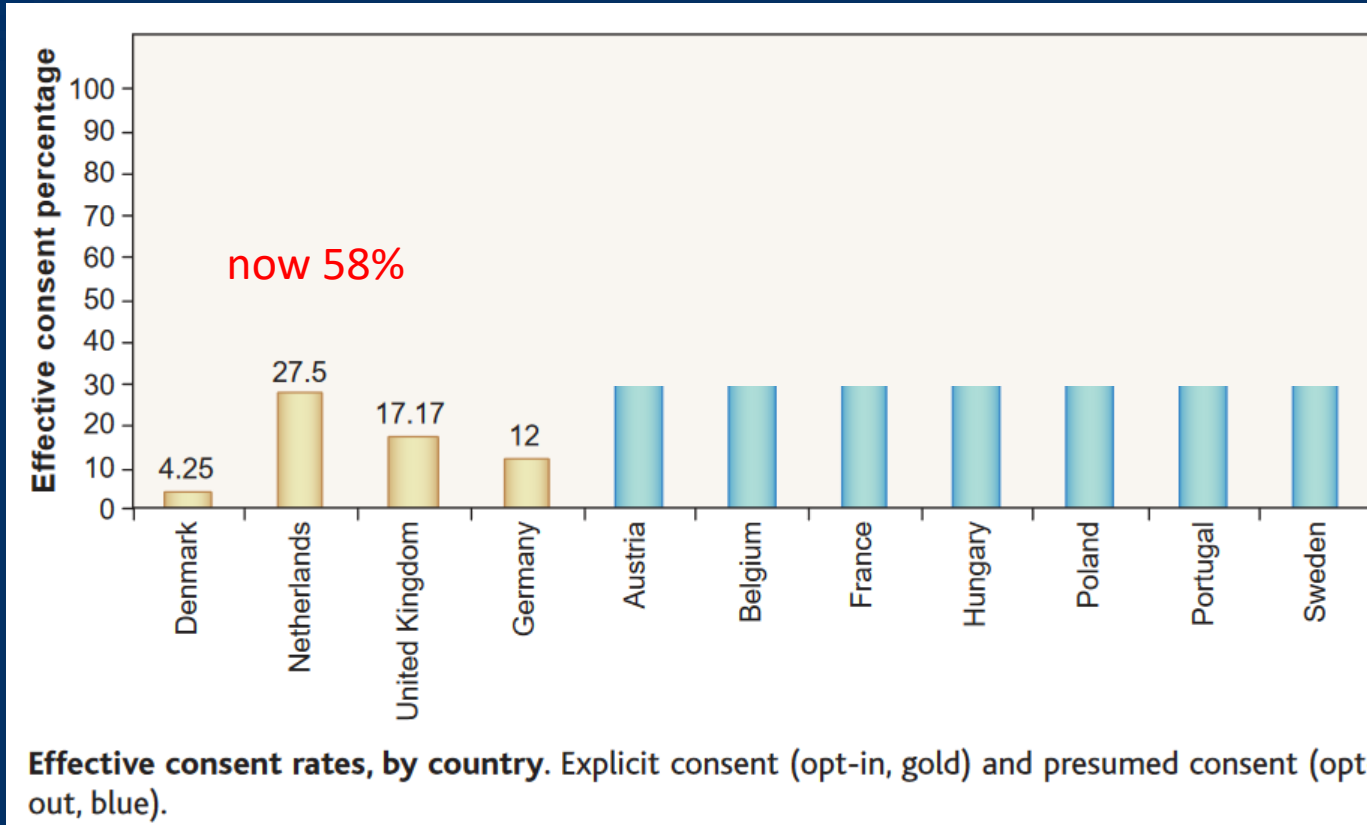




# The challenge & the easy fix

- Voluntarily – people save too little for retirement
- The easy fix – mandating 
- Otherwise – nudging?
  - Best of both worlds?
  - Keep freedom of choice & reach sufficient pension savings?

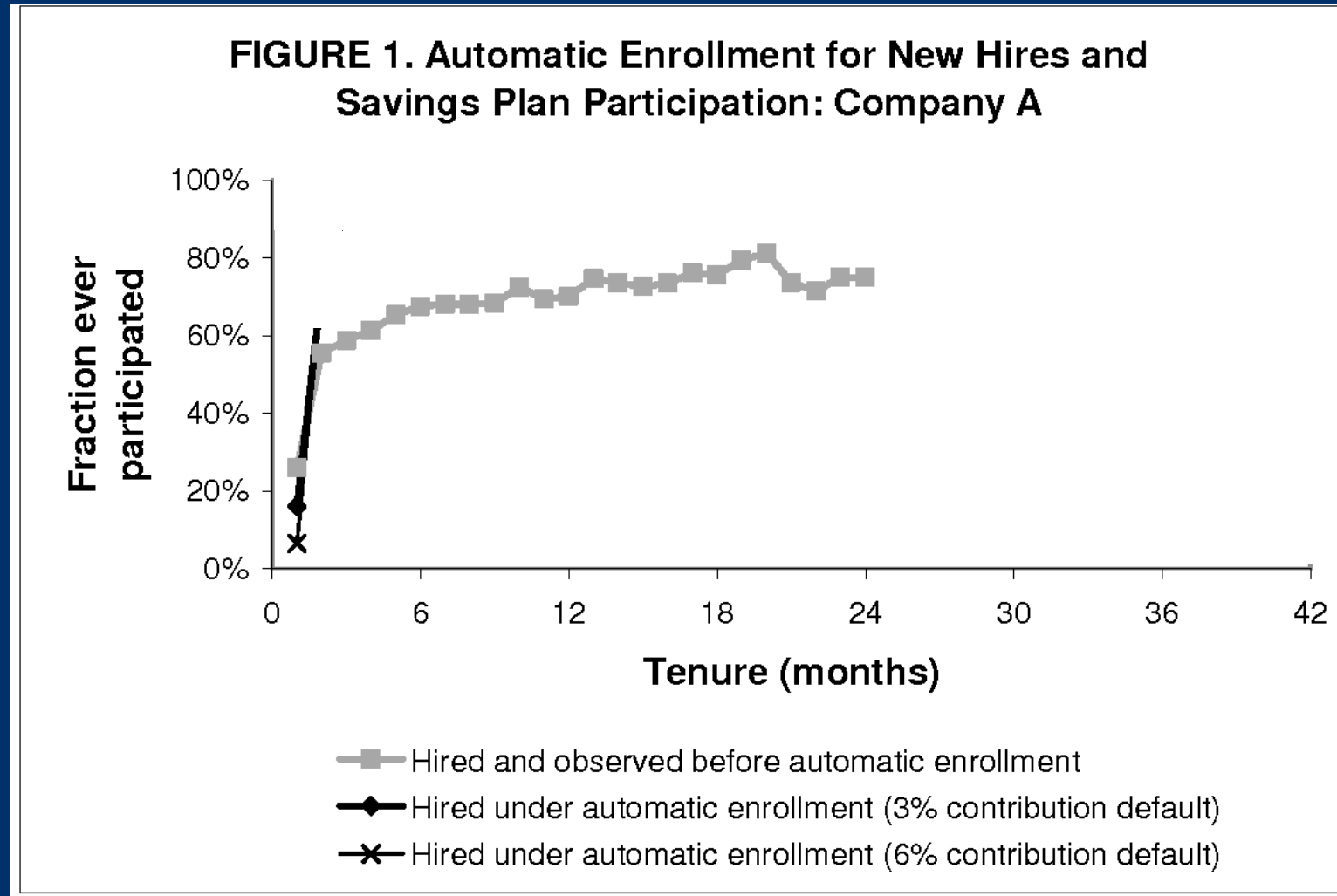
# Nudge #1 - defaults





# AUTOMATIC ENROLLMENT

# Automatic enrollment – a success story in the US...



[Home](#) > [Work](#) > [Pensions and ageing society](#) > [Automatic enrolment in workplace pensions](#)

Press release

## Ten years of Automatic Enrolment achieves over £114bn pension savings

Automatic Enrolment has helped millions put more into their pension pots than ever before, according to new figures released to mark 10 years since the policy was introduced.

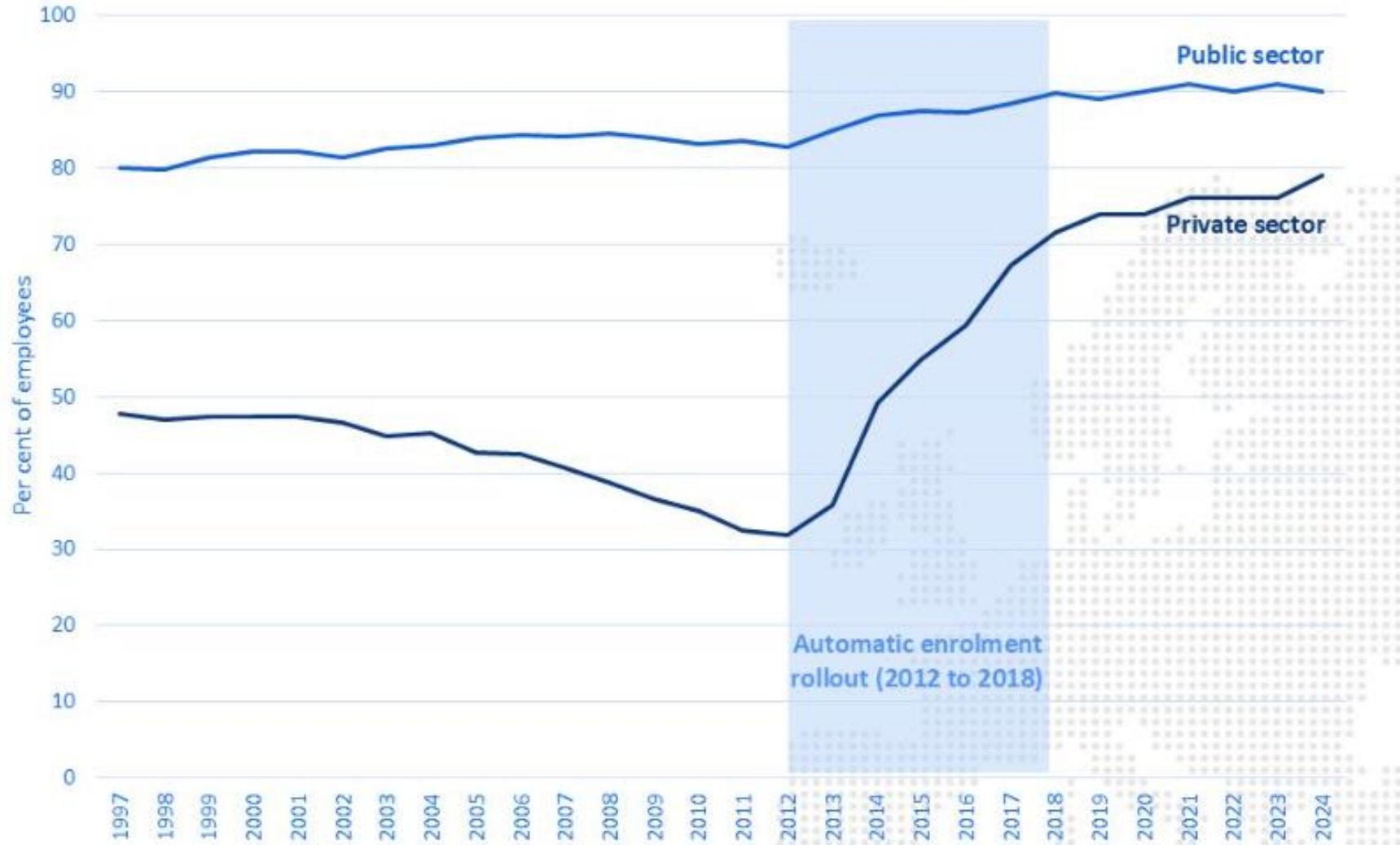
From: [Department for Work and Pensions](#)

Published 10 November 2022

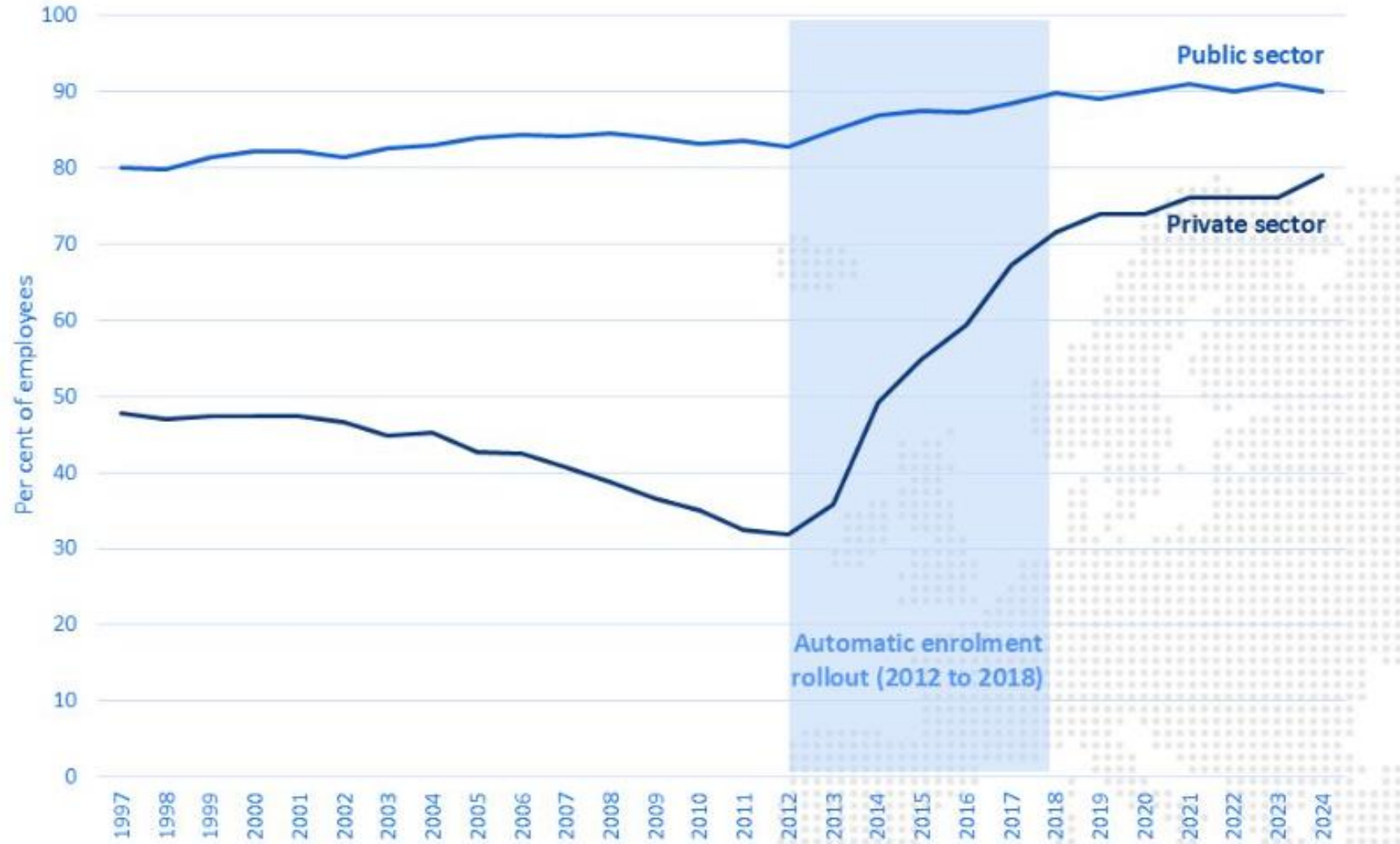
Last updated 10 November 2022 — [See all updates](#)

**This was published under the 2022 to 2024 Sunak Conservative government**

# Automatic enrolment delivered a very large boost in workplace pension participation



# Automatic enrolment delivered a very large boost in workplace pension participation



**Carl Emmerson** • 2nd  
Partner at London Economics | Economist producing evidence  
1d •

When will the new Pensions Commission's interim report be released?  
... more

Manuel Garcia Huitron ... 3 comments • 1 repost

- Insightful
- Comment
- Repost
- Send



Tell them what you found

Most relevant ▾



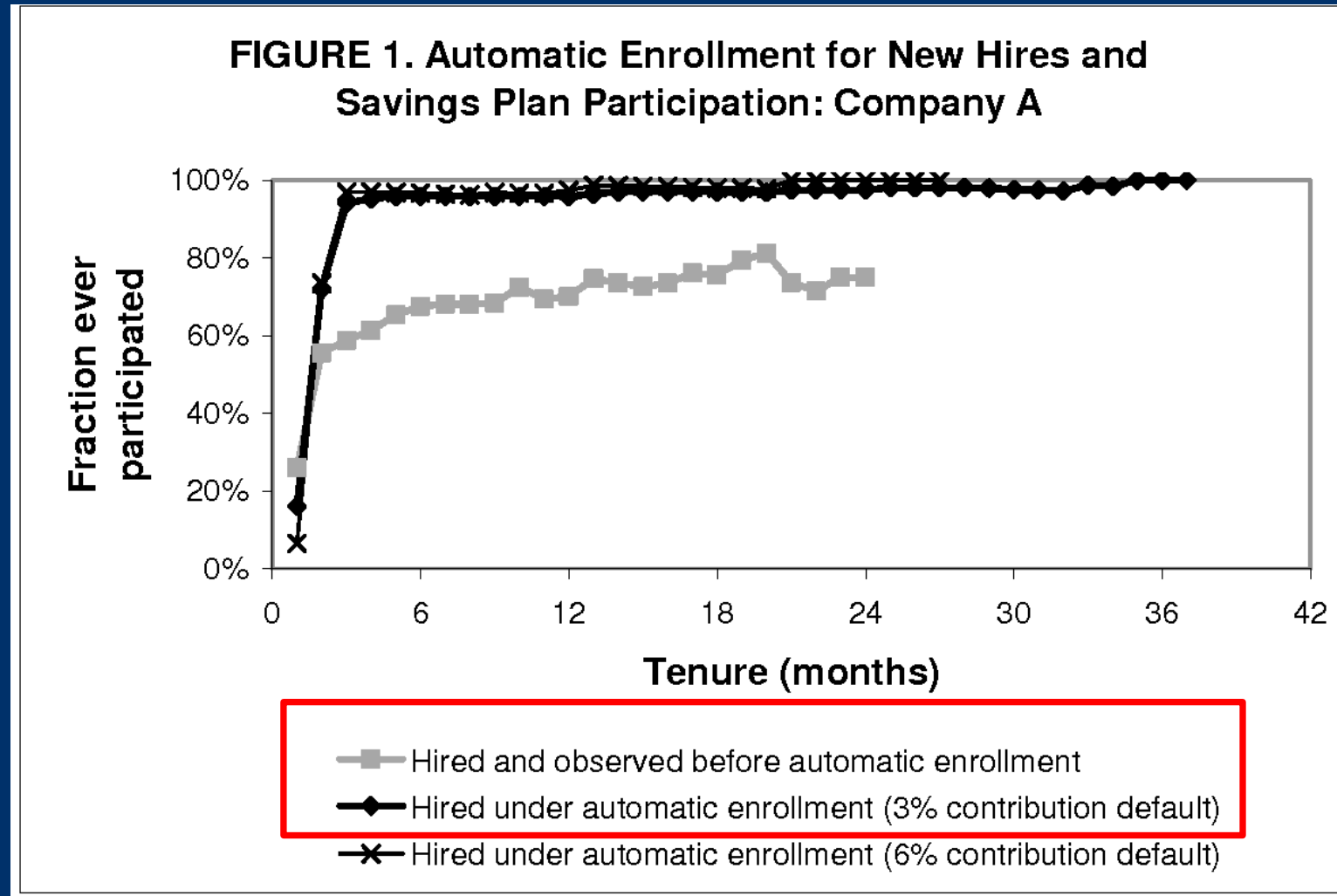
**Robert H.** • 3rd+ 22h ...  
AI Governance | Risk Management | Decision ...  
Crux: access has been solved, adequacy hasn't. The remaining question is who bears the downside of low contributions over time..  
Like | Reply



**Claire Brinn** • 2nd 15h ...  
ShareAction Senior UK Policy Manager  
**Marloes Nicholls**  
Like 1 | Reply

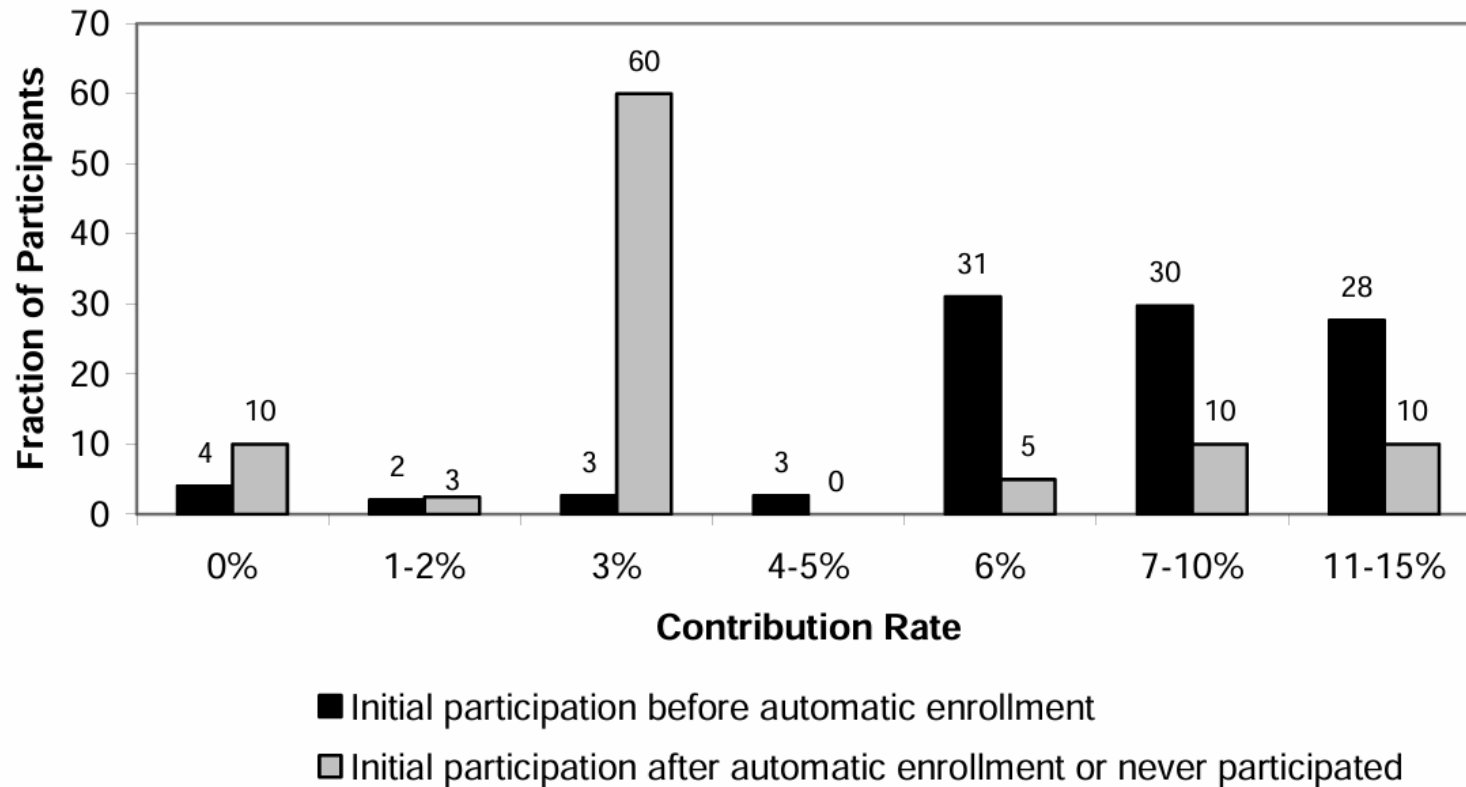
Load more comments

# Automatic enrollment – really a success story?

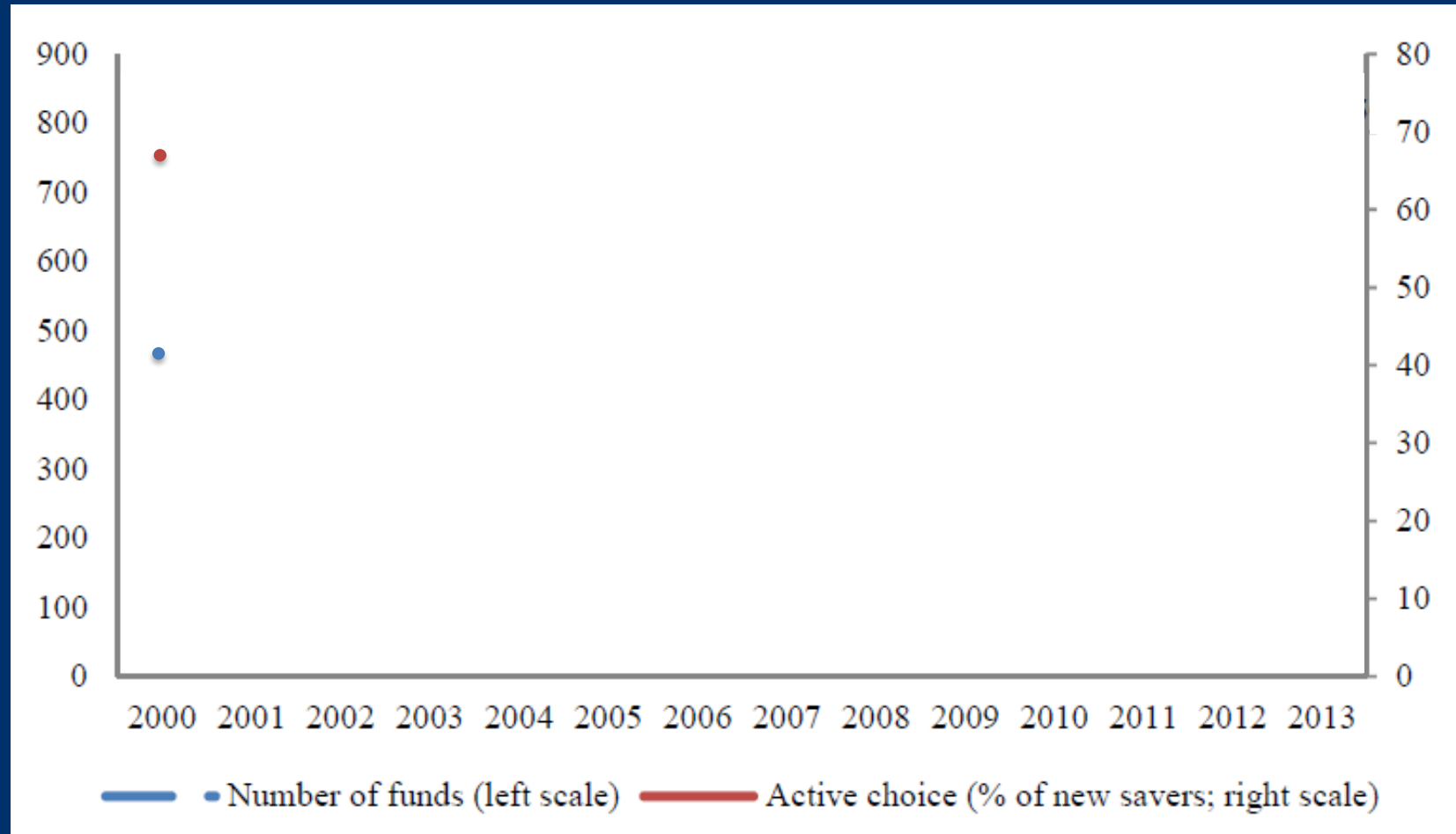


# Automatic enrollment – really a success story?

**FIGURE 4. Automatic Enrollment for Existing Hires and the Distribution of 401(k) Contribution Rates: Company A (25-48 months tenure)**



# Defaults to nudge asset allocation



# “When Nudges Are Forever”

(Cronqvist, Thaler, Yu)

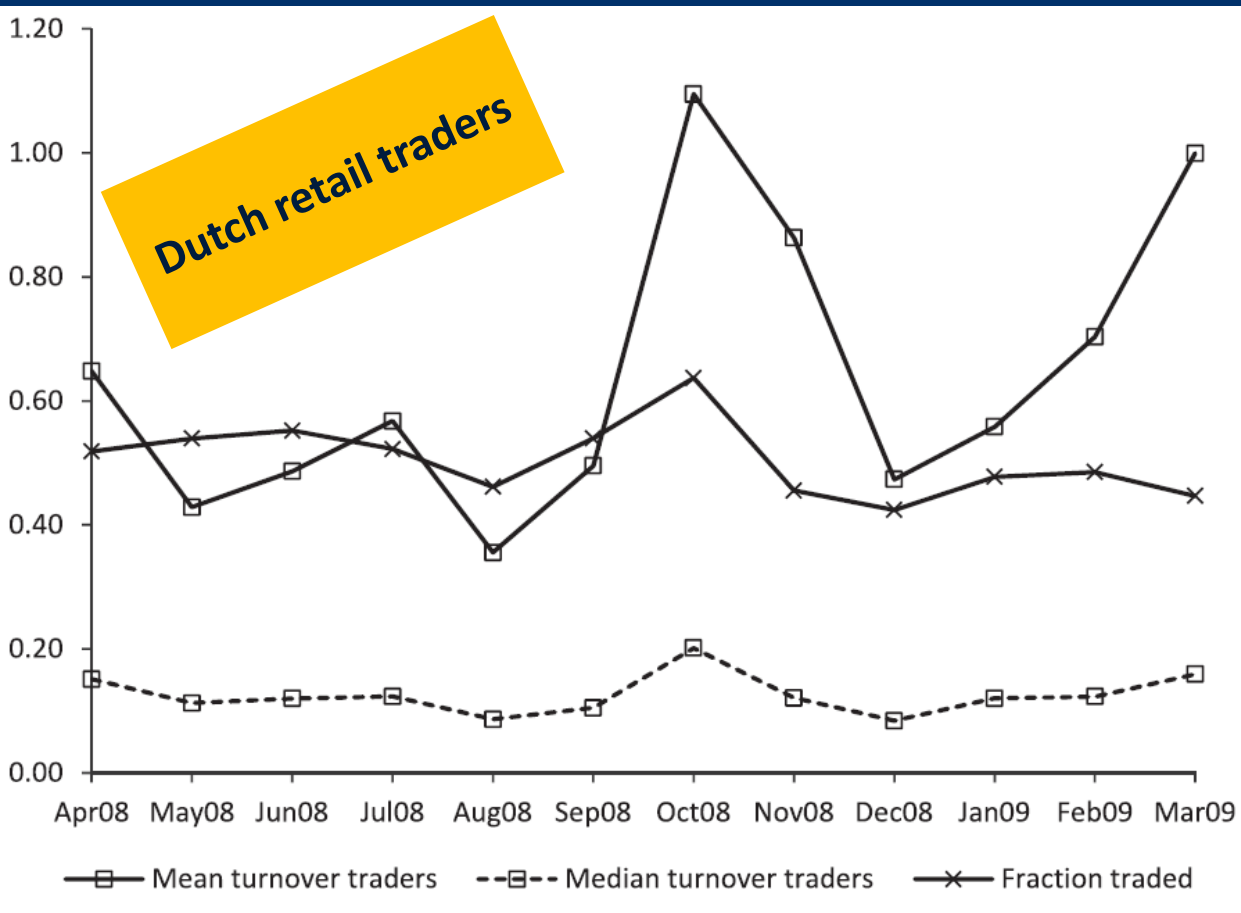
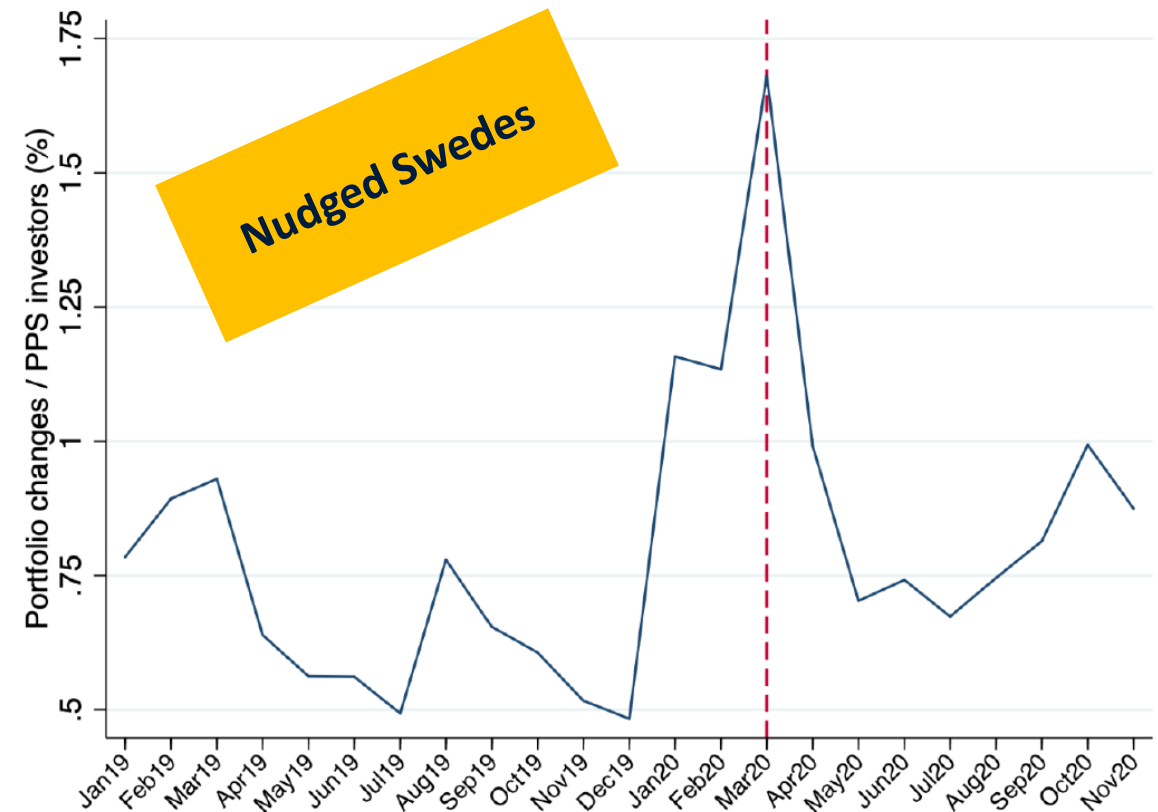


Figure 4. Portfolio changes per month as a share of number of PPS investors (in %)



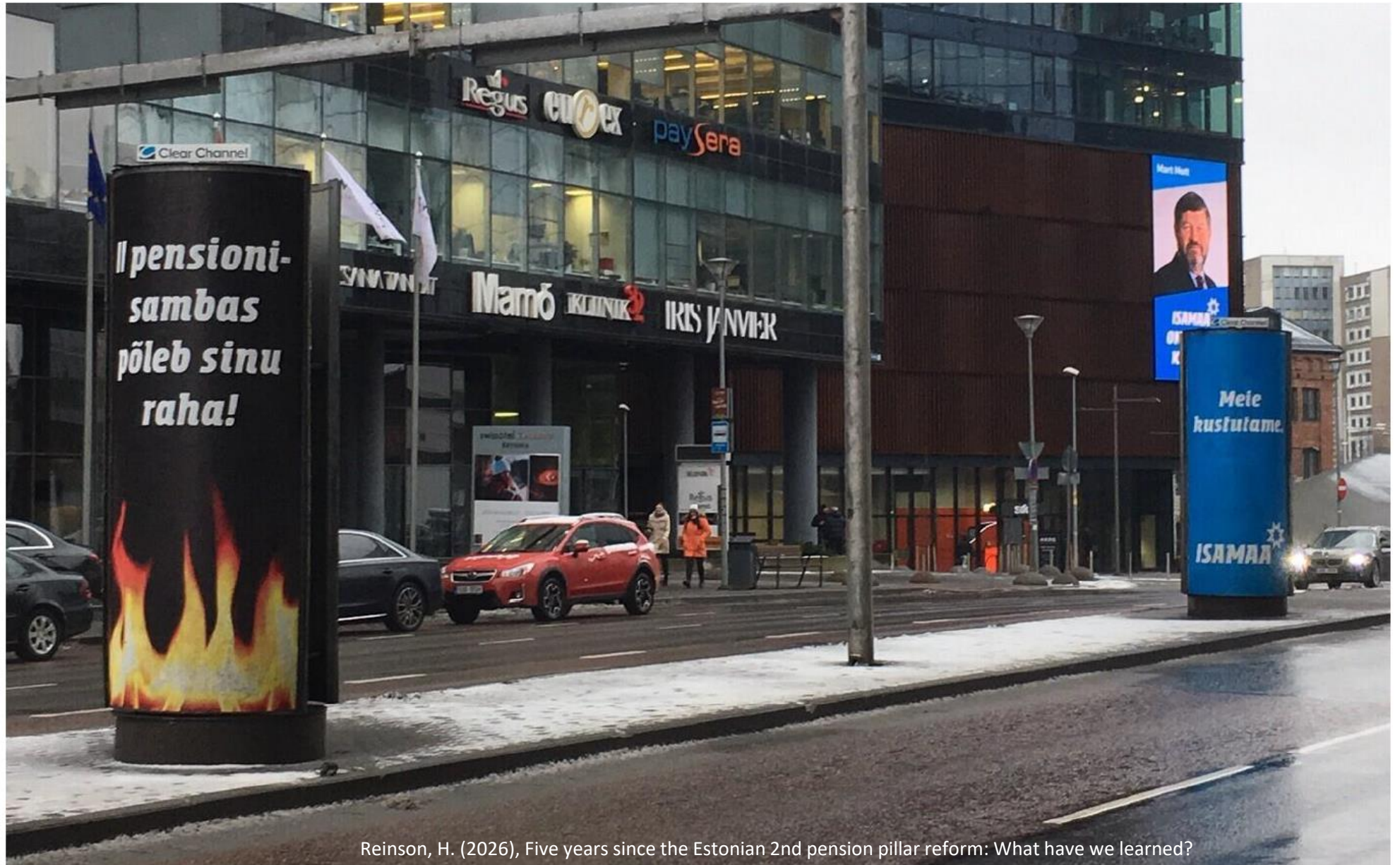
Notes: This figure shows the number of portfolio changes per month between 2019 and 2020 relative to the number of PPS investors. The vertical dashed line indicate March 2020.

Hagen, J., A. Malisa, and T. Post, Keep calm and do nothing - trading behavior of Swedish retirement investors during the COVID-19 pandemic, 2023, Review of Behavioral Finance, 15: 694-708.

# “A crazy default idea” - Estonia’s pillar 2 scheme

- Created 2001
  - Auto enrolment / no opt out (initially)
  - 401(k) style system
  - Strong tax incentives to contribute
- Asset allocation default
  - If you don’t make a choice you get a mutual fund by **lottery**
  - Many ended up in **low return** money market funds
- Changed in 2019 to
  - One of the 3 lowest fee funds investing at least 75% in equities
- But...

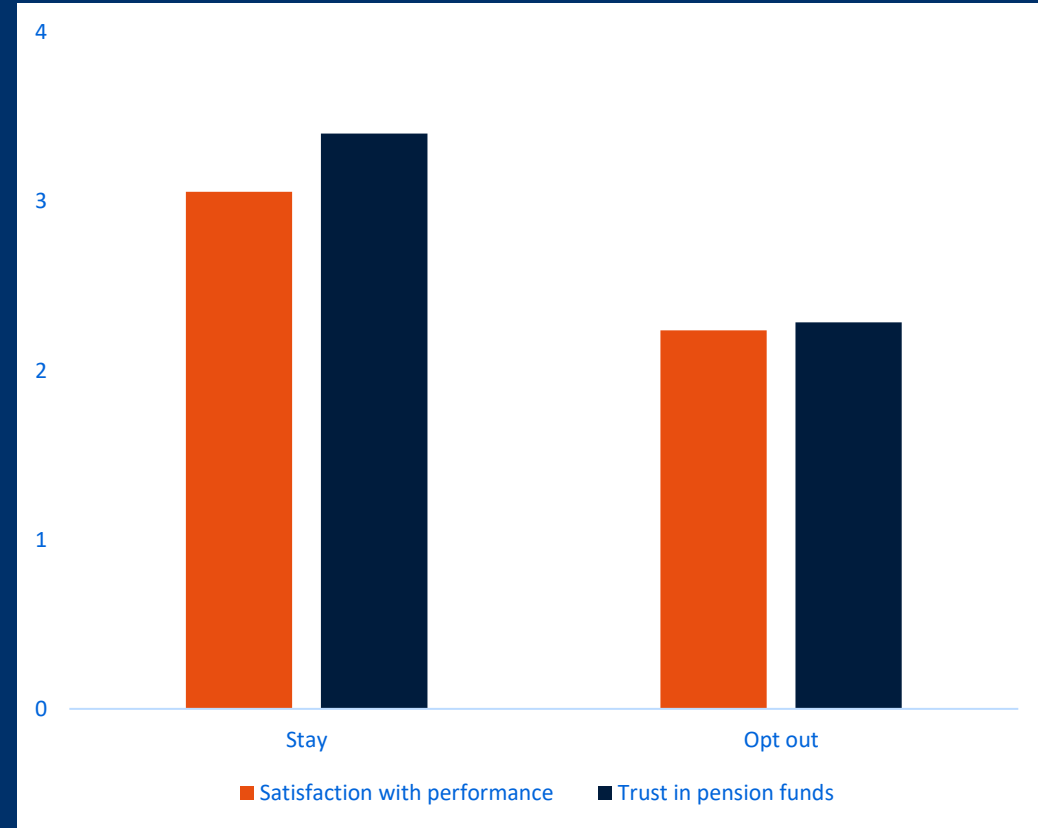
Figure 7: Election posters by Isamaa: “Your money is burning in the 2<sup>nd</sup> pension pillar” & “We will extinguish”



Reinson, H. (2026), Five years since the Estonian 2nd pension pillar reform: What have we learned?

# Estonia's pillar 2 reform

- Opt out & **complete** cash out introduced in 2021
- Cashing out
  - By now > **40%**
  - At a tax haircut of **20%!**

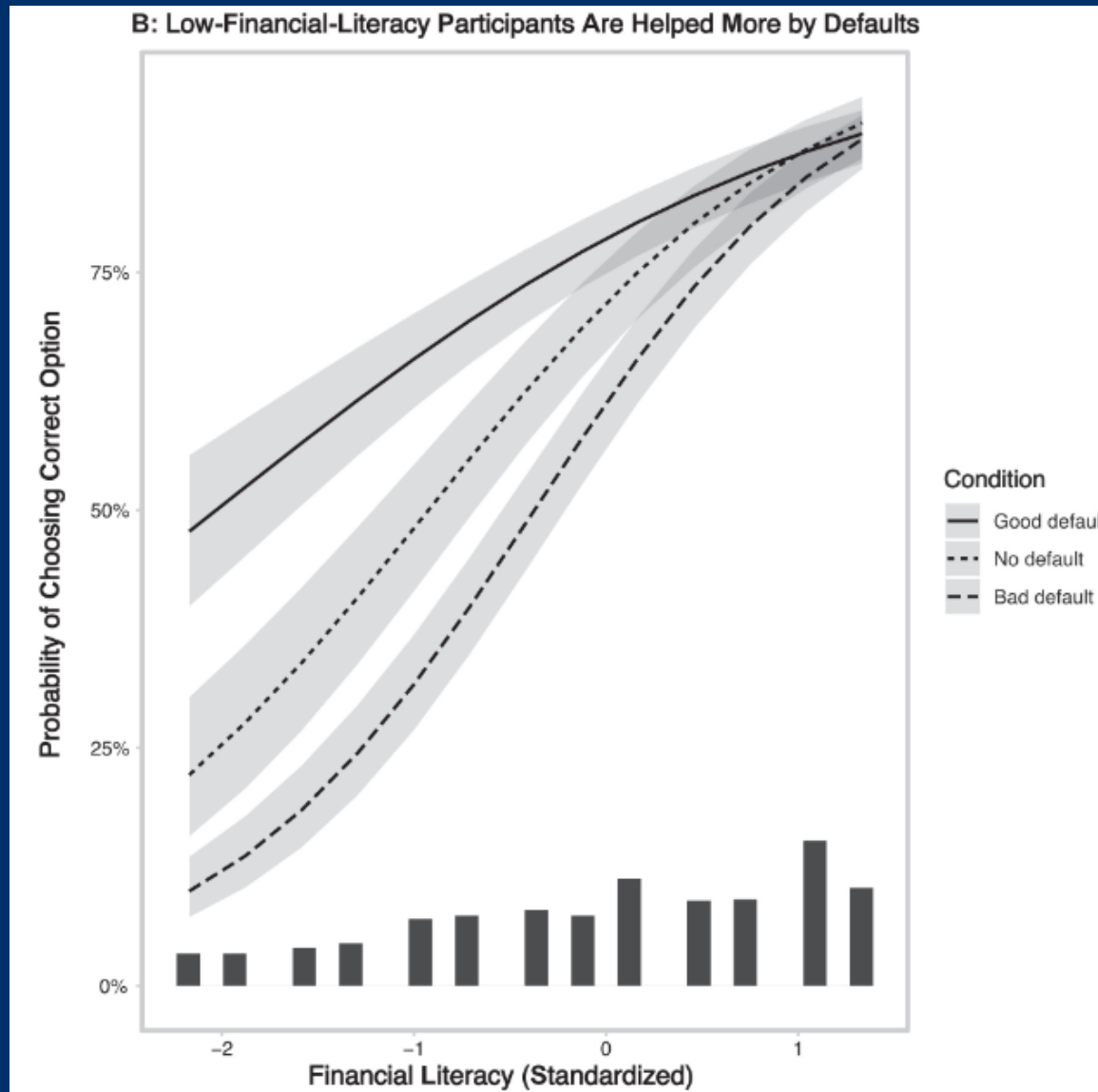


"How satisfied are you with the performance of your Pillar 2 pension fund?" (1=not satisfied at all ... 5=very pleased)

"How much do you trust pension funds?" (1=not at all ... 5=completely)

Reinson, H., Post T., Uusberg, A. (2026) Mind the double jeopardy: institutional mistrust and minority status relate to both lower contribution to and early withdrawal of retirement savings, *Journal of Pension Economics and Finance* (forthcoming)

# A final thought on defaults...



Mrkva, K., Posner, N. A., Reeck, C., & Johnson, E. J. (2021). Do Nudges Reduce Disparities? Choice Architecture Compensates for Low Consumer Knowledge. *Journal of Marketing*, 85(4), 67-84.

# Start to save / join a pension plan – Nudge #2

- Currently analyzing data from a nationwide (700,000 people) field experiment in Estonia
- Today
  - Representative UK sample
  - Hypothetical choice

# The idea



Start to work



Age 69



## Control task

### Page #1

Next, we would like you to imagine a financial scenario concerning pension savings.

- Pension savings are essential for ensuring financial security during retirement.
- Retirement years may represent a significant portion of your life.
- By saving for retirement, you're in effect **expanding the opportunities available to you** in later life. **Your future** will be more secure.

Please read the following scenario carefully and imagine it as a real situation in your life.

---

## Treatment task

### Page #1

Next, we would like you to imagine a financial scenario concerning pension savings.

- Pension savings are essential for ensuring financial security during retirement.
- Retirement years may represent a significant portion of your life.
- By saving for retirement, you're in effect **donating to the person you will become** in later life. **Your future self** will be grateful for your help.

Please read the following scenario carefully and imagine it as a real situation in your life.

## Control task

### Page #2

Imagine you have received £1000 as an unexpected bonus from work. You have to decide how to allocate your money between the following two options:

- **save it for your retirement** or
- **use it now**

Please make your choice on the next page.

---

## Treatment task

### Page #2

Imagine you have received £1000 as an unexpected bonus from work. You have to decide how to allocate your money between the following two options:

- **donate it to your future self** by saving for your retirement, or
- **use it now**

Please make your choice on the next page.

## Control task

### Page #3

Please allocate your £1000 bonus by entering the amount you would like to save for your pension and the amount you would use for other purposes:

Save for your pension	<input type="text" value="0"/>	£
Use now	<input type="text" value="0"/>	£
Total	<input type="text" value="0"/>	£

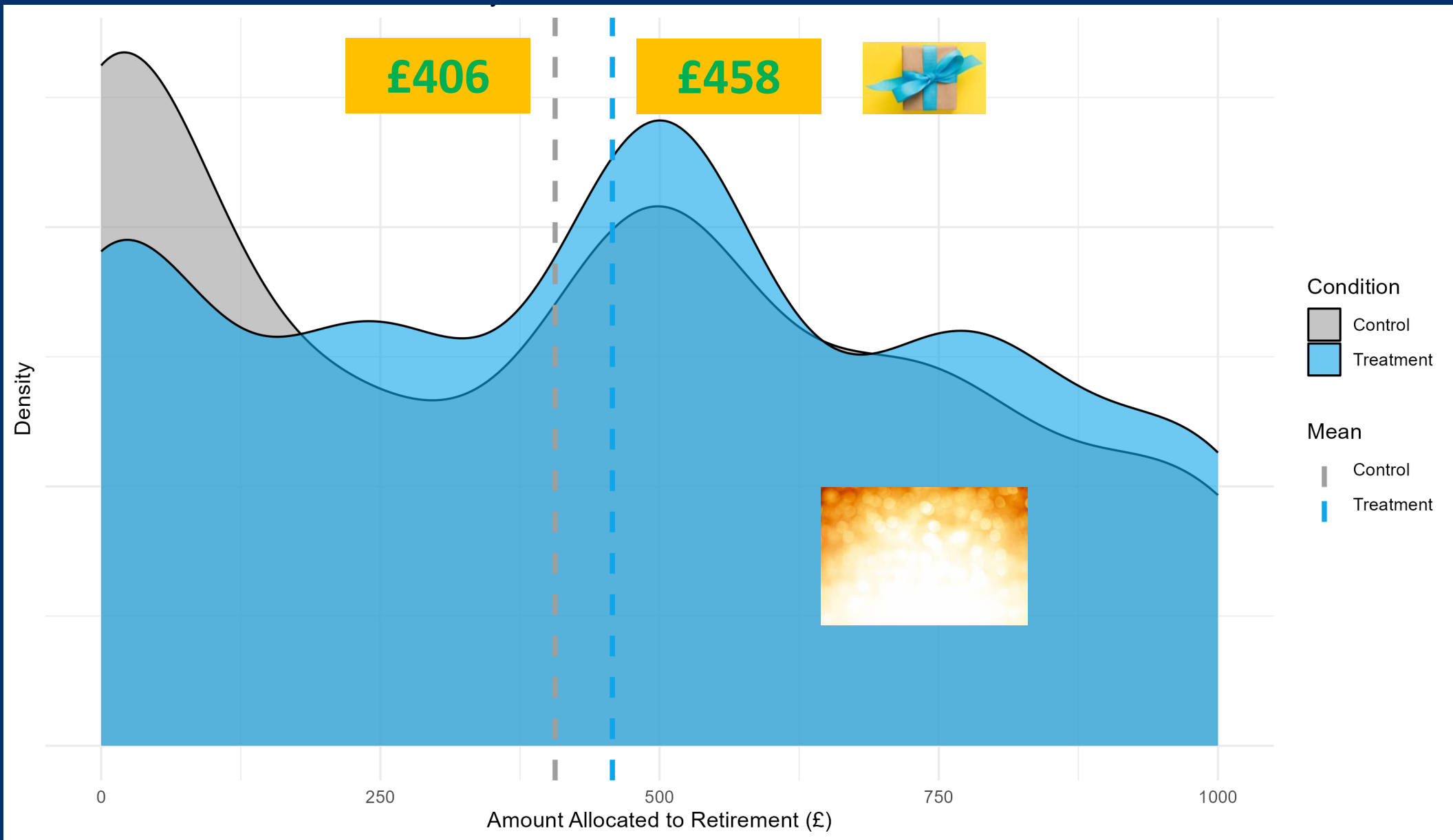
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## Treatment task

### Page #3

Please allocate your £1000 bonus by entering the amount you would like to donate to your future self and the amount you would use for other purposes:

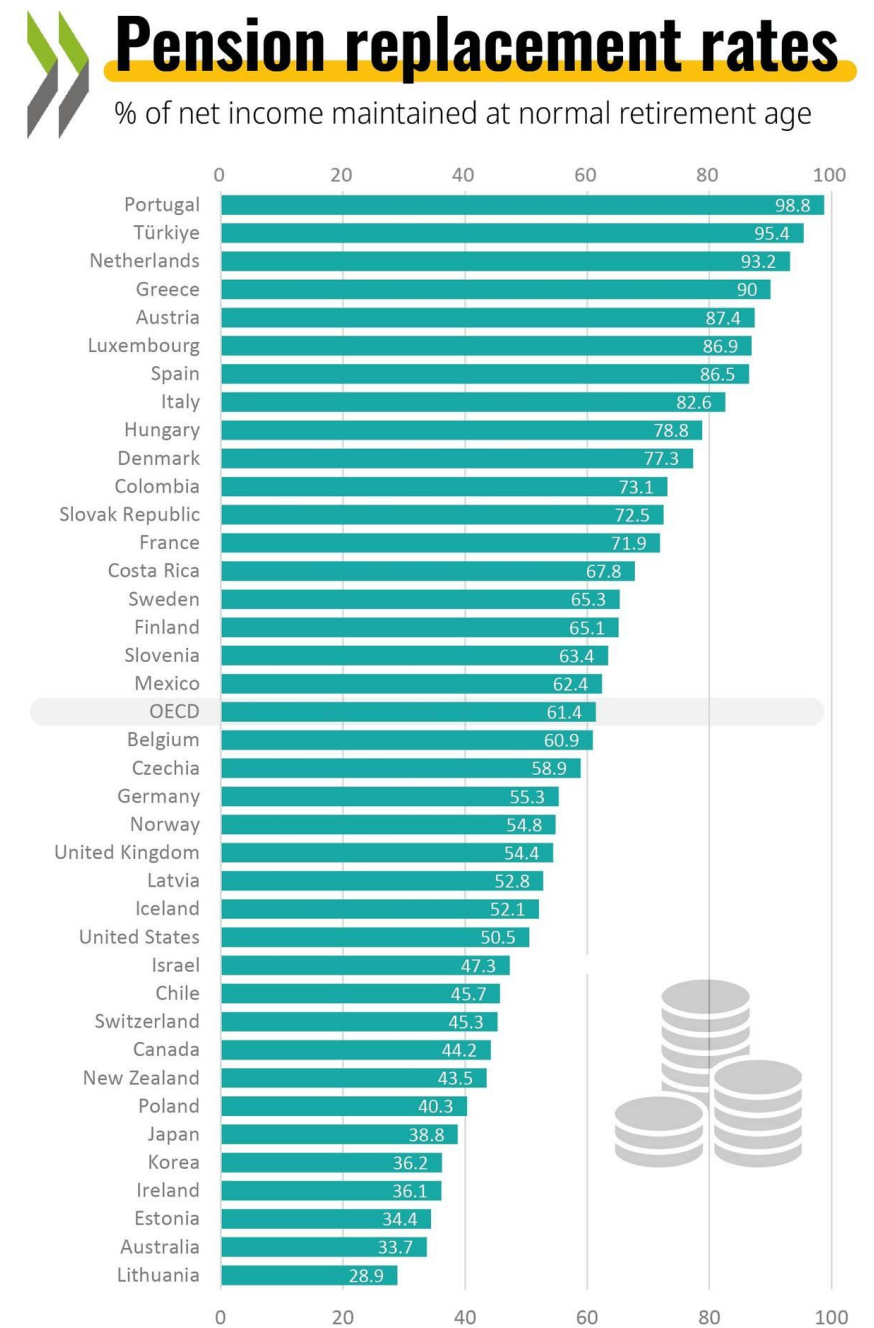
Donate to your future self:	<input type="text" value="0"/>	£
Use now	<input type="text" value="0"/>	£
Total	<input type="text" value="0"/>	£



# Save more once you're in – Nudge #3

- Nationwide field experiment in Estonia N=127,974
- Goal
  - Nudge to save more in an individual accounts funded pension scheme with tax benefits (similar to 401(k))

Reinson, H., Post, T., Reeck, C., Mazar, N., Syropoulos, S., Shah, A., Saulitis, A., & Uusberg, A. (2026) : Behavioural messages amplify tax incentives: A nationwide megastudy of retirement savings reminders



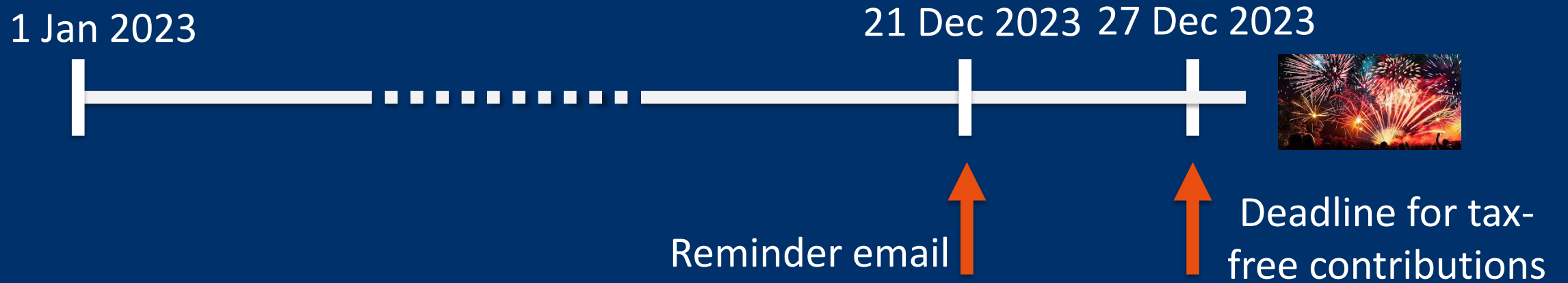
Note: The model calculation refers to mandatory pensions schemes only. The net replacement rates are calculated assuming labour market entry in 2022 at age 22 and a full career. Source: OECD (2023), Pensions at a Glance 2023

# Institutional background

- Estonian pension system at the time of the intervention
  - Pillar 1 state pension
    - Pay-as-you-go
    - Contributions and benefits depend on salary
  - Pillar 2 “mandatory” funded pension
    - 2% of gross salary tax free
    - + 4% from state
    - Option to opt out
  - Pillar 3 voluntary funded pension
    - up to 15% of gross income tax-free
    - max €6,000 (tax-free)
  - Tax rate = 20% (flat tax)



# Institutional background



# Neutral email

Dear III pillar account holder,

Contributions made to the III pension pillar until December 27 will be included in the income tax refund for 2023. You can get back 20% of your III pillar payment.

Check if you are taking advantage of this opportunity: [Questions and answers about the III pillar tax refund](#)

The income tax refund applies to III pillar contributions up to 15% of your gross income, but not more than 6,000 euros per year.

Yours sincerely,  
Pension Center

Your data is processed in accordance with the Pension Centre's privacy policy found here:  
<https://www.pensionikeskus.ee/en/about-us/gdpr/>

# Other emails

Dear III pillar account holder,

<Treatment text here>

Contributions made to the III pension pillar until December 27 will be included in the income tax refund for 2023. You can get back 20% of your III pillar payment.

Check if you are taking advantage of this opportunity: [Questions and answers about the III pillar tax refund](#)

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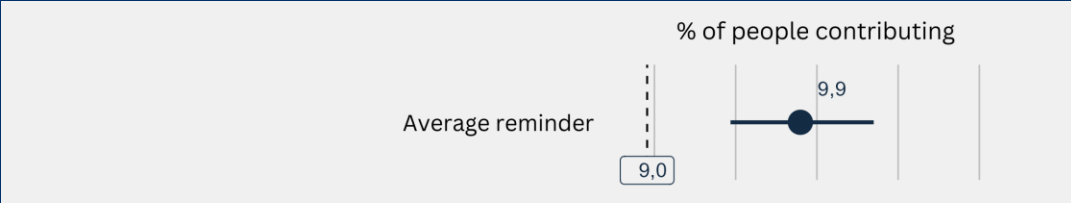
Your data is processed in accordance with the Pension Centre's privacy policy found here:  
<https://www.pensionikeskus.ee/en/about-us/gdpr/>

# Other emails

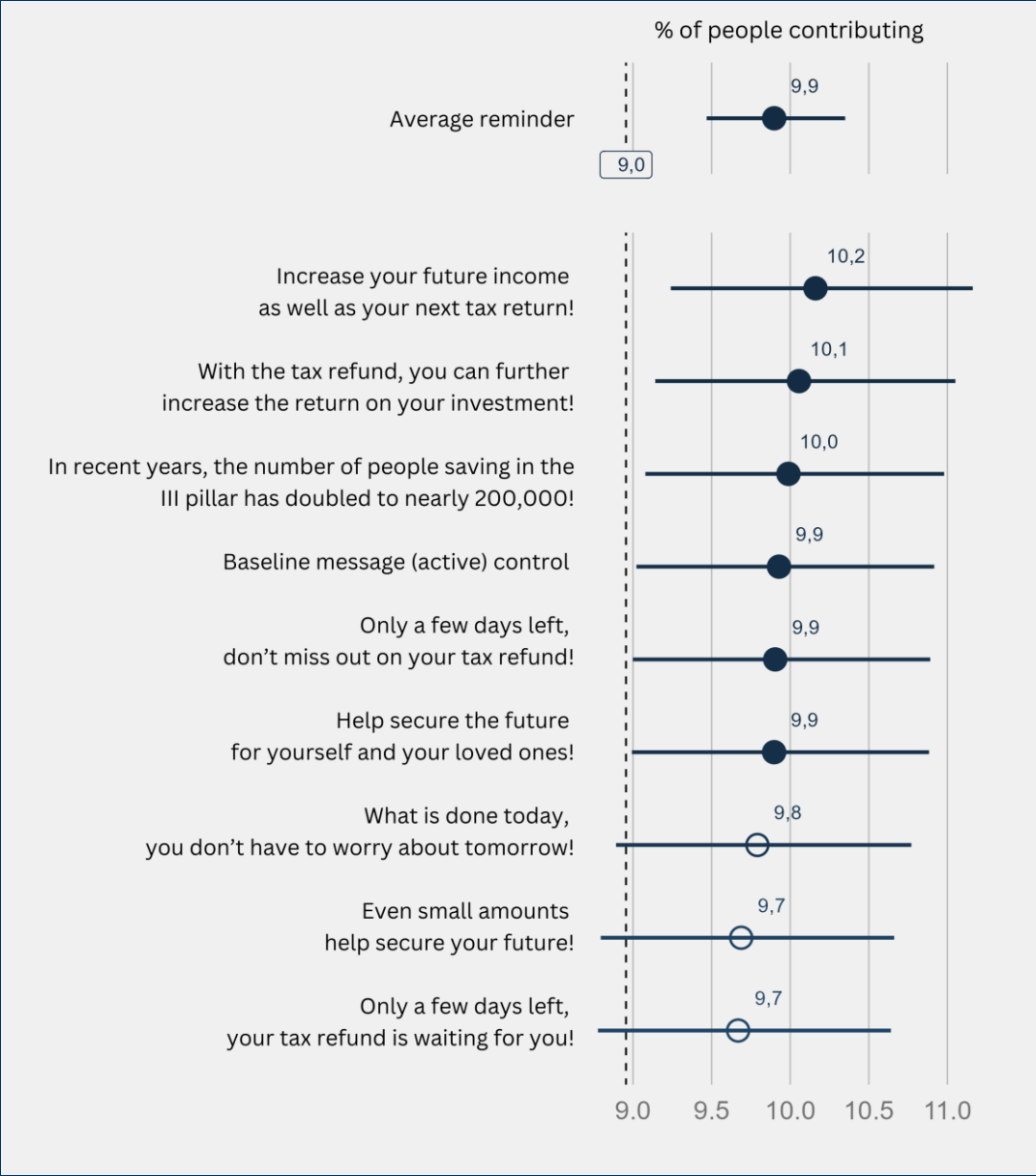
No message (passive) control group

1. Baseline message (active) control group
2. Loss aversion *Only a few days left, don't miss out on your tax refund!*
3. Psychological ownership *Only a few days left, your tax refund is waiting for you!*
4. Gain (short- & long-term) *Increase your future income as well as your next tax return!*
5. Investment boost *With the tax refund, you can further increase the return on your investment!*
6. Pennies-a-Day *Even small amounts help secure your future!*
7. Family Security *Help secure the future for yourself and your loved ones!*
8. Social norms *In recent years, the number of people saving in the III pillar has doubled to nearly 200,000!*
9. The Power of Now *What is done today, you don't have to worry about tomorrow!*

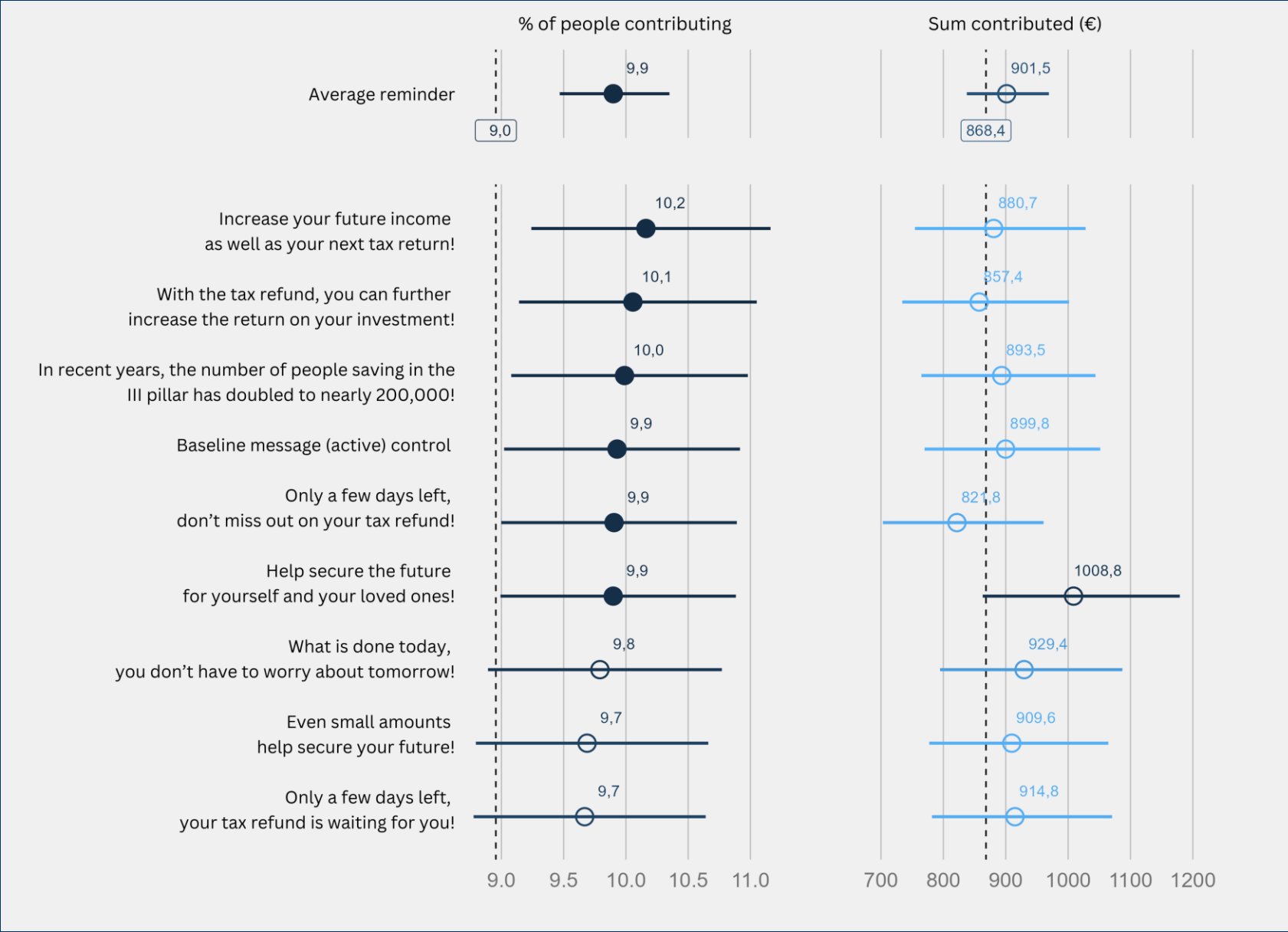
# Results



# Results



# Results



## Framing (yes, another nudge)

- Nationwide contributions + €1.2 million
- Winning message + 16% higher contributions

VS

- Average (across all treatments) reminder effect
  - People contributing 10% (from 9%)
  - Sum contributed €902 (from €868)

# Summary

- Defaults are powerful nudges
  - But they can have positive and negative side effects
- Future self-donation and email reminders nudges are also powerful
  - But are they enough?

# This year's top rated pension systems

Adequacy, sustainability, and integrity

What do you think do these pension systems have in common?



#1

**Netherlands**

Index: 85.4

Rating: A



#2

**Iceland**

Index: 84.0

Rating: A



#3

**Denmark**

Index: 82.3

Rating: A

# Contact



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<https://www.linkedin.com/in/thomas-post-56987b25/>