Designing Better Pensions in the Baltics

Time to finally integrate behavioural findings

Heidi Reinson, Kristīne Dambe

June 2026

Funded by the European Union
NextGenerationEU

2027 National Development Plan

RBS Riga Business School
Riga Technical University

Baltic Finance Center

Designing Better Pensions in the Baltics

Time to finally integrate behavioural findings

Specialised expertise report

June 2026

Authors: Heidi Reinson and Kristīne Dambe

The research is financed by the EC Recovery and Resilience Facility project No. 5.2.1.1.i.0/1/23/I/CFLA/001 “Knowledge and Research Capacity Strengthening of Anti-Money Laundering, Financial Sector Technology and Analysis”

Baltic Finance Center,
RTU Riga Business School
Ķīpsalas Street 6, Riga,
Latvia, LV-1048
finance@rbs.lv
https://finance.rbs.lv

CONTENTS

“Why would you save money for your future self when, to your brain, it feels like you’re handing away your money to a complete stranger?"

Hal Hershfield, professor at UCLA

"Pension design should assist choice by people who wish to make choices about saving and retirement. But the pension system should be designed to work well also for people who make no choice – and making no choice should be an acceptable option."

Nicholas Barr, former UK Pension Commissioner & Professor at LSE

KEY INSIGHTS

- **Design beats information.** Whether Baltic savers join, stay, and contribute enough depends less on tax rules and fund returns than on defaults, framing, timing, and trust. These areas are well-researched and need the political will to apply what is known.
- **Most savers do nothing, so the default is the product.** Based on other countries, auto-enrolment can lift participation above 90%; opt-in regimes reach roughly half that. Lithuania's 2026 abolition of auto-enrolment runs against this evidence.
- **Communication, framing and messengers matter.** Messages framed around future income, family security, or peer behaviour, and delivered by trusted messengers, are more effective than generic information campaigns.
- **Cheap tools work, but their effect is limited.** Timely email reminders can raise voluntary contributions but they tend to nudge those who are already saving regularly.
- **Trust is the foundation under the whole toolkit.** Low institutional trust independently predicts pension exit, hitting Russian-speaking and lower-income savers hardest, those least likely to hold other retirement savings. Stability commitments, such as Estonia's draft five-year clause, rebuild trust in a way no campaign can.
- **A nudge cannot repair a flawed product.** Fee caps, adequate default rates, and pre-screened default funds set the ceiling on what communication can achieve.

EXECUTIVE SUMMARY

The Baltic pension systems are entering a pivotal period. Demographic pressures, declining public pension replacement rates, and weakening trust in funded pensions have increased the importance of designing systems that work for real human behaviour rather than idealised rational decision-makers.

This report argues that behavioural insights are no longer optional but are essential to achieving adequate retirement outcomes in Estonia, Latvia, and Lithuania.

Behavioural research consistently shows that retirement saving is one of the most complex financial decisions that individuals face. Most people rely on defaults, simple heuristics, and short-term considerations rather than active financial planning. As a result, pension outcomes are heavily influenced by system design. Decisions about enrolment, contribution rates, fund selection, withdrawal rules, and communication strategies all shape saving behaviour.

The evidence reviewed in this report highlights several proven tools. Automatic enrolment and well-designed default options significantly increase participation and long-term savings. Auto-escalation mechanisms raise contribution rates without reducing perceived income. Simplified fund menus, lifecycle defaults, timely reminders, effective framing, and strategically designed friction can improve decision quality while preserving freedom of choice. Baltic examples demonstrate these effects in practice, including Estonia's default-fund reforms and a nationwide pension reminder experiment that increased voluntary pension contributions by more than 10% at minimal cost.

Trust emerges as a critical foundation. Behavioural interventions are most effective when savers believe the system is stable, transparent, and fair. Repeated reforms and politically charged pension debates have weakened confidence across the region. The report argues that rebuilding trust requires greater policy stability, transparent disclosure of lifetime costs and expected outcomes, and communication tailored to diverse audiences, including lower-trust population groups.

Behavioural tools are not a substitute for other forms of market regulation and consumer protection. Pension systems are characterised by long time horizons, high complexity, and irreversible consequences. In such settings, reliance on individual responsibility alone is insufficient. Effective pension policy combines behavioural design with strong defaults, fee transparency, appropriate investment standards, safeguards around withdrawals, and independent guidance for major decisions.

The key recommendation is straightforward: design pension systems for ordinary people who are busy, imperfect, and focused on immediate concerns rather than retirement. For policymakers, this means preserving automatic enrolment, strengthening default contribution rates, ensuring regulatory stability, improving transparency, and protecting consumers at critical decision points. For providers and employers, it means simplifying choices, making contributions effortless, using evidence-based communications, and presenting pensions in terms of future income rather than account balances.

1. INTRODUCTION: WHY THIS PAPER, NOW

AIMS OF THE PAPER

The best pension systems are designed for ordinary people: busy, imperfect, and preoccupied with priorities other than planning for retirement. This paper introduces the main behavioural principles that shape pension outcomes, including defaults, framing, reminders, incentives, friction and trust. It discusses how these ideas apply in the Baltic context and uses examples from Estonia, Latvia, Lithuania and other countries to illustrate what works, what does not, and why.

The aim is simple: to encourage policymakers, supervisors, pension providers and employers to think more explicitly about behavioural design when designing pension systems, products and communications.

Most people do not enjoy thinking about their pension. They enjoy it less than choosing a new TV set, or even cleaning the house (TIAA-CREF, 2014; Monzo Bank, 2024). Yet across a working lifetime, everyone is expected to make dozens of consequential retirement decisions: when to start saving, how much, with which provider, into which fund, whether to stay or exit if an opportunity arises to withdraw savings before retirement, and how to draw down those savings in retirement.

Saving for retirement is among the most complex and cognitively demanding financial tasks a person will ever face. It requires forecasting income decades ahead, estimating market returns, navigating shifting tax rules, and exercising self-control for forty years, all under a pronounced information asymmetry between savers, providers and the state. Few people, economists included, are willing or able to undertake such calculations with any degree of precision. Most go with whichever option requires the least effort.

Pension systems that work well are designed around this reality rather than against it. They assist those who want to choose actively, while ensuring that the default option works well for the majority who do not. Systems designed for an idealised active saver leave the average saver worse off, and the cost of poor design falls hardest on those least equipped to bear it: lower earners and people with lower financial literacy.

These behavioural principles have circulated in the academic and policy literature for two decades. Baltic pension systems have absorbed them unevenly, and the

consequences are becoming increasingly visible. Public trust in funded pensions has eroded, withdrawal windows have been opened, and the reform cycle has shortened to the point where the savers the system was built for can no longer plan around it.

We observe that behavioural insights remain underutilized in Baltic policy making generally, and in pension policy in particular.

The purpose of this paper is to make the behavioural lens more accessible and usable in the Baltic pension context. It introduces the main behavioural principles that shape pension outcomes and illustrates them using examples from Estonia, Latvia, Lithuania and other countries. The aim is not to provide a blueprint for pension reform, but to encourage policymakers, supervisors, pension providers and employers to think more explicitly about behavioural design when developing pension policy, products and communications.

Why the Baltic context matters. Most behavioural evidence comes from the United States, the United Kingdom, the Netherlands and Australia. Baltic populations differ in ways that matter. Institutional trust is lower than in much of Western Europe and has been weakened further by repeated pension reforms (European Social Survey, 2023; Reinson, Post & Uusberg, 2025). Financial literacy also varies more sharply by language, region and education, shaping who responds to which interventions (Pulk et al., 2024). A behavioural toolkit imported wholesale from larger countries may therefore require adaptation before it can be applied successfully in the Baltic context.

The topic is particularly relevant in the Baltics for several reasons.

First, demographic pressures and declining public pension replacement rates mean that funded pensions will play an increasingly important role in retirement income. An ageing population, a shrinking workforce and a falling ratio of contributors to pensioners mean that the first pension pillar cannot, on its own, sustain adequate replacement rates (European Commission, 2024). The OECD estimates net replacement rates at 37.8% in Estonia, 52.2% in Latvia and 28.2% in Lithuania, compared with an OECD average of 63.2% (OECD, 2025). If funded pensions are expected to close part of that gap, more people will need to join, contribute adequately, remain invested over the long term and draw down their savings sensibly. That is not only a financial challenge but also a behavioural one.

Second, several important pension reforms in the region have highlighted the consequences of behavioural design. In both Latvia and Estonia, passive savers were for many years allocated to conservative default funds that delivered substantially lower long-term returns than more age-appropriate investment strategies, prompting criticism from the OECD and later reforms to default arrangements. More recently, Estonia's 2021 pension reform and Lithuania's 2026 reform triggered decisions by hundreds of thousands of savers to withdraw pension savings before retirement. These reforms highlighted that pension outcomes depend not only on the choices people are given, but also on how those choices are structured and presented.

Third, trust provides an important backdrop to all of these issues. Trust and communication are inseparable from the technical design of a pension system. Defaults, reminders, framing and friction only work when participants broadly believe the system will deliver on its promises. When trust is low, defaults are overridden, reminders are ignored, and reform windows produce decisions that underlying preferences would not warrant. Rebuilding trust is partly a structural project: ensuring adequate defaults, controlling costs and avoiding constant changes to the rules of the system. But it is also a communications project. Pension communication across the Baltics still often treats saving as preparation for a distant and vaguely unappealing event. Reframing pension saving in terms of future income, financial security and support through life's major transitions may ultimately do more for participation and contribution rates than new tax incentives.

The analysis draws on international academic research, a growing body of Baltic field studies, and case studies from peer countries. The focus of the paper is behavioural design rather than the broader architecture of pension systems. Behavioural design cannot substitute for adequate contribution rates, sensible default investments or long-term policy stability. Within those constraints, however, it can materially influence outcomes and help pension systems work better for the people they are intended to serve.

THE BALTIC PENSION SYSTEMS AT A GLANCE

The three Baltic countries share the same broad three-pillar architecture: a state pension, a funded pension, and voluntary retirement savings. The details, however, differ in ways that matter for behaviour. Is participation mandatory or voluntary? Are people enrolled automatically or required to make an active choice? How large are the contributions and state incentives? Can pension savings be accessed before retirement?

This paper focuses primarily on the funded pension pillars (2nd and 3rd pillars), where people face choices and behavioural design matters most.

Feature	Estonia	Latvia	Lithuania
1st pillar contribution	20% of gross income if not joined 2nd pillar. 16% if joined 2nd pillar. Funded by social tax.	15% of gross income (14% from 2028). Funded by social insurance contributions.	8,72% of gross income. Funded by social insurance contributions.
2nd pillar participation	Voluntary since 2021, active choice.	Mandatory	Voluntary, active choice required from 2026 (auto-enrolment before)
2nd pillar contribution rates	2% employee + 4% state (from social tax) of gross income 4% or 6% employee option since 2025	5% diverted from the social insurance contribution (6% from 2028)	3% employee's contribution + state subsidy (1.5% of the average wage)
Can opt out of 2nd pillar?	Yes, from 2021	No	Yes from 2026 (2 year window)
Can access 2nd pillar before retirement?	Yes, with restrictions	No	Yes, with restrictions
3rd pillar tax incentive	22% income tax refund on contributions up to 15% of gross income (€6,000 cap)	25.5% income tax refund on contributions up to 10% of gross income (€4,000 cap)	Tax deduction up to 25% of gross income

2. THE PENSIONS BEHAVIOURAL TOOLKIT

This section introduces the main behavioural principles and design tools that shape pension outcomes.

Saving for retirement is among the most cognitively demanding financial decisions an individual will ever face. It requires forecasting income decades ahead, predicting life events, estimating market returns, navigating tax rules, and exercising self-control across a working lifetime. Few people, economists included, are willing or able to undertake such calculations with any degree of precision. Most rely on rules of thumb, defaults, and whatever happens to be salient on the day they make a decision (Benartzi & Thaler, 2007). People postpone decisions they find tedious, even when the long-term stakes are high (Le Bouc & Pessiglione, 2022). They discount the future steeply (Laibson, 1997) and often think about their future selves much as they think about strangers (Hershfield, 2011).

For most of the twentieth century, pension systems were designed on the assumption that workers, given accurate information and a tax incentive, would do the rest. Behavioural economics has spent the past few decades dismantling that assumption.

These behavioural patterns are predictable and they appear throughout the pension journey. The question is not how to change human nature. The question is how to design pension systems that work with it rather than against it.

The box below summarises some of the most important behavioural biases that affect pension decisions. Not every saver exhibits every bias, and no single bias explains behaviour on its own. Together, however, they help explain why pension outcomes often differ from what traditional economic models would predict.

KEY BEHAVIOURAL BIASES THAT AFFECT PENSION DECISION

- **Inertia and status-quo bias.** People tend to stick with whatever option requires no action. This affects joining a pension scheme, switching providers and changing funds. The default is rarely revisited, even when it is suboptimal. For example, in Estonia before 2019, roughly 80,000 members (10.5% of the total) sat in funds assigned to them by lottery, many in conservative vehicles that did not suit them, for years (Reinson, 2026).
- **Present bias**: Immediate costs receive more weight than distant benefits. Saving for retirement therefore competes poorly with current spending, even when people know they should save more. A benefit arriving in 2065 carries almost no psychological weight today, so saving loses to nearer claims on the pay packet (Laibson, 1997). This is why "save more tomorrow" commitments and pay-rise-linked escalation work where flat appeals do not.
- **Choice overload**: Too many options can lead to procrastination, reliance on simple rules of thumb or no decision at all. In pensions, more choice often results in lower participation and poorer decisions. In the US, each additional ten funds on a 401(k) menu cut participation by about two percentage points (Iyengar, Huberman & Jiang, 2004). .
- **Framing effects.** The same choice can produce different decisions depending on how it is presented. Risk, returns, fees and withdrawals are all highly sensitive to framing. Savers shown losses in isolation shun equities they would benefit from over a 40-year horizon (Benartzi & Thaler, 1999).
- **Loss aversion**: People dislike losses more than they value equivalent gains. Higher contributions feel like a reduction in take-home pay, while losses on investment statements can trigger overly conservative behaviour. The same instinct, turned around, made Estonia's 2021 "your money is burning" framing so effective: the pension was recast as a loss already underway.
- **Underestimation of longevity**: People tend to underestimate how long they will live and how long their savings will need to last. This can contribute to under-saving and premature withdrawals.
- **Simple heuristics.** When decisions become complex, people rely on shortcuts. Common examples include choosing round contribution rates or spreading savings evenly across available funds regardless of their characteristics. Contributions cluster at 5%, 10%, 15% regardless of what suits the saver, and people spread money evenly across the funds on offer. The shape of the menu shapes the portfolio more than preferences do (Benartzi & Thaler, 2001, 2007).

Behaviourally informed pension design can be grouped into three broad themes:

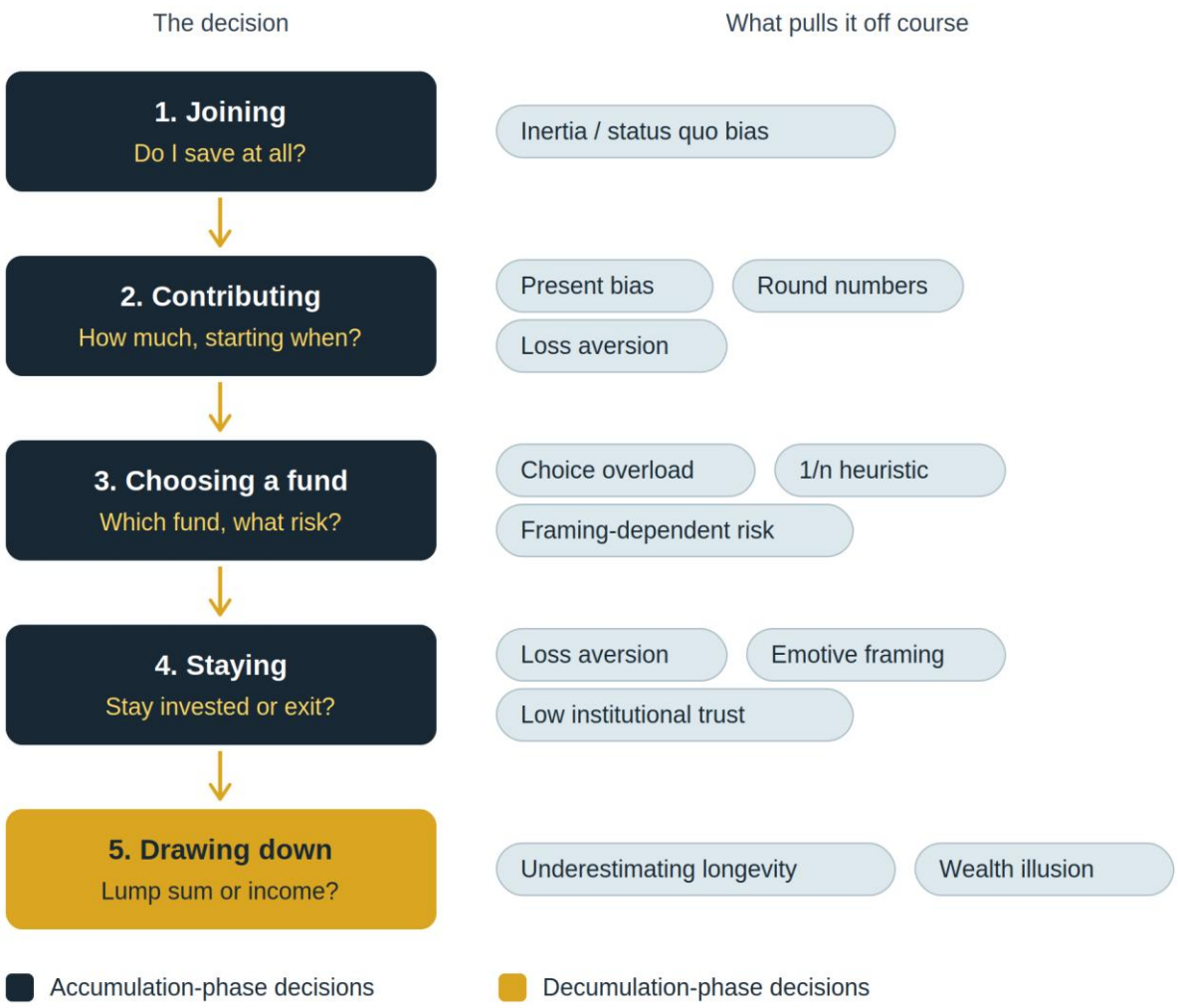
- **The system architecture:** the defaults, enrolment rules, friction and simplification that determine what happens when people do nothing.
- **The communication:** dashboards, reminders, framing and social norms that shape how people understand and respond to pension decisions.
- **The incentives:** contribution matches, tax incentives, fees and returns that influence the financial attractiveness of saving.

The themes overlap. A reminder works better when the underlying incentive is meaningful. A tax incentive works better when the contribution process is simple. A default works better when people trust the system behind it. Trust, discussed later in the paper, sits underneath all three.

These principles operate throughout the pension journey. The specific decisions change, but the underlying behavioural tendencies do not. People procrastinate, follow defaults, respond to framing, overlook costs and place too much weight on the present. Figure 1 illustrates how behavioural barriers emerge at different stages of the pension journey.

The remainder of this chapter discusses these three elements of the behavioural toolkit and illustrates how they can be used to improve pension outcomes.

Figure 1: Pension journey and behavioural barriers



System architecture

System architecture is the structure that determines what happens when a saver does nothing. It also determines what happens when a saver tries to do something. Both matter. Most people do not actively optimise pension decisions. They follow the path of least resistance. As a result, enrolment rules, defaults, friction and simplification often have a larger effect on outcomes than information campaigns or financial education. The following sections discuss each in turn.

Defaults and auto-enrolment

Defaults and auto-enrolment are among the most studied interventions in behavioural economics. If behavioural science has produced one robust finding for pension policy, it is that defaults dominate. When workers are automatically enrolled

into a pension scheme and must actively opt out, participation rates typically exceed 90%. When they are required to opt in, participation is often around half that level, particularly among younger and lower-income workers (Madrian & Shea, 2001; Choi et al., 2002). Auto-enrolled workers rarely opt out, suggesting that what appears to be a decision against saving is often simply a failure to act (Beshears et al., 2018). What happens when people do nothing often matters more than the choices available to those who actively engage.

Recent research has tempered the default-everything enthusiasm. Some auto-enrolled workers offset higher pension saving with more consumer debt (Beshears et al., 2024), and the long-run effects on retirement wealth appear smaller once job mobility and saving in other accounts are taken into account (Choi et al., 2024). The lesson is not to abandon defaults, but to pair them with adequate contribution rates, auto-escalation, portability and reasonable friction on early withdrawal.

Lithuania's 2026 reform abolishes auto-enrolment, moving the country in the opposite direction from the international evidence. The Bank of Lithuania's own modelling suggests that 40–60% of current savers may exit, and that without auto-enrolment, new entrants will be slow to opt in. The reform therefore provides a real-time test of one of the strongest findings in behavioural economics: participation falls sharply when people are required to take action.

Defaults influence contribution rates where choice is available. In Estonia, members can voluntarily raise their personal contribution from 2% to 4% or 6%, and roughly 100,000 have done so since the option was introduced in 2025. The natural next step is to make 4% (or 6%) the default for new entrants and for members who change funds, while retaining the option to step down. International evidence suggests this would increase saving for the median participant without reducing autonomy.

Defaults also affect investment outcomes. Whoever sets the default often determines the outcome. Estonia learned the costly side of this before 2019, when savers who made no active choice were assigned by lottery to funds that often did not match their age or investment horizon. By the end of 2020, around 80,000 people, 10.5% of all members, had been allocated this way, and some 16,500 never changed the assigned default, remaining in conservative bond funds for years and missing out on equity growth (Reinson, 2026). The 2019 reform redirected non-choosers to one of the three lowest-fee funds investing at least 75% in equities. The fix was administrative rather than legislative, but its impact was substantial. Thousands of long-term savers now have meaningfully higher projected pension balances because of it.

Latvia ran a version of the same experiment. Members who made no choice were assigned to a plan at random, and non-choosers ended up in conservative plans regardless of age. By one manager's estimate, more than 80% of some providers' clients still sit in plans that do not match their age profile (LV portāls, 2024). The response has so far been softer than Estonia's. Since July 2024, fund managers must assess whether a member's plan suits their age and recommend a better alternative, while a reform making lifecycle funds the default for new entrants is in progress (Primus, 2025). The advisory duty will help those who read their mail. Changing the default is what will move the stock.

Choice overload and simplification

A second design principle is simplification. Pension systems often assume that more choice leads to better outcomes. Behavioural evidence suggests the opposite. When faced with too many options, people postpone decisions, rely on simple rules of thumb, or avoid choosing altogether. Well-designed systems therefore simplify choices, limit unnecessary complexity and reserve active decisions for moments when they are genuinely consequential.

Choice overload is a recurring problem in pension design. In 401(k) plans, every additional ten investment funds offered reduced participation by about two percentage points (Iyengar, Huberman & Jiang, 2004). Those who do choose often fall back on simple heuristics. One of the best known is the 1/n rule: when offered n funds, people tend to split their contributions roughly evenly across them, irrespective of what those funds contain (Benartzi & Thaler, 2001). In one experiment, participants offered four equity funds and one bond fund allocated 68% to equities, while those offered four bond funds and one equity fund allocated only 43%. The menu shaped the portfolio more than the participants' underlying preferences.

Sweden's pension reform remains the textbook example of choice overload in practice. Faced with hundreds of investment options, many savers made decisions that left them worse off than the default they were encouraged to avoid (see box below).

EXAMPLE: SWEDEN'S PREMIUM PENSION

When Sweden partially privatised its public pension in 2000, workers could choose from over 450 funds, and the government actively encouraged them to bypass the well-diversified, low-fee default. Two-thirds did. Their portfolios carried higher fees, more risk, and a strong home bias toward Swedish stocks, and they underperformed the default by 9.7% over the first three years (Cronqvist & Thaler, 2004). Sweden has since stopped encouraging active choice, and the share of new entrants picking their own portfolio has fallen below 10%. The case remains the textbook illustration that more choice, in a complex domain, often produces worse outcomes than fewer well-curated options.

Adding a lifestyle or lifecycle fund that already contains a diversified portfolio does not solve the problem automatically. Vanguard (2004) found that participants who selected a lifestyle fund typically allocated only about 37% of their balance to it, mixing it with other funds and undermining the diversification it was designed to provide.

The implication for the Baltics is that simplification deserves more attention than it receives, and should be stated as a priority. The policy instinct is often to add more information and more options in the name of consumer choice. Behavioural evidence points in the opposite direction. Savers are most likely to make good decisions when the recommended path is obvious, the number of alternatives is limited, and active decisions are reserved for moments when they are genuinely consequential.

Friction: sometimes a feature, sometimes a bug

Friction is the mirror image of a default. Behavioural science is often associated with making decisions easier. The reality is more nuanced. Some decisions benefit from being slightly harder, particularly when they are irreversible or driven by transient emotion (Soman, 2020). The design rule is straightforward. Friction should be removed from actions people clearly want to take but fail to execute because of administrative burden. It should be applied to actions whose consequences they may not fully grasp in the moment, particularly irreversible ones. Opening a pension account should be easy. Emptying it should not. The question is therefore not whether friction should exist, but where it should sit.

Estonia's 2021 reform illustrates the principle. Members who choose to withdraw pension savings must wait between three and five months before receiving the payout, and applications can be cancelled up to one month before processing. The delay functions as a built-in cooling-off period. Friction was not the only reason most

savers chose to stay, but it almost certainly reduced impulsive withdrawals (Reinson, 2026). By contrast, South Africa's 2024 early-withdrawal reform allows pension members to access funds within days through a smartphone app. The same withdrawal right, combined with very different levels of friction, is likely to produce very different decisions.

Lithuania's 24-month opt-out window introduces a different kind of friction: a deadline. Behavioural research consistently finds that deadlines focus attention and prompt action. The risk is that people respond not because they have fundamentally changed their view of pension saving, but because the opportunity appears temporary. In that sense, the reform creates friction in reverse. Rather than slowing decisions down, it creates urgency that may lead more people to exit than their underlying preferences would otherwise warrant.

Lithuania's 24-month opt-out window introduces a different kind of friction in reverse: a fixed deadline that creates urgency where none might otherwise exist, potentially driving more exits than underlying preferences would warrant.

Estonia's pending Ministry of Finance proposals to allow partial withdrawals reduce one form of friction (the all-or-nothing rule) while preserving another (the processing delay). On balance, this appears sensible. It makes withdrawals more flexible without removing the pause that encourages reflection.

Friction works against intended outcomes when it discourages actions that should be easy. Daminato et al. (2024) found that when Swiss pension members could contribute via a mobile app rather than a paper form, contributions rose substantially. Bureaucratic friction, or "sludge" (Sunstein, 2022), is a common cause of low take-up of welfare benefits, tax credits and pension contributions across Europe.

Good pension design therefore requires both kinds of friction: less where people are trying to save, and more where they are trying to withdraw.

Communication

If system architecture determines what happens when people do nothing, communication influences what happens when they pay attention. Pension communication competes with everything else in a person's life: work, family, bills,

social media and countless other demands on attention. Most people do not spend their evenings reading pension statements, comparing fee structures or calculating replacement rates.

Behavioural research nevertheless offers some good news. Small changes in timing, wording and presentation can have surprisingly large effects. A well-timed reminder can increase contributions. A different framing can change how people interpret the same information. A dashboard can turn an abstract account balance into an estimate of future retirement income. Communication therefore involves more than providing information. It involves making information visible, understandable and relevant at the moment a decision is made.

Communication influences behaviour in three main ways: through how information is presented, how it is interpreted, and when it is delivered. Each can influence pension decisions even when the underlying facts remain unchanged.

How information is presented: dashboards, fees and returns

The way information is presented shapes how people understand their pension. Pension saving is difficult partly because the reward is distant, uncertain and hard to visualise. Most people do not think in terms of account balances, annualised returns or replacement rates. They think in terms of monthly income and living standards. Behaviourally informed communication therefore aims to make future outcomes more visible, more concrete and easier to understand.

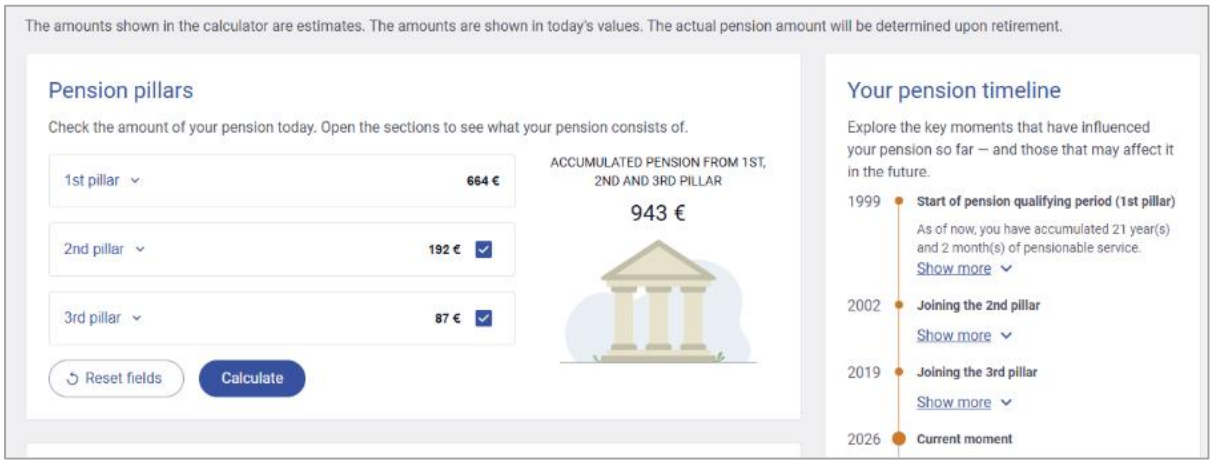
A useful pension projection covers the total expected pension, combining the state pension with 2nd and 3rd pillar savings, and reflects the factors that actually determine retirement income: years worked, contribution levels, investment returns and, where relevant, the number of children. Partial projections invite the wrong conclusions. A saver shown only a 2nd pillar balance may judge it alarmingly small or reassuringly large, with no way to tell which.

Every projection rests on assumptions about wages, returns and inflation. Presenting a single confident number can therefore be misleading in its own way. Showing a range, or two or three scenarios, communicates uncertainty more honestly without burying the saver in caveats. What matters most is that projections are presented in a way that links pension saving to future living standards rather than abstract account balances.

Among the Baltic states, Estonia has gone furthest in putting these principles into practice. Through the national pension dashboard and calculator (Figure 2), savers can

see their expected retirement income across pension pillars, model different contribution rates and retirement ages, and view projections under different assumptions. The dashboard brings pension information together in one place and presents outcomes in terms of future income rather than account balances alone.

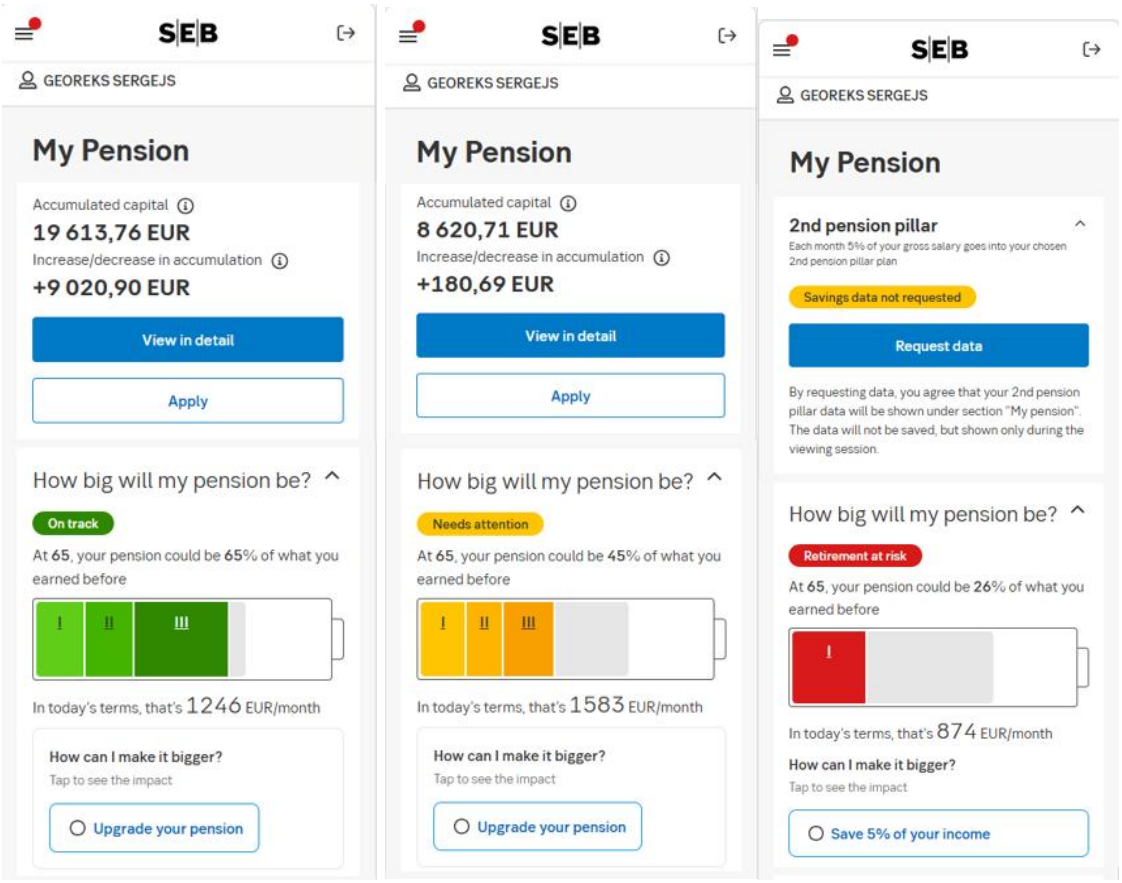
Figure 2: Estonian pension dashboard



Source: Sotsiaalkindlustusamet (Estonian Social Insurance Board)

In the absence of a fully developed national pension dashboard, some Latvian pension providers have begun developing their own digital tools that draw on the same behavioural principles (Figure 3). These tools bring information together in one place, translate abstract account balances into estimated monthly retirement income in today's money, and show how different contribution rates or retirement ages affect future outcomes. Colour, graphics and visual cues draw attention to what matters and help make the future feel more real.

Figure 3: SEB pension dashboard (Latvia)



Source: Latvian pension provider SEB

The same principle applies to fees and investment returns. Most savers struggle to understand percentages compounded over decades. A fee of 1% sounds small. A cumulative return of 45% sounds impressive. Neither tells savers what they actually need to know. Behaviourally informed disclosure therefore seeks to translate abstract percentages into outcomes that are easier to understand and compare.

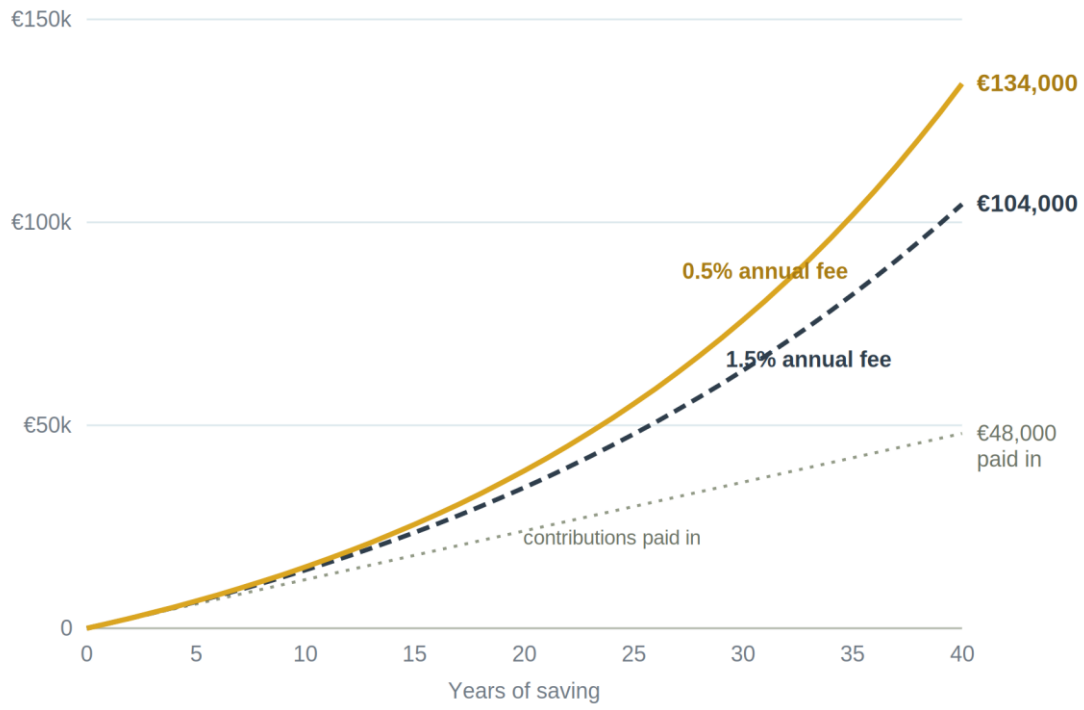
Fees compound destructively over a working life, yet many savers do not fully understand their impact.

An annual fee of 1% or 2% sounds small, and some savers even assume that a higher fee signals a better product or greater potential for higher returns (Engler, Gutsche & Smeets, 2024). In reality, a 1.5% annual fee instead of 0.5% can reduce a 40-year pension balance by roughly 20% (Figure 4). Estonia's experience suggests that percentage fee disclosure alone is often insufficient. Before the 2015 fee cap and Tuleva's 2017 market entry, the average 2nd pillar fee was 1.45%; by 2020 it had fallen to 0.6%, driven by both regulatory intervention and stronger competitive pressure.

One reason is that percentages are difficult to interpret over long horizons. Expressing fees as the lifetime cost in euros, rather than as an annual percentage, makes their impact much more visible and is among the most consequential and least expensive disclosure reforms available.

Figure 4. The same saver, two fee levels

€100 contributed monthly for 40 years at a 5% gross annual return grows to about €134,000 at a 0.5% annual fee and €104,000 at a 1.5% fee. The roughly €30,000 gap exceeds half of everything the saver paid in. Source: authors' calculations.



Source: authors' calculations.

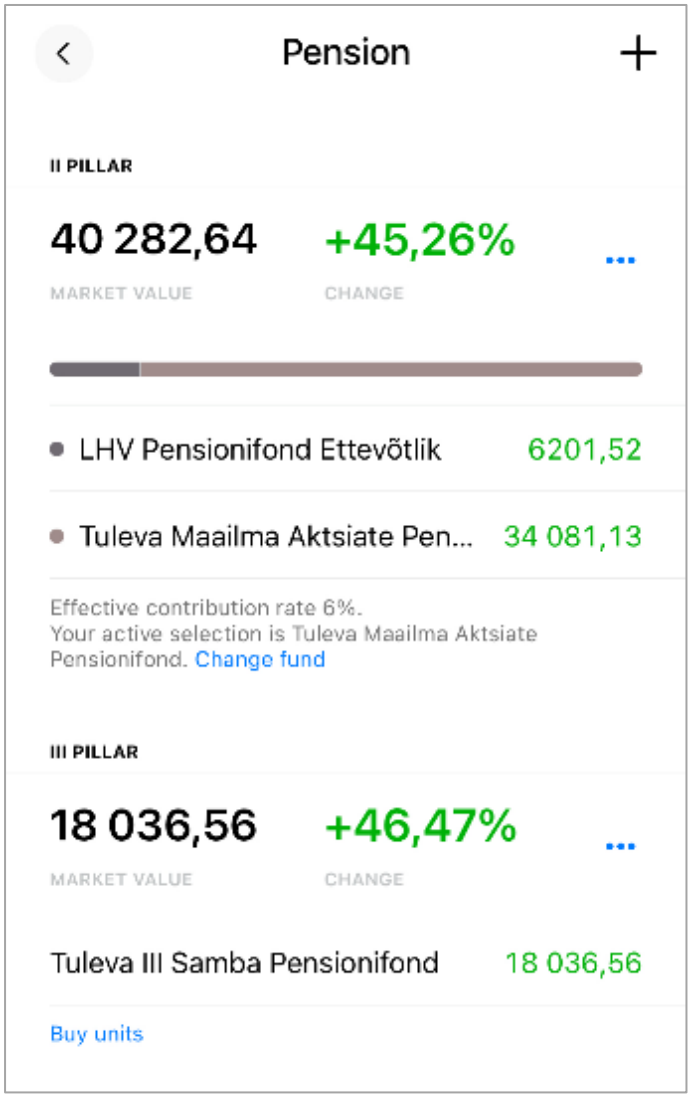
The way investment returns are displayed shapes how savers judge fund performance. A return presented as cumulative growth since joining often looks impressive: "your savings have grown by 45%". Yet over fifteen years this corresponds to roughly 2.5% a year, a return that inflation may have largely consumed. Cumulative growth makes long-running funds appear more successful than they may be and makes comparisons between funds with different histories difficult. The more meaningful measure is the annualised net return.

Estonia's marketing rules already recognise this problem and require pension funds to present standardised annualised performance figures. Yet the information displayed

where decisions are actually made often looks different. Internet banking and pension-account interfaces frequently emphasise cumulative growth rather than annualised returns. A saver shown that their pension has "grown by 45%" may conclude that performance has been strong, even though the underlying annual return may have been far more modest.

The behavioural lesson is straightforward: how information is presented matters as much as whether it is disclosed. Aligning account interfaces with the same standards applied to marketing materials would be a small change with potentially large effects on how savers evaluate pension performance.

Figure 5: Examples of pension returns being shown as aggregate growth



Source: LHV

How information is interpreted: framing effects and social norms

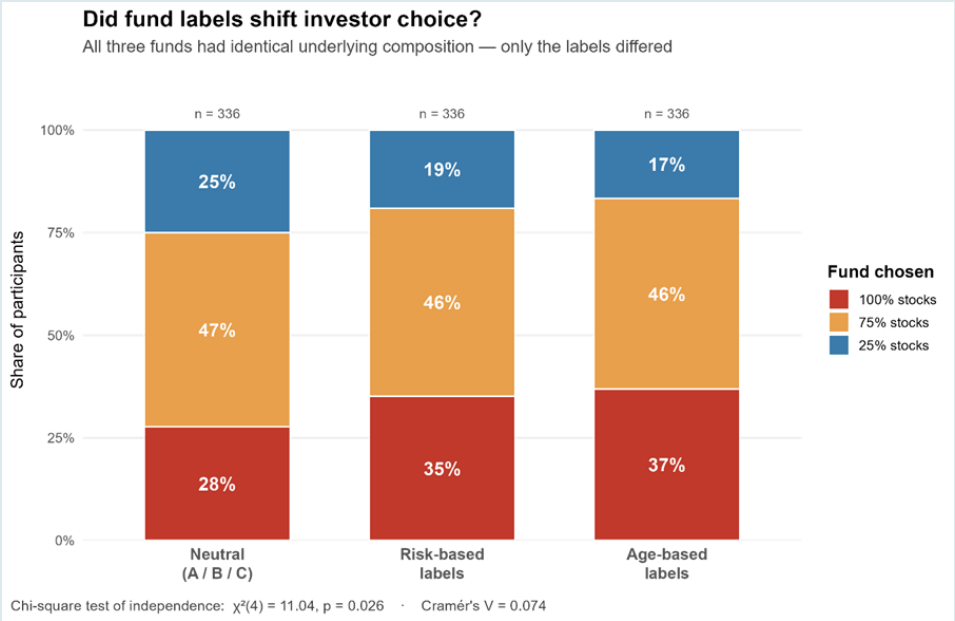
The same information can produce very different decisions depending on how it is presented. Behavioural economists refer to this as framing. Pension decisions are particularly sensitive to framing because retirement is distant, uncertain and easy to ignore. Small differences in wording, emphasis and presentation can therefore have surprisingly large effects.

The general lesson is that pension messages compete with everything else in a person's life. Messages that connect saving to identity, family and the future self tend to perform better than messages that treat the saver as a neutral economic agent. The same underlying decision can feel very different depending on how it is framed. A projected monthly pension is often more meaningful than an account balance. A contribution framed as providing future financial security may resonate more strongly than one framed as the purchase of a financial product. The objective is not to change the facts, but to present them in a way that people can relate to and act upon.

Descriptive social norms work in a related way. Telling members what their peers do ("X% of your colleagues at this employer contribute to a 3rd pillar") shifts behaviour because peer behaviour signals what is normal and reasonable (Cialdini, 2007; Duflo & Saez, 2002). In UK trials, labelling contribution levels as "minimum", "comfortable" or "ambitious" influenced perceptions of what constituted an adequate level of saving more than generic warnings about insufficient retirement provision. The box illustrates the same mechanism in a fund-choice setting: in an online experiment run by Baltic Finance Center, when identical funds were presented with risk-based or age-based labels, respondents were more likely to choose the equity-heavy option than under neutral labels.

EXAMPLE: IMPACT OF LABELS ON FUND CHOICE

In February 2026 the Baltic Finance Centre ran a simple online experiment, testing whether labels/names influence pension fund choice. The same three funds ("100% stocks", "75% stocks + 25% bonds", and "25% stocks + 75% bonds") were chosen at different likelihoods when they were marketed as age-based or risk-based rather than neutrally. Detailed results will be published in a separate paper.



Source: Baltic Finance Center paper, to be published

Framing becomes particularly important when people are deciding whether to preserve or withdraw pension savings. Earlier pension decisions ask individuals to save more today for a distant future benefit. Withdrawal decisions ask them to protect future retirement income from the temptation of immediate consumption. In both cases, the same behavioural biases are at work, but they operate in opposite directions. Present bias, myopia, optimism bias and overconfidence can all make immediate access to pension savings appear more attractive than preserving retirement income decades into the future.

How pension wealth is presented also matters. People systematically expect to die earlier than the actuarial tables predict, which makes under-saving feel rational and lump-sum withdrawals appear safer than they are. The wealth illusion compounds the problem. A pension pot of €100,000 reads as a substantial sum, while the roughly €450 a month it might provide for life appears modest, even though both describe the same retirement income stream (Goldstein, Hershfield & Benartzi, 2016). As Baltic pension systems approach the decumulation stage, this distinction becomes increasingly

important. A system that presents retirement wealth primarily as a lump sum may encourage different decisions from one that presents it as future monthly income.

The same principle applies to taxes. How taxes are explained can influence behaviour just as much as the tax itself.

In an online experiment built around a hypothetical Estonian scenario, explicitly highlighting both the income-tax cost of withdrawal and the lifetime opportunity cost reduced participants' willingness to leave the pension system (Reinson, Mawby, McPhedran & Uusberg, 2026). Withdrawal offers often present the payout in the foreground and the costs in the small print. The experiment suggests that simply reversing that emphasis can influence decisions.

A separate monetary disincentive sits at the point of exit. In both Estonia and Lithuania, early withdrawal of pension savings is subject to income tax. Savers often interpret this as a penalty. In a Kantar Emor survey, the tax was the most frequently cited reason for not withdrawing, and open-ended responses revealed frustration at having to "pay extra" to access one's own money (Reinson / Kantar Emor, 2021; Reinson, 2026). In reality, no additional tax is being imposed. Salaries and investment gains are taxed as income, and allowing pre-tax pension savings to be withdrawn tax-free before retirement would amount to a hidden tax subsidy for pension members.

From a behavioural perspective, however, perception matters as much as reality. The belief that early withdrawal is penalised discourages withdrawals more effectively than the underlying tax rules alone. Making the tax cost explicit at the moment a decision is made appears to strengthen the effect further. The broader lesson is that people respond not only to financial incentives themselves, but also to how those incentives are explained and understood.

When information is delivered: reminders and timing

Even well-designed information achieves little if people never see it. Attention is scarce. Earning money is salient. Spending money is salient. Saving for retirement is not. It requires action today for a benefit that may arrive decades later. Few people actively refuse to save. Far more simply forget.

Reminders are therefore among the cheapest and most effective tools in pension policy. They cost almost nothing, require no major legislative change and preserve freedom of choice. Their purpose is simple: to place an opportunity back in front of someone whose attention is elsewhere. The evidence suggests they work (Karlan et al., 2016).

Four design principles emerge consistently from the literature:

- **Timing beats content:** reminders sent close to a relevant deadline outperform earlier ones, and payroll-linked prompts outperform calendar-linked ones (Beshears et al., 2018; Gravert, 2022).

- **Fresh starts amplify motivation:** people commit more readily at the start of a new year or month, or around a birthday, when saving reminders have raised contributions by 20 to 30% relative to ordinary dates (Dai et al., 2014; Beshears et al., 2021).

- **Specificity converts intention into action:** "click here to add €50 to your III pillar account before December 27" outperforms "consider saving more" (Gollwitzer & Sheeran, 2006).

- **Restraint protects the channel:** too many reminders breed annoyance and unsubscribes, so one or two per cycle outperform five (Damgaard & Gravert, 2018).

The Baltic states are unusually well placed to apply these insights in practice. The largest behavioural field experiment on pension reminders in the region was conducted in Estonia in December 2023 in collaboration with the Ministry of Finance and the national pension registry (Reinson et al., 2026). The entire eligible population of 3rd pillar account holders aged 22 to 53 was randomised to a no-reminder control group or to one of nine one-line reminders sent a week before the December 27 tax-refund deadline. On average, the reminders increased the likelihood of contributing by 10.5% and contribution amounts by 14.75%, generating roughly €1.2 million in additional voluntary retirement saving in a single week at almost no cost to the state. Similar findings have emerged elsewhere. A two-million-person megastudy of reminder emails in the United States reached broadly the same conclusion (Milkman et al., 2025).

The Estonian study also demonstrated something beyond the effectiveness of reminders. It showed that the infrastructure required for large-scale behavioural testing already exists in the Baltics. A centralised pension registry, verified contact details, established cooperation between policymakers and researchers, and GDPR-compliant data-sharing arrangements made nationwide testing possible. Similar infrastructure exists in Latvia and Lithuania, making replication both technically feasible and inexpensive. Few pension policy tools can be tested so rigorously, at such low cost and with such immediate feedback.

ESTONIAN 3RD PILLAR EMAIL REMINDER MEGASTUDY

In December 2023, working with the Ministry of Finance and the national pension registry (Nasdaq), the research team ran a nationwide pre-registered behavioural megastudy of pension reminders (Reinson et al., 2026).

Every eligible 3rd pillar account holder aged 22 to 53, the entire population of 127,974 people (roughly a fifth of working-age Estonians) was randomly assigned either to a no-reminder control group or to one of nine one-line email reminders, each carrying a different behavioural cue (a neutral tax reminder plus framings built on loss aversion, ownership, future income, family security, social norms, and urgency).

The single email went out one week before the 27 December tax-refund deadline. It moved money: the share contributing in that final week rose from 8.96% to 9.90%, a 10.5% relative increase, and the average contribution rose 14.75%, together **generating around €1.2 million in additional voluntary saving in a single week at almost no cost to the state.**

Two findings matter most for design. First, the reminders worked mainly by prompting more people to contribute rather than by enlarging individual contributions, and the various framings performed remarkably alike. That means most of the benefit came simply from a timely, specific prompt at the deadline.

Second, **one message stood apart: the family-security framing ("Help secure the future for yourself and your loved ones!") was the only one to lift the amount contributed**, raising the average among contributors by about 16%, from €868 to €1,009. That a family appeal proved strongest in Estonia, a society that scores as relatively individualistic, mirrors results from far more collectivist Mexico (Shah et al, 2023), suggesting such appeals tap a motivation that crosses cultural lines.

The reminders were most effective among higher-income savers who were already contributing, so prompts amplify saving where the capacity and habit already exist, and reaching genuinely disengaged groups will take more than an email. The wider lesson is encouraging for the region: the registry, research-policy partnership, and GDPR-compliant data infrastructure that made the study possible exist in all three Baltic states, so replication in Latvia and Lithuania would be technically straightforward and very cheap.

Incentives

System architecture determines what happens when people do nothing. Communication influences how people understand their choices. Incentives determine whether saving feels worthwhile in the first place.

The economics of pension saving are straightforward. Saving requires people to give up consumption today in exchange for benefits that may only materialise decades later. Behavioural economics shows why this is difficult in practice. Future benefits are heavily discounted, immediate costs are felt more strongly than future gains, and even people who intend to save more often postpone action indefinitely.

The most important behavioural challenge is present bias. A benefit arriving in 2065 carries almost no psychological weight today, so retirement saving often loses to more immediate claims on the pay packet (Laibson, 1997). Even when people recognise the importance of saving, they frequently postpone increasing contributions until a later date that never arrives.

Hershfield (2011) used neuroimaging to show that people thinking about their future selves activate the same brain regions as when thinking about strangers, and saving for a stranger is a hard sell.

Pension systems therefore rely on a range of incentives to bridge the gap between short-term behaviour and long-term interests. These include automatic contribution escalation, matching contributions, tax incentives and, in some countries, prize-linked savings schemes. Their purpose is simple: to make saving easier, more attractive and less dependent on repeated active decisions.

Contribution incentives: matching and auto-escalation

Matching contributions are among the most widely used tools for encouraging pension saving. Their appeal is behavioural as much as economic. A matching contribution makes the reward for saving immediate and visible: every euro contributed today is increased by an additional contribution from an employer or the state. Evidence suggests that savers respond more strongly to a contribution framed as a match than to an equivalent tax incentive delivered later (Saez, 2009), although the overall effects of matching on participation are generally much smaller than those achieved through automatic enrolment and defaults (Madrian, 2014).

When employers or the state match contributions up to a threshold, contributions tend to cluster at that threshold (Benartzi & Thaler, 2007). The implication is straightforward: the threshold should be set at the level policymakers actually want savers to reach, rather than at a token level. In the Baltic context, the Estonian state's 4% social-tax contribution to the 2nd pillar already functions as a match, and the 2025 option to raise personal contributions to 4% or 6% creates an opportunity to use that architecture more deliberately. Presenting the state's contribution as a match, rather than as background plumbing, could encourage more savers to move to the higher contribution tiers.

When people do actively choose a contribution rate, they tend to rely on simple heuristics. Contributions cluster at round numbers such as 5%, 10% and 15%, even when those figures have no particular economic significance (Benartzi & Thaler, 2007). At the same time, higher contributions are experienced as a reduction in take-home pay, a loss that people naturally seek to avoid.

Auto-escalation addresses this problem directly. Thaler and Benartzi's (2004) "Save More Tomorrow" programme asks workers to commit in advance a portion of future pay rises to higher pension contributions. Because take-home pay never falls, loss aversion is largely avoided, while inertia starts working for saving rather than against it. In the original implementation, contribution rates increased from 3.5% to 13.6% over four years.

Tax incentives

Tax incentives are the dominant policy tool for encouraging voluntary pension saving across the OECD. In Estonia, 3rd pillar contributions attract a 22% income-tax refund, while Latvia and Lithuania apply similar deductions. The theory predicts that rational savers respond by contributing up to the cap. The evidence is more modest.

Behavioural research helps explain why. Take-up depends heavily on presentation, with the same subsidy generating more participation when framed as a match than as a tax deduction (Saez, 2009). Danish administrative data similarly show that automatic contributions and defaults shift saving by orders of magnitude more than tax subsidies alone (Chetty et al., 2014). Most savers are passive enough that tax incentives change behaviour only at the margin.

Where tax incentives appear to have their strongest effects is at salient decision points and deadlines. In 2020, Estonia raised the tax-advantaged withdrawal age for the 3rd pillar from 55 to 60, while allowing anyone opening an account before 1 January 2021 to retain the previous rules. The approaching cut-off produced a one-time surge of new accounts in late December 2020, many from people who had never previously

engaged with voluntary pension saving. A deadline, a purely behavioural mechanism, generated more engagement than years of general encouragement.

Alternative incentives

Prize-linked savings products replace some or all of the interest earned on savings with the chance of winning a prize, while preserving an expected return similar to that of a conventional savings product. Their appeal rests on a simple behavioural insight: many people are more motivated by a small chance of a large reward than by a guaranteed but barely noticeable increase in wealth. A lottery ticket attracts attention in a way that an additional 0.5% return rarely does.

Evidence suggests that prize-linked savings products can increase saving among low-income households and people who would otherwise save little or nothing (Tufano, 2008; Cole et al., 2014). Rather than changing the underlying economics of saving, they change how the reward is perceived.

The Baltic states have never used prize-linked structures in pension saving. A quarterly draw among 3rd pillar contributors could provide a low-cost way of reaching groups that tax incentives have struggled to engage, subject to regulatory and tax considerations. The idea is not as unfamiliar as it may sound. In the early years of Estonia's 2nd pillar, LHV offered a DVD player to members who persuaded a friend to join. The mechanism was different, but the behavioural intuition was similar: making participation more salient and rewarding than the underlying financial incentive alone.

3. TRUST AND THE MESSENGER EFFECT

Trust is often overlooked in discussions on pension design, yet pension systems rely on it more than most financial products. Individuals are asked to defer consumption for decades in exchange for a promise of future income. If savers do not believe that the rules will remain stable, that their savings will be protected, or that the system will deliver value, they are less likely to participate, contribute voluntarily, or remain invested over the long term.

The behavioural toolkit described in the previous chapter assumes that participants believe the system will deliver on its promises and act in their interests. When trust is intact, auto-enrolment and defaults are accepted, reminders are read, framing changes behaviour, and friction is tolerated. When trust collapses, the same tools stop working, and some can even backfire: a default reads as a trap, a reminder as a sales pitch. Research on Dutch pension funds finds that perceived financial soundness is the strongest predictor of trust, ahead of returns, governance, or transparency, and that trust in turn predicts willingness to stay invested, contribute more, and accept reform (Dalen & Henkens, 2023). Once lost, trust rebuilds slowly.

The experience of all three Baltic states suggests that trust has emerged as one of the central challenges facing pension systems. Repeated reforms, political debates over pension assets, changing contribution rules, and discussions about early withdrawals have weakened confidence in the stability and predictability of the system. Yet trust is not merely an outcome of a well-functioning pension system; it is also one of its essential inputs.

Two decades of repeated reforms have added a second layer: savers have learned that the rules of a forty-year product can change several times within a single career.

The trust deficit also has deeper roots. The generation now in mid-career watched savings disappear twice in the 1990s, through bank failures and inflation, and the region has little generational memory of successful long-term investing to draw on. The sentiment "I don't want to give my money to the banks" still surfaces in surveys and everyday conversation, and it deserves engagement rather than dismissal because it is grounded in lived experience.

Distrust is also unevenly distributed, and the differences matter. Analysing Estonia's 2021 withdrawal data, we found that low institutional trust predicted exit independently of income, education and family size. The effect was strongest among Russian-speaking savers. There is also a double jeopardy: those with low trust are more likely to exit and less likely to hold any other retirement savings (Reinson, Post and Uusberg, 2025).

Lithuania illustrates a different trust challenge. Whereas Estonia's trust shock came through a high-profile withdrawal campaign, the Lithuanian debate increasingly questioned the principle of automatic enrolment itself. Participation was framed as something imposed on savers rather than a protection against under-saving, while proposals to make participation fully voluntary were presented as restoring individual freedom and control over one's money. Behaviourally, automatic enrolment works because people accept the default as a legitimate recommendation. When the legitimacy of the default itself is contested, its power weakens. The Lithuanian experience suggests that successful auto-enrolment requires not only good design but also public acceptance of the principle behind it.

Rebuilding trust requires action on several fronts.

- **Stability.** The Estonian Ministry of Finance's draft stability clause, which would require five years between the adoption and implementation of any future cut to the state's 4% contribution, is the right kind of signal: it removes a specific political lever and tells savers the system is not up for renegotiation every electoral cycle (Reinson, 2026). Latvia and Lithuania should consider similar approaches. A product spanning four decades that can be substantially rewritten with eighteen months' notice is one that rational savers will underinvest in, whatever the tax incentives.

- **Transparency.** People respond to clear, comparable information. Annual percentage fees are widely misunderstood, while lifetime costs expressed in euros are easier to grasp. The same principle applies to projections, returns and pension outcomes.

- **Reach.** Low-trust groups often require more than translation. Russian-language pension communications across the Baltic states are not always equivalent in quality, timing or distribution to native-language versions. Reaching these groups requires adapting channels as well as language, and working through messengers they already trust.

- **Distance from day-to-day politics.** Pension systems are inherently political, but their credibility depends on being perceived as stable and rules-based. Frequent political intervention can undermine confidence even when individual policy changes are well intentioned.

Who is saying it: messengers, endorsements and the political voice

Trust determines whether people are willing to listen. The messenger effect determines whom they listen to. Behavioural science has consistently found that identical information is interpreted differently depending on who delivers it (Dolan et al., 2012; Behavioural Insights Team, 2014). This effect is particularly strong in financial decisions, where credibility is often in short supply.

Political and media voices can shift pension behaviour at a scale that no behavioural intervention can match. Estonia's 2021 pension reform illustrates how powerful the messenger effect can be. The campaign for voluntary withdrawal was framed as a rescue of "your money" from a failing system, under slogans such as "your money is burning" and "free money". The message was amplified by a small number of highly credible endorsers, including former banker Indrek Neivelt (Reinson, 2026). The framing landed because parts of the system genuinely had performed poorly: high fees, weak returns and the conservative-fund lottery described earlier in this report.

Eesti Pank, the OECD and the Ministry of Finance issued technically correct warnings about the long-term costs of withdrawal. Those warnings were correct. They were also outmatched. Loss aversion makes people highly receptive to messages that recast a pension as a loss already underway. Estonia's "your money is burning" slogan worked precisely in this way, turning a long-term retirement asset into something that appeared to need rescuing. Where trust in institutions is thin, exit can feel like the prudent decision regardless of the underlying economics.

The lasting impact extended beyond the 37% who withdrew. The reform signalled that pension rules are negotiable and that future governments may revisit them again. Members who remained in the system now save in the knowledge that the terms may change.

Lithuania provides a similar example. Public debate around the 2026 reform frequently framed the 2nd pillar as a system from which people needed to be released. Participation was portrayed as a restriction rather than a safeguard, and reform proposals emphasised individual freedom and immediate control over savings. The message resonated because it connected with existing concerns about ownership, autonomy and trust.

The messenger effect also operates in positive ways. The Tuleva pension fund in Estonia, founded as a citizen-led co-operative in 2017, gained traction in part because it was perceived as independent of the banking sector that had previously dominated the 2nd pension pillar market (Reinson, 2026). Its founders functioned as messengers as much as fund managers, helping to build credibility among savers who were sceptical of traditional financial institutions. The example illustrates a broader point: trade unions, employer associations, respected financial educators and other trusted intermediaries can often reach groups that ministries, supervisors and pension providers struggle to engage.

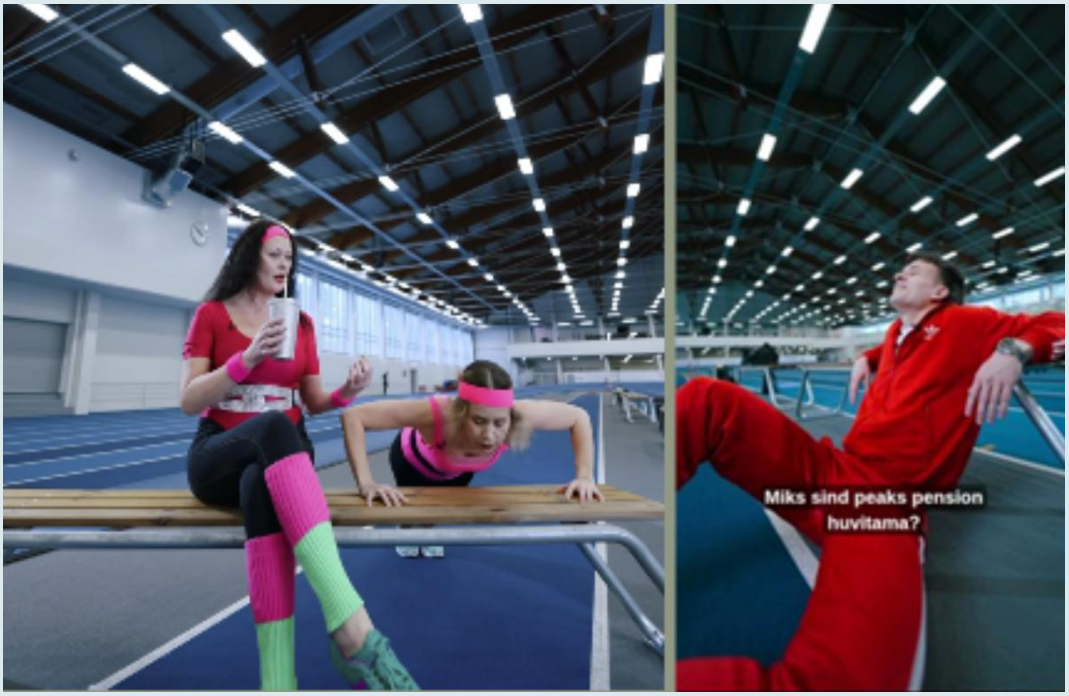
The implication for pension policy is that the messenger landscape cannot be ignored. Pension systems are shaped not only by incentives and architecture, but also by who people choose to trust. Supervisors and providers need to think carefully about who their members listen to on questions of money and retirement, and to engage those voices rather than relying on official communications alone. The Baltic experience also suggests that hostile political messaging can erode participation far faster than behavioural interventions can build it.

CASE STUDY: ESTONIAN CAMPAIGN COMBINED HUMOUR AND FAME

In spring 2026, the Estonian Ministry of Social Affairs launched a humorous campaign to promote voluntary saving and raise general awareness of pension topics. It featured well-known actors and musicians in various age groups. The campaign included short and humorous educational clips shared at public events and through social media.

The format works on two levels. Humour lowers the threshold for engaging with a subject most people prefer to avoid, and familiar faces from different generations let the message speak to savers at very different distances from retirement. In one clip, for example, regular saving and the effect of compound interest is explained through slow and long-term positive outcomes of physical exercise.

Although a full evaluation is not yet available, early results suggest substantially higher engagement than traditional pension communications. Whereas official pension messages often reached around 15,000 views, videos featuring well-known personalities attracted approximately 60,000 views.



Source: Images from the campaign by the Estonian Ministry of Social Affairs

4. SYSTEM DESIGN OVER INDIVIDUAL FIXES

Pension reform debates across the Baltics are increasingly framed as a question of freedom. Should savers be free to choose whether to participate, where their money is invested, and when to withdraw it? Phrased this way, the answer is almost always yes. Few politicians want to argue that adults should not be trusted with their own money. Estonia's 2021 reform was campaigned for under exactly this banner, and Lithuania's 2026 reform has used similar language.

But freedom of choice presupposes that consumers can meaningfully exercise the choices on offer. Pensions are among the most complex financial products most people will ever encounter. They span four or five decades, depend on assumptions about inflation, investment returns, mortality and life events that few people can forecast, and are governed by tax rules and fee structures that change over time.

The previous chapters asked how pension decisions can be improved through behavioural design. This chapter asks a more fundamental question: where should responsibility actually sit?

Why pensions are a poor candidate for a pure consumer-responsibility approach

When the horizon is long, the complexity high, and the cost of error concentrated on those least able to absorb it, "let consumers choose" produces predictable harm. The challenge is how to protect savers without unnecessarily restricting the choices that informed and engaged individuals can reasonably make.

First, **the time horizon defeats learning.** Most products teach through feedback: a bad meal warns you off the restaurant. Pensions deliver their feedback decades after the decision, when it can no longer be undone. Nobody gets a second chance to enrol at twenty-five.

Second, **the complexity exceeds what a reasonable saver can manage**. The Estonian pension-literacy survey found that core concepts—from compound interest to the distinction between a guaranteed and a projected pension—are understood by only a minority of working-age adults, with particularly large gaps by language and education. Latvia and Lithuania show similar patterns (Pulk et al., 2024). Asking the median saver to navigate a major 2nd pillar reform unaided is asking them to do something they cannot reliably do.

Third, **the standard remedies have a weak record**. Financial-literacy programmes typically produce small and often insignificant changes in actual behaviour (Lusardi & Mitchell, 2014). They can also serve as an alibi for under-regulating products, recasting poor outcomes as the fault of consumers who failed to learn (Willis, 2008; Campbell, 2016). Disclosure fares little better.

Drawing on Australian and international evidence, Thorp and colleagues argue that the informed-consumer assumption rarely holds. Disclosure presumes a reader who reads, has time to process technical information and understands it. In practice, fund names, brand familiarity and peer behaviour often matter more than the information provided (Cronqvist & Thaler, 2004; Beshears et al., 2018). A statement showing a 1.5% annual charge does not help a member who cannot see what 1.5% compounded over forty years removes from their final pension balance. Where the product itself is misaligned with member interests, no amount of disclosure can repair it.

Asymmetric paternalism and the five measures that meet the test

Camerer et al. (2003) offer a useful test for pension policy: asymmetric paternalism. A measure is easy to justify when it protects less sophisticated savers at little or no cost to those who are informed and engaged. Applied to pensions, the principle points towards a small number of interventions that improve outcomes for passive savers while preserving freedom of choice for active ones.

Auto-enrolment with high-quality defaults. The strongest structural lever for participation remains mandatory or quasi-mandatory enrolment with sound default settings. Estonia and Latvia retain versions of it; Lithuania's 2026 reform abandons it, and no improvement in reminders or framing for those who do enrol can compensate for lowering the participation floor itself (Section 2.1).

Default investment standards. Estonia's 2019 lottery reform (Section 2.1) showed that defaults are products in their own right, and the regulator's task is to make sure they are adequate for the people who land in them. No nudge available to a non-chooser could have matched what that structural change delivered.

Fee caps and lifetime-cost transparency. Estonia's 2015 cap cut average fees sharply within five years (Section 2.3); Latvia and Lithuania have parallel mechanisms but enforce them less firmly. Adding a lifetime-cost figure in euros to disclosure costs a well-run fund nothing; only expensive funds have anything to fear. The FCA's Value for Money Framework, which rates schemes red, amber, or green and requires poor performers to improve or move their savers elsewhere, shows how this becomes supervision rather than paperwork (CP26/1, 2026).

Restrictions on misleading marketing. Slogans like "your money is burning" would not have been permitted in consumer-credit or insurance advertising, yet pension communications around withdrawal windows sit in a regulatory grey zone in all three countries. Holding them to the standards already applied to credit and gambling leaves the underlying choice untouched and removes only the informational distortion around it.

Guidance before irreversible decisions. The UK's Pension Wise offers free, independent guidance to anyone about to access their defined-contribution savings, reflecting the principle that irreversible decisions warrant advice that savers should not miss through ignorance (Inderst & Ottaviani, 2012). However, the UK's experience since the 2015 pension freedoms reforms suggests that guidance alone has limited ability to overcome behavioural biases. Notably, policymakers increasingly responded not with more guidance, but with additional consumer protections, including investment pathways, Consumer Duty obligations for firms and the emerging targeted-support regime. The experience reinforces a broader lesson: guidance can help, but it is rarely a substitute for sound system design and consumer protection. A Baltic equivalent, a mandatory consultation before any 2nd pillar withdrawal above a set threshold (€10,000, for example) would cover the highest-stakes decision in the system without limiting choice.

The five measures above share a common feature. They improve outcomes primarily by changing the environment within which decisions are made rather than by expecting consumers to become better decision-makers. This distinction has become increasingly important in behavioural economics.

The i-frame and the s-frame approaches

Chater and Loewenstein (2023) distinguish between interventions that seek to improve individual decision-making and those that seek to improve outcomes by changing the design of the system itself. Interventions in the i-frame target the individual: nudges, reminders, financial-literacy programmes and simplified disclosures. Interventions in the s-frame target the institutional environment: product-governance rules, fee caps, automatic enrolment, default arrangements, restrictions on harmful sales practices and other measures that shape market outcomes.

Their central argument is that policymakers often place too much emphasis on changing consumer behaviour and too little on fixing the systems within which consumers make decisions. When problems are framed as failures of individual decision-making, the response tends to be more education, more disclosure or another nudge. Yet many poor outcomes arise not because consumers make bad

choices, but because products are poorly designed, incentives are misaligned or harmful options are available in the first place.

The distinction provides a useful way of thinking about pension reform. The question is not whether a measure changes behaviour, but whether it addresses the source of the problem. Some pension challenges arise because savers fail to notice, understand or act on information. In these cases, reminders, simplified disclosure and other behavioural interventions can improve outcomes. Other challenges arise because products are poorly designed, incentives are misaligned or harmful options are available in the first place. In these cases, behavioural interventions are unlikely to be sufficient, and stronger consumer-protection, competition or product-governance measures may be required.

A well-designed reminder may increase contributions at the margin (Reinson et al., 2026), but it cannot compensate for a fee structure that erodes a substantial share of lifetime returns or a withdrawal regime that turns decades of retirement saving into short-term consumption. Before reaching for a nudge, policymakers should ask whether the behavioural intervention is being asked to solve a problem that would be addressed more effectively through changes to product design, market rules or consumer protection.

A well-functioning pension system uses both approaches. Sound product design and consumer protection provide the foundation, while defaults, prompts and other behavioural tools help savers navigate the choices that remain.

Towards a principled and balanced position

Behavioural interventions are one part of a broader financial-services policy and regulatory toolkit. The case for behavioural design is not a case against regulation, consumer protection, competition policy or product governance. It is also important to recognise that behavioural biases do not affect only individual decisions. At scale, they shape competition, product design, pricing strategies and market outcomes. Individual behavioural problems can therefore become market-level problems and may require market-level solutions.

Three principles follow.

First, **start with the source of harm, not the type of intervention**. Effective policy begins with understanding how consumer behaviour, firm incentives and market dynamics interact to produce poor outcomes. Behavioural biases may sometimes be addressed through nudges, defaults or disclosure, but in other cases the appropriate

response may be product governance, consumer-protection rules, competition remedies or broader regulatory reform. The objective is not to choose between behavioural and traditional interventions, but to identify the combination of tools most likely to address the underlying source of harm.

Second, **watch for displacement**. When industry actors or policymakers propose behavioural solutions to problems with broader structural causes or effects, it is worth asking whether the proposal sufficiently addresses the underlying issue or merely fills the space where regulation, supervision or market intervention would otherwise sit (Chater & Loewenstein, 2023). Estonia's 2021 framing of withdrawal as "freedom" was i-frame language deployed to dismantle an s-frame protection, and Lithuania's 2026 reform follows a similar pattern.

Third, **default to protection where reversibility is low.** Forty years of foregone compounding cannot be replayed at sixty-five. Where decisions are frequent and reversible, freedom of choice is often justified. Where decisions are rare, complex and difficult to reverse, stronger consumer protections may be warranted, and the burden of proof falls on those arguing for greater individual responsibility.

The Baltic states have, in different ways, all run an experiment in shifting pension responsibility toward the individual, and the early evidence shows the pattern Chater and Loewenstein predict: those least able to absorb the consequences are often the most likely to make the costly choice (Reinson, Post & Uusberg, 2025; see the trust chapter). A consumer-protection layer that limits the impact of the worst options without restricting the rest would correct that asymmetry without sacrificing the benefits of behavioural design. Designing better pensions in the Baltics requires both.

5. CONCLUSION AND RECOMMENDATIONS

The international literature can leave the impression that good behavioural pension design is something that happens elsewhere. The Baltic record suggests otherwise. A default-fund reform lifted the projected balances of thousands of savers, a tax deadline triggered a surge in voluntary pension saving, and a reminder programme paid for itself many times over within a week. The recommendations below build on interventions that have already been tested locally and divide according to who holds the policy lever.

Recommendations for policy makers:

- **Legislate long-term policy stability.** All three countries should adopt clauses modelled on Estonia's draft proposal, requiring several years between the adoption and implementation of any change that weakens the funded pillars. A forty-year product needs rules that outlast an electoral cycle.

- **Keep enrolment in pensions mandatory or automatic.** Mandatory enrolment or auto-enrolment with sound defaults remains the strongest participation lever available, and no downstream intervention can compensate for removing it. Estonia and Latvia should treat their systems as load-bearing, while Lithuania should closely monitor the effects of its reform and remain open to restoring automatic enrolment if participation declines as projected.

- **Make higher contribution rates the default where choice is available**. Estonia's 2025 flexibility revealed latent demand for higher saving. The next step is making 4% or 6% the default for new entrants and fund switchers, while preserving the option to step down.

- **Make the numbers honest.** Require lifetime costs in euros alongside annual percentage fees and annualised net returns wherever savers see their pension, including internet-banking interfaces that marketing rules currently miss.

- **Regulate the exit door.** Hold withdrawal-window communications to standards already applied to consumer credit and gambling, preserve cooling-off periods and introduce a mandatory guidance step before large 2nd pillar withdrawals.

Recommendations for pension providers and employers:

- **Build the reminder engine.** Deadline-timed, specific and sparing reminders are among the cheapest interventions available. The registry infrastructure already exists across the Baltics, while payroll events and pay rises provide natural triggers for employers.

- **Make contributing effortless.** A contribution should take one click in a mobile app. Every additional form, signature and queue suppresses saving that members already intend to make.

- **Sell the match.** Present the state's contribution as a match for higher personal contribution tiers rather than as background plumbing. Matching contributions pull people towards thresholds.

- **Lead with income not total pot size.** Statements, calculators and apps should show projected monthly retirement income across all pillars, under a range of scenarios, before displaying accumulated balances.

- **Borrow the saver's real motivations.** Family-security framing was the only message in the Estonian megastudy to increase both participation and contribution amounts. Social norms and labelled contribution targets work in the same direction.

- **Curate the menu.** Fewer, better options supported by a strong default outperform long fund lists. Active-choice prompts belong at moments of life change, not in every newsletter.

The next test

The first large cohorts of funded-pillar savers are approaching retirement, and decumulation will pose every design question examined in this paper, but at the exit rather than the entrance: what the default payout path should be, how income should be framed against the lump sum, where friction belongs and who delivers the message.

The accumulation phase was designed first and behaviourally repaired afterwards, at the cost of a decade of poor defaults, high fees and one major trust crisis. Decumulation offers a chance to do better. The savers it must serve are the same people this paper began with: busy, imperfect, capable, and reasonably preoccupied with things other than retirement. Design for them, and better pensions follow.

GLOSSARY

Here we define a selection of terms used when applying behavioural science in pension policy. We hope these become part of Baltic conversations between policymakers, industry, and journalists.

Active choice. A design that requires participants to make a decision rather than allowing inaction to result in a default outcome. Distinct from both opt-in (where inaction means non-participation) and opt-out (where inaction means participation).

Auto-enrolment. A pension-plan design in which employees are enrolled by default and must take action to opt out. Substantially raises participation rates compared to opt-in regimes.

Auto-escalation. A pension-plan feature, often paired with auto-enrolment, that automatically increases contribution rates over time (typically at pay rises) unless the member opts out. The "Save More Tomorrow" plan (Thaler & Benartzi, 2004) is the canonical version.

Choice architecture. The structure within which people make decisions: which options are presented, in what order, with what defaults, and through what process. The term emphasises that there is no neutral way to present a choice; every presentation shapes the decision.

Choice overload. The finding that adding options beyond a handful can reduce the likelihood of choosing at all and lower satisfaction with the choice made. The effect varies with context and complexity; in pension menus, longer fund lists have been linked to lower participation (Iyengar, Huberman & Jiang, 2004).

Decumulation. The phase in which accumulated pension savings are converted into retirement income, through annuities, programmed withdrawals, or lump sums. The design questions of the accumulation phase (defaults, framing, friction) recur here in mirror image.

Default. The outcome that obtains when a participant takes no action. Defaults shape behaviour powerfully because most participants take no action.

Descriptive social norm. A statement of what others actually do (e.g., "X% of your colleagues contribute to a 3rd pillar"). Often shifts behaviour because people use peer behaviour as a guide to what is normal and reasonable.

Framing effect. A finding that the same factual information presented in different ways (gain vs. loss, income vs. lump sum, formal vs. casual) produces different decisions, even when the underlying economics is unchanged.

Fresh-start effect. The tendency for people to be more motivated to pursue aspirational goals at the start of a new period (year, month, birthday, life event). Documented across exercise, dieting, and saving (Dai et al., 2014).

Hassle costs. Administrative or cognitive friction that discourages participants from taking actions they would otherwise prefer. Closely related to sludge. Reducing hassle costs reliably increases take-up of pensions, benefits, and tax credits.

i-frame / s-frame. A distinction between interventions aimed at the individual (information, nudges, reminders: the i-frame) and interventions aimed at the system (regulation, product rules, market structure: the s-frame). Coined by Chater and Loewenstein (2023) to warn against letting the first substitute for the second.

Implementation intentions. A planning technique that converts a vague intention ("I should save more") into a specific action plan ("I will increase my contribution by €50 on January 1"). When/where/how prompts substantially raise follow-through (Gollwitzer & Sheeran, 2006).

Lifecycle fund (also "target-date fund"). An investment fund whose asset allocation automatically becomes more conservative as the participant ages, reducing the need for active rebalancing.

Loss aversion. The well-documented tendency for losses to feel roughly twice as painful as equivalent gains feel pleasant (Kahneman & Tversky, 1979). Underpins much of the framing literature: messages that present an outcome as a loss to be avoided often outperform messages that present the same outcome as a gain to be obtained.

Megastudy. A single field experiment that tests many interventions simultaneously against a common control group, allowing direct comparison of effect sizes (Milkman et al., 2021). The 2023 Estonian tax-deadline reminder study (Reinson et al., 2026) is an example.

Messenger effect. The finding that identical content is received differently depending on who delivers it. Trusted, credible, or familiar messengers are more persuasive than institutional or anonymous ones (Dolan et al., 2012).

Nudge. A change in choice architecture that predictably alters behaviour without restricting options or significantly changing economic incentives (Thaler & Sunstein, 2008).

Present bias. The tendency to over-weight immediate rewards and under-weight future ones, even when people themselves judge the future rewards to be more important. A central reason retirement saving is harder than it should be (Laibson, 1997).

Prize-linked savings. Savings products that replace some or all of the interest with a lottery prize, with expected returns equivalent to a standard product. The lottery element draws attention from demographic segments that conventional interest-bearing accounts fail to reach (Tufano, 2008).

Replacement rate. Retirement income as a share of pre-retirement earnings. The standard measure of pension adequacy; net replacement rates compare after-tax amounts.

Sludge. Friction that obstructs choices participants would otherwise make. The opposite of a nudge in normative effect, even if structurally similar (Sunstein, 2022).

Status quo bias. The tendency to prefer the current state of affairs, treating any change as a loss. A close cousin of inertia and a major reason why defaults are so powerful.

Strategic friction. Friction deliberately added to a decision process to slow down impulsive or irreversible choices, while leaving the choice itself unrestricted. Estonia's 3 to 5-month delay between a pension withdrawal application and the payout is an example.

REFERENCES

Barr, N., & Diamond, P. (2009). *Reforming pensions: Principles, analytical errors and policy directions.* International Social Security Review, 62(2), 5–29.

Bateman, H., Dobrescu, L. I., Liu, J., Newell, B. R., & Thorp, S. (2023). Determinants of early-access to retirement savings: Lessons from the COVID-19 pandemic. *The Journal of the Economics of Ageing*, *24*, 100441.

Behavioural Insights Team. (2014). *EAST: Four simple ways to apply behavioural insights*. Behavioural Insights Ltd.

Benartzi, S., & Thaler, R. H. (1999). Risk aversion or myopia? Choices in repeated gambles and retirement investments. *Management Science*, 45(3), 364–381.

Benartzi, S., & Thaler, R. H. (2001). Naive diversification strategies in defined contribution saving plans. *American Economic Review*, *91*(1), 79–98.

Benartzi, S., & Thaler, R. H. (2007). Heuristics and biases in retirement savings behavior. *Journal of Economic Perspectives*, *21*(3), 81–104.

Berns, G. S., Laibson, D., & Loewenstein, G. (2007). Intertemporal choice: toward an integrative framework. *Trends in Cognitive Sciences*, *11*(11), 482–488.

Beshears, J., Blakstad, M., Choi, J. J., Firth, C., Gathergood, J., Laibson, D., ... & Stewart, N. (2024). *Does pension automatic enrollment increase debt? Evidence from a large-scale natural experiment* (Working Paper No. w32100). National Bureau of Economic Research.

Beshears, J., Blakstad, M., Choi, J. J., Firth, C., Gathergood, J., Laibson, D., Notianti, R., Sakaguchi, H., Sicherman, N., & Stewart, N. (2024). Does pension automatic enrollment increase debt? Evidence from a large-scale natural experiment. NBER Working Paper No. 32100.

Beshears, J., Choi, J. J., Hurwitz, J., Laibson, D., & Madrian, B. C. (2015). Retirement savings and household decisions. *American Economic Review (Papers & Proceedings)*, *105*(5), 420–425.

Beshears, J., Choi, J. J., Laibson, D., & Madrian, B. C. (2018). Behavioral household finance. In B. D. Bernheim, S. DellaVigna, & D. Laibson (Eds.), *Handbook of Behavioral Economics: Foundations and Applications 1* (pp. 177–276). Elsevier.

Beshears, J., Dai, H., Milkman, K. L., & Benartzi, S. (2021). Using fresh starts to nudge increased retirement savings. *Organizational Behavior and Human Decision Processes*, *167*, 72–87.

Beugelsdijk, S., Kostova, T., & Roth, K. (2017). An overview of Hofstede-inspired country-level culture research in international business since 2006. *Journal of International Business Studies*, *48*(1), 30–47.

Camerer, C., Issacharoff, S., Loewenstein, G., O'Donoghue, T., & Rabin, M. (2003). Regulation for conservatives: Behavioral economics and the case for "asymmetric paternalism". *University of Pennsylvania Law Review*, 151(3), 1211–1254.

Campbell, J. Y. (2016). Restoring rational choice: The challenge of consumer financial regulation. *American Economic Review*, 106(5), 1–30.

Chater, N., & Loewenstein, G. (2023). The i-frame and the s-frame: How focusing on individual-level solutions has led behavioral public policy astray. *Behavioral and Brain Sciences*, 46, e147.

Chetty, R., Friedman, J. N., Leth-Petersen, S., Nielsen, T. H., & Olsen, T. (2014). Active vs. passive decisions and crowd-out in retirement savings accounts: Evidence from Denmark. *Quarterly Journal of Economics*, *129*(3), 1141–1219.

Choi, J. J., Laibson, D., Cammarota, J., Lombardo, R., & Beshears, J. (2024). *Smaller than we thought? The effect of automatic savings policies* (Working Paper No. w32828). National Bureau of Economic Research.

Choi, J. J., Laibson, D., Cammarota, J., Lombardo, R., & Beshears, J. (2024). Smaller than we thought? The effect of automatic savings policies. NBER Working Paper No. 32828.

Choi, J. J., Laibson, D., Madrian, B. C., & Metrick, A. (2002). Defined contribution pensions: Plan rules, participant decisions, and the path of least resistance. In J. M. Poterba (Ed.), *Tax Policy and the Economy, Vol. 16* (pp. 67–113). MIT Press.

Choi, J. J., Laibson, D., Madrian, B. C., & Metrick, A. (2005). Optimal defaults and active decisions. NBER Working Paper No. 11074.

Cialdini, R. B. (2007). Descriptive social norms as underappreciated sources of social control. *Psychometrika*, *72*(2), 263–268.

Cole, S., Iverson, B., & Tufano, P. (2014). Can gambling increase savings? Empirical evidence on prize-linked savings accounts. Harvard Business School Working Paper.

Cronqvist, H., & Thaler, R. H. (2004). Design choices in privatized social-security systems: Learning from the Swedish experience. *American Economic Review*, *94*(2), 425–428.

Dai, H., Milkman, K. L., & Riis, J. (2014). The fresh start effect: Temporal landmarks motivate aspirational behavior. *Management Science*, *60*(10), 2563–2582.

Dalen, H. P. van, & Henkens, K. (2023). Trust in pension funds, or the importance of being financially sound. *Journal of Pension Economics & Finance*, *22*(4), 658–669.

Damgaard, M. T., & Gravert, C. (2018). The hidden costs of nudging: Experimental evidence from reminders in fundraising. *Journal of Public Economics*, *157*, 15–26.

Daminato, C., Filippini, M., & Haufler, F. (2024). Digitalization and retirement contribution behavior: Evidence from administrative data. *Review of Financial Studies*, *37*(8), 2510–2549.

Dolan, P., Hallsworth, M., Halpern, D., King, D., Metcalfe, R., & Vlaev, I. (2012). Influencing behaviour: The mindspace way. *Journal of Economic Psychology*, *33*(1), 264–277.

Duflo, E., & Saez, E. (2002). Participation and investment decisions in a retirement plan: The influence of colleagues' choices. *Journal of Public Economics*, *85*(1), 121–148.

Eberhardt, W., Brüggen, E., Post, T., & Hoet, C. (2021). Engagement behavior and financial well-being: The effect of message framing in online pension communication. *International Journal of Research in Marketing*, *38*(2), 448–471.

Engler, D., Gutsche, G., & Smeets, P. (2024). *Why Do Investors Pay Higher Fees for Sustainable Investments?: An Experiment in Five European Countries*. Netspar, Network for Studies on Pensions, Aging and Retirement.

European Commission. (2024). *The 2024 ageing report: Economic and budgetary projections for the EU member states (2022–2070)*. Publications Office of the European Union.

European Commission. (2024). *The 2024 Ageing Report: Economic and budgetary projections for the EU member states (2022–2070)*. Publications Office of the European Union.

Financial Conduct Authority. (2026). *The value for money framework: Response to consultation, further consultation and discussion paper* (Consultation Paper CP26/1). https://www.fca.org.uk/publication/consultation/cp26-1.pdf

Fishbane, A., Ouss, A., & Shah, A. K. (2020). Behavioral nudges reduce failure to appear for court. *Science*, *370*(6517), eabb6591.

Fuentes, O. M., Mitchell, O. S., & Villatoro, F. (2023). Early pension withdrawals in Chile during the pandemic. *Journal of Pension Economics & Finance*, 1–26.

Goldstein, D. G., Hershfield, H. E., & Benartzi, S. (2016). The illusion of wealth and its reversal. *Journal of Marketing Research*, *53*(2), 228–241.

Gollwitzer, P. M., & Sheeran, P. (2006). Implementation intentions and goal achievement: A meta-analysis of effects and processes. *Advances in Experimental Social Psychology*, *38*, 69–119.

Gravert, C. (2022). Nudges and reminders. In N. Mažar & D. Soman (Eds.), *Behavioral Science in the Wild* (pp. 120–132). University of Toronto Press.

Gudaitis, T. (2025). Guest comment: Lithuania's pension system at risk — a call for long-term thinking. *European Pensions*. https://www.europeanpensions.net/ep/Guest-Comment-Lithuania-pension-system-at-risk-a-call-for-long-term-thinking.php

Gudaitis, T., Mečkovski, J., Medaiskis, T., & Poškutė, V. (2025). *First and second pillar pensions: Costs and benefits for contributors in the Baltics.* Baltic Journal of Economics, *25*(2), 232–254. https://doi.org/10.1080/1406099X.2025.2577017

Hershfield, H. E. (2011). Future self-continuity: How conceptions of the future self transform intertemporal choice. *Annals of the New York Academy of Sciences*, *1235*(1), 30–43.

Hu, K., De Rosa, E., & Anderson, A. K. (2018). Differential temporal salience of earning and saving. *Nature Communications*, *9*, Article 2843.

Inderst, R., & Ottaviani, M. (2012). Financial advice. *Journal of Economic Literature*, 50(2), 494–512.

Iyengar, S. S., Huberman, G., & Jiang, W. (2004). How much choice is too much: Determinants of individual contributions in 401(k) retirement plans. In O. S. Mitchell

& S. Utkus (Eds.), *Pension Design and Structure: New Lessons from Behavioral Finance* (pp. 83–95). Oxford University Press.

Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, *47*(2), 263–291.

Karlan, D., McConnell, M., Mullainathan, S., & Zinman, J. (2016). Getting to the top of mind: How reminders increase saving. *Management Science*, *62*(12), 3393–3411.

Knox, D. (2024). *Mercer CFA Institute Global Pension Index 2024*. Mercer & CFA Institute. https://rpc.cfainstitute.org/research/reports/2024/mercer-cfa-institute-global-pension-index-2024

Laibson, D. (1997). Golden eggs and hyperbolic discounting. *Quarterly Journal of Economics*, *112*(2), 443–477.

Le Bouc, R., & Pessiglione, M. (2022). A neuro-computational account of procrastination behavior. *Nature Communications*, *13*, Article 5639.

Linos, E., Lasky-Fink, J., Larkin, C., Moore, L., & Kirkman, E. (2024). The formality effect. *Nature Human Behaviour*, *8*(2), 300–310.

Lithuanian Seimas. (2025, June 26). *Seimas approved reforms of the second-pillar pension scheme* [Press release]. https://www.lrs.lt

LRT English. (2025, June 26). Lithuanian MPs approve pension reform allowing opt-outs and withdrawals from private funds.

Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, 52(1), 5–44.

LV portāls. (2024). No pensiju 2. līmeņa pārvaldītāja sagaidāms ieteikums mainīt ieguldījumu plānu. https://lvportals.lv/skaidrojumi/365673-no-pensiju-2-limena-parvalditaja-sagaidams-ieteikums-mainit-ieguldijumu-planu-2024

Madrian, B. C. (2014). Applying insights from behavioral economics to policy design. *Annual Review of Economics*, *6*, 663–688.

Madrian, B. C., & Shea, D. F. (2001). The power of suggestion: Inertia in 401(k) participation and savings behavior. *Quarterly Journal of Economics*, *116*(4), 1149–1187.

Mertens, S., Herberz, M., Hahnel, U. J. J., & Brosch, T. (2022). The effectiveness of nudging: A meta-analysis of choice architecture interventions across behavioural domains. *Proceedings of the National Academy of Sciences*, *119*(1), e2107346118.

Milkman, K. L., Ellis, S. F., Gromet, D. M., DeMay, I. M., Graci, H. N., Jung, Y., et al., & Duckworth, A. L. (2025). Can reminder emails compel Americans to save? A two-million-person megastudy. *PNAS Nexus*, *4*(9).

Milkman, K. L., Gromet, D., Ho, H., Kay, J. S., Lee, T. W., Pandiloski, P., et al., & Duckworth, A. L. (2021). Megastudies improve the impact of applied behavioural science. *Nature*, *600*(7889), 478–483.

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.

NEST Insight. (2026). *Using pension savings to support home ownership*. https://www.nestinsight.org.uk/wp-content/uploads/2026/01/Using-pension-savings-to-support-home-ownership.pdf

OECD. (2025). *Pensions at a glance 2025: OECD and G20 indicators*. OECD Publishing. https://doi.org/10.1787/e40274c1-en

OECD. (2025). *Pensions at a Glance 2025: OECD and G20 indicators*. OECD Publishing.

Pulk, K., Riitsalu, L., Vain, K., Trankmann, S., Võrk, A., Tubelt, E., & Espenberg, S. (2024). *Pensionitarkuse uuring: Lõpparuanne* [Pension literacy survey: Final report]. Tartu Ülikooli sotsiaalteaduslike rakendusuuringute keskus RAKE. Commissioned by Sotsiaalministeerium. https://sm.ee/sites/default/files/documents/2024-06/Pensionitarkuse%20uuring.%20L%C3%B5pparuanne.pdf

Pulk, K., Riitsalu, L., Vain, K., Trankmann, S., Võrk, A., Tubelt, E., & Espenberg, S. (2024). *Pensionitarkuse uuring: Lõpparuanne* [Pension literacy survey: Final report]. University of Tartu RAKE.

Reinson, H. (2026). *Five years since the Estonian 2nd pension pillar reform: What have we learned?* Baltic Finance Center, Riga Business School.

Reinson, H., Mawby, M., McPhedran, R., Uusberg, A. (2026). *Taming pension freedoms: Salience of tax cost discourages early withdrawal of retirement savings* [Manuscript in preparation]

Reinson, H., Post, T., & Uusberg, A. (2025). *Mind the double jeopardy: Institutional mistrust and minority status relate to both lower saving and early withdrawal of pension funds*. SSRN. https://dx.doi.org/10.2139/ssrn.5268796

Reinson, H., Post, T., Mazar, N., Reeck, C., Syropoulos, S., Saulitis, A., Shah, A., & Uusberg, A. (2026). Behavioural messages amplify tax incentives: A nationwide megastudy of retirement savings reminders. [Manuscript in review]. Preprint: https://www.researchsquare.com/article/rs-8008072/v1

Saez, E. (2009). Details matter: The impact of presentation and information on the take-up of financial incentives for retirement saving. *American Economic Journal: Economic Policy*, *1*(1), 204–228.

Shah, A. M., Osborne, M., Lefkowitz Kalter, J., Fertig, A., Fishbane, A., & Soman, D. (2023). Identifying heterogeneity using recursive partitioning: Evidence from SMS nudges encouraging voluntary retirement savings in Mexico. *PNAS Nexus*, *2*(5), pgad058.

Shefrin, H. M., & Thaler, R. H. (1988). *The behavioral life-cycle hypothesis.* Economic Inquiry, *26*(4),609–643.

Soman, D. (2020). *Sludge: A Very Short Introduction to How Friction Affects Lives*. University of Toronto.

Sotsiaalministeerium & Rahandusministeerium. (2022). *Eesti pensionisüsteemi jätkusuutlikkuse analüüs 2022* [Analysis of the sustainability of Estonia's pension system 2022]. https://www.sm.ee

Sunstein, C. R. (2022). The distributional effects of nudges. *Nature Human Behaviour*, *6*(1), 9–10.

Thaler, R. H., & Benartzi, S. (2004). Save More Tomorrow: Using behavioral economics to increase employee saving. *Journal of Political Economy*, *112*(S1), S164–S187.

Thaler, R. H., & Sunstein, C. R. (2008). *Nudge: Improving Decisions about Health, Wealth, and Happiness*. Yale University Press.

Tufano, P. (2008). Saving whilst gambling: An empirical analysis of UK premium bonds. *American Economic Review*, *98*(2), 321–326.

Vanguard. (2004). *How America Saves: A Report on Vanguard Defined Contribution Plans 2004*.

Willis, L. E. (2008). Against financial-literacy education. *Iowa Law Review*, 94(1), 197–285.

finance.rbs.lv

Funded by the European Union
NextGenerationEU

2027 National Development Plan

RBS Riga Business School
Riga Technical University

BALTIC FINANCE CENTER