

Overcoming inertia in retirement saving

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Document version:

Publisher's PDF, also known as Version of record

Publication date:

2016

[Link to publication](#)

Citation for published version (APA):

Krijnen, J. M. T., Breugelmans, S. M., & Zeelenberg, M. (2016). *Overcoming inertia in retirement saving: Why now and how?* (NETSPAR Industry series). NETSPAR.

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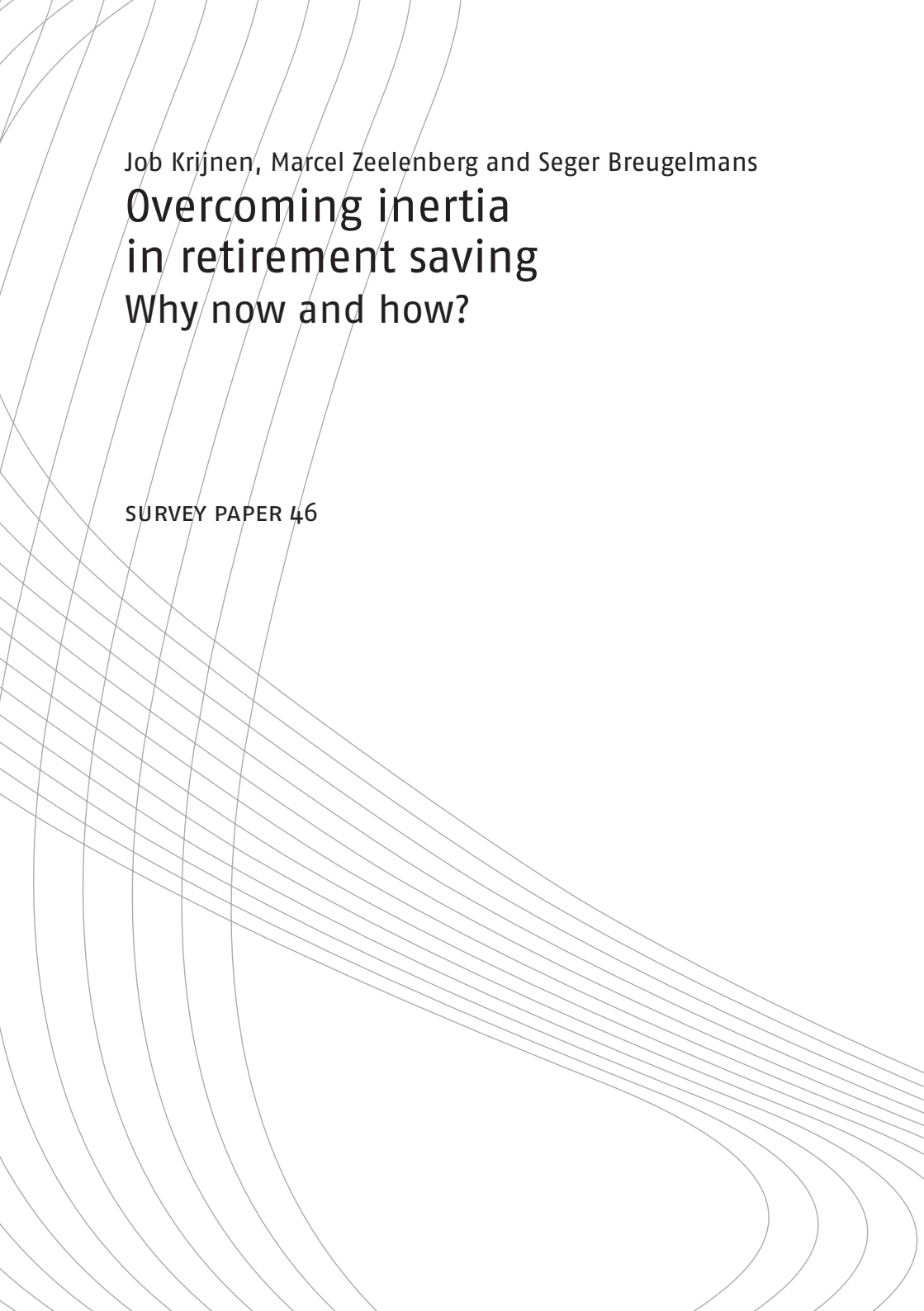
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Overcoming inertia in retirement saving

Why now and how?

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Job Krijnen, Marcel Zeelenberg and Seger Breugelmans

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SURVEY PAPER 46

Survey Papers, part of the Industry Paper Serie, provide a concise summary of the ever-growing body of scientific literature on the effects of an aging society and, in addition, provide support for a better theoretical underpinning of policy advice. They attempt to present an overview of the latest, most relevant research, explain it in non-technical terms and offer Netspar partners a summary of the policy implications. Survey Papers are presented for discussion at Netspar events. The panel members are made up of representatives of academic and private sector partners, along with international academics. Survey Papers are published on the Netspar website and also appear in a print version.

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June 2016

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Acknowledgments

The authors thank the participants of the Netspar Pension Day (Utrecht, October 1, 2015) and the Netspar Workshop on freedom of choice and communication (Rotterdam, October 16, 2015) for their feedback on earlier versions of this paper.

OVERCOMING INERTIA IN RETIREMENT SAVING

1. Overview of policy recommendations

Table 1.

Why Now?	How?
<p>People know that retirement saving is important, yet many do not know why it is urgent. We recommend:</p>	<p>People know that retirement saving is important, yet many do not know how to take action. We recommend:</p>
<p>I: Provide timely reminders about the costs of waiting and the benefits of immediate action. Timely reminders emphasize urgency instead of importance, and make the appropriate aspects prominent at the appropriate time.</p>	<p>I: Simplify retirement saving to stimulate immediate action. Financial education and communication should focus on 'how'. Ideally, communication provides people with simple steps.</p>
<p>II: Use active choice framing in communication and choice architecture. Active choice framing focuses people's attention on aspects that normally go unnoticed and makes people feel responsible for both their actions and inaction.</p>	<p>II: Provide commitment options. Give people the option to make decisions for their future, either binding or non-binding. Commitment options build on the tendency of people to perceive the future as a more appropriate time for retirement saving.</p>
<p>III: Implement deadlines to make the cost of waiting more salient. Deadlines create a sense of urgency and a clear moment for people to choose actively between action and inaction.</p>	<p>III: Restrict choice and set smart defaults. When choice is restricted and/or smart defaults are used, inertia will have fewer negative consequences.</p>

2. Abstract

Saving for retirement is one of the most important financial matters that people face during their lives. Whereas the Dutch on average accumulate sufficient retirement wealth, quite a few people nonetheless end up with lower savings than they expect or need. In this light, it is surprising that many people do very little to adapt their expectations or to adjust their saving strategy. People are inert. They remain inactive even when action is needed. This Netspar Survey Paper addresses two questions about inertia. First, what reasons are there for inertia in retirement saving? Second, how can our understanding of these reasons contribute to current and future developments in the Dutch retirement system?

Reasons for action are primarily financial. Inertia leads to financial loss. However, when people do not understand this financial loss, or when they neglect or underestimate it, they do not take action. *Reasons for inertia*, on the other hand, are primarily psychological. Inertia can be motivated by an expected increase in accuracy, avoidance of potential regret, increase in confidence, retention of flexibility, present-biased preferences, and undue optimism about the future.

This analysis of the reasons for action and the reasons for inertia provides one crucial insight: *whereas many people know why they should be saving for retirement, they do not know why now and how*. We will address these issues extensively. In a final section, we make several recommendations, structured around two questions: (1) 'Why should I take action right now?', and (2) 'How should I take action?'

3. Introduction

Saving for retirement is one of the most important financial matters that people face during their working lives. Dealing with this issue can be difficult. The Dutch, on average, accumulate sufficient retirement wealth, but there are large differences between people, and some groups are at high risk of not saving enough (AFM, 2010a; De Bresser & Knoef, 2015; Knoef et al., 2015). According to recent estimates, around 20% of the Dutch population will not meet their own retirement goals (De Bresser & Knoef, 2015; Knoef et al., 2014; Knoef et al., 2015). The self-employed – a fast growing group in the Netherlands – as well as divorced and high-income households are particularly likely to retire with fewer savings than they expect (Knoef et al., 2014, 2015). Why are so many people not saving enough to live comfortably during retirement?

3.1 Understanding insufficient retirement saving

One possible explanation is that people deem retirement saving not important enough. Those who find income during retirement unimportant, including people who expect not to live long after retirement and people who plan not to retire at all, will be reluctant to save. In a recent survey, representatives of Dutch retirement organizations were asked to explain why they could not attain the goals that industry has set for itself (Nell & Lentz, 2013). The most frequent explanation was that people simply do not care enough about retirement.

This explanation probably holds true for some people, which is why raising awareness about the importance of adequate retirement saving can be an effective strategy to motivate people. However, to examine for how many people such a strategy is

relevant, we added two questions to an online questionnaire administered by Nibud. A representative sample of 1,537 Dutch participants (50.9% female; $M_{age} = 42.83$, $SD_{age} = 13.95$) indicated to what extent they agreed with the statement "having enough retirement savings is important for me". On a 7-point scale ranging from "I fully disagree" to "I fully agree", 78% answered "I agree to some extent", "I agree", or "I fully agree" ($M = 5.49$, $SD = 1.57$). Moreover, when asked whether they would like to have sufficient retirement savings, 96% answered "yes". In light of such numbers, it seems implausible that most people save too little for retirement because they deem it unimportant.

A related explanation for the problem of insufficient retirement saving is that people have other financial priorities that are more important at present, such as paying off debt or a mortgage loan. Again, although such considerations undoubtedly play a role in determining people's saving decisions, we also know that retirement saving is one of top financial priorities for most people. In another online survey by Nibud (2015), a representative sample of 1,115 Dutch participants was confronted with 14 common financial goals and asked to what extent these were important to them. A majority indicated that retirement saving is an important goal, making it the second most important goal on the list (see Table 2). Wijzer in Geldzaken (2014) reported a related finding: in their survey, over half of Dutch participants indicated that they *should* devote more time and effort to their own retirement preparation than they actually did. In the USA, the results of an annual poll showed that "not having enough money for retirement" is the number one financial worry (Gallup, 2015). Sixty percent of Americans is "very" or "moderately" worried about this. Taking all these findings together, it seems clear that having money for retirement

Table 2.

Financial goal	% Important	% Not important	% NA
Having money to pay for large or unexpected purchases.	78	14	7
Having enough money to live comfortably after retirement.	67	20	13
Being able to pay for health costs later in life.	59	28	14
Covering liabilities, such as unemployment, disability, and death.	45	28	27
Paying off a mortgage.	36	22	42
Children's education.	34	13	53
Repaying loans other than mortgage.	33	15	52
Being able to retire earlier.	27	40	33
Leaving an inheritance for children.	20	35	45
Rebuilding the house.	20	37	44
Helping children with buying a house.	17	32	51
Buying a new house.	17	36	47
Unpaid leave/sabbatical.	10	42	48
Buying a second house.	5	37	58

is an important and desirable goal that most people care for and worry about.

It is possible that a minority of people are not motivated to save for retirement because they find it unimportant, because they think they already have enough money, because they do not expect to live long after retirement, or because they have other financial priorities at present. Emphasizing or increasing the importance of retirement saving can be an effective strategy to motivate those people. This possibility seems to underlie two broad categories of interventions. First, governments and

employers aim to make retirement saving financially attractive by providing financial subsidies, such as tax advantages and employer matching. Second, the goal of financial education efforts is to further emphasize the long-term importance of sound financial behavior in general, and retirement saving in particular. The crucial question is how much one can expect from such interventions, as most people are aware of the importance of retirement saving. Moreover, for the relatively small percentage of people who are not yet aware of the importance of retirement saving (fewer than one in four according to the surveys discussed here), raising awareness or increasing motivation may not be sufficient to change behavior. A recent study found that financial subsidies have almost no effect on savings rates in Denmark (Chetty et al., 2014), and an extensive meta-analysis concluded that, overall, financial education efforts have very little effect on the financial behavior studied, explaining only 0.1% of the variance (Fernandes et al., 2014).

To summarize, many people are not saving enough to meet their own goals or expectations after retirement. Attempts to solve this problem often rely on a seemingly plausible explanation: people find saving for retirement not important enough. Interventions based on this explanation – the provision of financial incentives and financial education – may prove effective for some people, but show very little overall effect on behavior. We believe that, to come to other, more (cost-)effective interventions, it is worthwhile to look beyond the most obvious explanations. In other words, how can it be that many people in the Netherlands, even though they consider retirement saving a top financial priority at present, still do not save enough to live comfortably during retirement?

3.2 Inertia based on reasons

This Netspar Survey Paper aims to answer this question by investigating the psychology of *inertia* and its relevance for retirement saving in the Netherlands. The Merriam-Webster dictionary defines inertia as a “lack of movement or activity especially when movement or activity is wanted or needed”. In psychology and economics, inertia is used to describe the tendency to remain inactive, even in the presence of good reasons to become active (e.g., Madrian & Shea, 2001; Van Putten et al., 2013). We believe inertia is a fitting and useful label for people’s lack of action in the domain of retirement saving. Most people are aware of the importance of retirement wealth, they consider retirement saving to be a financial priority, and they recognize that there are good financial reasons to save (or to save more) for retirement. Nonetheless, they remain inert.

In the remainder of this paper, we address two questions. First, what other reasons, besides not finding retirement saving important, can explain inertia in retirement saving? Second, how can our understanding of these reasons contribute to current and future developments in the Dutch retirement system? To answer these questions, we provide an analysis of (1) *reasons for action* and (2) *reasons for inertia*.

The reasons for action are primarily financial: starting to save early leads to more retirement wealth. In spite of these financial reasons for action, many people remain inert. We discuss three possible explanations: (1) people are ignorant about the financial costs of waiting, (2) people neglect the financial costs of waiting, and (3) people underestimate the financial costs of waiting. The reasons for inertia are mostly psychological: people remain inert because inertia has psychological advantages compared to taking action. Reasons for inertia include an increase in the

expected accuracy of a decision, avoidance of potential regret, an increase in confidence, retention of flexibility, present-biased preferences, and undue optimism about the future.

A categorization of reasons for action and reasons for inertia does not imply that inertia always follows from a deliberated analysis of quantifiable costs and benefits. It is true that the way people make decisions sometimes closely resembles how formal models would describe the process. People evaluate the costs and benefits of an alternative, weigh the different evaluations, and choose the alternative with the highest overall evaluation. However, on many occasions people follow a different, less calculated path; they assess reasons for and/or against one alternative or the other, and make a decision based on reasons that they can justify to themselves and to others (Shafir et al., 1993). Both models of human decision-making – formal models and ‘reason-based choice’ models – can be of value in explaining inertia in retirement saving. Also, all reasons for action and inertia that we discuss in this paper can be used as input in a formal decision-making process, as costs or benefits, and as compelling reasons in a reason-based decision-making process.

It is also worth mentioning that the current analysis of reasons for action and for inertia is a simplification. The problem of insufficient retirement saving is extremely complex and cannot be ‘solved’ by a single intervention based on our understanding of a single psychological process. But simplification serves a purpose. It helps focus on what is presumably an important source of insufficient retirement saving, namely inertia. Furthermore, simplification helps us to use this source – inertia – as a starting point for possible explanations and interventions. A near infinite set of financial and psychological reasons may motivate both action and inertia in retirement saving, and our analysis is in no

regard exhaustive. However, it does provide insight into the most promising ways of dealing with the problem.

3.3 Inertia at various stages of retirement saving

At this point, we wish to make clear that, when talking about retirement saving, we actually have a broad process in mind and that we focus on more than just the decision to save or not to save. For clarity and brevity, we use the term 'retirement saving' as a label for a broad range of actions related to retirement preparation. More specifically, we think that inadequate retirement saving can result from the difficulties that people face at, at least, three different stages: understanding, planning, and saving. This paper connects the available evidence about inertia to each of these stages of retirement saving. Table 3 provides an overview of the role of inertia at each of these stages, the possible implications, and some relevant references.

With a better understanding of the dynamics of inertia, we would ideally be able to help people at all three stages. This is valuable because people who wait and postpone retirement preparation are left with little or no time to adapt to their updated, more realistic expectations about their replacement rate, or to adjust their savings rate and strategy in order to meet expectations. On the other hand, those who start preparing for retirement early are more likely to end up with a satisfying level of retirement income (Munnell et al., 2011).

3.4 Inertia in the Dutch retirement system

The Dutch retirement system is widely regarded as one of the best in the world, in terms of both adequacy and sustainability (Allianz, 2014, 2015; Mercer, 2015; OECD, 2015). The state pension (AOW) provides all Dutch residents with a basic income after

Table 3.

At the...	Inertia can explain why...	With implications for...	References
...understanding stage.	...people are ignorant about financial matters in general and about retirement saving specifically.	...how to make people more likely to look for, attend to, and use financial information.	Lusardi & Mitchell, 2007, 2011; Van Rooij, Lusardi, & Alessie, 2011
...planning stage.	... people do not know how much they are saving, how much they need, and how they could possibly bridge the gap.	... how to motivate people to look up information about their current financial situation.	AFM, 2010a; Alessie, Van Rooij, & Lusardi, 2011; De Bresser & Knoef, 2015; Prast & Van Soest, 2014; Wijzer in Geldzaken, 2012
...saving stage.	... people fail to adjust their saving rate or their saving strategy, in spite of being knowledgeable and fully informed.	...how to motivate people to make decisions that actually increase their retirement savings.	Benartzi & Thaler, 2007; Choi et al., 2002; Fernandes et al., 2014

retirement, replacing income at a flat rate of 50% of the minimum wage for couples or of 70% of the minimum wage for singles (Knoef et al., 2014; OECD, 2015). An extensive second pillar consists of employer-sponsored occupational plans, which cover around 90% of employees (Knoef et al., 2014). These agreements are relatively generous, with projected gross replacement rates between 85% and 95% of pre-retirement earnings (OECD, 2015).

The Dutch retirement system is also relatively paternalistic. The majority of employees who work in industries with collective agreements are automatically enrolled in an occupational pension plan that provides little freedom of choice. It is normally not possible for individuals to opt out, to switch plans, to increase or decrease their savings rate, or to manage their investment strategy. There are several noteworthy exceptions to this

Table 4.

Element	Freedom of choice - current status
First pillar: state pension	Mandatory
Second pillar: occupational retirement plans for employees under collective agreement	
Enrollment	Automatic and mandatory for most, optional for some
Contribution rate	Automatic for most. Optional increased contribution for high-income earners.
Investment strategy	Automatic for most
Retirement age	Flexible for most
Payout phase	Options for variable payments (higher first)
Second pillar: occupational retirement plans for the self-employed and for employees not under collective agreement	Optional for most
Third pillar: individual retirement saving	Optional

paternalistic rule, both in the accumulation and the payout phase. Table 4 provides an overview of the available freedom of choice per element of the Dutch retirement system.

Because the first and second pillars of the Dutch retirement system are relatively adequate, sustainable, and mostly mandatory, the problem of inertia may at first seem irrelevant for the Dutch situation. However, we strongly believe that this is not the case. In the Netherlands, inertia at all stages of retirement saving has become increasingly relevant and consequential, and might become even more so in the near future. We highlight here three key developments to support this statement.

First, the recent financial downturn and the ageing of the population are causing a decrease in the generosity of Dutch retirement arrangements (Commissie Goudswaard, 2010). A recent

study points out that the gross replacement rates as published by Allianz, Mercer, and the OECD do not tell the whole story (Knoef et al., 2014). In fact, there is large variance in replacement rates, and an estimated 31% of Dutch households are currently facing a replacement rate below 70% of their current income. As a consequence, the expectations of many people about their future retirement income are no longer in line with financial reality (Knoef et al., 2015). People think that they save enough to maintain their current level of consumption, while this is not always the case. For instance, people in certain income groups are particularly likely to either save too little or to have overly optimistic expectations. Inertia plays a role in this problem and in the possible solutions to this. People are unlikely to look up information online, to talk to financial advisors, to read letters or brochures, or to think about their financial future. In other words, people are inert when it comes to the understanding stage.

Second, partly because of the large variance in expected replacement rates, there is an increasing call for a more individualized retirement system (Knoef et al., 2015; SER, 2015; Van Ewijk et al., 2014). In the future, the Dutch are likely to get more freedom of choice in their retirement saving (Lever et al., 2015). Ideally, this should lead to well-suited saving strategies and better outcomes. In reality, however, we expect many people to remain inert, potentially leading to worse results depending on the default (Madrian & Shea, 2001).

Third, inertia has major consequences for the growing number of self-employed workers, who are fully responsible for their own retirement saving. Already in 2010, 10–20% of the Dutch workforce was self-employed and therefore not eligible for an industry-wide collective pension arrangement (Commissie Goudswaard, 2010). As this group grows, the consequences of inertia in retirement

saving are expected to grow as well. Initial attempts to provide retirement saving products aimed at the self-employed show little success (Trappenburg, 2015). In helping the self-employed to save more for retirement, the crucial question is whether retirement saving products should be opt-in (as they currently are), opt-out, or mandatory (AFM, 2015a; De Jong, 2009). Additionally, if a plan is implemented, what is the most effective way to communicate this to the relevant group?

Understanding the dynamics of inertia can thus be valuable for the major challenges to the Dutch retirement system. Why are people slow to adjust their expectations to changes in retirement arrangements? What would be the consequences of increased freedom of choice? How can we help the self-employed to build sufficient retirement wealth? These questions are relevant for what people know about and for how they deal with their first, second, and third pillar retirement savings. For instance, an understanding of inertia leads to recommendations on how to motivate people to visit websites with personalized information about retirement (e.g. www.mijnpensioenoverzicht.nl). It leads to recommendations on whether, where, and how to introduce freedom of choice in mandatory occupational retirement plans. It also leads to recommendations on how to implement occupational retirement plans for the self-employed.

However, the effects of inertia go beyond the traditional first, second, and third pillars of retirement saving. People can build retirement wealth in many different ways. Decisions to work longer and retire later, to pay off a mortgage loan, to sell or buy a house, or to invest in the stock market all determine the level of retirement wealth. These decisions are affected as well by inertia in earlier stages of retirement saving. If people fail to make any effort to understand financial concepts or to plan for retirement,

they may likewise forego decisions on whether to work longer and retire later, to pay of a mortgage loan, to sell or buy a house, or to invest in the stock market. Understanding inertia helps us to understand the viability of policy implementations and communication strategies. By focusing on inertia, its possible causes, and its possible solutions, this article follows up on to the explicit call of the AFM (2015b, p. 7) to “bridge psychological barriers and activate consumers.”

In summary, the premise of this Netspar Survey Paper is that inertia, same as actions, has both pros and cons. The aim is to better understand the reasons for action and inertia, through empirical evidence from both psychology and behavioral economics. In the remainder of this paper, we first analyze the reasons for action. We examine three explanations why people seem to be relatively irresponsive to financial reasons for action: ignorance, neglect, and underestimation. Then, we turn to the reasons for inertia. People may remain inert for a variety of reasons: accuracy, regret avoidance, confidence, flexibility, present-biased preferences, and undue optimism about the future.

Based on the evidence for each of these reasons, we draw implications for how choice environment, information provision, and policy in the Dutch retirement system might be adjusted to how people actually behave. In a final section, we structure these implications by taking the perspective of the individual. Why are people – real human beings instead of rational agents or ‘econs’ (Thaler, 2015) – typically inert in retirement saving, and what can governments, retirement funds, and employers do to help them?

4. Reasons for action

In retirement saving, the reasons for action are primarily financial. Retirement saving is dynamic in nature, with the timing of actions and choices affecting the outcomes of these actions and choices. Enrollment in a retirement plan at age 25 leads to a different outcome than enrollment in the same plan at age 45. In general, savings grow over time through accumulation of interest and the return on investments. Thus, starting to save early in life leads to more retirement wealth than starting to save late in life.

Why are so many people inactive when inertia is financially costly in the long run? In this section, we discuss three possible explanations. The first explanation is *ignorance*: people simply do not know that inertia is financially costly. The second is *neglect*: people know that inertia is financially costly, but they do not consider these costs when making a decision. A third explanation is *underestimation*: people know that inertia is financially costly, and they do consider these costs when making a decision, but they underestimate how high the costs actually are.

4.1 Financial cost: ignorance

People may delay retirement saving simply because they do not know that delay has long-term financial costs. It is possible that they confuse the dynamic nature of retirement saving with a static situation, where the timing of an action has no impact on the outcome of the action.

Research on financial literacy shows that in the Netherlands, like in the USA, a considerable percentage of people misunderstand basic financial concepts such as compound interest, inflation, and risk diversification (Lusardi & Mitchell, 2009; Van Rooij et al., 2011; Van Rooij et al., 2012). One concept often incorporated

in this set of financial literacy questions is the 'time value of money', measured by the question: "Assume a friend inherits €10,000 today and his sibling inherits €10,000 three years from now. Who is richer because of the inheritance? (a) my friend; (b) his sibling; (c) they are equally rich; (d) do not know" (e.g., Van Rooij et al., 2011, p. 606). People with a background in economics might consider it obvious that the inheritance will grow over time. However, when this question was asked to representative samples of Dutch and American adults, one out of five participants answered it incorrectly (Lusardi & Mitchell, 2009; Van Rooij et al., 2011; Van Rooij et al., 2012). In other words, one out of five participants mistakenly assume that it makes no difference whether one invests money today or next year.

People who are unaware of the financial cost of inertia will be more likely to delay retirement saving. Think of a self-employed person who recently started her own business. She may believe that retirement saving is important *someday*, but she may also think that it does not matter all that much whether she invests time, money, and effort in retirement saving this year, next year, or the year after. Because of this ignorance about the impact of time on financial outcome, she may postpone taking action until her business makes profit.

A basic understanding of financial concepts, including the time value of money, can help people make better financial decisions. However, as mentioned before, simply explaining these concepts to people does little to affect their behavior at a later point in time. More can be expected from what are called just-in-time education attempts (Fernandes et al., 2014; Mandell, 2006). Explaining to people the important role of time in financial decisions has most effect if there is an immediate opportunity to act on this information.

4.2 Financial cost: neglect

Inertia is common, but only a minority of people are ignorant about the time value of money. Hence, a lack of understanding may explain the inertia of some, but it does not tell the whole story. A first alternative explanation for retirement saving inertia is people's neglect of the long-term financial cost of inertia. This explanation differs from ignorance because it assumes that people *know* how time affects their outcomes, but that they do not consider it at the moment when they make their decisions.

From previous research, we know that people seldom spontaneously consider all normatively relevant factors when making a decision. One example is their tendency to neglect the opportunity costs of money (Frederick et al., 2009; Jones et al., 1998; Spiller, 2011). When contemplating whether to buy a €25 book, the rational decision-maker should ask himself or herself 'what is the next best use of this €25?' (e.g., Larrick et al., 1990). People should spontaneously think about 'outside options' (Spiller, 2011), including options that are not physically present or that are not explicitly mentioned. People should spend money on something only if none of the alternative uses of that money is valued more than the 'focal option'.

However, maybe not surprisingly, this is not what people actually do when making decisions. Whereas people *know* that, for example, money spent on a car cannot be spent on something else, they do not always *consider* such opportunity costs (Frederick et al., 2009; Spiller, 2011). Jones et al. (1998) asked participants to describe five decisions that they had made. Participants indicated whether each decision was an opportunity ('should I buy a new car or not?') or a choice between options ('should I buy a new car, or should I book a trip to New York instead?'). Of all decisions described by participants, 63% concerned whether or not to

pursue an opportunity. This illustrates that people often consider options in isolation, without directly comparing these against alternative options.

Studies by Frederick et al. (2009) showed that making opportunity costs salient affects people's choices. Participants were less willing to purchase a \$14.99 DVD when the "not buy" option was framed as "keep the \$14.99 for other purchases". Jones et al. (1998) also found that people's decisions can be changed by prompting them to come up with alternative uses of their money. Thus, merely reminding people of the existence of outside options already affected their decisions.

It has been suggested that such interventions should not affect the financially poor, because opportunity costs are already highly relevant for them at all times (Thaler, 2015, p. 58; Frederick et al., 2009). In other words, a poor person should always consider opportunity costs. However, recent studies provide evidence against this suggestion. The neglect of opportunity cost is robust and seemingly independent of wealth (Plantinga et al., 2016). Apparently, most people neglect financial opportunity costs, regardless of whether their financial resources are scarce or abundant.

Similar to the neglect of opportunity costs, a person may also neglect other aspects that are relevant to a decision but not explicitly mentioned. Examples are the neglect of energy efficiency when buying a home appliance or a car (Allcott, 2011; Allcott & Wozny, 2014; Sallee, 2013). Most people know that energy efficiency is a relevant aspect, and yet, when not explicitly mentioned, many fail to consider it during their decisions to buy or not buy. In retirement saving, the financial costs of inertia are not salient, easily causing them to be neglected. Many people who *know* that waiting to save means missing out on interest and possible

returns may nonetheless fail to spontaneously *consider* these costs at the appropriate moment.

Reminding people of neglected aspects of a decision has proven to be effective in other domains. Many countries now require prominent energy labels for both home appliances and cars. In a recent field experiment conducted by the U.K. Behavioural Insights Team, sending patients a text message reminder decreased the number of missed hospital appointments by almost 25% (Hallsworth et al., 2015). It was most effective if the message included the financial cost for the hospital of a missed appointment. Timely reminders may prove to be effective in the domain of retirement saving as well. At times when people typically make (or postpone) financial decisions, they could be reminded that even a short delay affects their future outcomes. Another possibility is having people actively choose between *now* and *later*. Research has shown that people spontaneously think about many decisions as opportunities, with a single option to be accepted or rejected (Jones et al., 1998). A subtle change in the framing of a decision or action, from an opportunity frame ("would you enroll in a retirement saving plan?") to a choice frame ("would you enroll in a retirement saving plan now or next year?"), can automatically shift a person's attention towards aspects that differ between the two options. In this example, a person's attention would shift from reasons for or against enrolling to differences between the two options and their consequences (enrolling now or enrolling later).

To summarize, people who know about the financial costs of inertia may still neglect these costs when making decisions. We drew a comparison between the neglect of the costs of waiting and the neglect of other non-salient aspects of a decision, such as the opportunity costs and the energy efficiency of home

appliances and cars. Making the neglected costs of inertia visible at the right time, either through reminders or active choice framing, can affect people's choices.

4.3 Financial cost: underestimation

Even if a person realizes that postponing retirement saving costs money, and even if such person considers this cost of waiting when making decisions, it is still possible that he or she underestimates how high the cost actually is. Putting money aside early in life is effective because of compound interest (or compound returns on investment). However, research has shown that people have problems estimating or calculating this effect (Almenberg & Gerdes, 2012; Eisenstein & Hoch, 2007; McKenzie & Liersch, 2011). Many people confuse compound interest with simple interest, or they use the simple interest rate as an anchor for their estimate and then insufficiently adjust this estimate upward (Eisenstein & Hoch, 2007). Take the following question: "You have an account holding €10,000, with a fixed annual (compounding) interest of 4%. How much money would be on the account after 40 years?" Those people who confuse compound interest with simple interest calculate the interest after 1 year and multiply this by the number of years ($€400 * 40 = €16,000$). From this calculation, they would conclude that the account holds €26,000 after 40 years. Other people use the outcome of the simple interest calculation as an anchor and adjust upwards. They would conclude that the account holds, for example, €30,000. In reality, both answers are extreme underestimations. After 40 years of compounding interest, the account will hold over €48,000. Thus, because of their misunderstanding, people underestimate the growth of savings. Underestimation is greatest over longer timespans and with higher interest rates, causing people to

particularly underappreciate the financial benefits of saving for the distant future (Goda et al., 2014).

If people underestimate the benefits of saving, they will also underestimate the cost of waiting. McKenzie and Liersch (2011) found that most people in their study underestimated the cost of a 20-year delay, both in a high and a low interest situation. Intriguingly, estimates did not differ between participants with high and low financial knowledge, nor between people with and without an understanding of compound interest. People who understand what compound interest is still fail to account for the effect of compound interest on savings growth and the cost of waiting. In a different study, people were inaccurate in estimating the cost of a one-year delay of a long-term investment (Krijnen et al., 2016a). Most participants (71.5%) underestimated the cost of waiting one year by more than one third.

Based on these findings, it seems plausible that people wait to save for retirement because they think that waiting is cheap. If this is the case, explaining to people the power of compound interest may help speed up retirement saving. Eisenstein and Hoch (2007) tested this hypothesis. In their study, they taught participants the Rule of 72, which gives a relatively accurate approximation of the number of years it takes for an amount of money to double, given the interest rate¹. A short training procedure improved people's estimates of the effect of interest compounding.

In daily life, people may find it difficult to apply the Rule of 72. First, dividing 72 by the interest rate is not a simple task for most. In addition, the outcome of this calculation only tells something

1 The Rule of 72 is a way to estimate the number of years (y) it takes for an amount of money to double, given the interest rate (i): $y = 72 / i$. So if €1,000 is deposited into a savings account with a fixed compound interest rate of 3%, it takes $(72/3) = 24$ years for the initial €1,000 to grow to €2,000 through compound interest.

about the time it takes for an investment to double, whereas in many situations, people want to know how much money they will have after a certain number of years. Using the Rule of 72 to answer this question is less straightforward.

Goda et al. (2014) examined how sending out various information booklets affected people's retirement saving decisions. A person's likelihood to change his or her retirement saving contribution was significantly higher if the booklet included a graph showing the projected effect of additional contributions on either total retirement wealth (34% higher) or on annual retirement income (29% higher), compared with a control condition where the booklet contained no such graph. Apparently, explaining the power of compound interest through visualization can reduce a person's inclination to postpone saving.

However, as with teaching people the Rule of 72, this intervention may again not be the most efficient or most effective way to counter inertia. As we discussed before, a person who *knows* about the effect of compound interest and the cost of inertia will not necessarily *consider* this when making decisions. To make consideration of the cost of inertia more likely, we need simple, brief, and timely interventions. Therefore, instead of *educating* people about compound interest and savings growth, simply *reminding* them of the actual, probably higher-than-expected financial cost of inertia may be a better way to diminish the likelihood of inertia.

In a series of experiments, we found initial support for the viability of such an intervention (Krijnen et al., 2016a). We asked participants whether they would invest a windfall gain in their retirement savings account right away, or whether they would wait one more year. All participants read about the benefits of saving and could thus calculate the cost of waiting. However, fewer

participants preferred to wait if we explicitly mentioned the cost of waiting (e.g., “because of the compounded interest, waiting one year would accumulate to a loss of \$7,800 at retirement age”) than if we did not mention this cost. Apparently, explicitly mentioning the cost of waiting affects people’s decisions, indicating that they tend to neglect or underestimate the financial cost of waiting. Moreover, these findings suggest that a simple single-sentence intervention at the right time can decrease the likelihood of inertia. Future research should investigate whether such an intervention would affect downstream financial behavior. Inertia in retirement saving is financially costly. Nonetheless, many people take no action. So far, we have outlined three explanations for why people do so. People may be inert because they misunderstand, neglect, or underestimate the financial reasons for action. Simple interventions aimed at making the financial cost of inertia clear may decrease the likelihood of delay. However, there is another side to this story, which we discuss in the following section.

5. Reasons for inertia

Inertia may not only be the result of the absence of reasons for action, but also of the presence of reasons for inertia. Put differently, a person may have good reasons for doing nothing. In this section, we discuss six factors that can make inertia attractive: accuracy, regret avoidance, confidence, flexibility, present-biased preferences, and undue optimism.

5.1 Accuracy

When people make decisions, taking more time generally leads to better outcomes. In other words, people make a trade-off between their time investment ('speed') and choosing the best possible option available ('accuracy'). According to the speed-accuracy framework of decision-making, people have access to a spectrum of decision strategies, ranging from fast-inaccurate strategies to slow-accurate strategies (Beach & Mitchell, 1978; Payne et al., 1993). This framework provides two insights that are relevant for the problem of retirement saving inertia. First, people base their selection of a decision strategy on the characteristics of the decision problem and environment (McAllister et al., 1979; Payne, 1982; Payne et al., 1988). For example, people select more analytic, effortful, and time-consuming decision strategies when the decision problem is important or irreversible (McAllister et al., 1979). Important or irreversible decisions require greater scrutiny, because greater scrutiny is likely to lead to greater accuracy. A second insight from the speed-accuracy framework is that, instead of trading off *actual* speed against *actual* accuracy, people are more likely to trade off *anticipated* speed against *anticipated* accuracy (Fennema & Kleinmuntz, 1995; Kleinmuntz & Schkade, 1993). Thus, they have to predict the time and effort

that they should invest in a decision as well as the resulting accuracy. However, their predictions are seldom perfect. They err in anticipating how much time and effort a strategy will take and in anticipating how accurate a strategy will be. Sometimes, greater scrutiny does not lead to more accurate decisions.

As stated above, both insights are relevant to the problem at hand. Even in the relatively paternalistic Dutch system, where most people have little to no freedom of choice in their occupational retirement arrangement, there are decisions to be made. People can choose to increase the contribution rate (if possible), to purchase a life annuity, or to open an additional retirement savings account with an insurance company or a bank. Other possibilities include investing in the stock market, repaying a mortgage loan, or choosing to retire later. There are obvious advantages to taking such actions as early as possible (speed), but people also want to make the best possible decision (accuracy). Delay of choice has the benefit of greater anticipated accuracy, and this need for greater accuracy is particularly strong when decisions are important or irreversible (McAllister et al., 1979), which is definitely the case for one-time financial decisions with great consequences such as retirement saving.

It is possible that people delay decisions even without making a deliberate tradeoff between the (anticipated) costs and (anticipated) benefits. Research on heuristics shows that people often make decisions based on a single cue instead of on an elaborate analysis of costs and benefits (Gigerenzer & Gaissmaier, 2011; Tversky & Kahneman, 1974). While such research mostly refers to decisions between two alternatives, it may also apply to decisions between acting and waiting.

The perceived importance of a task or decision can be a reason for inertia. People seem to use decision importance as a cue for

delay of decision (Krijnen et al., 2015). Participants were more likely to delay their enrollment in a hypothetical retirement saving plan when decision importance was emphasized or increased. Moreover, they delayed important decisions without regard to other relevant factors, such as the financial cost of waiting and the instrumentality of delay (i.e., whether delay would lead to more information or better options). Other research also points to a strong link between perceptions of importance and perceptions of difficulty: people intuitively associate important decisions and tasks with difficulty and the exertion of mental effort (Schrift et al., 2011; Sela & Berger, 2012).

To summarize, people assume – often rightfully so – that investing more time and effort leads to more accurate decisions and better outcomes. Based on this assumption, they seem to interpret importance as a cue to invest time and effort in a decision or task, regardless of whether this investment and the accompanying delay will improve or harm the outcome. In retirement saving, this logic may cause people to delay, even if this comes at a long-term cost.

The solution to this problem is not straightforward. The truth is that retirement saving *is* important, and this fact cannot and should not be hidden from consumers. However, it is crucial to realize that inertia in the form of decision delay can result from good intentions. People often delay action because they want to be make a good decision. Unfortunately, the provision of financial incentives, financial communication, and financial education may contribute to this problem (Krijnen et al., 2014). While the goal of such interventions is to motivate and activate consumers, research indicates that increasing, emphasizing, or explaining the importance of retirement savings can backfire by causing people to wait longer.

It is crucial that people feel they can make accurate decisions and take effective action in the domain of retirement saving, also without spending a lot of time and effort. An effective solution involves two ingredients. The first is to shift focus in communication and policy from the long-term importance of retirement saving to the urgency of retirement saving. Most people already know and understand that retirement saving is important for their future. Instead, it may be more valuable to communicate and emphasize how acting sooner rather than later contributes to better outcomes. The second ingredient is a drastic simplification of the choice process (Sunstein, 2016). This can include providing simpler and less information, reducing paperwork requirements, making option comparison and filtering more straightforward, and providing preference learning tools (Broniarczyk & Griffin, 2014). Taken together, we recommend that policy and communication should be less concerned about the "why" of retirement saving and more about the "why now" and "how" of retirement saving.

5.2 Regret avoidance

Another possible benefit of inertia is the avoidance of regret. People experience regret when they realize that an outcome could have been better, if only they had decided or acted differently (for an overview, see Zeelenberg & Pieters, 2007). The possibility of regret is often anticipated before a decision is made, motivating an avoidance of options that potentially cause regret (Zeelenberg et al., 1996).

People judge action leading to a bad outcome as worse than inaction that leads to the same bad outcome (Spranca et al., 1991). In general, people also imagine greater regret from actions than from inactions (Kahneman & Tversky, 1982; Landman, 1987; Ritov & Baron, 1995). However, when looking back at their lives, people

indicate that they regret inactions more than actions (Gilovich & Medvec, 1994, 1995). For instance, at the end of their lives, many people regret not pursuing the education that they would have liked most. This suggests that the intensity of regret from actions and inactions changes over time, with people regretting actions more on the short term and inactions more on the long term.

The question is how these patterns of regret affect people's choices in life. Given the motivation to avoid regret, are they more likely to take action or to remain inactive? Research suggests the latter. People have a preference for staying with the status quo (Samuelson & Zeckhauser, 1988), sticking with the default (Simonson, 1992), deliberating extensively (Reb, 2008), postponing decisions (Janis & Mann, 1977), and avoiding decisions altogether (Beattie et al., 1994). When uncertain about what the best option is, they often prefer inertia as a means to avoid potential regret in the present, disregarding the possible regret over inertia in the future.

Research on the role of feedback and responsibility in regret has valuable implications for inertia in retirement saving. People experience (or anticipate) more regret when they receive (or expect) feedback about what could have been if they had acted differently (Zeelenberg & Beattie, 1997; Zeelenberg et al., 1996). Also, people experience (or anticipate) more regret when they feel responsible for their decisions (Ordóñez & Connolly, 2000; Zeelenberg et al., 1998). Evaluating the consequences of inertia in retirement saving can be difficult because people receive little immediate feedback and feel little responsibility. For instance, if a self-employed person decides to enroll in a retirement savings plan and wants to evaluate this decision after one year, the comparison is obvious: "How much would I have saved if I had

not done anything?"² However, if the same self-employed person had stayed inactive, it would be less clear how to evaluate the consequences of this inaction. Often, there is no clear benchmark to compare inaction to, nor is there a specific moment at which the person decides *not* to save for retirement. As a result, people may anticipate little immediate regret from inertia.

Feedback and responsibility are not only part of the problem; they may also be solutions to the problem. Inertia becomes less attractive when people anticipate real, concrete, short-term, interpretable feedback about its consequences and about what could have been if they had taken action. Responsibility can be increased by 'prompting' people to make active decisions about their retirement at distinct moments in life. There is support for this idea from research on 401(k) enrollment in the USA. The number of newly hired employees who enrolled in a company's retirement plan increased by 28% when the original opt-in enrollment (i.e., employees are not enrolled by default and can choose to enroll) was changed to an active choice enrollment (i.e., employees make an active choice between enrolling and not enrolling; Carroll et al., 2009). Similar active choice policies have been found to double the number of people donating blood (Stutzer et al., 2011) and to significantly improve adherence to medication (Keller et al., 2011).

Providing feedback on the consequences of inertia may have a negative side effect. Inertia as a form of regret avoidance is worse when people realize that they have missed a much better opportunity in the past. This is *inaction inertia*, the tendency to

- 2 Note that it is *possible* to make various other comparisons. For instance, the self-employed person could compare the outcome to a situation in which he or she would have saved more. However, this comparison is *less likely* because it is more complex to evaluate than the obvious benchmark of not saving at all.

forego an attractive opportunity because an even more attractive opportunity was missed before (Tykocinski et al., 1995; Van Putten et al., 2013). In one of the initial studies on inaction inertia, participants imagined that they were considering whether to join a frequent flyer program (Tykocinski et al., 1995, p. 795). Joining the program was attractive; participants would immediately accumulate miles towards a free trip. Nonetheless, participants indicated being less likely to join (i.e., to take the attractive opportunity) if they had missed a much better opportunity to join in the past, compared to when the past opportunity was similar to the present one and to when no past opportunity was mentioned. Other studies have found inaction inertia to play a role in people's tendency to switch to other brands after price promotions (Zeelenberg & Van Putten, 2005) and reluctance to sell stocks after missing better opportunities to do so in the past (Tykocinski et al., 2004).

Inaction inertia may also play a role in retirement saving. For instance, a woman aged 45 realizes that she is not saving enough for her retirement. She learns that the perfect moment to start saving was at age 25, when returns on her investment would have been much higher than now, twenty years later. Extending the past research on inaction inertia, we suspected that in these situations people would be less likely to start saving even though doing so at age 45 would still be better than not doing so at all. In a series of experiments to examine these ideas, we found initial evidence for inaction inertia in retirement saving decisions (Krijnen et al., 2016b). Participants indicated less willingness to enroll in a retirement savings plan when they first read about a much better opportunity in the (distant) past than when they first read about an only slightly better opportunity in the (recent) past. Based on these initial findings, we see the possibility that people

fall prey to a vicious cycle of inaction: the likelihood of saving may decrease the longer one remains inactive.

Because of the potential role of inaction inertia in retirement saving, caution is warranted when providing feedback about how much one could have saved. The anticipation of such feedback may activate some people through anticipated regret. Yet for others, the same feedback may be a reminder of better opportunities from the past, causing even more inertia. Only when current saving opportunities are explicitly 'decoupled' from the past may people again realize that it is always better to start saving for retirement today than tomorrow (Van Putten, et al., 2007, 2008). Current opportunities can be decoupled from past opportunities by, for instance, indicating how present saving opportunities are inherently different from past saving opportunities or by presenting opportunities as active choices between multiple options.

Taken together, we see that people are motivated to avoid short-term regret. Action typically causes more short-term regret than inaction, and therefore people remain inactive unless they have strong, justifiable reasons to take action (Zeelenberg et al., 2002). Providing feedback and prompting people to make active choices may activate them. However, providing feedback may also backfire through inaction inertia.

5.3 Confidence

Even in situations where all information is readily available, people often prefer to delay a decision (Bastardi & Shafir, 1998; Tykocinski & Ruffle, 2003). One reason for this is that inertia can make people more confident about their ability to make a correct decision. People gain confidence through delay, even if the delay is 'non-instrumental', in the sense that it does not lead

to more information or an objectively better decision. Hence people's tendency to 'sleep on it' before making consequential decisions.

When it comes to retirement saving, we know that a substantial number of people have little confidence in their own capabilities. A survey administered by Nibud (2015) asked a representative Dutch sample to indicate their agreement with statements about retirement finance. To the statement "If I wanted to get an overview of my financial situation after retirement, I would have no idea where to start", 28.7% answered "I agree" or "I completely agree." In addition, 34.6% answered "I agree" or "I completely agree" to "If I would have to arrange my own pension, I would be very afraid to make the wrong choices." These figures indicate that a substantial number of Dutch people have little faith in their own financial capabilities.

A possible intervention is to increase the general population's confidence in their financial abilities. However, simply providing more information is no guaranteed effective strategy to accomplish this goal. A recent meta-analysis by Fernandes et al. (2014) found that financial education attempts had little to no effect on financial behavior. Moreover, Hadar et al. (2013) found that providing people with financial information could even have the opposite effect. After reading useful yet complex information, participants had less instead of more confidence about their financial knowledge. Attempts to improve financial knowledge carry the risk of decreasing people's confidence and negatively affecting downstream financial behavior.

On the upside, Hadar et al. (2013) report more promising results from interventions that are directly aimed at improving people's subjective instead of objective knowledge. For instance, participants who answered an easy question about retirement

saving rated their own financial knowledge as higher than participants who answered a difficult question about retirement saving. In turn, this higher subjective knowledge led to a greater willingness to join a 401(k) plan. In support of these findings, Van Rooij et al. (2012) report that Dutch participants with high confidence in their financial abilities are more likely to plan for retirement, independent of their objective financial knowledge. Thus, whether people take action and prepare for retirement may be positively impacted by the confidence they have in their own financial abilities³.

In short, many people have low confidence in their own financial abilities and often delay for the sake of gaining confidence. Overall, providing financial education has little effect on their financial behavior (Fernandes et al., 2014). Moreover, providing as much financial information as possible can further complicate retirement saving and lead to lower confidence. Instead, financial education attempts should aim at increasing people's confidence in their financial capabilities through simplification of retirement saving.

5.4 Flexibility

Another possible reason for inertia is that it provides or leads to retention of flexibility. People value the freedom of choice and being able to switch options, especially when uncertainty about their future preferences is high (Jones & Ostroy, 1984; Kreps, 1979). Strongly related to this preference for flexibility is the psychological reactance of people to committing to a single option

3 There is also evidence for a negative effect of too much confidence in financial decisions (e.g., Hoffman & Post, 2014). For instance, García (2013) suggests that people with high confidence in their own capabilities may stop acquiring information altogether. We suspect that such 'overconfidence' plays a role in retirement saving decisions as well.

and hence giving up the freedom to choose alternative options (Brehm & Brehm, 2013). In other words, choosing one option can feel like losing other options (Carmon et al., 2003), and it is this feeling of loss that may cause negative arousal and avoidance (Tversky & Kahneman, 1991).

Shin and Ariely (2004) examined whether these two factors – the preference for flexibility and the aversion to losses – play a role in people's tendency to 'keep doors open'. In their experiments, they let participants explore options before making a decision. For half of the participants, options would disappear if they had not been looked at for a period of time. Results showed that people were willing to invest resources in order to keep all options available, even when those options were irrelevant to the decision. A final study found that, in this particular game, the effect was mainly driven by aversion to losses and less so by preference for flexibility.

In retirement saving, taking action often involves making a commitment, and thereby limiting future choice options. Currently, second pillar retirement plans in the Netherlands provide no or little flexibility (Nijboer & Boon, 2012). However, in cases where people do have freedom of choice, such as in third pillar plans, initial decisions are typically binding and consequential. The more distant retirement is, the more uncertain people are about their future wants and needs. They may prefer to avoid such commitments, retain flexibility, and keep options open until uncertainties resolve (Amador et al., 2006; Kreps, 1979; Krishna & Sadowski, 2014).

Sometimes, the fear of giving up flexibility or losing options is partly unfounded. First, many actions in retirement saving may be perceived as a commitment, even when future choice is not limited at all. For instance, going to a financial advisor or

contacting a financial institution for information does not affect the availability of other options. However, people can still *perceive* this action as a commitment and therefore postpone it. Second, people sometimes wait for uncertainties to resolve, even when these uncertainties turn out to be irrelevant to their decisions (Shafir, 1994; Shafir & Tversky, 1992; Tversky & Shafir, 1992). For instance, a self-employed person may wait to save for retirement until he or she is sure about starting a family, even though such person would eventually prefer to save for retirement either way. To motivate action in retirement saving, we propose two possible strategies. The first is to increase and emphasize the flexibility that people have, as well as the reversibility of actions and decisions. People are less likely to delay decisions when a decision is reversible (Krijnen et al., 2015). Clothing retailers are aware of this and offer money-back guarantees to motivate people to take action and buy a piece of clothing, even when uncertain. Whereas money-back guarantees are implausible in retirement saving, there are situations where people can revise or (partly) reverse their decisions and actions at a later point in time. For instance, meeting with the retirement saving expert of Company X does not restrict a person's possibility to contact Company Y later on. Emphasizing the non-restrictive nature of financial advice could activate people.

Second, prompting people to 'think through uncertainties' can provide insight into the irrelevance of these uncertainties for their retirement saving inertia (Shafir, 1994; Shafir & Tversky, 1992). People may believe that they have valid reasons to postpone action, but when asked what they are waiting for, they may realize that these uncertainties are not relevant to the decision at hand. The preference for flexibility and its role in causing inertia should also be considered in the current discussion on flexibility in the

Dutch retirement system (e.g., Bergamin et al., 2014; Commissie Goudswaard, 2010; Nijboer & Boon, 2012; Nijman & Oerlemans, 2008; Wijzer in Geldzaken, 2015). Introducing flexibility where no flexibility exists now (e.g., in second pillar arrangements) may increase the negative consequences of inertia. However, increasing or emphasizing flexibility, reversibility, and freedom of choice where this already exists as (e.g., in the third pillar) may instead motivate people to take action.

Thus, other reasons for inertia are the preference for flexibility and the aversion to losing options. People may perceive action as an irreversible commitment and therefore prefer not to act. If this is the case, emphasizing flexibility and reversibility, as well prompting people think about their reasons to wait, could motivate action.

5.5 Present-biased preferences

People discount outcomes over time, meaning that distant future outcomes weigh less heavily than immediate outcomes. Temporal discounting implies that the benefits of an action, such as financial reward or pleasure, are valued less when distant in time than when they are immediate. For instance, receiving a €1,000 bonus 40 years from now is less attractive than receiving the same €1,000 bonus right away. Temporal discounting applies also to non-monetary outcomes. For instance, doing something fun today seems more attractive than doing the same fun thing one year from now. In fact, people like immediate benefits so much that they often prefer smaller, sooner benefits to larger, later benefits. Think of how most people prefer watching a good movie to reading about the difference between stocks and bonds. Watching the movie is immediately rewarding (i.e., it is fun) for most people. Reading about stocks and bonds is not immediately

rewarding. The only benefits of this activity are the possibly higher financial returns that materialize in the future.

Besides discounting the benefits of action, people also discount the costs of action. Resources required to perform the action (e.g., time and effort) are valued less in the future than in the present. For instance, people may perceive vacuum cleaning as less time-consuming in the future than in the present. Together, the pattern of discounting benefits and costs over time causes a 'present bias': people put greater weight on benefits and costs in the present than on benefits and costs in the future (Ainslie, 1975; Akerlof, 1991; Strotz, 1955).

Present-biased preferences cause a specific form of inertia, that of procrastination. People typically procrastinate on tasks that involve immediate costs but provide few immediate benefits, such as studying for an exam, doing the dishes, or saving for retirement (O'Donoghue & Rabin, 1999). Such tasks typically require an immediate investment, in the form of effort, time, or money, whereas the associated benefits are experienced in the future. People perceive the required up-front investments as less painful in the future than in the present, causing them to postpone the task. This reasoning repeats itself over and over again, resulting in a cycle of procrastination. In other words, people procrastinate tasks or actions that they intend to do, but that they do not like to do right now.

Procrastination plays a role in many aspects of retirement saving⁴. People know that they should read the letters from their retirement fund, but they dislike the necessary mental effort. People know that it can be smart to meet with a financial advisor, yet they dislike the time that it takes out of their busy schedule.

4 In a recent Netspar NEA Paper, we analyzed the problem of procrastination and its relevance for retirement saving in more detail (Krijnen et al., 2014).

Van Rooij and Teppa (2014) found evidence for procrastination as a specific form of inertia in the domain of retirement saving. According to their analysis, people are less likely to deviate from the default if doing so is more complex (i.e., if they score low on financial sophistication). Thus, people procrastinate if they are overwhelmed by the immediate mental effort that is needed to do so.

Even though improving the financial know-how of the Dutch population may be effective in overcoming procrastination, we propose a more logical first step, namely, make the necessary tasks or actions easier. People are less likely to procrastinate tasks or actions that need only little investment in terms of time and effort. The Dutch Tax and Customs Administration ('Belastingdienst') has relied heavily on this strategy by providing simplified digital tax return forms and pre-filling most information. Like filing tax returns, preparing for retirement is a hassle for most people. People procrastinate retirement preparation because they expect it to be difficult, confusing, complex, and time-consuming. Procrastination would be less likely if, instead, people think that small, simple, and quick steps can help them towards better retirement saving.

A second strategy to counter procrastination is to make the action or task attractive. This strategy is often used to promote other behavior that has long-term benefits. For instance, many apps aim to promote healthy behavior by making physical exercise fun and rewarding (e.g., *Zombies, Run!*; *Superhero Workout*). Presumably, most people know that regular exercise produces health benefits. However, these benefits come into effect only in the distant future. These apps may motivate healthy behavior because they increase the perceived immediate benefits of exercise.

It may seem difficult, if not impossible, to make retirement saving fun and attractive. A related strategy we deem worth exploring in the context of retirement saving is to emphasize (or to let people anticipate) the immediate positive affective responses to completing a financial task. Anticipated affective responses play an important role in predicting and changing behavior (Richard et al., 1996a, 1996b). In retirement saving, people dislike the anticipation of having to take action in the future, as well as the uncertainty that they experience in the meantime. This is illustrated by the fact that, in the USA, retirement saving is the number one financial worry (Gallup, 2015), and that, in the Netherlands, retirement saving is one of people's top financial priorities (Nibud, 2015). If people worry about retirement saving, then taking action to end this worry may have immediate affective advantages. Often, people are motivated to do aversive tasks simply because they imagine how good they are going to feel immediately afterwards. When it comes to retirement saving, it could be effective to communicate that doing finances creates peace of mind, a sense of fulfilment, or even pride in oneself.

Providing people with commitment options for future saving has already proven to be another effective way to battle procrastination. Thaler and Benartzi (2004) incorporated the idea of commitment in their Save More Tomorrow plan. Instead of asking eligible employees if they wanted to start saving for retirement *right away*, the Save More Tomorrow plan asked employees if they wanted to start saving *in the future*. People deem the future a more suitable time to save than the present and are therefore more likely to commit to future enrollment. In the Netherlands, it may be useful to have commitment options available for the self-employed. Because of the processes described here, the option to

start saving next year may be more appealing than the option to start saving right away.

Commitment options are not always plausible or easy to implement. In such cases, providing so-called implementation intentions can serve as a less enforcing and more widely applicable solution. Implementation intentions can be described as 'soft' commitment options. People are prompted to make concrete plans that simplify the execution of behavior, without a binding agreement or commitment to an outside party (Gollwitzer, 1999). Specifically, people contemplate where, when, and how to perform a certain behavior. Forming such concrete plans has already proven effective in helping people reduce fat intake (Armitage, 2004), increasing influenza vaccination rates by 12% (Milkman et al., 2011), and getting the unemployed back to work (Behavioural Insights Team, 2015).

We think that soft commitment options can promote a wide range of behaviors related to retirement saving, not just plan enrollment. People could be prompted to plan a personal finance day once every month, as well as to describe what they would be doing that day (e.g., "on Sunday, January 20, I will check how much I have saved already by looking at www.mijnpensioenoverzicht.nl"). Ideally, implementation intentions are as concrete as possible and include some kind of reminder.

To summarize, people have present-biased preferences. The resulting tendency to procrastinate is strongest for tasks or decisions that require an immediate investment and that lead to payoffs or benefits only in the distant future. Possible solutions include making retirement saving easy, making retirement saving attractive or immediately rewarding, and providing people with both hard and soft commitment options.

5.6 Undue optimism

People sometimes postpone a decision or task because they are optimistic about the future as a more appropriate time for completion. People are overly optimistic about how much time or money is required to complete a task in the future (Buehler et al., 1994). When making plans, they focus on the unique characteristics of the task and on how their plans might unfold, but they ignore how most plans in the past have not worked out as expected. Because of this biased reasoning, people demonstrate a planning fallacy: predictions about the time or money it takes to complete a task are overly optimistic (Kahneman & Tversky, 1979).

A second type of optimism is people's belief that they will have more resources available in the future than in the present (Tam & Dholakia, 2011; Zauberman & Lynch Jr., 2005). For instance, people may believe that there will be enough time to think about retirement saving in the future. However, once the future becomes the present, time is often scarce and postponement seems the best thing to do again. In a similar way, people may think that they currently have insufficient money to increase their retirement savings, but that this will be different in the future.

To summarize, when making plans, people are generally too optimistic in two ways. First, they underestimate how much time, effort, and money a specific task will require in the future. Second, they overestimate how much time, effort, and money they will have available to execute their plans in the future. Both types of optimism contribute to the problem of procrastination as a specific form of inertia, because tomorrow always seems a more appropriate time for doing a task than today (Lynch Jr. & Zauberman, 2006; Pychyl et al., 2000). The possible solutions to this problem within the context of retirement saving are similar

to those discussed in the section on present-biased preferences: increase people's understanding of how they can save for retirement, simplify information and required actions, and provide commitment options.

6. Why now and how? Remedies for inertia in retirement saving

So far, this Netspar Survey Paper has provided an overview of possible reasons for action and reasons for inertia in retirement saving (see Table 5).

In the previous section, these reasons led to initial recommendations for policy and communication in the domain of retirement saving. In this section, we aim to bring more structure to these recommendations. We do so by taking the individual decision-maker's perspective instead of the policymaker's perspective, as we base our recommendations on an important insight about inertia: *while people know why they should be saving for retire-*

Table 5.

Reasons for action	Reasons for inertia
<p>I: Financial cost Starting to save early in life is expected to lead to greater wealth after retirement than starting to save late in life. Nonetheless, people avoid action because of:</p> <p>a: Ignorance. People do not know the cost of waiting.</p> <p>b: Neglect. People do not consider the cost of waiting when making decisions.</p> <p>c: Underestimation. People underestimate the cost of waiting.</p>	<p>I: Accuracy People expect that investing more time and effort will result in more accurate decisions.</p>
	<p>II: Regret avoidance People anticipate more short-term regret from action than from inaction. Therefore, people remain inactive unless they have strong, justifiable reasons to take action.</p>
	<p>III: Confidence People delay decisions in order to gain confidence, even when this delay is non-instrumental.</p>
	<p>IV: Flexibility People delay choice because they prefer flexibility and dislike losing options.</p>
	<p>V: Present-biased preferences People procrastinate tasks and decisions because outcomes are discounted over time.</p>
	<p>VI: Undue Optimism People procrastinate tasks and decisions because they are overly optimistic about the required and available resources in the future.</p>

ment, they do not know why now and how. People take no action towards retirement saving because they have a hard time answering two questions: (1) 'Why should I take action right now?', and (2) 'How should I take action?' We structure this section around these two questions.

In the first part, 'Why Now?', we recommend (1) provision of timely reminders, (2) use of active choice framing, and (3) implementation of deadlines. The goal of these recommendations is to make neglected or underestimated aspects of retirement saving more apparent. In the second part, 'How?', we recommend (1) simplification, (2) provision of commitment options, (3) restriction of choice, and (4) use of smart defaults. The goal of these recommendations is to make retirement saving easier. In both parts, we return to the specific recommendations, analyze the logic that connects them, and discuss the relevance of these recommendations to the current debates and developments in the Dutch retirement system. Our aim is to be as specific as possible, but we also acknowledge the difficulty in doing so. Inertia plays a role in all stages of retirement saving, and the reasons discussed in this paper lead to a wide variety of possible implications for a wide variety of problems. The implications in the remainder of this paper serve as concrete examples and illustrations. Additionally, we want to emphasize that these recommendations are based on our reading of the academic literature and our research on human decision-making. We believe it is important to not simply implement recommendations, but to first test them with the relevant population, and to adjust them based on such testing. This will lead to evidence-based interventions that are much more likely to result in favorable behavioral change.

6.1 Why now?

People know that retirement saving is important, yet many do not know why it is urgent. The financial costs of inertia are often far from apparent, or they are hard to estimate and therefore not fully considered by people. Moreover, the immediate psychological benefits of inertia outweigh the uncertain, unclear, and delayed financial benefits of taking action. Based on this reasoning, we arrive at three recommendations: provide timely reminders, use active choice framing, and implement deadlines.

Provide timely reminders about the costs of waiting and the benefits of immediate action. This type of communication should differ from most of the generic financial education that governments, retirement funds, and employers currently offer to consumers. The focus should not be on the *importance* of retirement saving, but on the *urgency* of retirement saving. Most people already know that retirement saving is important, but not why it is urgent. Emphasizing importance may backfire by causing delay, whereas emphasizing urgency may encourage immediate action. Timely reminders should also make the appropriate considerations clear at the appropriate time. Providing people with general information about retirement saving is pointless if people do not use this information when making decisions (or when 'choosing' to not take action). Obviously, knowing when people are most likely to be thinking about retirement saving is a prerequisite for successful implementation.

In the Netherlands, second pillar retirement arrangements are becoming less generous. However, people's expectations are often not in line with reality, and it has proven difficult to get people to look up information about their own financial situation. For instance, 40% of participants in a survey by Wijzer

in Geldzaken (2014) indicated they had *never before* thought about their income and spending after retirement. The same survey found that even the most popular information sources were used by only a small percentage of participants. The website www.mijnpensioenoverzicht.nl was used by 34%, and the individual pension statement ('UPO') was used by 29%. Overall, around half of the participants did not consider retirement saving as urgent. Timely reminders can increase a sense of urgency, and as such they direct people to information sources at a time when they are most relevant and when subsequent action, if needed, is most likely. Let us give an illustration of when, where, and how timely reminders can be implemented in the Dutch retirement system. People whose retirement age lies in the distant future – let us say, those under 40 – are particularly unlikely to plan for retirement. For this group, there may seem little reason to take immediate action. However, there are moments, for instance right after getting a promotion or a pay raise, when people are more likely to think about their financial future. The employer could use this moment to send the employee a reminder, in the form of a letter or email. This reminder could include a link to www.mijnpensioenoverzicht.nl and briefly mention the downside of delaying a visit to this website by another year. Contrary to typical financial information, this type of information reminds people of the relevant aspects of a decision at the appropriate moment.

Use active choice framing in communication and in choice architecture. Active choice framing focuses people's attention on the aspects of a decision that normally go unnoticed. People encounter many opportunities to take action about retirement saving, yet rarely are they required to actively choose between 'doing it now' and 'doing it later'. Framing opportunities as

choices can make the cost of waiting and other consequences of the status quo more apparent and therefore decrease inertia. Moreover, people feel more responsible for their decision if they actively choose between taking the decision now or later than if they opt in. This increase in responsibility is expected to make inertia for the sake of avoiding regret less likely.

In the Netherlands, a growing number of self-employed persons are not automatically enrolled in a second pillar retirement plan. Recent debates about this problem have focused on the type of second pillar arrangement that should be available to this group (AFM, 2015a; De Jong, 2009). The literature on inertia has additional implications for how to present these arrangements to the self-employed. Active choice framing could be implemented to help people who transition from wage-employment to self-employment. When they finalize their business paperwork, they could be asked to fill in a form which lets them actively choose between (1) enrolling in a retirement saving plan now or (2) postponing the decision to next year. Framing opportunities as choices, and making these choices active, can decrease the likelihood of inertia.

Implement deadlines to make the cost of waiting clear. Because inertia often takes the form of passive and repeated delay, it is hard to quantify or value its consequences. This makes inertia a psychologically attractive option, as short-term regret is least likely in the absence of concrete and immediate feedback. Implementing (binding or non-binding) deadlines can have two advantages. First, a deadline creates a psychological sense of urgency, even when there are no material consequences to missing the deadline. Second, a deadline serves as a moment for people to 'choose' between taking action and remaining inactive,

which can be particularly effective in the anticipation of future feedback about outcomes.

One could think of easy ways to create deadlines without imposing additional costs on people. For instance, the financial sector as a whole could send out individual pension statements (UPOs) around the same time each year. In addition, it could urge people to read their pension statement before a specific date or within a certain period (e.g., within two weeks after receiving the statement). Before the deadline, if there are any problems with or questions about the statement, people can easily contact the financial institution. Such a deadline has no formal consequences, because people can of course always contact their financial institution if they have problems or questions. However, in practical terms, the deadline creates a sense of urgency and a clear moment for people to choose between taking action and remaining inactive.

6.2 How?

People know that retirement saving is important, yet many do not know how to take action. Retirement saving is perceived as complex, laborious, and time-consuming. People fear the possibility of regret, value flexibility until uncertainties resolve, wait to gain confidence in their financial abilities, and perceive the future to be a more appropriate time for taking action. Based on these reasons for inertia, we come to three recommendations: simplify, provide commitment options, and restrict choice and set smart defaults.

Simplify retirement saving to promote immediate action. People procrastinate difficult tasks that have few immediate benefits. Procrastination would be less likely if retirement saving were

easier. Current financial education and communication towards consumers mostly focuses on the 'why' of retirement saving. It explains the importance and the possible long-term benefits of saving. Instead, financial education and communication towards consumers should focus on 'how'. Ideally, communication provides people with simple steps that take only minutes and need little preparation.

Take the following problem. Many people leave their individual pension statement unopened or give it little attention. They know the information to be of importance someday, but have little clue how to distill relevant information from the statement and what to do with it (AFM, 2010b; Kuiper et al., 2013; Lentz & Pander Maat, 2013). An international evaluation of pension statements concluded that the document should do more than just provide information (Antolín & Harrison, 2012). Instead, it should encourage and facilitate action. In general, providing information about retirement serves one clear purpose: helping people build sufficient retirement wealth. As long as it is not clear how a statement, letter, or website serves this purpose, not even indirectly, then its necessity, design, or content should be reconsidered.

More specifically, we recommend drastic simplification of the information provided via the individual pension statement, its cover letter, and other forms of communication (e.g., www.mijnpensioenoverzicht.nl). Simplification increases the likelihood of people reading the information, understanding the information, and following up with action if needed. Fortunately, improvements have already been made in the Netherlands. For instance, the focus on www.mijnpensioenoverzicht.nl is now on the individual's projected net income, thus making its consequences easier to grasp.

In the future, we believe specific attention can be devoted to the individual pension statement. It is crucial that people understand how to read the information and what to do with it, a vision that is shared by Dutch retirement organizations (Nell & Lentz, 2013). We would recommend adding a (uniform) letter or card explaining, in a few steps and in plain language, preferably using illustrations, how people should read their statement and what they can do as follow-up. Contrary to a cover letter or magazine explaining the importance of reading a pension statement, our proposed adjustments would focus on the action itself (e.g., “you need only two minutes to read your statement), on immediate results (e.g., “afterwards you feel better for having more insight into your financial situation”), and on possible follow-up actions (e.g., “go to www.mijnpensioenoverzicht.nl for more information”).

Provide commitment options. People tend to see their future as bright. When it comes to the future, financial investments seem less impactful, laborious tasks less laborious, difficult decisions less difficult, and time-consuming actions less time-consuming. Also when it comes to the future, sufficient time, money, and willpower seems available, uncertainties are expected to be resolved, and people expect to have the confidence to make financial decisions. Irrespective of whether this bright view of the future is accurate or not, it is problematic in the context of retirement saving because it often withholds people from taking action right now. The future is simply perceived to be a more appropriate time for dealing with tasks and decisions related to retirement saving, causing people to procrastinate. Evidently, it is difficult to change the psychological mechanisms underlying procrastination. What can be done, however, is to

design and communicate retirement saving options that put these psychological mechanisms to work to people's own advantage. Commitment options do exactly this, as they provide people the opportunity to make decisions that affect their future outcome but not their immediate outcome. Many people find saving for retirement attractive in principle, but they are reluctant to enroll because they do not want to invest money *right now*. Commitment options provide the ideal opportunity in this case. People can commit to saving but are not required to start investing money immediately. In other words, if the downside of enrolling in a retirement savings plan (e.g., having to put in money) is delayed, procrastination becomes less likely.

In practice, these commitment options could come in two forms: binding or subtle. One example of a possible binding commitment option in retirement saving is to let newly self-employed persons make decisions that become effective after a certain delay. Asking young entrepreneurs to commit to putting in money two years from now is psychologically different from asking them to commit to putting in money right away. Therefore, if a future commitment option is available, people will be more likely to select it. Two years later, people will be unlikely to quit because this takes time and effort and because people have grown accustomed to the idea of saving for retirement.

More subtle commitment options include what are called implementation intentions. Prompting people to set their own, non-binding, 'if-then' commitments has proven to be effective in other domains and can be implemented in retirement saving as well. A possibility is to couple specific retirement saving actions or decisions to other recurring financial matters (e.g., "after I finish doing my taxes, I take 30 minutes to check my retirement savings").

Restrict choice and set smart defaults. Our final recommendation accepts the fact that *some* people will refrain from action irrespective of any intervention; they will postpone or avoid retirement saving (Madrian & Shea, 2001). For such people, restricting their choices and using smart defaults can help, as inertia will have few negative consequences under those conditions.

In this sense, the current Dutch retirement system is a perfect example. For many employees, inertia has little to no negative effect. They can expect a reasonable retirement income for which they have had to take little to no action. If retirement plans introduce more freedom of choice, especially in the accumulation phase, the consequences of inertia become greater. The possibility to adjust retirement savings to personal wants and needs may sound appealing, but in reality, people will only postpone or avoid. Between 60% and 80% of Dutch participants find it important that aspects of their retirement arrangement are automatically taken care of by the pension fund (Van Dalen & Henkens, 2015). Based on the current analysis, we therefore recommend leaving choice restricted in situations where people have or see little reason to take action and have or see ample reason for inertia.

If, however, freedom of choice is implemented or already present, it is valuable to set the appropriate defaults carefully, as many people will stick with them. This recommendation also applies to the introduction of second-pillar retirement arrangements for the self-employed, which may be seen as a promising first step. We expect that inertia will cause a relatively low rate of enrollment in these plans. This is not because the self-employed do not want to save for retirement, or because they do not care about retirement. Instead, we believe that

most reasons for inertia discussed in this paper are particularly relevant to this group. Therefore, we would recommend making saving the default for the self-employed, as is already the case for most other employees in the Netherlands. Under such a default, people would be automatically enrolled in a retirement saving arrangement, while retaining the freedom to switch plans or quit altogether. Other intermediate options, ranging from the current opt-in system for the self-employed to the paternalistic mandatory system for most other employees, are also possible. For instance, self-employed persons could be automatically enrolled in a retirement plan every year, with also every year the option to opt out. This kind of system would combine the idea of a smart default with repeated active choice framing. As with other opt-out systems, people would retain the complete freedom to opt out every year. However, because they would have to actively make this decision every year, they would deliberately choose when to save and when not.

7. Conclusion

People find retirement saving important and valuable. Nonetheless, many Dutch people remain passive when it comes to different stages of retirement saving. They take little action to improve their understanding of financial matters in general and of retirement saving specifically. They take little action to plan their financial future or to think about their expectations and their current situation. They take little action to adjust their saving strategy if necessary. How can we explain this inertia with regard to a subject as important as retirement saving?

In this Netspar Survey Paper, we have provided an overview of explanations by analyzing the reasons for action and the reasons for inertia. The reasons for action are primarily financial. Saving requires an immediate financial investment, but inertia involves a cost in the long run. Because many people do not know, neglect, or underestimate these hidden, distant-future financial costs of waiting, they remain passive. Reasons for inertia are primarily psychological. Inertia can be explained by an increase in expected accuracy, avoidance of potential regret, increase in confidence, retention of flexibility, present-biased preferences, and undue optimism about the future.

The analysis of these reasons leads to one crucial insight: *whereas many people know why they should be saving for retirement, they do not know why now and how.* In a final section, we therefore structured our recommendations for the Dutch retirement system around these two questions. In 'Why Now?', we recommended timely reminders, active choice framing, and deadlines. The goal of these recommendations is to make neglected or underestimated aspects of retirement saving more visible. In 'How?', we recommended simplification, commitment

options, and the restriction of choice and use of smart defaults. The goal of these recommendations is to make retirement saving easier.

We hope that this paper will help to better understand the dynamics of inertia. Such increased understanding may lead to promising ways for improving people's retirement saving. Helping people to save for retirement is only possible if we understand their reasons for not doing anything.

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Overcoming inertia in retirement saving

Saving for retirement is one of the most important financial matters people face during their lives. Whereas the Dutch, on average, accumulate sufficient retirement wealth, quite a few people will end up with lower savings than they expect or need. It is surprising that many people remain inactive even when action is needed. This paper by Job Krijnen, Marcel Zeelenberg and Seger Breugelmans (all TiU) addresses two questions about inertia. First, what reasons can explain people's inertia in retirement saving? Second, how can our understanding of these reasons contribute to current and future developments in the Dutch retirement system?

This is a publication of:

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www.netspar.nl

June 2016