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# The Making and Breaking of Trust in Pension Providers: An Empirical Study of Pension Participants

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Trust in pension institutions is pivotal in making pension decisions, like saving or enrolling in pension programs. But which traits of pension institutions matter in making or breaking trust in providers like pension funds, banks or insurance companies? This paper presents an empirical analysis of the underlying forces of trust in private pension providers in the Netherlands. Based on a large-scale survey among pension participants, we show that the perceived integrity, competence, stability and benevolence of pension providers matter in assessing their trustworthiness. First, pension funds are more trusted than banks or insurance companies, a difference that is primarily related to weights attached to perceived levels of integrity and stability. Second, higher educated participants have a significantly higher propensity to trust pension providers than lower educated. Third, transparency as perceived by participants plays virtually no role in establishing trust.
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## Introduction

The pension systems in Europe are in a state of flux.[1] The financial sustainability of pension arrangements has been a structural worry for governments for years as a consequence of population ageing. The financial crisis has put even more pressure on governments and private pension providers to address the fallibilities of funded pension schemes.[2] Pension entitlements and promises were tacitly perceived as certain but the crisis revealed the inherent uncertainty in financial contracts. The trust that workers and pensioners have placed in pension providers was being put to the test. In that respect, the

[1] OECD (2013).
[2] Casey (2012).

definition of trust by Gärling *et al.*[3] succinctly captures the essence of the function of trust, namely "the experience of certainty where no real certainty can exist". The need for trust remains as high as ever as pension reforms increasingly shift risks to individuals[4] who therefore have a greater stake in being concerned about how pension providers handle their money and whether they want to stick to their pension provider or take their financial fate into their own hands.[5] Handling risk requires for most people professional expertise offered by financial institutions. However, the reputation of these institutions has been seriously damaged by imprudent and sometimes fraudulent actions over the years. During and after the credit crunch of 2008, financial institutions have been trying to restore the trust level they enjoyed well before the onset of bank runs and financial scandals. Expertise, integrity and benevolence have been seriously questioned in public debates, especially for banks.[6]

Understanding trust in pension providers and related institutions is of utmost importance, not only because such research offers a reality check for pension professionals on how they are perceived, but more importantly it may explain why people are hesitant to put their life savings in the hands of private sector professionals, why they do not seek financial advice[7] or why they have not saved enough to meet their needs or expectations.[8] The central research question in this paper therefore concerns the very basic question: what makes and what breaks the trust that pension participants have in pension providers?

Although pension insiders discuss and underline the importance of trust in pension institutions[9] the concept of trust and its underlying dimensions are rarely measured and examined empirically in the academic literature. Trust is generally seen as the essential ingredient in making societies work, and there is ample macroeconomic evidence of the importance of generalised trust for economic growth and well-being.[10] At the micro level, the importance of trust and its underlying forces is far more difficult to establish. As Vickerstaff *et al.*[11] make abundantly clear in their review of the literature on trust in pensions, there is "a surprising lack of literature on how individuals differentiate between different pension products and their providers". (p. 30). Practitioners resort to making claims about controlling trust based on rules of thumb. For instance, trust activities are often translated as being transparent as a company and communicating in an open and clear manner about the provided services. However, some state that transparency is overrated[12] or qualify this statement by saying that transparency matters only when basic trust conditions are met.[3] An open question is, of course, whether this is really so in the case of pension providers. The organisational trust literature offers some clues as to what may

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[3] Gärling *et al.* (2009).
[4] Quinn and Cahill (2016).
[5] Van Dalen and Henkens (2018).
[6] Jansen *et al.* (2015), van der Cruijsen *et al.* (2016).
[7] Van Dalen *et al.* (2017).
[8] Taylor-Gooby (2005), Vickerstaff *et al.* (2012), Henkens *et al.* (2017).
[9] Besley and Prat (2005, Hyde *et al.* (2007), Schanz (2009).
[10] Berggren and Jordahl (2006), Beugelsdijk *et al.* (2004), Zak and Knack (2001).
[11] Vickerstaff *et al.* (2012).
[12] Pirson and Malhotra (2008), Prast *et al.* (2012).

affect trust. For instance, Mayer *et al.*[13] make the claim that trust in organisations comes from fundamental character traits which the members of an organisation possess, such as ability, benevolence and integrity. In a review of trust in financial institutions in the wake of a crisis Gärling *et al.*[3] extend this claim by including factors such as transparency, value congruence and reputation of organisations. In their view, basic trust markers such as ability, integrity and benevolence are so-called 'dissatisfiers', i.e. not satisfying these criteria makes it hard for organisations to be perceived as credible and trustworthy. Markers such as the level of transparency or reputation of an organisation are at best traits that help to differentiate or position the organisation in the market for pensions. But more importantly, these markers are not going to generate trustworthiness or compensate for a decline in the basic trust markers of an organisation. Although these claims seem plausible, they have not been put to the test in the case of financial institutions in the trust literature. In designing social policies, it is important to know which are the key drivers and which are of minor importance. For instance, one can design huge advertising campaigns or protocols on how to communicate, but the money will be ill spent if perceived integrity and competence are the root causes of distrust.

This paper makes three contributions. First, we extend the body of trust research in financial institutions by offering insight into the level of trust in a number of pension providers in the Netherlands, specifically pension funds, banks and insurance companies. These are the pension institutions that are relevant for understanding the second and third pillars of the pension system. Second, we examine the impact of the different drivers of trust as mentioned in the organisational trust literature. And third, we show that there is a hierarchy of trust drivers as suggested by Gärling *et al*.[3]

The pension context is that of the Netherlands, a country which has received praise for its pension system,[14] but which is also experiencing difficulties in adjusting to structural changes in demography and the labour market. To understand the basics of pension provision in the Netherlands, we will first give some background information on the Dutch system. Second, we will offer a brief overview of how to operationalise trust based on the literature on trust in organisations. Third, we will present our method and data on how we measured trust and the underlying drivers, and subsequently present the results of our statistical analysis. Finally, we will conclude with a summary and discussion of the findings.

## A bird's eye view of the Dutch pension system

In order to understand the issue of trust in the Dutch context it is necessary to understand the governance in pension plans and the key players that figure in the provision of pensions. In the Netherlands, most employees save and accumulate pension rights within a three pillar system: (1) a basic public pension plan (the so-called 'AOW'); (2) a mandatory supplementary pension plan; and (3) individual voluntary pension savings.

[13] Mayer *et al.* (1995).
[14] Ambachtsheer (2011).

### *First pillar*

The first pillar offers every citizen of the Netherlands an equivalent benefit on retirement. As of January 2016, a gross benefit of EUR 1,138 per month is received by single individuals, and EUR 784 is received by each member of a couple. The public pension is financed on a pay-as-you-go basis. Part of the income tax is earmarked (17.9 per cent of the first EUR 30,000 of income) to generate the public pension income. In 2014, these public pension premiums covered 69 per cent of the public pension outlay. The deficit is funded by the government from general fiscal means. Each resident accumulates for each year of residency in the Netherlands (starting 50 years before the public pension age) 1/50 pension rights. As mentioned above, pension premiums are levied on income earned, and the government is responsible for making sure that contributions and benefits are managed prudently. The day-to-day management of this process is delegated to the Social Insurance Bank. With respect to benefits, the main decision is whether or not to index pensions for (wage) inflation. The credibility of public pensions therefore rests mainly with the (federal) government which makes the key decisions. The most recent reform undertaken by the government concerns raising the retirement age in steps from 65 years (starting in 2012) to 67 years in 2021, then from 2022 onward, automatically linking the retirement age to the average life expectancy (at age 65). Based on population forecasts, this implies that by the year 2060 the public pension retirement age will be 71.5 years.

### *Second pillar*

The most complex pillar with respect to finance and governance is the second pillar which constitutes occupational pension plans.[15] These plans are agreed upon at a collective level between the so-called social partners: the employers or their representative organisation and the trade unions, which represent the employees. Employees accrue pension rights which offer a supplementary income on top of the public pension. However, employees face some restrictions in accumulating those rights. Whenever an employer offers a supplementary pension scheme, participation in that particular pension provider is mandatory.

Although most Dutch employees accumulate their pension rights with pension funds, a small and increasing number of employees are covered by insurance companies. Pension funds are non-profit organisations, where key policy decisions are made by the so-called social partners: the employer(s) or their representatives and the trade unions which represent the employees. Employees and pensioners of a pension fund can also be represented in the participants' council, which gives solicited and unsolicited advice to the board of directors. However, in actual practice, most funds (85 per cent in 2014) have outsourced their administration and/or asset management to for-profit pension organisations.

In the Netherlands, approximately half of the pension premium is paid by the employer and the other half by the employee. By and large, most Dutch employees have a defined benefit (DB) pension plan. In the past, these benefits were promised in terms of a certain percentage (usually 70 to 75 per cent) of an employee's final pay based on 40 years of contributions. Over time, this ambition has been toned down to guaranteeing the benefit to

[15] See Chen and Beetsma (2015).

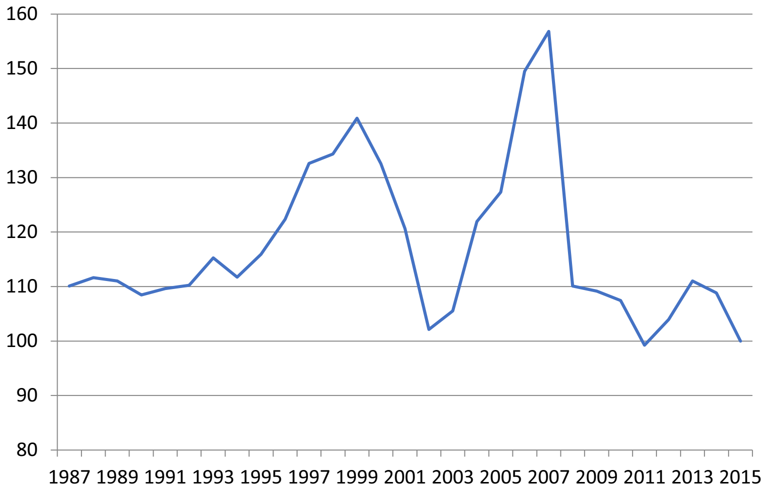


**Figure 1.** Average funding ratio of pension funds, The Netherlands 1987–2015. *Source* CBS, Statline, *Note*: a score of 100 means that the pension assets exactly meet the pension liabilities.

a percentage of the average pay over the employee's career. And during the last 10 years, pension funds have come to realise that the promises they made in the past are now untenable. The increase in life expectancy, the various crises on the stock market, and since the Great Recession the historically low interest rates, have made it difficult to match assets with future liabilities. Although most occupational pensions are characterised as DB plans, they can better be characterised as collectively defined contribution (CDC) plans since most pension contracts provide nominal guarantees, but the degree to which they are indexed depends on the funding ratio: the ratio of the pension fund's assets over its liabilities. Liabilities are computed by discounting the future cash flows associated with the current stock of accumulated pension rights against a risk-free market interest rate. This discount rate used to be 4 per cent, but as of 2012 the government has changed this rate to a market interest rate in order to free the system from arbitrary rates which did not reflect conditions on the capital market. The development over time of the funding ratio of Dutch pension funds is presented in Figure 1. This clearly shows the effects of a number of crises on the sustainability of pension funds.

The 21st century has been a volatile period for pension funds, which is a result of both the credit crisis and the subsequent crash on the stock market[16] as well as the fall of interest rates to historically low levels. To interpret this figure, one should know that a funding ratio of 100 per cent implies that pension funds have no resources to index the pension rights of participants for inflation. And to guarantee the promise of a pension which adjusts the value to the level of purchasing power, pension funds should have a funding ratio of 145.[17]

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[16] See also Casey (2012).
[17] Van Ewijk and Teulings (2011).

### *Third pillar*

Finally, there is a third pillar where individuals can privately accumulate pension savings in case they find their pension inadequate. Voluntary pension savings are mainly effectuated through banks and insurance companies. This pillar is expected to become more important for a number of reasons. First, the government is pulling back as a (fiscal) sponsor for the second pillar arrangements. It restricts the coverage of gross incomes up to EUR 100,000 (per annum), and political parties are hinting at lowering this income level to EUR 70,000 or even lower. If employees want to maintain their expected benefit replacement rate, they have to save privately. Second, the number of self-employed individuals (without personnel) has grown significantly over the past 10 years in the Netherlands, and for this category of worker there are in general no collective pension arrangements. However, many self-employed do not make pension arrangements because the pension premium—in the absence of the employer as sponsor—is twice as high as that of an employee. Third, the labour market has become more flexible and is expected to gain in flexibility. This aspect means that certain funding practices that were well attuned to a labour market with low labour mobility and life-long contracts are now perceived as perverse solidarity. In particular, the rule of pension funds to levy a contribution rate that is the same for all participants regardless of age, gender or income (uniform premium), including a uniform accrual rate of pension rights, is seen as a form of perverse solidarity.

### *Regulation*

The government has a dual role as regulator and as legislator. The task of regulating the pension sector has been delegated to two institutions: the Dutch Central Bank (De Nederlandsche Bank, DNB) and the Dutch Authority for the Financial Markets (AFM). The former institution regulates and monitors the pension funds as stipulated in the Pension Act and the life insurance companies as stipulated in the Financial Regulation Law. Financial prudence and stability are key aspects of judging the performance of pension providers, and regarding impact, the DNB is the most influential as it can force pension funds to change their policy if they are not acting prudently. The AFM monitors the pension sector on actual behaviour of pension providers, in particular whether participants receive correct information and whether providers act in the interest of consumers.

## Trust in pension providers

The examination of trust in pension providers relies on a diverse body of literature on trust in organisations and institutions,[18] which draws on insights into disciplines such as economics, marketing, sociology, psychology, management and political science. The core of the matter in measuring and explaining trust revolves around the assumption that trust is both a trait of the trustee (perceived trustworthiness) as well as the person who has to trust others (the propensity to trust).[13] The perceived trustworthiness is shown to consist of a multitude of characteristics, although in most studies the elements of ability, benevolence

[18] Mayer *et al.* (1995), Vickerstaff *et al.* (2012).

and integrity are central to understanding trust.[19] However, it is believed that financial institutions merit more of a special focus, perhaps because money—more than other services or commodities—is deep down a matter of trust. In a review of the underlying determinants of trust in financial institutions Gärling *et al.*[3] arrive at a number of drivers that relate to the general literature on organisational trust but which also include other factors. We have used or made these drivers more specific to measure the drivers of trust in pension institutions. This results in the following set of trust drivers:

- *Stability* is a trait that is pivotal in the financial economist's eye as pension finance revolves around managing assets and liabilities and the reputation as a pension provider depends crucially on delivering what was initially promised. Pension contracts in the Netherlands are by and large defined benefit contracts. Hence, being perceived as a stable provider might be seen as a reflection of the ability of a pension provider. Stability or predictability is expected to be intimately related to trust although the two should not be seen as equivalent concepts. One can act in a predictable and stable manner, but if these actions are detrimental to the interests of the participants one is not likely to be trusted. Hence, stability should be complemented by other drivers, as listed below.
- *Competence* is the perceived ability of pension providers, or more specifically the group of skills, competencies, and characteristics that enable a pension provider to offer a satisfactory level of services within the domain of pensions. This could be the knowledge of the financial products and the ability to spread risks and hence to attain a smooth level of pension premiums and benefits.
- *Integrity* is described in more general terms by Mayer *et al.*[13] who define integrity as "the trustor's perception that the trustee adheres to a set of principles that the trustor finds acceptable". In applying the element of integrity to the financial sector, Gärling *et al.*[3] describe it as "honesty and carefulness in procedures and treating all customers in the same way".
- *Benevolence* is the extent to which a trustee is believed to want to do good to the trustor, or who puts the interest of the trustor at least on an equal footing with their own interest. It is an element which is very much stressed by Shiller[20] who claims that only businesses which serve their customers well will stay in business. It may involve giving advice and communicating from the client's perspective and genuinely taking their interests to heart and not solely taking the perspective of the pension provider.
- *Transparency* is defined in this paper as the quality by which a trustee reports to and communicates with the trustor. Transparency in general has more dimensions as it is said to cover both openness and the use of understandable information. It can also be seen as an indicator of integrity and benevolence. Being open and clear about what is going on inside an organisation is a signal that an organisation has nothing to hide. And offering complete and clear information about liabilities, procedures and inherent risks tied to products may be seen as a sign of benevolence because such actions show that organisations take the customer seriously.
- *Social responsibility*: this trait could signify to stakeholders the level to which an organisation is concerned with its own core competencies and priorities and therefore

[19] Mayer *et al.* (1995), Pirson and Malhotra (2008), Vickerstaff *et al.* (2012).
[20] Shiller (2012).

focuses on its own interest and stakeholders[21] or whether it also takes a broader social concern into account in making decisions. By assessing this element in conjunction with the other markers, one might be able to uncover signs of value congruence (cf. how Gärling *et al.*[3] use social responsibility as such) when organisations are perceived as taking the perspective of society and not merely their own interests into account.

In examining trust in pension providers, we arrive at the following hypothesis:

*Trustworthiness hypothesis*: Trust in pension providers (pension funds, banks and insurance companies) is positively associated with indicators of their perceived competence, stability, benevolence, integrity, transparency and social responsibility.

It is a straightforward hypothesis that can be put to the test. However, there is a second hypothesis which relates to the relative importance of the various factors. Gärling *et al*.[3] claim that the first four trust drivers—stability, integrity, competence and benevolence—are key to financial institutions. They are called 'dissatisfiers' (following the terminology of Herzberg *et al.*[22]). Trust drivers that are often mentioned such as transparency or social responsibility can only be of value to financial institutions when the first four drivers are assessed in a positive manner. They are what Gärling *et al.*[3] call 'satisfiers'. By examining this sub-hypothesis one essentially focuses on the importance of size effects of the separate drivers of trust.

*Hierarchy-in-trust hypothesis*: The perceived competence, stability, benevolence and integrity of pension providers are far more important than the perceived transparency and social responsibility of pension providers in generating trust.

In testing our hypotheses, we will use a set of social demographic characteristics as control variables to account for the fact that people differ in their propensity to trust pension providers.

## Methods and data

### *Sampling and participants*

In June 2014, a survey was carried out among pension participants in the Netherlands, ($N$ = 2,103; response rate 69 per cent). For our purposes, we focused solely on people who had accumulated pension rights at a pension fund (N = 1,735). The survey was conducted by the CentERdata, a survey institute of Tilburg University that maintains a large panel of households in the Netherlands[23]. The panel is representative of the Dutch population with respect to gender, age, education and regional variation. Members of the panel are all interviewed through an Internet connection. Participants who do not have Internet access are provided with a facility by CentERdata, allowing them to access the Internet through their televisions. Households that do not have a television set are given one by CentERdata to facilitate the data collection process. As such, there is no selectivity with regard to whether people have access to Internet or not. In general, people participate on the panel for about four years (although the modal participant stays on for one year—see Teppa and

[21] Friedman (1970).
[22] Herzberg *et al.* (1959).
[23] For details, see http://www.centerdata.nl/en/

Vis[24]), during which time they are interviewed regularly on a variety of different topics. When a respondent leaves the panel, a new respondent is selected on the basis of matched sociodemographic characteristics so that the representativeness of the sample will be maintained.

*Variables*

As a dependent variable, we measured respondents' perceived trust in three types of pension providers: pension funds, banks and insurance companies. We asked the following question: "To what extent do you trust [pension funds/banks/insurance companies] in guaranteeing a comfortable pension?"; answer categories are (1) no trust; (2) little trust; (3) neutral; (4) some trust; (5) a lot of trust. Hence, we asked respondents to express their trust in pension providers in general and not in their own pension fund or their own insurance company.

As explanatory variables the following set of variables is used:

- Drivers of *trustworthiness*. We asked respondents the following question: "How would you characterise [pension funds/banks/insurance companies] in terms of the following elements?" Six elements of trustworthiness of pension providers were assessed by participants: (1) stability; (2) integrity; (3) competence; (4) benevolence; (5) transparency; and (6) social responsibility. For each of the trust drivers, the respondents were asked to assess the three pension providers on a five-point scale. For instance, for the dimension stability they could assess a pension provider as unstable (−2, −1), neutral (0), or stable (+1, +2); the values −1 and +1 are interpreted as moderate values of specific elements of trust. For each of these trust markers, we created four dummy variables. For example, for the case of stability the dummy variables included "unstable", "moderately unstable", "moderately stable", and "stable". The category neutral served as a reference category.
- *Control variables*. To control for the characteristics of the trustor who makes the judgement of trustworthiness we used three variables: (1) age (in years); (2) education (three levels: low, middle and high); (3) gender.

Table 1 presents the descriptive statistics for the entire sample used in this study. The average pension participant is 52 years old; there are slightly more men than women in the sample and the percentage of higher educated is higher than the national average, which stands to reason as we only focus on pension participants, i.e. people who accumulate pension rights in the second pillar.

The assessed levels of trust are of a qualitative or ordinal nature, and to analyse the trust assessments of respondents properly we use ordered logit analysis.

## Explaining trust in pension providers

In the Netherlands, trust in pension institutions has been shown to be characterised by a marked swing in ups and downs but also by a consistency in evaluation across the various providers. Over the years, we have tracked the development of trust of various pension

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[24] Teppa and Vis (2012).

**Table 1** Descriptive statistics

| *Organisation level variables* | *Pension funds* | | *Banks* | | *Insurance companies* | |
|---|---|---|---|---|---|---|
| | *Means* | *SD* | *Means* | *SD* | *Means* | *SD* |
| Trust* | 3.35 | 1.06 | 2.91[a] | 1.00 | 2.79[a,b] | 1.00 |
| *Trust markers** | | | | | | |
| Stability | 0.09 | 1.00 | −0.08[a] | 0.97 | 0.05[b] | 0.90 |
| Integrity | 0.24 | 0.94 | −0.36[a] | 0.95 | −0.34[a] | 0.91 |
| Competence | 0.35 | 0.92 | 0.30 | 0.90 | 0.31 | 0.86 |
| Benevolence | −0.05 | 1.07 | −0.93[a] | 1.01 | −0.83[a,b] | 1.00 |
| Transparency | −0.02 | 1.02 | −0.37[a] | 0.92 | −0.43[a,b] | 0.90 |
| Social responsibility | 0.10 | 0.97 | −0.48[a] | 0.95 | −0.43[a] | 0.87 |
| Individual level variables | | | | | | |
| Age categories (years) | 52.47 | 15.87 | 52.47 | 15.87 | 52.47 | 15.87 |
| Gender (male = 0) | 0.45 | 0.50 | 0.45 | 0.50 | 0.45 | 0.50 |
| Education (3 cat.) | 2.25 | 0.80 | 2.25 | 0.80 | 2.25 | 0.80 |

N = 1735.

* *Note*: In the table significant differences ($p < 0.05$) between the means of the trust variables and trust markers are denoted by (a) where the pension funds are used as benchmark and (b) with differences between banks and insurance companies. The trust variable is a 5-point variable 1–5. The evaluation of trust markers is based on a five-point scale −2, −1, 0, +1, +2.

providers, and Table 2 shows the development over time of the most prominent institutions between 2004 and 2014.

To offer a benchmark in the comparison of institutions, we also include the government as the provider of public pensions. The government is moderately trusted, and there was only one period in which the government was seen as the most trusted institution and that was in the midst of the credit crisis when virtually all Dutch banks had to be supported by government guarantees. Some banks were even nationalised (like the bank ABN AMRO) as they were seen as a risk to the (Dutch) financial system. However, the most notable observation of Table 2 is that for each and every year banks and insurance companies are seen as being far less trustworthy than pension funds.

To gain a deeper understanding of why pension funds differ markedly from banks or insurance companies, we asked pension participants to characterise the various pension

**Table 2** Trust in pension institutions, 2004–2014 (percentage of the general population who (very much) trust specific institutions)

| | *2004* | *2006* | *2009* | *2011* | *2014* |
|---|---|---|---|---|---|
| Pension funds | 53 | 64 | 44 | 42 | 48 |
| Banks | 32* | 37* | 25 | 34 | 30 |
| Insurance companies | 32* | 37* | 18 | 20 | 25 |
| Government | 37 | 42 | 45 | 41 | 41 |

*In 2004 and 2006 the trust question was posed jointly for banks and insurance companies as a lot of large corporations at that time were conglomerates offering both insurance and banking services. After the crisis some organisations unravelled, and to reflect this trend a separate trust question was posed for both banks and insurance companies.

Source data: Netherlands Interdisciplinary Demographic Institute (NIDI), 2004–2014.

providers relevant in the second pillar of the pension system along the six dimensions suggested by Gärling *et al.*[3] The result of this characterisation is found in Table 3. Although the providers share some similarities in the eyes of participants, one can see that the pension funds as a whole are evaluated markedly differently from banks and insurance companies. In particular with respect to traits such as integrity and benevolence, pension funds are clearly seen as institutions which are more honest and more engaged in putting the customer's position first than banks or insurance companies. For example, only a small minority of respondents view pension funds as dishonest (4.3 per cent) or moderately dishonest (14.3 per cent). The corresponding percentages for banks (12.3 per cent and 31.2 per cent) and insurance companies (10.3 per cent and 32.0 per cent) are far more negative. Some differences can also be traced in terms of transparency and social responsibility, with pension funds being more transparent and more socially responsible than banks and insurance companies. With respect to stability, the three institutions do not differ much: for each institution the participants are more or less divided about how stable these institutions

**Table 3** Trust in financial intermediaries in pension-by-pension participants

| *Characteristic* | *Evaluation* | | | | | |
|---|---|---|---|---|---|---|
| Stability | Unstable | Moderate | Neutral | Moderate | Stable | Total |
| Pension funds | 6.2 | 21.8 | 35.7 | 30.1 | 6.3 | 100.0 |
| Banks | 7.8 | 25.8 | 35.9 | 27.9 | 2.5 | 100.0 |
| Insurance | 4.6 | 21.4 | 41.1 | 29.0 | 3.2 | 100.0 |
| Integrity | Dishonest | Moderate | Neutral | Moderate | Honest | |
| Pension funds | 4.3 | 14.3 | 42.0 | 31.6 | 7.8 | 100.0 |
| Banks | 12.3 | 31.2 | 38.4 | 16.3 | 1.7 | 100.0 |
| Insurance | 10.3 | 32.0 | 40.9 | 15.2 | 1.6 | 100.0 |
| Competency | Incompetent | Moderate | Neutral | Moderate | Competent | |
| Pension funds | 3.1 | 13.0 | 38.5 | 36.5 | 8.9 | 100.0 |
| Banks | 3.9 | 11.7 | 41.4 | 36.3 | 6.8 | 100.0 |
| Insurance | 3.2 | 10.6 | 44.7 | 35.5 | 6.1 | 100.0 |
| Benevolence | Focused on organisation's interest | Moderate | Neutral | Moderate | Focused on customer's interest | |
| Pension funds | 10.4 | 21.4 | 37.4 | 24.1 | 6.7 | 100.0 |
| Banks | 34.3 | 36.2 | 19.2 | 8.8 | 1.5 | 100.0 |
| Insurance | 28.3 | 38.6 | 22.0 | 9.6 | 1.5 | 100.0 |
| Transparency | Unclear communication | Moderate | Neutral | Moderate | Clear communication | |
| Pension funds | 8.6 | 21.6 | 38.8 | 25.3 | 5.8 | 100.0 |
| Banks | 11.4 | 32.4 | 39.7 | 14.9 | 1.6 | 100.0 |
| Insurance | 12.1 | 34.2 | 39.9 | 12.4 | 1.4 | 100.0 |
| Social responsibility | Not socially responsible | Moderate | Neutral | Moderate | Socially responsible | |
| Pension funds | 6.0 | 16.0 | 45.4 | 27.4 | 5.2 | 100.0 |
| Banks | 16.1 | 31.1 | 38.4 | 13.3 | 1.2 | 100.0 |
| Insurance | 13.0 | 30.4 | 44.6 | 11.0 | 1.0 | 100.0 |

N = 1735.

are. The same can be said of the assessed competence of the three pension providers. This observation suggests that competence and stability are both elements that approximate the ability of these institutions.

The results of the ordered logit analyses to test the trustworthiness hypothesis and the hierarchy of trust hypothesis are presented in Table 4.

The overall outcome of this test is that we find strong support for our first hypothesis—the trustworthiness hypothesis. Most of the traits of organisations are—at some level—positively associated with drivers of trust in pension providers.[25] In particular, stability, integrity, competence, benevolence and social responsibility proved to be a statistically significant predictor of trust. The notable exception is that the level of transparency—the level of communication of organisations—is not significantly (at $p < 0.05$) associated with trust in the three organisations.

The first column of Table 4 presents the analysis of trust in pension funds, and these results show that all drivers are of some influence, although clearly stability and integrity are dominating factors, whereas the influence of transparency and social responsibility is weak. With respect to the dominating factors for pension funds one should note that trust is especially vulnerable to perceptions of integrity and stability. The coefficient for being unstable in the case of pension funds is a factor of 1.7 larger than the coefficient for being stable, and this asymmetry suggests that participants 'punish' pension funds more heavily for perceived instability, whereas for the other drivers one can detect more symmetrical effects.

The control variables—education, gender and age—are statistically significant in the case of pension funds. The higher educated are more trusting towards pensions funds, and the same applies to male participants. It is well known within the literature on generalised trust that the educational level or intelligence is positively associated with trust.[26] This finding may be a reflection of the complexity of the pension industry, which is perhaps easier for the higher educated and more financially literate to grasp than for the lower educated.[27]

The fact that age plays a significant role in trusting pension funds may be a reflection of the status quo: by and large, pension funds have been the default intermediary to arrange a supplementary pension, and up until the credit crisis pension funds had been highly trusted institutions that could always make good on their promises. And finally, it could also be a reflection of the fact that the older participants are relatively better off in terms of their pension package and rights compared to younger generations, who face an uncertain future.

The second and third columns show the results for trust in banks, respectively insurance companies. The weights attached to stability, integrity and competence are very much alike for these two providers. It is, however, noteworthy to see that the both institutions are evaluated equally negatively in terms of benevolence; the insurance companies are 'punished' for this assessment in terms of trust, whereas banks are not. The fact that this asymmetry is clearly visible in the case of insurance companies when one focuses on benevolence is also telling and understandable. Insurance companies and banks have a

[25] We have checked for possible multicollinearity in the explanatory factors by carrying out variance inflation factors (vif), and for all trust markers the vifs were 2 or lower, which is well below the limiting benchmark values often used in statistics (O'Brien, 2007), suggesting that multicollinearity is not a problem in carrying out the ordered logit analysis.

[26] Carl and Billari (2014), Glaeser *et al.* (2000).

[27] Lusardi and Mitchell (2014).

**Table 4** Ordered logit analysis of trust in pension institutions by pension participants

| *Characteristics institutions* | *Trust of pension participants in:* | | | | | |
|---|---|---|---|---|---|---|
| | *Pension funds* | | *Banks* | | *Insurance companies* | |
| | *(1)* | | *(2)* | | *(3)* | |
| | *Coeff.* | *t-value* | *Coeff.* | *t-value* | *Coeff.* | *t-value* |
| Stability (neutral = 0) | | | | | | |
| Unstable | −1.98** | 6.64 | −1.00** | 3.82 | −0.65* | 2.11 |
| Moderately unstable | −0.89** | 6.02 | −0.34* | 2.49 | −0.19 | 1.36 |
| Moderately stable | 0.65** | 4.39 | 0.72** | 5.30 | 0.72** | 5.48 |
| Stable | 1.16** | 3.96 | 1.41** | 3.44 | 0.35 | 1.02 |
| Integrity (neutral = 0) | | | | | | |
| Dishonest | −1.59** | 4.24 | −1.46** | 6.07 | −1.78** | 6.99 |
| Moderately dishonest | −0.81** | 4.55 | −0.76** | 5.45 | −0.93 | 6.86 |
| Moderately honest | 0.50** | 3.34 | 0.71** | 4.25 | 0.73 | 4.33 |
| Honest | 1.43** | 4.86 | 0.82 | 1.56 | 2.14** | 3.80 |
| Competence (neutral = 0) | | | | | | |
| Incompetent | −0.89* | 2.13 | −0.30 | 0.93 | −0.54 | 1.51 |
| Moderately incompetent | 0.03 | 0.19 | −0.14 | 0.82 | 0.04 | 0.21 |
| Moderately competent | 0.68** | 5.02 | 0.27* | 2.25 | 0.24* | 1.94 |
| Competent | 1.36** | 5.32 | 0.55* | 2.27 | 0.14 | 0.54 |
| Benevolence (neutral = 0) | | | | | | |
| Interest organisation first | −0.63* | 2.53 | −0.58** | 3.17 | −0.94** | 4.98 |
| Moderately organ. first | −0.18 | 1.23 | −0.06 | 0.43 | −0.45** | 3.18 |
| Moderately cust. first | 0.25‡ | 1.72 | −0.37‡ | 1.76 | −0.28 | 1.43 |
| Interest customer first | 0.63* | 2.15 | 0.40 | 0.83 | −0.45 | 0.94 |
| Transparency (neutral = 0) | | | | | | |
| Unclear communication | 0.20 | 0.86 | −0.20 | 0.91 | −0.35 | 1.55 |
| Moderately unclear | −0.01 | 0.04 | −0.08 | 0.65 | 0.07 | 0.55 |
| Moderately clear | 0.26‡ | 1.75 | 0.28 | 1.61 | 0.08 | 0.45 |
| Clear communication | −0.17 | 0.58 | 0.58 | 1.12 | −0.06 | 0.10 |
| Social responsibility (neutral = 0) | | | | | | |
| Not socially responsible | −0.23 | 0.77 | −0.54* | 2.73 | −0.51* | 2.31 |
| Moderately not responsible | −0.28 | 1.65 | 0.19 | 1.42 | −0.06 | 0.46 |
| Moderately responsible | 0.20 | 1.35 | 0.35 | 1.89 | 0.58** | 3.01 |
| Socially responsible | 0.63‡ | 1.85 | 1.28‡ | 2.04 | 0.89 | 1.40 |
| *Control variables*: | | | | | | |
| Education (low = 0) | | | | | | |
| Middle | 0.26‡ | 1.88 | 0.34** | 2.55 | 0.32* | 2.37 |
| High | 0.59** | 4.62 | 0.52** | 4.22 | 0.21‡ | 1.71 |
| Gender (male = 0) | −0.22* | 2.19 | −0.07 | 0.71 | −0.04 | 0.37 |
| Age (in years) | 0.03** | 8.10 | 0.00 | 0.49 | −0.01‡ | 1.82 |
| Controlled for randomisation questions[a] | √ | | √ | | √ | |
| Pseudo $R^2$ | 0.29 | | 0.21 | | 0.19 | |
| *N* = | 1735 | | 1735 | | 1733 | |

‡ < 0.1 * $p < 0.05$; ** $p < 0.01$.

(a) To come to an independent assessment of the pension providers, we randomised the order in which one of the three providers appeared to respondents. In the statistical analysis, we controlled for this as the order of one of these providers might affect the outcome of the assessments.

**Table 5** Simulated trust levels for a number of scenarios with respect to trust markers[a]

| *Trust levels in:* | *Sample means (1)* | *Dissatisfiers = very negative, satisfiers = neutral (2)* | *Dissatisfiers = very negative, satisfiers = very positive (3)* |
|---|---|---|---|
| Pension funds | | | |
| No trust | 0.04 | 0.57 | 0.46 |
| Little trust | 0.21 | 0.40 | 0.49 |
| Neutral | 0.24 | 0.03 | 0.04 |
| Some trust | 0.38 | 0.00 | 0.01 |
| A lot of trust | 0.13 | 0.00 | 0.00 |
| Banks | | | |
| No trust | 0.07 | 0.33 | 0.07 |
| Little trust | 0.30 | 0.56 | 0.49 |
| Neutral | 0.33 | 0.09 | 0.35 |
| Some trust | 0.26 | 0.02 | 0.09 |
| A lot of trust | 0.04 | 0.00 | 0.00 |
| Insurance companies | | | |
| No trust | 0.08 | 0.47 | 0.28 |
| Little trust | 0.34 | 0.48 | 0.60 |
| Neutral | 0.33 | 0.05 | 0.10 |
| Some trust | 0.22 | 0.01 | 0.02 |
| A lot of trust | 0.03 | 0.00 | 0.00 |

[a] Dissatisfiers = stability, integrity, competence, benevolence; satisfiers = transparency, social responsibility.

history in the Netherlands of mis-selling insurance products starting in the 1990s,[28] and resolving this scandal is still going on today.[29] The different weights may also be the result of the fact that participants can leave a bank when they are dissatisfied with its services, but the relationship with insurance companies (and this applies also to pension funds) refers generally to contracts which cover a lifetime. Putting the interests of customers first in that case is pivotal to trusting such providers. Perhaps that also explains why social responsibility is more important in the case of insurance companies than in the case of banks. It suggests that value congruence is a factor that could be decisive for insurance companies in establishing trust with pension consumers. A final remark with respect to the propensity to trust in the case of banks and insurance companies is that age and gender do not play a significant role. However, just as in the case of pension funds, the educational level of trustors matters, and this is a robust finding across all pension providers: the higher educated are far more trusting of these institutions than the lower educated.

The size and significance of the various factors in Table 4 suggest that stability and integrity are the most important factors in the establishment of trust and thereby provide support for the hierarchy-in-trust hypothesis. To illustrate the relevant hypotheses of drivers for the various pension providers, we carried out a simulation analysis (see Table 5) based on the ordered logit estimates of Table 4.

[28] van Dijk *et al*. (2008).

[29] A similar conclusion about banks can be found in Jansen *et al.* (2015). Although they do not speak of fairness or honesty, the high remuneration packages in the banking sector are seen as a very negative element by consumers.

Column 1 of this table offers the sample means as a benchmark. The real test of the hierarchy-in-trust hypothesis is to see whether trust can be substantially improved by factors such as transparency or social responsibility ('satisfiers') when the key drivers of trust—stability, integrity, competence and benevolence ('dissatisfiers')—are assessed very negatively. Column 2 shows what happens when the key drivers are very negative and the satisfiers are neutral. One can see for all pension providers that distrust is the distinguishing outcome of such a constellation. Column 2 should be compared to Column 3 which shows the movement from a neutral position to a very positive assessment of the satisfiers. For instance, the group of pension participants that perceive the core values of a pension fund—stability, integrity, competence and benevolence—very negatively and who are neutral with respect to the satisfiers (transparency and social responsibility) has little (40 per cent) to no trust (57 per cent). When we assume that their view becomes very positive with respect to the satisfiers, the overall stance of this group is still very distrustful: 49 per cent has little trust and 46 per cent has no trust. The effect of these movements in trust drivers does not lead to a fundamental change in trust—most participants remain distrustful—which can be seen as further support for our hierarchical trust hypothesis: a hierarchy in trust drivers does exist. Trying to repair a bad reputation by solely claiming excellence in transparency or by being socially responsible is not going to generate trust at a very deep level. People only become slightly less distrustful.

## Conclusions and discussion

The idea that trust is pivotal to the wealth of nations, organisations and individuals is slowly but gradually gaining recognition. Without trust, transactions break down or can only be facilitated at very high transaction costs.[30] The incompleteness of contractual arrangements is a facet of everyday life, and it is especially prevalent in the domain of pensions where governments and financial intermediaries provide contracts that rely on financial obligations covering a large part of the lifetime of individuals. Such obligations are bound to be imprecise as numerous risks (inflation, longevity, bankruptcy, interest rates, etc.) can become real and distinct. Trust is therefore crucial for the functioning of pension systems or more broadly the financial industry.[31] Trust is a complex phenomenon, and this complexity is also reflected in the diverse theoretical and empirical approaches in capturing the "elusive notion of trust".[32] To unravel this elusive notion we have made the effort to focus on the drivers of trust that are often ascribed to financial intermediaries.[3] This paper has three findings to offer that are of interest to both academics and practitioners.

First, we show by means of a survey among pension participants in the Netherlands that underlying core traits of pension institutions, such as ability, integrity, benevolence and competence do matter.

Second, within the set of drivers of trust, stability and integrity are the most important indicators, followed by the benevolence, competence and social responsibility

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[30] Williamson (1993).
[31] Van Raaij (2016).
[32] Gambetta (1988).

of pension providers. Transparency is often stressed by corporate executives as being of significant importance to building trust, but in our estimations it is of little or no importance.

A third finding is that trust is not solely a reflection on the pension—the trustee—but also on the person who gives trust—the trustor. A robust finding across all pension providers is that the higher educated are far more trusting of these institutions than the lower educated. And in the case of pension funds, it appears that the older participants are significantly more trusting than younger age groups. Whether this is a trait tied to generations or age groups cannot be discerned based on a cross-sectional survey.

### *Limitations*

In this paper, we restricted our attention to six drivers, and some of these drivers deserve a more in-depth treatment as there may be more dimensions than meet the eye. For instance, transparency is often translated into the quality of communication of an organisation, but the value of being open and frank about one's policies may also be a sign of integrity.

A second limitation is that the survey has a cross-sectional setup which limits our focus to understand how trust differs *between* persons. A natural and more interesting extension of this research would be to focus on the differences *within* persons or how trust develops within a person. As Vickerstaff *et al.*[11] also notice in their review of the literature, it is important to see how trust is gained, sustained or lost. This makes a longitudinal setup necessary.

A third limitation is that we have not developed variables that might approximate the propensity to trust. People with different experiences, cultural backgrounds, education, or personality types will vary in their propensity to trust or their general willingness to trust others. The same may be applicable to the issue of pension finance. To trust an organisation to handle your affairs depends on your experience, your acknowledgement that others might know better and, for instance, whether you have some anxiety in disclosing information to others.[7] In theory, the propensity to trust is how one in general trusts other people or organisations.[13] However, such a measure is bound to be correlated with the specific trust in pension providers, and for the purpose of this paper we have handled it by controlling for a variety of factors which might indirectly capture these influences.

### *Discussion*

The key findings offer food for thought, in particular for financial organisations, as the credit crunch and the ensuing crisis have been detrimental to their trustworthiness. The problems and dilemmas are not specific to the Dutch pension system and can be encountered in many countries. Most organisations immediately respond to decline in trust by claiming that they should be more transparent, and consultants and pension professionals are apt to cater to those needs. For example, let us hear what Nilsson,[33] CEO of a U.K. pension consultancy firm has to say:

[33] NOW (2012).

> The UK pensions market has suffered from high costs, lack of alignment of interests, and poor performance for many years, which has led to a lack of trust in the industry. The key issue here is the lack of transparency when it comes to charges. Many savers do not realise the true costs of their pensions as the charges are hidden or presented in such a way as to suggest they are not as harmful, while in reality they continue to eat into savings of millions of those saving for retirement. (stated on 18 July, 2012)

The quote does not serve to downplay the importance of transparency—which is a real issue—but it does demonstrate how professionals inside the pension industry make tacit claims about drivers of trust and their assumed importance. As Pirson and Malhotra[34] have argued, transparency is an overrated element in building trust, and other elements of trust should be at the centre of attention. Furthermore, Kirby[35] makes a point that is of some importance in an age in which risks and decisions are shifted towards individuals: "The real problem might be that, as time goes on, consumers are increasingly being placed in situations where they are forced to trust—and they resent that". When this is the case, the integrity of an organisation may very well be of far greater importance to clients than the transparency of reporting its business model and the underlying costs or charges. Most consumers may simply not be interested in reading information on pension costs or asset-liability reports as they are either unable to comprehend the wealth of information or because they would rather focus on more pressing problems.[36] This paper is one of the first to suggest that in the greater scheme of establishing trust the (perceived) integrity and stability are key traits on which pension participants base their trust.[37] However, one should also be aware that part of the trust or distrust people have in pension providers is hard-wired and connected to their propensity to trust. In other words, organisations that try to become trustworthy by investing in aspects of integrity or stability will only partially reap the benefits of this strategy as increasing trustworthiness also depends on the trustors—their clientele—and not entirely on the trustee.

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[34] Pirson and Malhotra (2008).
[35] Kirby (2012).
[36] Mullainathan and Shafir (2013).
[37] There are some similar approaches in financial services marketing, like the Financial Trust Index run by the Nottingham University Business School (see, e.g. Ennew and Sekhon, 2007), although they do not, as proposed by Gärling *et al.* (2009), include stability as a trust driver and they also do not focus on pension finance.

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