Chapter 31

Sweden's Fifteen Years of Communication Efforts

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Abstract

It is desirable that pension reforms and legislated rules have the backing of the population or at least are accepted by voters. One way that might contribute to such acceptance is to inform participants on the pension plan's logic, its rules, and its financial restrictions. With the objective of achieving "acceptance", the Swedish Pensions Agency is compelled by legislation to publish an annual actuarial balance (global information) of the solvency of the whole public pension system and at the same time distribute to each participant information on his or her individual accumulated notional balance and funded accounts, movements during the year, and estimates of the projected individual future pension amount. This paper describes the Swedish pension experience in communication with pension participants over the last decade, together with the main changes in information delivered to improve individuals' pension knowledge and help them make more informed, better decisions on work, savings, and retirement. The paper also presents how the confidence and understanding of both contributors and pensioners have evolved over time.

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1 Introduction

Pensions are sufficiently complex to be very hard to understand. Barr and Diamond (2008) emphasize that public pension systems likely need to be adjusted due to changes in demographic and economic conditions and may also change with political circumstances, adding even more complexity. New (1999) states that the problem may not be lack of information but an information-processing problem. With an information-processing problem, the problem is too complex for many agents to make rational choices even when they have the necessary information. Specifically, for pension products, the long-time horizon between the payment of contributions and receipt of benefits produces inherent difficulties in understanding the product (Larsson, Sundén, and Settergren 2009).

According to Fornero (2015), political parties tend to look at reforms from an ideological perspective and conceal their more technical aspects. If system participants do not understand the reform and accept its basic principles, it risks underperforming relative to desired behavioral effects and even being repealed. Information is thus important not only for individual well-being but also for society. For individuals, knowledge of the system's rules is essential to avoid mistakes about the difference between expected and actual pension benefits. Information on the financial sustainability of the pension system is also fundamental in the sense that if participants misinterpret the system and the need for reform, they will try to reverse it. Lusardi and Mitchell (2007a, 2007b) and Biggs (2010) state that access to financial information and appropriate planning may have a positive impact on decision making concerning retirement. Moreover, information about pension benefits influences the age at which individuals retire (Sundén 2013). Similarly, Boeri and Tabellini (2012) point out that reforms can obtain popular support if they are well-described, explained, and understood. However, empirical evidence (Mitchell 1988; Lusardi and Mitchell 2007a, 2011) indicates that most individuals have very limited information about the core elements of social insurance systems and on the key variables that define the amount of their pensions.

In the last decades, governments in several countries have tried to facilitate contributors' decision making by regularly sending statements about their individual pension position and estimates of the expected pension benefits. For example, the Social Security Statement in the United States, the Orange Envelope in Sweden and, since 2016, in Italy, and the Yellow Envelope in Germany all do this.²

Whenever pension reforms are carried out to restore financial sustainability, pension authorities in the involved countries will face new trials. Sweden has spent nearly two decades grappling with the difficulties of providing mass information on something as complicated as the pension system, and several scholarly articles are already published on the subject.

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² See Kritzer and Smith (2016) for more information. In the United States, distribution of information on paper has stopped but participants can request their Social Security Statement online.

With this in mind, this paper aims to assess the Swedish pension experience with both individual information and information on financial sustainability in terms of its effectiveness toward participants' understanding of and confidence in the pension system. Special attention is given to the main changes carried out toward communication to improve individuals' pension knowledge and help them to make better decisions. The paper also examines how changes in the solvency of the system that affects (or risks affecting) the value of the pension benefit influence individuals' confidence in the system over time.

The remainder of the paper is structured as follows. Section 2 describes the Swedish public pension system. Section 3 describes the main channels of communications: the actuarial balance together with its main financial indicators over the 2007–2016 period (global information) and the so-called Orange Envelope (individual information). Main changes in the accounting information and the Orange Envelope over time are also discussed together with the role of the Swedish Pensions Agency. Section 4 shows one measure of the effectiveness of the Swedish information on communication by means of survey results. The annual surveys mainly assess the level of confidence in the pension system, the main channels used by individuals to get pension information, their understanding of the pension system, and pension participants' knowledge to make retirement decisions. Section 5 provides the main conclusions, while an Appendix provides a sample of the Orange Envelope.

2 Sweden's public pension system³

Sweden's public pension system consists of two different earnings-related benefit schemes: a notional defined contribution (NDC) scheme (called the *inkomstpension*) on a pay-as-you-go (PAYG) financing basis, and a fully funded financial defined contribution (FDC) pension (called the *premium pension*). The contribution rates for the two schemes are 18.5 percent of the pension base, with a split of 16 percent for the NDC pension and 2.5 percent for the FDC scheme.⁴ A tax-financed guaranteed pension, annually adjusted according to the consumer price index, also provides supplementary support for retirees with low NDC pensions.

2.1 Notional defined contribution (NDC) scheme

NDCs, also known as defined contribution unfunded pension schemes, are ruled by a common principle: they attempt to reproduce the logic of a defined contribution pension plan within a PAYG framework. However, the PAYG financing principle has not excluded the accumulation of a substantial buffer fund. The notional account is a virtual one that records individual contributions, together with the fictitious return that they generate throughout each contributor's working life. The return that contributions earn

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³ For a more detailed description of the Swedish pension system, see the Swedish Pensions Agency (2008–2018) and Barr (2013). The latter paper also evaluates the pension system in Sweden against the goals established at the time of the reforms in the late 1990s.

⁴ Contributions only give pension credits for incomes up to the "ceiling" in the public pension system, which is approximately 130 percent of an average income. This is low in international comparison.

is calculated on the basis of a macroeconomic index, not market returns. The index either tries to directly reflect the financial health of the system (i.e., contribution base or gross domestic product (GDP) growth) or, as in the Swedish scheme, what is thought of as a socially and intergenerationally desirable "return," such as the change in average income, but adjusted if financial health so requires. The account balance is called notional because it is only used for revaluing past contributions (i.e., the system does not invest funds as the scheme is based on PAYG financing). When an individual retires, his or her accumulated contributions (or the notional account) are converted into a life annuity according to standard actuarial practice. Therefore, the amount of the initial pension depends on the expected mortality of the retiring cohort, expected future pension indexations, and the rate used to discount the cash flows.

Under the Swedish NDC scheme, both accounts and benefits are, normally, indexed by the change in the average income, as measured by the so-called income index. When the initial pension is calculated – that is, when the notional account value is converted into an annuity – the pension is increased or frontloaded on the basis of an assumed annual real growth rate of 1.6 percent for the income index. This rate of advanced interest is then deducted every year from the increase in the income index. Thus, the NDC pension is indexed annually by the change in the income index reduced by 1.6 percent.

2.2 The automatic balancing mechanism applied to the NDC scheme

In certain situations, exceptions to the regular income indexation of accounts and benefits may apply. These exceptions are governed by the ratio of assets to liabilities (balance ratio⁶) as provided in the legislation on the automatic balancing mechanism (ABM). The balance ratio is an indicator that emerges from the actuarial balance sheet of the NDC scheme and is expressed as the ratio of assets (e.g., contribution asset and fund assets) and pension liabilities. The balance ratio used in Sweden has a dual purpose—to measure whether the system can fulfil its obligations to its contributors and to decide whether the ABM should be applied.

If for some reason the balance ratio is less than 1, the ABM is triggered (Settergren 2001). This process basically consists of reducing the growth in pension liability (i.e., the pensions in payment and the pension account balances of the economically active population).

2.3 Funded financial defined contribution (FDC) scheme

Under the FDC scheme, participants have an individual financial account and their pension contributions are invested in funds chosen by the members themselves. A large number of funds exist from which to choose. The rate of return on the individual accounts is determined by the return on the funds chosen

⁵ In Sweden, retirement is flexible and pension benefits can be withdrawn from age 61. When converting benefits into annuities, the life expectancy of the cohort is taken into account.

⁶ To indicate that the solvency ratio of a PAYG scheme is different from that of a premium reserve plan, which is a fully funded plan, the *inkomstpension* system calls this ratio the balance ratio rather than the solvency ratio.

by the individual. The FDC pension can be drawn in either traditional insurance with profit annuity or fund insurance – also known as unit-linked insurance. In both forms of insurance, the value of the pension account is divided by an annuity divisor in the same way as with the NDC scheme. But for the premium pension, unlike the NDC, the annuity divisor is based on forecasts of future life expectancy rather than the current period life expectancy. The initial pension of both forms of insurance is credited with an interest rate of 1.75 percent and a deduction for costs of 0.1 percent (Swedish Pensions Agency 2017).

3 Channels of communication

To make decisions about at which age to retire and how much to save, participants in the Swedish pension system need information about how the level of benefits is affected by their income, their number of years of contributions, and the retirement age. One challenge for the communication is to convey that the ABM is a regular component of the indexation of earned pension rights. The annual report (which includes accounting information) and the Orange Envelope provide information to participants regarding their individual pension and the sustainability of the whole pension system.

3.1 Accounting information: The actuarial balance sheet

The Swedish administration produces an actuarial balance sheet and an income statement every year following the principle of double-entry bookkeeping. Since 2001, its annual report has presented an overall picture of the financial health⁷ of the Swedish pension system. For those who want to delve deeper into the details, the annual report also provides a detailed description on how the national pension works, gives three scenarios (optimistic, pessimistic, and base) for the future of the pension system, and includes some special discussion features on pensions.

The balance sheet for the Swedish NDC scheme, shown in Table 1, can be defined as a financial statement listing the pension system's obligation to contributors and pensioners (i.e., liabilities to contributors and pensioners) on a particular date together with the amounts of the various assets (e.g., financial assets and the value of the flow of contributions) that back up these commitments. The balance sheet also contributes to the management and disclosure of financial information because it is useful not only for the authority administrating the system but also for contributors and pensioners in general and for the body that guarantees payment (i.e., the state and the contributors it represents) (Boado-Penas et al. 2008; Boado-Penas and Vidal-Meliá 2013).

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⁷ Allowing for particular differences between countries, actuarial balances are compiled, on a regular basis, in countries such as the United States (OASDI 2015), Japan (Actuarial Affairs Division 2014), and Canada (Office of the Chief Actuary 2015), among others, to reveal the financial position of the pension system. When calculating the actuarial balance, these countries follow the aggregate accounting projection model – see Boado-Penas and Vidal-Meliá (2013). In Sweden, an actuarial balance sheet, in the accounting sense of the term, is used in the Swedish notional pension system.

The NDC system's assets include the estimated value of future pension contributions – referred to as the contribution asset – and the buffer fund. The contribution asset is calculated as the turnover duration (TD) multiplied by the value of the contributions made in a specific period. Its value in 2017 is 173.6 percent of GDP, as shown in Table 1. The TD is the expected average length of time between the payment of a monetary unit of contribution into the system and the disbursement of the corresponding credit in the form of a pension.⁸ The TD in Sweden has been roughly 31–32 years.

In the balance sheet, the pension liability includes a liability toward contributors and a liability toward pensioners. The liability to contributors is estimated as the notional accumulated capital in contributors' accounts. The liability to pensioners is estimated as the present value of the expected total of all pensions paid to current pensioners during their lifetimes, taking into account the current life expectancy and the interest rate applied (1.6 percent) when the amount of the initial pension was calculated. The pension liability varies from 212.2 percent to 197.4 percent of GDP in 2017 (Table 1).

⁸ After 2014, the disclosure about the TD has been calculated in terms of the difference between the weighted average ages of pensioners and contributors. See the Swedish Pensions Agency (2016), Appendix B, Formula B.3.1.

Table 1: Balance sheet of the Swedish NDC pension system on December 31, 2007–2017

Item	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Assets (% of GDP)											
Fund assets	27.2	20.9	25.1	25.4	23.9	26.0	28.1	30.1	29.3	30.0	30.7
Contribution asset	185.5	191.2	193.5	186.8	186.7	187.7	188.9	187.5	177.6	175.6	173.6
Total assets	212.7	212.1	218.6	212.2	210.6	213.7	217.0	217.6	206.9	205.6	204.3
Liabilities and results brought forward (% of	Liabilities and results brought forward (% of GDP)										
Opening results brought forward	3.0	0.5	-7.4	-9.2	2.8	4.3	-2.1	3.2	10.1	3.9	7.5
Net income or loss for the year	-2.5	-7.7	-2.4	12.1	1.5	-6.4	5.5	7.5	-6.0	3.9	-0.6
Closing results brought forward	0.5	-7.2	-9.8	2.9	4.3	-2.2	3.4	10.7	4.1	7.8	6.9
Pension liability	212.2	219.3	228.4	209.3	206.3	215.8	213.6	206.8	202.8	197.8	197.4
Total liabilities and results brought forward	212.7	212.1	218.6	212.2	210.6	213.7	217.0	217.6	206.9	205.6	204.3
Financial Indicators											
Balancing year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Balance ratio, original definition ^a	1.0026	0.9672	0.9570	1.0138	1.0208	0.9901	1.0158	1.0521	1.0201	1.0395	1.0347
Balance ratio, modified legislation ^b	n.a.	0.9826	0.9549	1.0024	1.0198	0.9837	1.0040	1.0375	1.0067°	1.0132	1.0116
Turnover duration (years)	31.76	31.67	31.66	31.51	31.44	31.48	31.40	30.37	n.a	n.a	n.a
Smoothed turnover duration (years)	31.93	31.76	31.76	31.67	31.66	31.51	31.48	31.44	30.38	30.14	29.86
GDP (SKr billions)	3,297	3,388	3,289	3,520	3,657	3,685	3,770	3,937	4,200	4,404	4,600

Source: Authors' compilation based on data from the Swedish Pensions Agency (2008-2018).

Note: Original information is stated in Swedish currency. GDP = gross domestic product; n.a.= not applicable.

Under the FDC scheme, the insurance assets are reported at their so-called "true value," defined as the market value. The insurance assets have increased continuously since 2007. Specifically, the value of insurance assets increased from 10 percent of GDP in 2007 to 25 percent in 2017. The main component of the insurance assets of the fully funded system is fund insurance, which amounted to almost 94 percent of total assets and is invested 90 percent in stocks and shares and 10 percent in bonds and other interest-bearing securities. The change in insurance assets chiefly refers to newly earned pension credit, positive changes in value, allocated management fees, and pension disbursements. With traditional insurance, the pension liability is the value of the remaining guaranteed disbursement.

3.2 Changes in the accounting information

Before 2008, the system's balance ratio was greater than 1, and the total assets and the pension liability had risen, with a rather higher growth in liabilities than in total assets. In 2008, the financial position of

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^a The balance ratio calculated according to the previous definition (in 2007). It is calculated solely on the basis of the buffer fund's market value as of December 31 of the corresponding year, formerly called the financial position.

^b The balance ratio calculated according to the new definition (2008 onward). It is calculated on the basis of a three-year average of the buffer fund's market value.

^cThe damped balance ratio is used instead of the balance ratio from 2015 onward. It is equal to 1 plus one-third of the difference between the balance ratio fixed for that year and the number 1.

⁹ For more details, see the Swedish Pensions Agency (2008–2018).

the pension system substantially deteriorated. The balance ratio dropped below 1 for the first time, amounting to 0.9672, as shown in Table 1, due to a large net loss of SEK 261 billion, equivalent to 7.7 percent of GDP. According to the original legislation, balancing should have been activated with a 3.28 percent reduction of the indexation of notional accounts and pensions in 2009/2010. However, in 2009, the parliament changed the legislation so that rather than using the buffer fund value at December 31, a three-year average of the buffer fund should be used for calculating the balance ratio. As a result, the modified balance ratio increased to 0.9826, and the balancing effect was reduced to 1.74 percent.

In 2009, the system still faced financial deficit, but the loss (2.4 percent of GDP) was not as large as that of the previous year. The total assets were less than 4.3 percent of the pension liability, for a balance ratio of 0.9549. The pension liability was 228.4 percent of GDP, the highest value during the period. The negative indexation of notional accounts and benefits in 2009 and 2010 forced a significant drop in the value of the pension liability, and then, assets exceeded liabilities at the end of 2010. This surplus was equal to 0.0024 percent, for a balance ratio of 1.0024.

The pension system solvency was restored for a couple of years, but at the end of 2012, the pension liability exceeded total assets again, producing a balance ratio of 0.9837. Balancing was activated, and the indexation of pension balances and pension disbursements was decreased in 2013/2014. Consequently, the pension system has been strengthened financially since 2013. The pension liability reached a value of 213.6 percent of GDP in 2013 and dropped to 206.8 percent of GDP in 2014, while the balance ratio increased to 1.004 in 2013 and 1.0375 in 2014. The surplus in assets over liability has been used, as is stipulated by the ABM legislation, to restore the value of benefits and accounts; as of 2018 the value of benefits and accounts are back where they would have been if no reduction of the indexing had occurred. In 2015, new rules were introduced with the aim of reducing the volatility in the balance ratio, caused mainly by the smoothing used in the income index. With this objective, smoothing of the indexation, identified to be inefficient at best and counterproductive at worse, was abolished and replaced by a smoothing of the balance ratio (referred to as the damped balance ratio). As a result, the balance ratio in 2015 amounted to 1.0067. The damped balance ratio restricts balancing to one-third, resulting in less volatility in pension benefits when balancing is activated at the cost of regaining financial solvency more slowly.

3.3 Individual information to participants: The Orange Envelope

In 1999, as part of the reform of the Swedish pension system, a so-called Orange Envelope was introduced to provide individuals with a full picture of their up-to-date national pension accounts. Annually, the pension administration sends out the Orange Envelope to participants who have contributed to the pension system as well as retirees receiving pension benefits. At the same time, the government launched a public information campaign to inform workers about the new system.

This personal statement includes separate account information on the NDC and premium pension accounts containing the current value of each account, changes in value since the last statement, pension contributions made during the year, administrative costs, and estimates of the future pension amount. In addition to providing information on the expected benefits, the Orange Envelope

summarizes how the new pension system works and highlights to insured persons that benefits are determined, through contributions, by lifetime earnings. For the funded account, a breakdown of information by fund is also provided, including the allocation of each fund that the participant chooses, and the actual distribution. Specifically, as shown in the Appendix:

The first page displays the monthly national public pension forecast that the member is expected to receive before tax under the retirement ages of 61, 65, and 70.¹⁰ The reason for having several different retirement ages is to explain how retirement age impacts the size of monthly pension payments; i.e., the longer the contributor works, the higher the pension amount. This page also illustrates the hierarchy of the pension sources that the participant would earn. The first order indicates the national public pension, both NDC and FDC, while the occupational pension is in the middle of the hierarchy, followed by the private pension, if any.

On the second page, the dynamics of the pension values of each account—income pension and premium pension account—during the year are presented (based on information from two years before). The statement consists of the account value of the previous year, the contributions assigned, the amount received for the survivors' dividend—the pension balance of contributors who die before reaching retirement age, which is distributed among surviving members of their birth cohorts—and the administrative and fund fees charged. Furthermore, this page illustrates the values of the premium pension account with the breakdown of the portfolio, the allocation of each fund that the accountholder chooses, and their actual values. Contributors will know the development of the premium pension funds in more detail, in particular where the money is invested and how much they pay in fees. The changes in value are also shown in percentage terms that can be compared with the data for the average participant.

The third page provides forecasts of the individual monthly pension amount under different retirement ages. An explanation of the alternative retirement age is also provided.

The last page gives the total pension credits, which basically means the money paid in during the year, and decomposes the contributions made for each account. The amount of pensionable income is also illustrated.

3.4 Changes in the Orange Envelope

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¹⁰ The age of 61 is the earliest possible age at which old-age pension may be received. The age of 65 is chosen because it was/is the normal retirement age, being the retirement age under the old system. The age of 65 is also when certain social insurance benefits, such as sickness and disability benefits and unemployment insurance, come to an end, and others start, such as a guarantee pension and housing supplements for pensioners. The age of 70 was chosen to provide a retirement age after 65.

The contents and the number of pages of the *Orange Envelope* have been continuously redesigned¹¹ since its introduction in 1999. The aim of the changes is that the information mailed out needs to be as simple and concise as possible. But for interested and knowledgeable individuals, other ways of finding out more are available (e.g., online services), as explained next.

In 2002, the statement started to include information on the premium pension account so that individuals would have a better idea of the overall pension they expect to receive.

In 2006, an effort was made to enhance individuals' understanding of pension issues, including an explanation of how the pension system works.

It was acknowledged that contributors (i.e., pension savers, new entrants to the labor market, and oldage pensioners) had different interests regarding information provided. Therefore, since 2007, there have been three different versions of the Orange Envelope targeting these three specific population groups. The new pension savers receive almost the same version as the one for existing pension savers except that new savers receive a separate insert with general information on choosing funds, while existing savers receive specific information about their premium pension choices. Pensioners' statements contain the pension payments for the year, the value of the premium pension account, the pension payments made in the previous year, and tax deductions.

In 2011, the assumption of the 2 percent wage growth used to project pension benefits was removed because the surveys indicated that it was too confusing. There would be only one scenario, 0 percent average wage growth, included in the Orange Envelope. Zero growth over a long period is highly improbable, but this scenario is easier for individuals to understand as the forecasted pension amount is expressed in current price and wage levels at the time of the projection.¹²

In 2012, a graph was added to explain the relationship between increasing life expectancy and an "alternative" retirement age. The alternative retirement age is specific for each birth cohort and is defined as the age until which an individual should be working to receive the same pension amount s/he would have received at age 65 if life expectancy had remained unchanged. This graph is intended to make people aware of how improvements in life expectancy impact the amount of benefits.

In 2013, the Swedish Pensions Agency and the Premium Pension Authority, together with the insurance companies for the occupational plans, launched a website (https://secure.pensionsmyndigheten.se/B3). This website presents individual projections of both the public pension and occupational pension benefits and the total projected pensions. As a result, an insert was included on the first page of the

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¹¹ For more details, see Kritzer and Smith (2016).

¹² The assumed rate of return on the funded individual account is 3.5 percent. Also, only known values of the balance ratio and balance index are used in the projection for the national pension, as it is unclear how long and how fast the financial balance is recovering and when income indexation should apply again.

Orange Envelope to announce that forecasts of the entire pension (i.e., national, occupational, and private) were available online

The 2014 version of the Orange Envelope was redesigned and shortened to four pages by eliminating two graphics: a pyramid to describe the three pension pillars and "piggy banks". This version also provided a personal code to access online information and stressed the importance of all three pillars of the retirement income system.

3.5 The role of the Swedish Pensions Agency

In 2010, the Swedish Pensions Agency was established, taking over the administration of the national retirement pension, which was previously Försäkringskassan's responsibility, and the premium pension, which had previously been handled by the Premium Pensions Agency. The informational challenge was one of the main reasons to establish the new Swedish Pensions Agency. Therefore, one of its important task is to work toward providing accessible and simple information on the total pension, including the public pension, occupational pensions, and private pensions.

To meet these information needs, the customer service operations of the Agency provide face-to-face meetings, telephone customer services, e-services, and printed reports such as the Orange Envelope, the annual report, and statistics, among others.

In 2010, the Swedish Pensions Agency made the webpage www.minpension.se, containing individual information on both public and occupational schemes, available as an embedded service from its own website www.pensionmyndigheten.se.

4 Survey results: Does the information work?

Since 1999, and about one week after individuals should have received the Orange Envelope in the mail, the Swedish Pensions Agency has conducted an annual survey about the Orange Envelope to evaluate to what extent participants open the envelope, read it, and think that they understand the content. The sample consists of 2,000 individuals interviewed by telephone and includes the three different target groups: existing pension savers (46 percent of the sample), new pension savers (27 percent), and oldage pensioners (27 percent). Currently, three-fourths of participants confirm that they open the Orange Envelope and one-half of them read some of the content.

Two other surveys are carried out annually in Sweden. The first one, called the Image Study, consists of a sample of 1,600 individuals (1,000 contributors and 600 pensioners) and assesses the confidence of pension participants in the Swedish Pensions Agency and the pension system. The Self Confidence and Predictability Study, with a sample of 1,000 individuals, is a more recent survey that focuses on individuals' knowledge and self-confidence regarding their own upcoming pension and the pension system as a whole. Both knowledge and self-confidence are considered two relevant dimensions to estimate how efficient information is.

Reported confidence in the Swedish Pensions Agency has slowly but steadily increased over time for both retirees and workers (Figure 1). In 2018, 61 percent of retirees and 45 percent of workers had some or great confidence in the pension system administration (including information and services), while the share of those with little or no confidence decreased slightly.

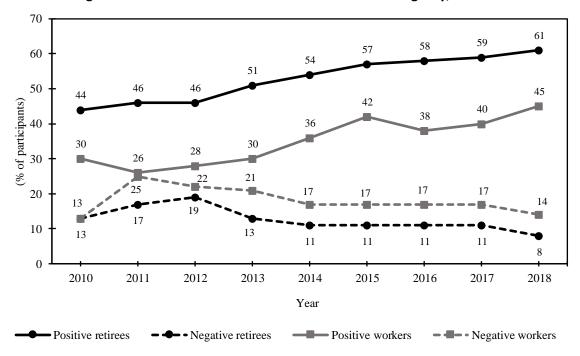


Figure 1: Level of confidence in the Swedish Pensions Agency, 2010–2018

Source: Annual Image Study survey.

Note: The grades to answer this question are 1–5. Grades 1 and 2 are grouped as negative while 4 and 5 are grouped as positive. Grade 3 is rated as neutral, and as is disregarded in the graphics.

However, the share of participants with confidence in the pension system only reached 36 percent for pensioners and 25 percent for contributors in 2018 (Figure 2). At the same time, the share of participants with no confidence decreased slightly over the period 2010–2018.

Figure 1 and Figure 2 illustrate that the confidence level in both the pension system and the pension system administration worsened in 2011, presumably because of the negative income indexation that year (and the year before) as a result of the ABM being triggered.

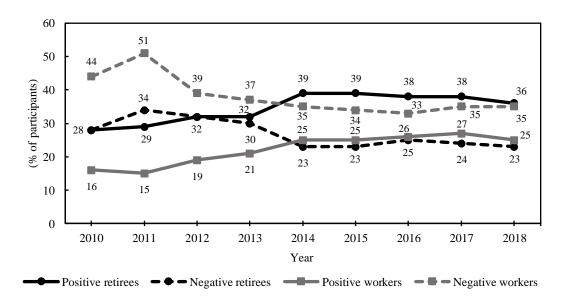


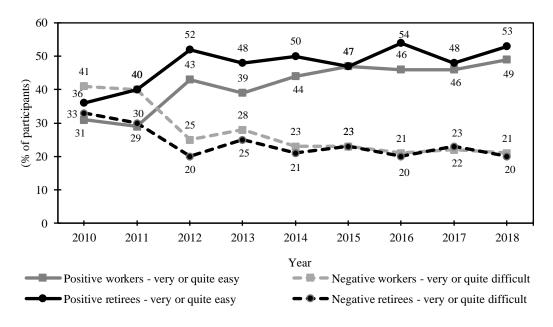
Figure 2: Level of confidence in the Swedish pension system, 2010–2018

Source: Annual Image Study survey.

Note: The grades to answer this question are 1–5. Grades 1 and 2 are grouped as negative while 4 and 5 are grouped as positive. Grade 3 is rated as neutral, and as is disregarded from the graphics.

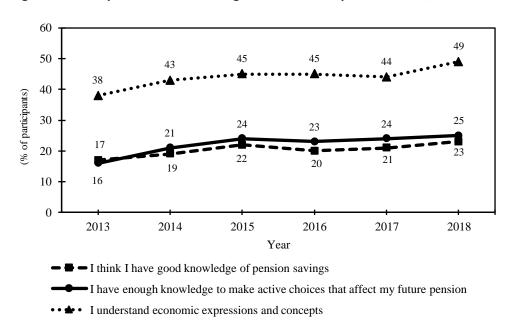
The level of self-reported understanding toward the functioning of the Swedish pension system has improved (Figure 3). One-half of workers and retirees (specifically, 53 percent of retirees and 49 percent of workers) find the Swedish pension system's operations easy to understand. The proportion of participants who respond that they find the system difficult to follow has decreased over time, from 41 percent of workers (33 percent of retirees) in 2010 to 21 percent of workers (20 percent of retirees) in 2018. Self-reported understanding of issues relating to pension savings has also increased over time; by 2018 almost everybody (97 percent) had some knowledge of pension issues (Figure 4). The share of respondents with enough or good knowledge to make active choices is 48 percent while 49 percent of workers report having some grasp on economic and financial concepts. These questions predict the ability and probability of gathering and understanding information regarding pensions.

Figure 3: Self-reported understanding of the functioning of the Swedish pension system, 2010–2018



Source: Annual Image Study survey.

Figure 4: Self-reported understanding of financial and pension issues, 2010–2018



Source: Annual Image Study survey.

The share of participants who value the information and support provided has continuously increased (Figure 5). In particular, according to the annual Self Confidence and Predictability Survey, 62 percent of

respondents in 2018 reported that the Swedish Pensions Agency provided information and support needed to make decisions on retirement.

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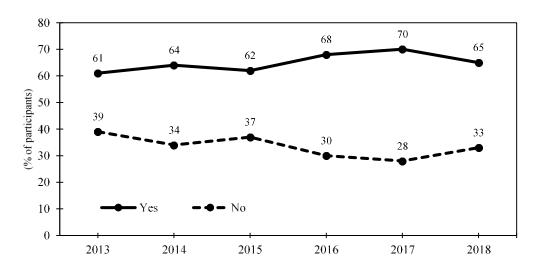
Figure 5: Do you think you have information and support needed to make decisions on retirement?

Source: Annual Self Confidence and Predictability Survey.

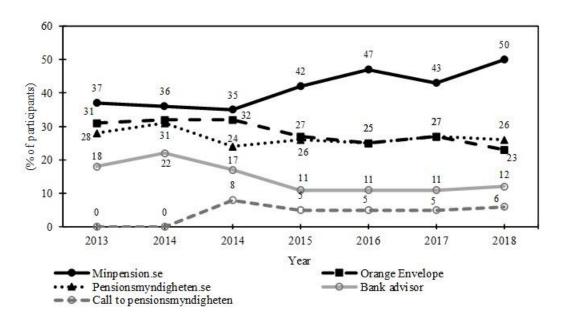
As shown in Figure 6a, 65 percent of pension participants know where to get an estimate of the total amount of their future pension. The number of individuals getting the information from the webpage www.minpension.se has increased continuously (Figure 6b). In fact, in 2018, 50 percent of individuals used this site as their main channel to get information and support regarding their pension. This increase in the number of individuals using www.minpension.se as their main information channel happened to the detriment of other channels, such as the Orange Envelope and the general webpage www.pensionsmyndigheten.se (although that webpage also links to www.minpension.se). Individuals older than 55, however, still prefer the material of the Orange Envelope to a larger extent than younger individuals. Specifically, 70 percent of individuals aged 18–28 and 58 percent of those aged 29–54 prefer the digital information as opposed to 44 percent of individuals aged 55 and older. Other channels such as bank advisors or the call center of the Swedish Pensions Agency are now only used by 12 percent and 6 percent of the population, respectively.

Figure 6: Forecast of the total pension amount

a. Do you know how to get a forecast of the total amount of your pension?



b. Knowledge about different channels to get information on your upcoming pension sum



Source: Annual Self Confidence and Predictability Survey.

5 Conclusions

This paper describes the main channels of communication used by the Swedish administration; i.e., the annual report on the solvency of the public system and the Orange Envelope, with information on the individual accumulated capital and forecasts of expected benefits. Both the annual report and the Orange Envelope have changed over time. The annual report's changes were mainly carried out in the

way of calculating the balance ratio —which is used to trigger the ABM— with the aim of reducing its volatility. Changes in the Orange Envelope were targeted to improve the understanding of pension participants.

Surveys carried out show that self-reported use and understanding of the information received has slowly increased. Also, the surveys show that confidence in the pension system decreased when the ABM was first triggered. It is not surprising that to most people the abstract issue of the financial situation of the public pension plan is not understood or accepted as a viable argument for reducing what for most people amounts to an important benefit. However, it seems that the communication and information to pension participants made the mechanism better understood and, as a result, the level of confidence for both workers and retirees did not decrease in successive applications of the mechanism.

Currently, participants have a lot of channels where they can get information on the pension system in general and individual forecasts of their own pension. The Orange Envelope provides a simple and concise explanation of the pension system and gives individual information regarding estimates of pension under different retirement ages to help people make better retirement decisions. But the Swedish Pensions Agency provides more information for those who wish delve deeper into the details. In recent years, according to the surveys, the main channel used by participants to get pension information is www.minpension.se. It is remarkable that one-half of the population reports finding the pension system easy to understand and 65 percent of contributors say they know where and how to get an estimate of their future pension.

The Swedish approach to pension communication has seemingly improved self-reported understanding of pension issues and confidence in the system, but room remains for improvement, as almost one-third of individuals, according to the surveys, still state that they do not have enough support when making retirement decisions. From the Swedish experience, the projected future total pension from www.minpension.se has proven to be the most appreciated and valuable information for pension participants. Further, information on future pensions likely increases confidence in the public and occupational plans as well, although no proof exists yet for this assertion.

It is worthy to note that, in Sweden, the purpose of the pension information is to make each insured feel well-informed about his/her projected future pension and thus increase the level of "self-control" over the future pension, and subsequently the insured's confidence in the pension plan. The surveys' questions only reveal the level of self-reported confidence in the pension plan and the Swedish Pensions Agency, however.

Since there is no control group, for obvious reasons, the effectiveness of the information in these two vital aspects cannot be measured with any degree of confidence. The possible actions of those insured with regard to the information are: no action, a change in work hours, a change in planned retirement age, increased private savings, or amortization or other economic action. To the extent such changes can be observed, it is still not possible to claim that any changes are caused by the information.

References

- Actuarial Affairs Division. 2014. *Summaries of the 2014 Actuarial Valuation and Reform Options*, Pension Bureau, Ministry of Health, Labour and Welfare.
- Barr, Nicholas. 2013. "The Pension System in Sweden." Report to the Expert Group on Public Economics 2013:7, Stockholm: Ministry of Finance.
- Barr, Nicholas, and Peter Diamond. 2008. *Reforming Pensions: Principles and Policy Choices*. Oxford University Press.
- Biggs, Andrew G. 2010. Improving the Social Security Statement. Santa Monica, CA: RAND Corporation.
- Boado-Penas, María del Carmen, Salvador Valdés-Prieto and Carlos Vidal-Meliá. 2008. "The Actuarial Balance Sheet for Pay-As-You-Go Finance: Solvency Indicators for Spain and Sweden." Fiscal Studies 29(1): 89-134. Boado-Penas, María del Carmen, and Carlos Vidal-Meliá. 2013. "The Actuarial Balance of the PAYG Pension System: The Swedish NDC Model Versus the DB-type Model." In Non-Financial Defined Contribution (NDC) Pension Systems, Volume 2: Gender, Politics, and Financial Stability, ed. Robert Holzmann, Edward Palmer, and David Robalino, pp. 443–480. Washington, DC: World Bank. Boeri, Tito, and Guido Tabellini. 2012. "Does Information Increase Political Support for Pension Reform?" Public Choice 150(1): 327–362.
- Fornero, Elsa. 2015 "Reform, Inform and Educate: A New Paradigm for Pension Systems' Sustainability." In *The Future of Welfare in a Global Europe*, ed. B. Marin, pp. 297-324. Ashgate.
- Kritzer, Barbara E., and Barbara A. Smith. 2016. "Public Pension Statements in Selected Countries: A Comparison." Social Security Bulletin 76(1): 27–56.
- Larsson, Lena, Annika Sundén, and Ole Settergren. 2009. "Pension Information: The Annual Statement at a Glance." *OECD Journal: General Papers* 2008/3.
- Lusardi, Annamaria, and Olivia S. Mitchell. 2007a. "Baby Boomer Retirement Security: The Roles of Planning, Financial Literacy, and Housing Wealth." *Journal of Monetary Economics* 54(1): 205–224.
- _____. 2007b. "Financial Literacy and Retirement Preparedness: Evidence and Implications for Financial Education." *Business Economics* 42(1): 35–44.
- _____. 2011. "Financial Literacy and Planning: Implications for Retirement Wellbeing." In *Financial Literacy: Implications for Retirement Security and the Financial Marketplace*, ed. Mitchell, O. S. and Lusardi, A., pp. 17–39. Oxford University Press.
- Mitchell, Olivia S. 1988. "Worker Knowledge of Pension Provisions." *Journal of Labor Economics* 6(1): 21–39.
- New, Bill. 1999. "Paternalism and Public Policy." Economics and Philosophy 15(1): 63-83.
- Office of the Chief Actuary. 2015. *Actuarial Report (27th) on the Canada Pension Plan, Ontario: Office of the Superintendent of Financial Institutions Canada (OSFIC).*

- Old-Age, Survivors, and Disability Insurance (OASDI). 2015. The 2015 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds. Washington, D.C.: U.S. Government Publishing Office.
- Settergren, Ole. 2001. "The Automatic Balance Mechanism of the Swedish Pension System: A Non-Technical Introduction." *Wirtschaftspolitische Blätter* 48(4): 339–349.
- Sundén, Annika. 2013. "The Challenge of Reaching Participants with the Message of NDC." In Nonfinancial Defined Contribution Pension Schemes in a Changing Pension World, Volume 2: Gender, Politics, and Financial Stability, ed. Robert Holzmann, Edward Palmer, and David Robalino,pp. 257–272. Washington, D.C.: World Bank.

Swedish Pensions Agency. 2008. <i>Orange Report: Annual Report of the Swedish Pension System 2007</i> , Stockholm: Swedish Pensions Agency.
2009. Orange Report: Annual Report of the Swedish Pension System 2008. Stockholm: Swedish Pensions Agency.
2010. Orange Report: Annual Report of the Swedish Pension System 2009. Stockholm: Swedish Pensions Agency.
2011. Orange Report: Annual Report of the Swedish Pension System 2010. Stockholm: Swedish Pensions Agency.
2012. Orange Report: Annual Report of the Swedish Pension System 2011. Stockholm: Swedish Pensions Agency.
2013. Orange Report: Annual Report of the Swedish Pension System 2012. Stockholm: Swedish Pensions Agency.
2014. Orange Report: Annual Report of the Swedish Pension System 2013. Stockholm: Swedish Pensions Agency.
2015. Orange Report: Annual Report of the Swedish Pension System 2014. Stockholm: Swedish Pensions Agency.
2016. Orange Report: Annual Report of the Swedish Pension System 2015. Stockholm: Swedish Pensions Agency.
2017. Orange Report: Annual Report of the Swedish Pension System 2016. Stockholm: Swedish Pensions Agency.
2018. Orange Report: Annual Report of the Swedish Pension System 2017. Stockholm: Swedish Pensions Agency.

Appendix A: The Orange Envelope

Demo Person

SWEDISH PENSIONS AGENCY

Annual Statement 2014

Your National Public Pension

According to our forecast, this is how much you will receive as national public pension per month before tax. The amount may vary depending on when you decide to retire.

age 61	age 65	age 68 and 3 month	age 70		
SEK 10 300	SEK 13 100	SEK 16 000	SEK 18500		

Do you have a pension from different sources?

In addition to the national public pension, most employees also have a pension from their employer. Some also have private pension savings.

National Public Pension

+

Occupational pension



Private pension

Your entire pension



Log in and see your entire pension

www.pensionsmyndigheten.se/B3

Use electronic identification or your personal code

27346

You have earned this much towards your National Public Pension

Your Pension Credits

Changes during 2013 in SEK	Income pension	Premium pension		
Value 2012-12-31	854 596	106 942		
Pension credit for 2012	57 264	8 947		
From deceased contributors	603	560		
Administration and fund fees	- 277	- 985*		
Change In value	-10 382	8709**		
Value 2013-12-31	901 804	124 173		

Totally earned to the national public pension SEK 1 025 977

Your Premium Pension

Premium pension account 2013-12-31	Value, SEK	Change In value, per cent	Fund fee, per cent	Chosen allocation, per cent	Current allocation, per cent
Equity Fund Sverige	50 626	22	0,29	40	41
Equity Fund Global	31 156	22	0,51	25	25
Interest Fund Sverige	27 863	3	0,13	25	22
Generation Fund	14 528	13	0,20	10	12
Total	124 173	17	0,30	100	100
The average pension saver		21	0,31		

Mutual Fund Fee. Keep in mind that high fees mean worse performance for your savings.

Fund transfers. In order to increase safety, all fund transfers, from 20th February 2014, take place with electronic identification or Mobile BankID. You can also switch funds using a form that you order from the Swedish Pensions Agency and which will be sent to your registered address.

(2)

^{*} Including SEK 716 discount on fund fee for 2012.

** Including SEK 135 as interest on your pension credit for 2012.

2014

How much will you get per month?

Forecast for your National Public Pension

Retirement age	age 61	age 65	age 68 and 3 month	age 70
Amount SEK/month	10 300	13 100	16 000	18 500

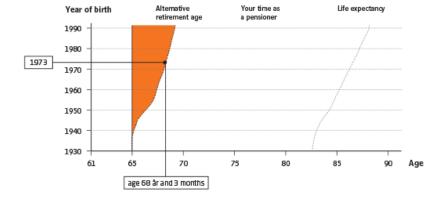
Your national public pension from age 65 (SEK 13 100 per month before tax) is estimated at SEK 9 800 in income pension and SEK 3 300 in premium pension. The pension will be paid out for the rest of your life.

We calculated as follows. The forecast is based on the SEK 1 025 977 you have earned towards your national public pension so far and your annual income until you retire. We have assumed that you will have the same pensionable income per year as in 2012, that is SEK 303 300.

The forecast is calculated in todays value. This means that you can compare the amounts in the forecast with your current earnings. The forecast is developed in accordance with the pension industry forecast standard. Read more on www.pensionsmyndigheten.se /prognosstandard.

Why 68 years and 3 months? The life expectancy in Sweden is rising. You, who were born in 1973 need to work until the age of 68 years and 3 months to receive the same pension amount you would have received at age 65 if life expectancy had remained unchanged. Your pension is calculated as your account value divided by the average remaining life expectancy of your age class.

When is the best time for you to retire? At www.pensionsmyndigheten.se/B3, you can obtain forecasts that also include your occupational pension and possible private pension. The forecasts make it easier for you to plan and make the right decisions about your future. The forecasts are generated by Minpension.se, a collaboration between the Swedish Pensions Agency and the private pension companies.





Decision about your Pension Credits

The decision regarding your pension credits concerns 2012 since it is based on your latest established declared income.

Pension credit for income pension Pension credit for premium pension Pension credits 2012

SEK 57 264 + SEK 8 947 = SEK 66 211

Basis for calculation of your pension credits

Pensionable income: SEK 303 300

Pensionable amount:

child years SEK 54 600 This provides a pension basis of: SEK 357 900

To request a reconsideration of the decision

The regulations that are the basis for the decision are to be found in chapters 59–61 of the Social Insurance Code (2010:110). If you want the decision to be reconsidered, please write to the Pensionsmyndigheten, Box 304, 301 08 Halmstad. Indicate the decision that you want reconsidered, how you want it changed and why. Write also your name, Swedish personal ID number, address and telephone number. If you engage a legal representative you must enclose an original power of attorney. Swedish Pensions Agency must receive the letter at the latest on 31st Docember 2014 or, if you have not been informed before 1st November 2014, within two months from the day you receive notice of the decision.

Contact information

Swedish Pensions Agency, www.pensionsmyndigheten.se, customer service 0771-776776

You can also visit our service of fices, see www.pensionsmyndigheten.se/servicekontor

Demo Person (eng) Vägen 14 123 45 Landsorten