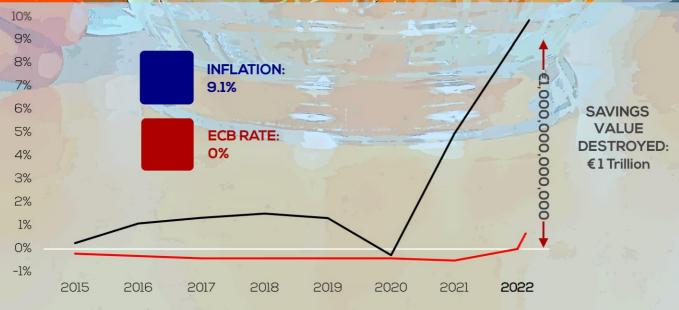
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The European Federation of Investors and Financial Services Users Fédération Européenne des Épargnants et Usagers des Services Financiers

Long-Term & Pension Savings | The Real Return







Pension Savings: The Real Return 2022 Edition

A Research Report by BETTER FINANCE

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The data published in this report stems from publicly available sources (national statistics institutes, regulatory bodies, international organisations etc) which are disclosed throughout the report.

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Since the first edition in 2013, and on an ongoing basis, **BETTER FINANCE invites all** interested parties to submit proposals and/or data wherever they believe that the gathered publicly available data is incomplete or incorrect to the email address info@betterfinance.eu.



Pension Savings: The Real Return 2022 Edition

Executive Summary

"With the two of three worst financial meltdowns of the past hundred years occurring in the past 12 years, can our societies rely on financial markets to deliver decent retirement outcomes for millions around the world?" 1

Strong equity returns in 2021 slowed down by inflation, which is here to stay

How much did pension savers earn on average?

In this report, we aim to provide pension comparisons on every front possible. The aggregate summary return tables compare the annual average rates of returns between occupational/collective (Pillar II) pension schemes and between voluntary/individual ones (Pillar III) on 5 periods: 1, 3, 7, 10 years. These standardised periods eliminate inception and market timing biases, allowing to "purely" compare performances between different pension schemes. For information purposes, we also show the average return since data is available (last column).

	ate summa turn table	ary							
	1 ye	ar	-	ears	7 ye			years	max.
	2021	2020	2019- 2021	2018- 2020	2015- 2021	2014- 2020	2012- 2021	2011- 2020	available*
Austria***	3.08%	1.40%	4.12%	1.23%	1.92%	2.35%	2.68%	1.79%	1.56%
Belgium	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Croatia	2.55%	8.06%	3.38%	2.81%	4.76%	4.99%	4.82%	4.10%	3.25%
Denmark	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Estonia	1.30%	7.97%	4.60%	2.10%	1.61%	2.13%	2.35%	1.31%	0.75%
France	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Germany	n.a.	3.53%	n.a.	2.23%	n.a.	2.63%	n.a.	2.46%	2.35%
Italy	1.44%	7.30%	3.96%	1.85%	1.97%	2.81%	3.30%	2.66%	0.86%
Latvia	2.21%	8.43%	4.22%	1.12%	1.15%	1.54%	2.30%	1.45%	0.05%
Lithuania	5.97%	14.92%	8.60%	4.72%	3.95%	4.07%	4.60%	3.52%	1.95%
Netherlands	0.85%	6.23%	6.58%	5.01%	3.84%	5.79%	5.00%	5.26%	2.80%
Poland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Romania	-2,58%	2,59%	1,64%	1,81%	1,23%	2,68%	2,83%	2,95%	2,04%
Slovakia	3.38%	5.37%	3.13%	0.70%	1.59%	1.50%	1.43%	0.79%	0.21%
Spain	1.52%	2.10%	2.25%	2.40%	3.02%	3.86%	2.56%	2.86%	0.86%
Sweden	13.50%	6.45%	17.44%	8.23%	n.a.	n.a.	n.a.	n.a.	10.59%
UK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

<u>Source</u>: BETTER FINANCE own composition; *whole reporting period differs between countries; **UPF data used as proxy for Pillar II; ***Pension funds used as proxy for Pillar II, 2021 data is estimated; data for Netherlands Pillar II is only occupational pension funds

¹ Amin Rajan (Crate Research), 'Coronavirus Crisis Inflicts a Double Blow to Pensions' (FT.com, 15 April 2020) available at: https://www.ft.com/content/bd878891-4f20-46c3-ab23-939162a85d9c.



Voluntary pension products vary in market share based on the jurisdiction: in some cases, insurance-based products are more prevalent, whereas in some countries pension funds are preferred. The table below shows the average real net returns for supplementary pensions by standardised holding periods.

	gate summa turn table	ary		<u>Pillar III</u>							
	1 y	ear	3 ye	ears	7 ye	ears	10 y	ears	whole		
	2021	2020	2019- 2021	2018- 2020	2015- 2021	2014- 2020	2012- 2021	2011- 2020	reporting period*		
Austria*	0.44%	1.27%	0.96%	2.65%	1.29%	3.09%	1.50%	3.30%	1.95%		
Belgium	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a		
Croatia	2.00%	-1.41%	2.97%	2.13%	3.48%	4.57%	4.41%	3.75%	3.51%		
Denmark	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		
Estonia	6.30%	4.51%	8.14%	2.37%	3.04%	3.19%	4.00%	2.04%	1.78%		
France*	0.37%	1.13%	1.55%	0.65%	1.07%	1.43%	1.63%	1.47%	1.47%		
Germany**	-3.72%	2.68%	-0.16%	1.30%	0.64%	1.62%	1.11%	1.64%	1.20%		
Italy	1.92%	0.03%	3.04%	1.18%	2.18%	2.58%	3.18%	2.49%	1.91%		
Latvia	-1.01%	2.14%	3.18%	0.82%	0.59%	1.75%	2.17%	1.58%	1.34%		
Lithuania	0.54%	4.83%	4.65%	2.29%	2.17%	2.85%	3.37%	1.98%	1.03%		
Netherlands	-2.29%	1.83%	-0.04%	1.39%	1.19%	1.14%	0.33%	0.27%	0.02%		
Poland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		
Romania	-3,07%	0,99%	0,60%	0,35%	0,22%	1,53%	1,90%	1,91%	-1,00%		
Slovakia	1.92%	1.30%	3.03%	0.08%	0.92%	1.00%	1.39%	0.44%	0.71%		
Spain	2.10%	0.86%	1.58%	1.33%	2.20%	3.08%	2.26%	1.60%	0.35%		
Sweden	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		
UK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.		

<u>Source</u>: BETTER FINANCE own composition; *whole reporting period differs between countries; ** Riester pension insurances contracts. Acquisition charges are included and spread over 5 years

Unfortunately, due to unavailability of data breakdowns, for some country cases (UK, Belgium, Denmark, Poland) we were not able to calculate the annual real average returns by Pillar. Nevertheless, the results by retirement provision vehicle are available in Graphs 19 and Table 20 in the *General Report* and on an annual basis (nominal, net and real net return) in each country case).

<u>Note</u>: For a few pension systems analysed in the report, the data available on retirement provision vehicles clearly distinguishes between Pillar II and Pillar III (such as Romania or Slovakia). In other countries, where pension savings products may be used for both Pillars, the categorisation is more difficult since return data is not separated as such. However, for reasons of simplicity and comparability, the authors of the report have put in all the necessary efforts to correctly assign each product according to the pillar it is, or should be, used for.



Pension Savings: The Real Return 2022 Edition

General Report

One can supervise only what one can measure:
Why is this long-term savings performance report (unfortunately) unique?

I. INTRODUCTION

2022 marks the anniversary edition of BETTER FINANCE's Long-Term and Pension Savings Report. For 10 years, BETTER FINANCE aggregated and updated data and information on pension systems' structure, characteristics, charges, tax, and real net returns in a unique publication in this field.

Our report grew from the initial three country cases (Denmark, France, and Spain) covered in the 2013 report ("<u>Private Pensions: The Real Return</u>"¹¹) to reach 18 jurisdictions and true long-term reporting horizons: where available, 22 years of gross, net, and real net returns of private occupational and voluntary retirement provision vehicles.

Today, BETTER FINANCE's research on the real returns of long-term and private pension savings comprises:

- this report (full version);
- the summary booklet;
- the <u>pensions dashboard</u>, an interactive tool on BETTER FINANCE's website to view and compare returns between private retirement provision vehicles.

1.1. The actual performance of this market is generally unknown to clients and to public supervisors

This report was built to respond to one of the big problems for the pensions market in the EU: lack of comprehensive and comparable data on real net performances. So far, two other publications also aim to provide transparency on the topic, but have a limited scope and are too general to be useful for the average pension saver:

http://www.betterfinance.eu/fileadmin/user_upload/documents/Research_Reports/en/Pension_Study_EN_website_pdf.

¹¹ Link for the print version available here:



Table GR1. Comparison BETTER FINANCE report with EIOPA/OECD								
	EIOPA	OECD						
Private pension products	Only insurance-based pension products (unit-linked and profit-participation) based on surveys (68 providers/17 EU Member States/200 products)	Only pension funds (20 EU jurisdictions)						
Distinction between pillars (occupational vs voluntary)	No	No						
Time horizon	5 years	15 years max.						
Data/information on public pension systems	No	Yes						
Pension system description (structure, conditions, costs, taxes)	No	Yes						
Asset allocation	No	Yes						
Gross returns	No	No						
Nominal net returns	Yes	Yes						
Real net returns	Yes	Yes						
Real net returns, after tax	No	No						

Source: BETTER FINANCE own research

Our report closes this informational gap for pension savers in 17 EU Member States. This is in line with the European Commission's "Action" to improve the transparency of performance and fees in this area (as part of its Capital Markets Union - CMU - Action Plan) and it corresponds with the current tasks of EIOPA in the area of personal pension products with respect to past performance and costs comparison. 12

It is the ambition and challenge of this research initiated by BETTER FINANCE and its partners to collect, analyse and report on the actual past performance of **all** long-term and pension savings products.

Reporting the real net return¹³ of pension saving products should be:

- the long-term return (at least covering two full economic and stock market cycles, since even long-term returns are very sensitive to entry and exit dates);
- net of all fees, commissions and charges borne directly or indirectly by the customer;

 $^{^{12}}$ The European Supervisory Authorities (ESAs) have a legal duty to collect, analyse and report data on "consumer trends" in their respective fields (Article 9(1) of the European Regulations establishing the three ESAs).

¹³ A limitation of the present report is that it does not take into account real estate as an asset for retirement. The proportion of households owning their residences varies greatly from one country to another. For example, it is especially low in Germany, where a majority of households rent their residences and where home loan and savings contracts have consequently been introduced as the most recent state-subsidised pension savings scheme. For the time being, returns on pension savings are all the more important since a majority of retirees cannot rely on their residential property to ensure a decent minimum standard of life. However, residential property is not necessarily the best asset for retirement: indeed, it is an illiquid asset, and it often does not fit the needs of the elderly in the absence of a broad use of reverse mortgages. The house might become too large or unsuitable in case of dependency. In that case, financial assets might be preferable, on the condition that they provide a good performance.



- net of inflation (since for long-term products only the real return matters; that is the right approach taken by OECD as mentioned above);
- when possible, net of taxes borne by the customer (in the USA it has been mandatory for decades to disclose the past performance of mutual funds after tax in the summary of the prospectus).

Table C	CRO DETTED FINANCE was and attributions and accura					
l able G	GR2. BETTER FINANCE report structure and scope					
Structure	1. <u>Executive summary</u>					
	2. <u>General report</u> (overview of data and findings)					
	3. <u>Individual country cases</u> (Austria, Belgium, Bulgaria, Croatia,					
	Denmark, Estonia, France, Germany, Italy, Latvia, Lithuania,					
	Poland, the Netherlands, Romania, Slovakia, Spain, Sweden, UK					
	until 2019), representing 87% of EU27 population					
Time horizons						
	22 years (December 1999 – December 2021) or maximum available					
Products covered	1. Occupational pension pillar (pension funds, insurance-based					
	pension products, other defined-benefit/contribution vehicles)					
	2. <u>Voluntary pension pillar</u> (pension funds, insurance-based					
	pension products)					
Public pensions	Structure, coverage, funding type, entry/pay-out conditions					
Occupational pensions	Architecture (types of products offered), coverage, assets and/or					
	asset allocation, costs, applicable tax regime(s)					
Voluntary (individual	Architecture (types of products offered), coverage, assets and/or					
pensions)	asset allocation, costs, applicable tax regime(s)					
Returns	1. Gross returns (before costs, tax, and inflation – where					
	available)					
	2. Nominal net returns (before tax and inflation – where available)					
	3. Real net returns, before tax, inflation deducted					
Data	, , ,					
Data sources	Publicly available data and information sources					

We have chosen a period starting from 31 December 1999 because pension savings returns should be measured over a long-term horizon, and because it includes two market upturns (2003-2006 and 2009-2019) and two downturns (post dot com bubble of 2001-2003 and the 2008 financial crisis).

1.2. Information on the returns of long term and pension savings is deteriorating

This report shows that it is not an impossible, but a very challenging task for an independent expert centre such as BETTER FINANCE to collect the data necessary for this report since quite a lot of data are simply not available at an aggregate and country level, especially for earlier years. The complexity of the taxation of pension savings in EU countries makes it also extremely difficult to compute after tax returns.

Once more, for 2021, we find that information on long-term and pension savings returns is actually not improving but on the contrary deteriorating:



- Insufficient information: for example the Belgian insurance trade organisation Assuralia no longer reports the returns of insurance-regulated « Branch 21 » occupational and personal pension products since 2014, and the national supervisor FSMA does not do it either; in Bulgaria, the necessary data for Professional Pension Funds (pillar II and III) is no longer available since 2018 and the transfers to Pillar I (data from NSSI) are not disclosed; in the UK, the survey conducted by the Department for Statistics has been discontinued and information on British pension funds stopped at 2017;
- <u>Late information</u>: at the time of printing, still a lot of 2021 return data have not been released by the national trade organisations or other providers. OECD has published preliminary data for December 2021, but on a limited number of jurisdictions and only for pension funds; moreover, considering that, in many countries, pension funds are not the most popular vehicle, this constitutes a large information gap.
- <u>Unchecked information</u>: the principal source remains the national trade organisations, their methodology is most often not disclosed, return data do not seem to be checked or audited by any independent party, and sometimes they are only based on sample surveys covering just a portion of the products.

Moreover, savvy retail savers and EU public authorities must rely on private databases (and divergent methodologies) to learn some of the costs and performances of "retail" saving products. This is because the PRIIPs Key Information Document (KID) eliminated precontractual disclosure of past performance and actual costs for UCITS and requires return and cost estimations instead for all "retail" investment products, including pension products. This severe setback in transparency and comparability is completely inconsistent with the CMU initiative. Four high-level initiatives have struggled to repair this situation, without success: the NextCMU Report, the High-Level Forum Final Report, the ECON CMU Report and the ESAs' draft RTS on PRIIPs Level 2. BETTER FINANCE continues to deplore the content of the PRIIPs KID.

2. Value for Money: how to achieve pension adequacy?

Public pension authorities typically stress two requisites to achieve "pension adequacy":

- a) the need to start saving as early as possible;
- b) the need to save a significant portion of one's income before retirement activity income: "to support a reasonable level of income in retirement, 10% 15% of an average annual salary needs to be saved". 14

BETTER FINANCE continues to disagree: saving earlier and more is not enough. A third and even more important factor is the need to deliver positive and decent long-term **real net** return (i.e., net of inflation and fees). A simple example will illustrate why:

 $^{^{14}}$ World Economic Forum White Paper: 'We'll live to 100 – How can we afford it?' May 2017



Assuming no inflation and saving 10% of activity income for 30 years, ¹⁵ the table below shows that unless long-term net returns are significantly positive (in the upper single digits), saving early and significantly will not provide a decent pension.

Annual net return	Replacement income
negative 1%	10%
Zero	12%
2%	17%
8%	49%

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Moreover, in light of the special analysis undertaken in this report on *financial repression*, savers must also be aware and take into account the effects of *inflation*, particularly since currently it reaches historical records.

What is pension adequacy?

This question ultimately revolves around the level of retirement income (pension) compared to the pre-retirement income. The EU defines *pension adequacy* indirectly through three objectives that a pension system should achieve:

- 1) income replacement: ensure a minimum standard of living at retirement,
- 2) sustainability: ensure that the public pension system is sustainable; and
- 3) transparency: inform workers about the need to plan for their retirement. 16

On income replacement, the EU's Open Method of Coordination on Social Protection and Social Inclusion¹⁷ further specifies that pensions should:

- *in general*, be at a certain level so that the standards of living pre-retirement are maintained, to "the greatest possible extent", after retirement;
- for special cases, ensure a minimum standard of living at retirement so as to avoid pension poverty.

To measure the two above objectives, two indicators are generally used: the *aggregate* replacement ratio, ¹⁸ showing how big the gross pension is compared to the salary, and the

¹⁵ As recommended by Public Authorities assuming 25-year life expectancy at retirement, gross of fees and taxes.

¹⁶ Directorate-General for Employment, Social Affairs and Inclusion of the European Commission and the Social Protection Committee, *Pension Adequacy in the European Union 2010-2050* (May 2021) European Commission, available at:

¹⁷ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - "A renewed commitment to social Europe: Reinforcing the Open Method of Coordination for Social Protection and Social Inclusion" {SEC(2008) 2153} {SEC(2008) 2169} {SEC(2008) 2179}, available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52008DC0418.

¹⁸ According to Eurostat, the *aggregate replacement ratio* is the ratio of the median individual gross pensions of 65-74 age category relative to median individual gross earnings of 50-59 age category, excluding other social benefits.



theoretical replacement rate, showing the instant change (drop/increase) in income when retiring from active life:

$$Aggregate\ replacement\ ratio = \frac{gross\ median\ pension\ (pop.\,aged\ 65-74\ yo)}{gross\ median\ income\ (pop.\,aged\ 50-59\ yo)}$$

$$Theoretical \ replacement \ ratio = \frac{pension \ in \ the \ first \ year \ of \ retirement}{income \ in \ the \ last \ year \ of \ work}$$

The International Labour Organisation obliges parties to the Treaty to guarantee a minimum 40% of the previous earnings (prior to retirement) after 30 years of contributions; ¹⁹ the same threshold is used by the European Code of Social Security. ²⁰ However, an actual threshold for pension adequacy was never agreed, although EU Member States agree on its objectives (to prevent old-age poverty, to replace income at a rate to *maintain* the standard of living, to be sustainable).

The reality is that pension adequacy²¹ comprises two additional components, besides the actual *pension vs salary* ratio:

- the time spent to earn the pension vs the time spent receiving it;
- the amount of contributions to pension provision, namely mandatory (State) schemes and voluntary (occupational/individual) ones; put simply, *pension savings*.

To achieve *pension adequacy*, retirement benefits altogether (State and private pensions) should amount to at least 70%-80% of late working life gross salary.

Currently, the aggregate replacement rate (mostly State pension) is very low across the countries in scope of our report: fourteen out of seventeen jurisdictions provide a replacement rate lower than 60% for over more than 30 years of working life.

The indicator is based on the EU-SILC (statistics on income, social inclusion and living conditions) – See Eurostat, Aggregate Replacement Ratio for Pensions (excluding other social benefits) by sex, available at: https://ec.europa.eu/eurostat/databrowser/view/tespn070/default/table?lang=en.

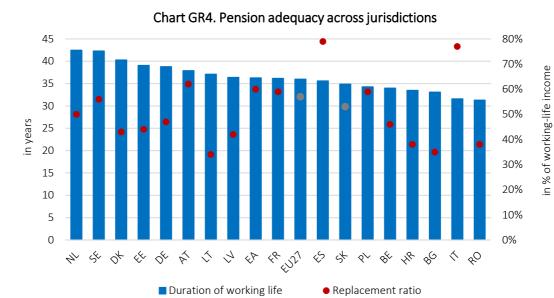
¹⁹ Art. 67 of Convention C102 on Social Security (Minimum Standards) of the International Labour Organisation, available at: https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100 ILO CODE:C102; Art. 29 of the later adopted Convention C128 on Invalidity, Old-Age and Survivors' Benefits Convention of the International Labour Organisation (available here:

https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:55:0::NO::P55 TYPE,P55 LANG,P55 DOCUMENT,P55 NO DE:CON,en,C128,/Document) required a higher threshold, i.e. 45%.

²⁰ Art. 67, Schedule to Part XI, of the European Code of Social Security, available at: https://rm.coe.int/168006b65e.

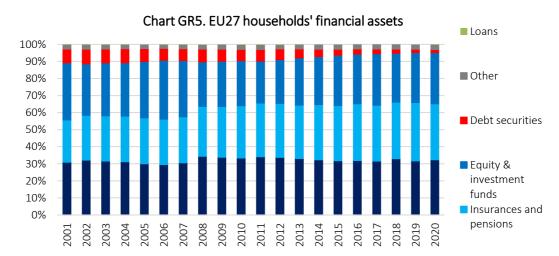
²¹ Here we take only the financial point of view, but there are several other factors (non-financial) that contribute to "maintaining the standard of life at retirement", such as home ownership, sources of income, employment opportunities and access to non-financial benefits – see European Commission, European Semester Thematic Factsheet: Adequacy and Sustainability of Pensions (2017) European Commission, p. 3, available at: https://ec.europa.eu/info/sites/default/files/file_import/european-semester_thematic-factsheet_adequacy-sustainability-pensions_en_0.pdf.





<u>Source</u>: own composition based on Eurostar data; *EU27 replacement ratio corresponds to 2019; Slovakia replacement ratio corresponds to 2020

There has been a shift from the full reliance on the public scheme of redistribution (tax-funded defined-benefit) to a more capital markets reliant system, where the main pension income stream should come from private pension products. Pension performances are subject to inflation and to tax, which eat into the retirement pot.



Source: BETTER FINANCE based on Eurostat data

Our findings clearly confirm that capital market performances have unfortunately very little to do with the performances of the actual savings products distributed to EU citizens. This is particularly true for long-term and pension savings. The main reason is the fact that most EU citizens do not invest the majority of their savings directly into capital market products (such



as equities and bonds), but into "packaged products" (such as investment funds, life insurance contracts and pension products).

3. Performance: capital markets are not a proxy for retail investments

One could then argue that insurance and pension products have similar returns to a mixed portfolio of equities and bonds, since those are indeed the main underlying investment components of insurance and pension "packaged" products. However, this is not true as the share of packaged products and debt instruments are dominant in most pension portfolios. Realities such as fees and commissions, portfolio turnover rates, manager's risks, etc., invalidate this approach.

Table GR3 and Graph GR4 below show two striking – but unfortunately not uncommon – real examples of this largely ignored reality: capital market performance is not a valid proxy for retail investment performance and the main reasons for this are the fees and commissions charged directly or indirectly to retail customers. The European Commission itself publicly stressed this fact (see footnote 2 above).

Table GR6. I	Real case o	f a Belgian life in	isurance (branch 23)

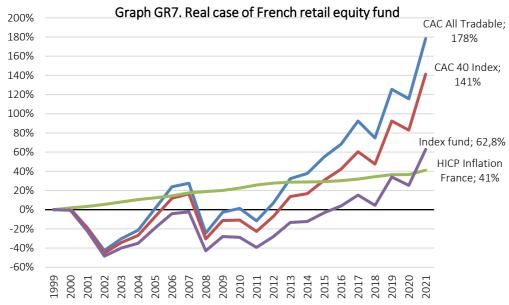
Capital markets vs.	Belgian individua	I pension insurance	2000-2021 performance

,		•	•	
Capital markets (benchmark inde	ex*) perf	ormance		
Nominal performance				288%
Real performance (before tax)				183%
Pension insurance performance	(same be	enchmark)		
Nominal performance				182%
Real performance (before tax)				116%

<u>Source</u>: Sources: BETTER FINANCE own computations based on Morningstar public website; *Benchmark is composed of 50% bonds (LPO6TREU) and 50% STOXX All Europe Total Market Return

The real case above illustrates a unit-linked life insurance product (Pillar III in Belgium). The pension product's nominal return amounted to less than two thirds of its corresponding capital market benchmark's return.





Source: Own elaboration based on Graph FR3 in the French chapter

The real case above illustrates an investment fund domiciled in France, a so-called retail CAC 40 "index" fund. 22 The fund actually underperformed the relevant equity index by 78.5 p.p. after 22 years of existence (1.85% per year), with the performance gap fully attributable to fees. The fund has also massively destroyed the real value of its clients' savings, as inflation has been almost twice as high as its nominal performance. It is quite surprising that with such a huge return gap vis-à-vis its benchmark, this fund is still allowed to portray itself as an "indextracking" one, and that no warning is to be found on the Key Information Document (KIID) of the fund.

4. European Pension returns outlook

Our research findings show that most long-term and pension savings products did not, on average, overperform a broad capital markets index (balanced 50% equity – 50% bond), and in one too many cases even destroying the real value for European pension savers (i.e., provided a negative return after inflation). Based on our calculations and available data, 37 out of the 41 retirement provision vehicles analysed underperformed European capital markets by an average 1.93% per year. Moreover, three out of these 37 even delivered real negative performances over long-term periods (between 15 and 22 years).

At the time of writing, the overall mid-term outlook for the adequacy of European pension savings is worrying when one analyses it for each of these main return drivers:

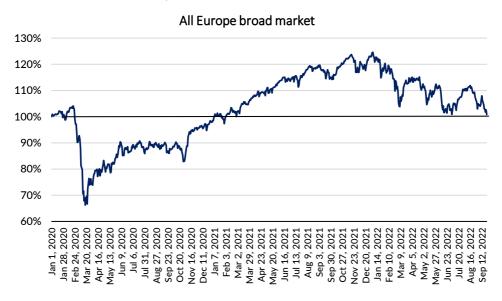
a) it is unlikely that the European bond markets will come any closer to the extraordinary returns of the period ended in 2020 for bonds due to the continuous

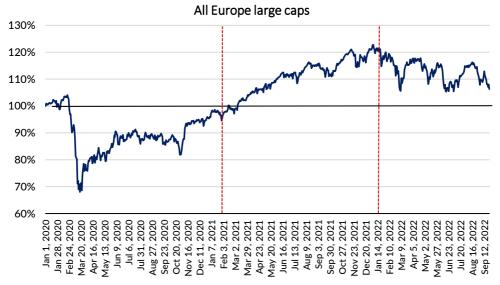
²² Wrapped in an insurance contract as suggested by the distributor.



fall of interest rates, currently at rock-bottom levels; moreover, the reversal of quantitative easing programmes of Eurozone central banks will further affect the returns on sovereign bonds; the negative impact of this foreseeable trend in bond returns on pensions' returns will be reinforced by a higher proportion of bonds in pension products' portfolios in recent years; this is all the more relevant due to monetary policy response to the health-generated recession;

b) the strong growth of equities in 2020 and 2021 is already reverting, with the European all country broad equity index reaching pre-2020 levels and the large caps market also close by;



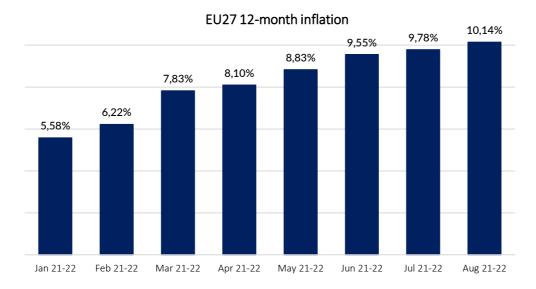


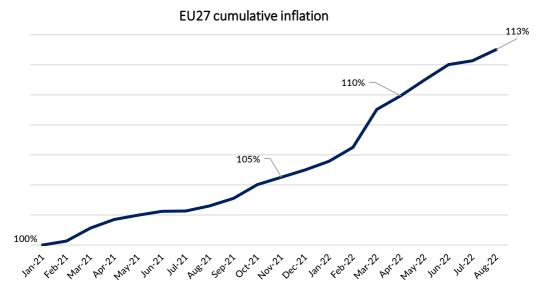
Source: Own composition based on MSCI data

c) costs and charges, as far as our data indicates, are not significantly improving;



d) inflation already took a heavy toll on pension returns in 2021 and it will be much, much stronger in 2022 due to record rates;





Source: Own composition based on Eurostat data

e) Taxes on long-term and pension savings do not show any significant downward trend either.



Pension Savings: The Real Return 2022 Edition

Country Case: Sweden

Swedish summary

Det svenska pensionssytemet består till stor del av avgiftsbestämda/fonderade pensioner. Totalt förvaltas över 7300 miljarder SEK (€726 miljarder) i pensionskapital. I det allmänna pensionssystemet sätts 2.5% av lönen av till den så kallade premiepensionen. I premiepensionen har förvalsalternativet, AP7 Såfa, haft en genomsnittlig realavkastning på 7.78% sedan 2001, jämfört med 4.95% för alla andra valbara fonder. Tjänstepensionssystemet domineras av fyra stora avtal som täcker över 90% av alla arbetstagare. Tjänstepensionerna har till största del gått från att vara PAYG till fonderade pensionssystem.

Summary

The Swedish pension system contains a great variety of different retirement savings products with over SEK 7,300 trillion (€726 billion) in assets under management (AuM). There are funded components in each of the three pillars. In the public pension system, 2.5% of earnings are allocated to the *premium pension*, whereas the default fund, AP7 Såfa, has had an average real rate of return of 7.78% compared to the 4.95% of all other funds over the last 19 years. The second pillar is dominated by four large agreement-based pension plans, covering more than 90% of the workforce. These have largely transitioned from a pay-as-you-go (PAYG) system to a funded system.

Introduction

The Swedish pension system is divided into three pillars:

- Pillar 1 The national pension
- Pillar 2 Occupational pension plans
- Pillar 3 Private pension

The Swedish pension system is a combination of mandatory and voluntary components. Table 1 shows how the pension capital is distributed between the different types of providers in the pension system. In 2020, the total pension capital was estimated at SEK 7,300 billion (€726 billion), which corresponds to fourteen times the size of outgoing pension payments. A share of 50% of the capital is accounted for by the occupational pension system. The fully funded component in the public pension system, the *premium pension*, accounts for 49% of the



pension capital in the first pillar. The remaining 51% is managed by the buffer funds (see next section).

Introduc	Introductory table: Pension system in Sweden									
Pillar I	Pillar II	Pillar III								
Mandatory	Mandatory*	Voluntary								
PAYG/funded	Funded	Funded								
DC/NDC	DC/DB**	DC								
Flexible retirement age 62-68	ERA of 55 or 62, usually paid out at 65 or 67	Tax rebate abolished in 2016***								
No earnings test	Normally a restriction on working hours									
Mandatory	Mandatory*	Voluntary								
	Quick facts									
Number of old-age pensioners: 2,3 million	Coverage: >90%	Share contributing (2015): 24,2%								
Coverage (active population): Universal	Pension plans: 4 major (agreement- based)	Funds: >30								
Average monthly pension: 1793 EUR	Average monthly pension: 488 EUR	Average monthly pension: 90 EUR								
Average monthly salary (gross, age 60-64): 3,100 EUR	AuM: 364 billion EUR (see Table SE 1)	AuM: 34 billion EUR (see Table SE 1)								

Average replacement rate: 58%****

^{****} OECD estimate 54%

Sur	Summary returns table. Sweden nominal returns in 1st and 2nd pillar									
	Publi	c pension		Occupational pension*						
	AP7 Såfa	Other funds	ITP1	SAF-LO	PA-16	AKAP-KL				
2021	31,5	27,1	24,57	28,93	31,3889	27,47				
2020	4,4	8	7,28	7,833	7,62222	7,729				
2019	32,2	27,6	23,99	26,64	27,3667	26,98				

^{*} For each occupational pension plan, the return is an unweighted average among the available funds. \underline{Source} : Tables SE11 and SE14

^{*} Occupational pension coverage is organized by the employer

^{**} The defined benefit components are being phased out

 $[\]hbox{\it **** Self-employed and employees without occupational pension still eligible}$



The average pension in Sweden was €1,792 EUR (SEK 18,798) per month before taxes in 2019; whereof €1,214 (SEK 12,735) came from the national pension, €488 (SEK 5,115) from occupational pensions and €90 (SEK 946) derived from private pension savings. The outcome furthermore differed quite significantly between genders. For women, the average total pension was €1,478 (SEK 15,500) per month before taxes and for men €2,131 (SEK 22,348) per month before taxes²⁴². Although a lot of money is locked in the pension system in Sweden, the Swedish household's savings rate is quite high.

		Table	SE 1.	- Capita	al Man	aged (billion	s of se	k)			
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Income-based pension	895	873	958	1058	1185	1230	1322	1412	1383	1596	1696	2004
In € (billions)	89	87	95	105	118	123	132	141	138	159	169	204
Premium pension	443	434	515	648	812	896	1024	1182	1180	1549	1678	2173
<i>In</i> € (billions)	44	43	51	65	81	89	102	118	118	154	167	217
Occupational pension	1509	1705	1795	1948	2227	2369	2567	2787	2900	3392	3641	
In € (billions)	150	170	179	194	222	236	256	278	289	338	364	
Private pension In € (billions)	423 42	406 40	412 41	433 43	465 46	478 48	478 48	484 48	476 47	367 37	358 36	

Source: Sveriges Pensioner 2006-2020 and Orange Report 2021

In Sweden there is no set age at which people must retire, but the national pension can be drawn from the age of 62 onwards (the earliest eligibility age was raised from 61 in 2020). Nor is there an upper age limit on how long a person may work, and everyone is entitled to work until the age of 68 (the mandatory retirement age was raised from 67 to 68 in 2020). The Swedish Pensions Agency administers the national pension and related pension benefits and provides information about them. The Swedish Social Insurance Inspectorate ensures that the Swedish Pensions Agency conducts its administration with due process and efficiency. The occupational and the private pension can be drawn from the age of 55 onwards.

The new national pension system in Sweden was introduced in 1999. The most important change in the reform was going from a defined benefit system to a defined contribution system. Before the reform, pensions were considered a social right and people were guaranteed a certain percentage of the wage before retirement. Following the reform, the outcome of the pension now consists of the pension savings accumulated during active employment before retirement. In this system, pensions depend on economic and financial development, which means that it is not possible to know in advance how much a retiree's

²⁴² Based on information retrieved from: https://www.pensionsmyndigheten.se/statistik/pensionsstatistik/. Note that the average pension must be weighted with the number of people receiving a pension from a particular pillar.



pension will be. With the new pension system, the need for information about pensions is even more important. The occupational pension system has developed in the same direction; most of the occupational pension plans are now defined contribution systems or hybrids with both defined contribution and defined benefit components.²⁴³

Pillar I: The national pension

The national pension consists of an <u>income-based pension</u>, a <u>premium pension</u> and a <u>quaranteed pension</u>. A share of 18.5% of the salary and other taxable benefits up to a maximum level of 7.5 income-base amount²⁴⁴ per year is set aside for the national retirement pension. A share of 16% is set-aside for the income pension, where the value of the pension follows earnings trends in Sweden. The income-based pension is financed on a pay-as-you-go (PAYG) basis, which means that pension contributions paid in are used to pay retirees the same year. The remaining 2.5% of the salary and other taxable benefits are set-aside for the premium pension, for which the capital is placed in funds. The individual can either choose what fund or funds to place their savings with or, if no choice is made, contributions will be made in the default alternative fund. This system is unique to Sweden and the first individual choices (allocations) were made in 2000. The aim was to achieve a spread of risk in the pension system by placing a part of the national pension on the capital market, enhance the return on capital and enable individual choices in the national pension system.²⁴⁵ The Swedish pensions Agency calculates that by 2030 the premium pension will constitute 20% of the total pension.

The capital for the income-based system is deposited in five buffer funds: the first, second, third, fourth and sixth national pension funds. The result of the income-based pension system is affected by several key economic and demographic factors. In the short-term, the development of employment is the most important factor, but the effect of the stock and bond markets is also of significance, particularly in case of major changes. In the long-term, demographic factors are most relevant.

Accumulated pension rights and current benefits in the income-based system grow with the increase in the level of earnings per capita. If the rate of growth of one salary would be slower than that of the average salary, for instance as a result of a fall in the size of the work force, total benefits would grow faster than the contributions financing them, which could induce financial instability. If the ratio of assets to liabilities in the income-based system falls below a certain threshold, the automatic balancing mechanism is activated and abandons the indexation by the level of average salaries.

In 2020, the parliament approved a new pension supplement in the national pension. The supplement will be paid out to pensioners with an income-based national pension of SEK 9,200 - 17,400 (\notin 900 - \notin 1700) and amounts to maximum SEK 600 per month. The purpose of the

²⁴³ See Hagen (2017) for a more detailed description of the Swedish Pension System

²⁴⁴ 54,100 EUR (550,000 SEK) for 2019.

²⁴⁵ Vägval för premiepensionen, Ds 2013:35



supplement is to increase the living standard for low-income workers during retirement. The supplement has been criticized for deviating from the so-called life-income principle and the fact that it is financed from the state budget (as opposed to the income pension which is financed from pension fees).

The third element of the national pension is the *guaranteed pension*. It is a pension for those who have had little or no income from employment in their life. It is linked to the price base amount calculated annually by Statistics Sweden. The size of the guaranteed pension depends on how long a person has lived in Sweden. Residents of Sweden qualify for a guaranteed pension from the age of 65. To receive a full guaranteed pension, an individual must in principle have resided in Sweden for 40 years after the age of 25. Residence in another EU/EEA country is also credited toward a guaranteed pension. In addition to the national pension, pensioners with low pensions may be entitled to a housing supplement and maintenance support. In June 2022, the parliament passed a historically large increase of the minimum guarantee equal to SEK 1,000. This implies that the maximum benefit for singles is raised from SEK 8,779 to SEK 9,781 and from 7,853 to SEK 8,855 for married individuals, i.e., increases of more than 10%.

There is agreement in the Swedish Parliament to raise the different statutory retirement ages in the public pension system (Pillar I). First, the earliest eligibility age was raised from 61 to 62 in 2020, to 63 in 2023 and to 64 in 2026. Second, the eligibility age for the minimum guarantee will be raised from 65 to 66 in 2023 and is then expected to increase to 67 in 2026. Those who have worked for 44 years or longer will be exempt from these changes. Third, the mandatory retirement age was raised from 67 to 68 in 2020, and then to 69 in 2023. There is also a plan to index these retirement ages to a so-called "target age". The target age will be based on remaining life expectancy, although the details are yet to be laid out.

For administering the income-based pension system, a fee is deducted annually from pension balances by multiplying these balances by an administrative cost factor. In 2020, the fee amounted to 0.03%²⁴⁶. The deduction is made only until the insured begins to withdraw a pension. At the current level of cost, the deduction will decrease the income-based pension by approximately 1% compared to what it would have been without the deduction.

The premium pension system is a funded system for which the pension savers themselves choose the funds in which to invest their premium pension savings. The premium pension can be withdrawn, in whole or in part, from the age of 62. The pension is paid out from selling off the accumulated capital. The individual choice in the premium pension system furthermore results in a spread on return on the pension capital depending on the choice of fund or funds. Table SE2 shows the allocation of assets in the premium pension.

²⁴⁶ The Swedish Pensions Agency, Orange report 2021



Table SE2. Funds in the Premium Pension System and Capital Managed 2010–2020, December 31, billions of SEK 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 Equity fund Mixed funds Generation funds Interest funds AP7 Såfa (default) Total: 1103 1458 Total € (billions):

Source: Orange report 2021

The premium pension has been criticized for having too many selectable funds and for generating large variation in pension outcomes. In December 2017, the government announced that it will implement the changes that have been proposed by the Pensions Agency to enhance the quality and regulation of the participating companies.²⁴⁷ The new rules were implemented on 1 November 2018, and include, among other things, that the participating fund companies manage at least SEK 500 million outside the Premium Pension, have three years of operating history, act in the best interest of the retirement savers, fulfil minimum sustainability requirements, and establish one contract per fund (rather than one contract per company) with the Pensions Agency.²⁴⁸

The new rules also meant that companies that wished to be part of the Premium Pension had to (re)submit an application to the Pensions Agency. In early 2019, 70 companies had submitted an application covering 553 funds (there were more than 800 funds at the end of 2018). The primary purpose of the new rules is to prevent dishonest and fraudulent companies. The alleged fraud of the fund companies Falcon Funds in 2016, Allra in January 2017, and Solidar in 2018²⁴⁹ sparked discussions on the issue. As of June 2022, there were 478 eligible funds registered in the Premium Pension, managed by 65 different UCITS.

A government report on the future development of the Premium Pension was published in November 2019. The report highlights that it should be easier for retirement saves to get an overview of and select funds, and for the authorities to exercise control and transparency. The report recommends that the existing, open fund platform should be replaced with a new

 $^{^{\}rm 247}$ The Swedish Pensions Agency, Stärkt konsumentskydd inom premiepensionen

²⁴⁸ https://www.pensionsmyndigheten.se/nyheter-och-press/pressrum/nytt-avtal-klart-for-premiepensionens-fondtorg

²⁴⁹ See Cronqvist et al. (2018) for a discussion of the Allra case.



platform where the participating funds have been procured. The procurement and administration of this platform should be administrated by a new government agency, which also should be responsible for managing the state-run default fund option, AP7 Såfa. The number of funds is expected to fall considerably as a result of these changes and the new structure should be in place at the end of 2023. Some actors, including the Swedish Investment Fund Association, argue that the proposed changes may lead to lower pensions, decrease competition among fund providers and limit the freedom of choice for individual investors.

Pillar II: Occupational pensions

The occupational pension system in Sweden is mainly driven by collective agreements. A Swedish company is not required by law to pay a pension to its employees, but an occupational pension plan is mandatory if there is a collective agreement at the workplace. The occupational pension system covers over 90% of the workforce. The self-employed are excluded from occupational pension plans and it is mostly smaller companies in new sectors of business that do not have collective agreements.²⁵² There are four main collective agreements for the different sectors and each agreement has its own pension plan. The four collective agreements are: the SAF-LO Collective Pension (blue-collar workers) with 2.8 million members, the Supplementary Pension Scheme for Salaried Employees in Industry and Commerce ITP (white collar employees) with 2 million members, the Collectively Negotiated Local Government Pension Scheme (KAP-KL) with 1 million members and the Government Sector Collective Agreement on Pensions PA-03/PA-16 with 500,000 members²⁵³.

In all four collectively negotiated pension schemes, the employees are allowed to choose a fund manager for at least part of the pension amount. To ensure that the employees receive an occupational pension that is as high as possible there is a 'choice centre' for each collective pension plan. The 'choice centre's' task is to contract good managers for the employee's occupational pension. The employees can choose between different types of traditional insurance and/or unit-linked insurance. The size of this individual portion depends on the size of the premiums paid by the employer in the form of an annual pension provision, the length of the period during which they are paid, and how the funds are managed. For two of the collective pension schemes, KAP-KL and SAF-LO, the employees can choose a fund manager for the whole amount. If the individual does not choose a fund manager, the pension capital will be placed in the default alternative, which in all four agreements is a traditional insurance procured by the choice centre of the occupational pension plan.

²⁵⁰ Socialdepartementet, Ett förbättrat premiepensionssystem, SOU 2019:44

²⁵¹ https://www.fondbolagen.se/aktuellt/pressrum/pressmeddelanden/forslagen-i-utredningen-ett-battre-premiepensionssystem-gar-emot-malen-med-premiepensionen/

²⁵² AMF, "Tjänstpensionerna i framtiden – betydelse, omfattning och trender", p. 17.

ISF Rapport 2018:15," Vem får avsättningar till tjänstepension".

²⁵³ www.pensionsmyndigheten.se/tjanstepensionen-thml



If there is no collective agreement at the workplace, the company can choose to have an individual occupational pension plan for their employees. Among the companies that do not have a collective agreement, some have chosen to have an occupational pension plan, and some do not pay out any pensions at all to their employees. These individual pension plans can vary in shape and level but common to them all is that they often have worse provisions and higher costs compared to the collectively negotiated pension schemes.

In 2017, the Ministry of Finance published a report with several proposals on how to make it easier and cheaper to move occupational pension capital across pension companies and pension plans.²⁵⁴ Today, the right to move occupational pension is, with some exceptions, limited to pension capital that has been accumulated after 2007 and that has not started to be paid out. There is typically also a fee associated with moving the pension capital to another company, especially in the individual occupational pension plans. Critics argue that this leads to lower competition, lower returns for retirement savers and lock-in effects. In April 2019, the government published a report that highlighted the need for lower moving fees in general and a stipulated maximum moving fee (in SEK).²⁵⁵ The parliament approved the proposals of the government in November 2019 and recommended the government to pursue the subject further. In March 2020, the Ministry of Finance proposed that the maximum fee should amount to 0.0127 price base amounts (600 SEK/€59.8 for 2020).²⁵⁶ The new rules were implemented in April 2021. In May 2022, it was decided that the portability right should also apply to pension capital accumulated before 2007.

In December 2016, Sweden transposed the IORP II Directive. The purpose of the new Directive is to ensure the soundness of occupational pensions and better protect pension scheme members by means of stricter capital solvency requirements. The new directive also clarifies the legal framework for actors in the occupational pension business. The new rules have been subject to much discussion. Critics argue that they distort competition in the occupational pension arena because not all companies would be affected. The new rules only apply to pension companies that only provide occupational pension insurance, as opposed to pension companies that also provide other insurance services. The government supplemented the EU Directive with new national legislation in November 2019.²⁵⁷

²⁵⁴ Konkurrensverket, Flyttavgifter på livförsäkringsmarknaden – potentiella inlåsningseffekter bland pensionsförsäkringar, Rapport 2016:12.

²⁵⁵ Ministry of Finance, "En effektivare flytträtt av försäkringssparande"

 $^{^{256}}$ Ministry of Finance, "Avgifter vid återköp och flytt av fond- och depåförsäkringar."

²⁵⁷ Finansutskottets betänkande, "En ny reglering för tjänstepensionsföretag". See https://www.fi.se/sv/forsakring/iorp2/ for more information on IORP II.



Pillar III: Private pensions

Private pension saving is voluntary, but it is subsidized via tax deductions. In 2014, 34.5% of those aged 20 to 64 made contributions to a private pension account. The tax deduction for private pension savings is only profitable for high-income earners.

Private pension savings can be placed in an individual pension savings account (IPS) or in private pension insurance. Money placed in an IPS and in private pension insurance is locked until the age of 55. After that the individual can choose over how many years the pension should be paid out. The minimum pay-out is 5 years in both IPS and private pension insurance. However, only money in private pension insurance can be paid out for life (annuity).

Unlike the national pension plan and the occupational pension plans, private pension plans are individual. This results in less transparency both when it comes to offered products within the private pension plans and the charges on these products.

The deduction for private pension savings has been reduced over the years. From 1 January 2015 it was reduced from €1,195 to €179 (SEK12,000 to SEK 1,800) per year, equivalent to €15 (SEK 150) in monthly savings. On 1 January 2016, the deduction was abolished. The motive for this is that the deduction favours high-income earners. In 2015, the share of private pension savers dropped to 24.2 %. Those who still contribute to private pension accounts are thus subject to double taxation.

Several actors in the pension industry advocate the need for new incentives for people to save privately for retirement. One suggestion is that the government match private contributions, like what is already in place in Germany, ²⁵⁹ matching benefits for low- and medium-income earners as opposed to tax subsidies which tend to favour the rich. The problem is of course that the government must bear the costs of matching in the future when the contributors retire. In addition, the re-distributional outcome of government-subsidized savings may be different than the intended if low- and medium-income earners are less likely to contribute. The effect on total savings may also be limited if there are substitution effects across different saving forms.

ISK

With the abolishment of tax-deductible pension accounts, retirement savers need to find new ways to save for retirement that are not directly related to the pension. The most popular savings vehicle today is called "Investeringssparkontot" (Investment and savings account - ISK) and was introduced in January 2012. The purpose of the new account is to make it easier to trade in financial instruments. Unlike an ordinary securities account, there is no capital gains

²⁵⁸ http://www.statistikdatabasen.scb.se/

²⁵⁹ OECD Pension Outlook 2018.



tax on the transactions. Capital gains tax has been replaced by an annual standardised tax (more on this in the Taxation section).

After the lowering of the deduction for private pension savings, ISK is now regarded as a low tax alternative to private pension savings. ISK has enjoyed widespread popularity and the number of ISK accounts has increased dramatically. In 2019, the number of unique account holders exceeded 2.6 million (see Table 3). In 2021 ISK funds accounted for 9% of the households' total fund assets as compared to 23% for private pension insurance. The relative importance of ISK is however likely to increase in the future; 34% of net savings in funds in 2020 was allocated to ISK accounts.

Table SE3. ISK accounts					
Year	Number of accounts	Number of account holders			
2012	222 664	210 895			
2013	493 221	453 911			
2014	891 550	788 201			
2015	1 840 152	1 528 939			
2016	2 305 137	1 853 227			
2017	2 818 490	2 163 762			
2018	3 267 512	2 420 819			
2019 Source: Swe	3 768 666 edish Tax Agency	2 671 091			

Table SE4. Household fund assets 2021					
Fund type	Fund assets	Net saving (%)	Share of assets (%)		
Direct fund investments	563 533	-13	8		
ISK	626 579	34	9		
IPS	156 325	-2	2		
Private pension insurance	1 568 909	17	23		
Premium Pension (1st pillar)	2 060 107	14	30		
Trustee-registered funds	771 825	771 825 24			
NGOs	136 901	2	2		
Swedish companies	733 075	19	11		
Others	194 779	6	3		
Total:	6 812 035	100	100		
Total € (millions):	670 476				

Source: Swedish Investment Fund Association



Pension vehicles

Occupational pension plans

ITP

The ITP agreement consists of two parts: defined contribution pension ITP 1 and defined benefit pension ITP 2. Employees born in 1979 or later are covered by the defined contribution pension ITP 1. In ITP 1 the employer makes contributions of 4.5 percent of the salary per year, up to a maximum of 7.5 income base amounts. If the salary exceeds this level, the amount of the contribution is also 30% of the salary above 7.5-income base amount. There is also an additional contribution that the employer organizations can choose to include, the so-called partial pension contribution. This contribution currently varies between 0.2%-1.5%.

Half of the ITP 1 pension must be invested in traditional pension insurance, but the individual can choose how to invest the remaining half. It can be placed in traditional insurance and/or unit-linked insurance. The premiums of those who do not specify a choice are invested in traditional pension insurance with Alecta. The eligible insurance companies for traditional insurance are Alecta, AMF, Folksam, Skandia and SEB and for unit-linked insurance they are Futur Pension (previously Danica pension), SPP, Handelsbanken, Movestic and Swedbank.

SAF-LO

The SAF-LO occupational pension plan is a defined contribution plan by definition. The terms of the plan were improved in 2007, mostly in response to perceived unfairness in the terms of the pension provisions for blue-collar and white-collar workers. Like for ITP 1 the employer now makes contributions of 4.5 percent of the salary, up to a maximum of 7,5 income base amounts. If the salary exceeds this level, the amount of the contribution is also 30 percent. SAF-LO also contains a partial pension contribution that the employer can choose to add. The additional contribution is currently ranging between 0.7. and 1.7 percent.

The individual can choose how to invest the pension capital and it can be placed in traditional insurance and/or unit-linked insurance. The eligible insurance companies for traditional insurance are Alecta, AMF, Folksam and SEB and for unit-linked insurance they are AMF, Futur Pension, Folksam, Handelsbanken, Länsförsäkringar, Movestic, Nordea, SEB, SPP and Swedbank.

PA 03

The pension plan for central government employees, PA 16 - Avd II (formerly PA 03), is a hybrid of defined contribution and defined benefit. The defined contribution component in PA 03 consists of two parts: individual old age pension and supplementary old age pension. The total premium amounts to 4.5% of the pensionable income up to a ceiling of 30 income base amounts. Of the total premium, 2.5% and 2% is allocated to the individual pension and the supplementary pension respectively. The individual can choose how the contribution of



the individual retirement pension should be placed and managed. Contributions to the supplementary pension cannot be invested by the employee and are instead automatically invested in a traditional low-risk pension insurance fund.

The defined-benefit pension applies to those who earn more than 7.5 income base amounts. If the individual earns between 7.5 and 20 income-base amounts, the defined-benefit pension comprises 60% of the pensionable salary on the component of pay that exceeds 7.5 income base amounts. If the individual earns between 20 and 30 income-base amounts, the defined-benefit pension comprises 30% of the pensionable salary on the component of pay that exceeds 20 income base amounts. There is also a defined benefit pension on income less than 7.5 income base amounts in accordance with transitional provisions due to the implementation of PA 16 – Avd I (below).

In 2016, a new pension plan, PA 16 – Avd I, for central government employees was implemented. PA 16 covers those born in 1988 or later. Just like PA 16 – Avd II, PA 16 – Avd I has two defined contribution components. The individual pension (2.5 % of income up to 7.5 income base amounts) can be invested by the employee, whereas the supplementary pension (2% of income up to 7.5 income base amounts) is invested in a low-risk pension insurance fund. The contribution for earnings above the ceiling amounts to 20% and 10%, respectively. PA 16 also contains a mandatory partial pension contribution amounting to 1.5%. These contributions are invested in a low-risk pension insurance fund.

The eligible insurance companies providing individual retirement pension in the shape of traditional insurance are Alecta, AMF, Kåpan, and as unit-linked insurance they are AMF, Futur Pension, Handelsbanken, Länsförsäkringar, SEB and Swedbank.

KAP-KL

The KAP-KL agreement consists of two parts: the defined contribution pension AKAP-KL and defined benefit pension KAP-KL. Employees born in 1986 or later are covered by the defined contribution pension AKAP-KL. In AKAP-KL, the employer pays in an amount of 4.5% of the salary towards the occupational pension. If the salary exceeds 7.5 income base amounts, the amount is increasing with 30% of the salary that exceeds 7.5 income base amounts up to a maximum of 30 income base amounts. Employees covered by KAP-KL get 4.5% of the salary contributed to their occupational pension. For a salary over 30 income base amounts, no premium is paid. Instead, there is a defined benefit old age pension that guarantees a pension equivalent to a certain percentage of the final salary at the age of retirement.

A new agreement for local government employees, AKAP-KR, was passed in December 2021 and will be phased in from 2023. The new agreement comes with raised contribution rates; 6% and 31.5% for earnings below and above 7.5 income base amounts, respectively.

The individual can choose how to invest the pension capital and it can be placed in traditional insurance and/or unit-linked insurance. The eligible insurance companies for traditional



insurance in AKAP-KL are Alecta, AMF, KPA and Skandia and for the unit-linked insurance in AKAP-KL they are AMF, Futur Pension, Folksam, Handelsbanken, KPA, Länsförsäkringar, Lärarfonder, Nordea, SEB and Swedbank.

Charges

Pillar I

The costs associated with the administration and management of the funds affect the size of outgoing pension payments.

To reduce the costs in the premium pension system, the capital managers associated with the premium pension system are obliged to grant a rebate on the ordinary management fee of the funds. In 2021, the rebates to pension savers were equivalent to a discount in fund management fees of about 0.35 percentage points. The rebates on the ordinary management fees in the premium pension system are of great importance; without them pensions would be approximately 11 % lower. Furthermore, the pension savers are able to influence the costs of their premium pensions by choosing funds with lower management fees. The net charges (after rebates) in the premium pension system are reported in the upper part of Table 5.²⁶⁰

The costs in the income pension are shown in the lower part of Table SE5. Management fees in the income pension cover the costs of the buffer funds. The capital managed by the buffer funds is slightly lower than the capital managed in the premium pension (SEK 2,004 billion in 2021). However, returns to scale in the buffer funds imply lower costs than in the premium pension.

Table SE 5. Net charges 1st pillar									
	2013	2014	2015	2016	2017	2018	2019	2020	2021
Premium pension	0.36%	0.33%	0.30%	0.28%	0.27%	0.25%	0.23%	0.20%	0.17%
- Administrative fee	0.10%	0.09%	0.07%	0.07%	0.06%	0.07%	0.04%	0.04%	0.04%
Income pension	0.20%	0.20%	0.21%	0.19%	0.18%	0.16%	0.16%	0.15%	0.13%
- Administrative fee	0.031%	0.033%	0.028%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%

Source: Orange report 2021, p53-54

To meet the new need of information in the new pension system, the orange envelope was introduced in 1999. It contains information about contributions paid, an account statement, a fund report for the funded part and a forecast of the future pension. The purpose of the orange envelope is to get more people interested in their pension and get more attention with the help of the special design, the orange colour and a concentrated distribution once a year. The orange envelope has now become a brand, a trademark for pensions. Banks and insurance companies use it in their sales campaign and in media the orange envelope is used to illustrate pensions.

²⁶⁰ The Swedish Pensions Agency, Orange report 2021, page 25



Pillar II

Legislation from 2007 implies that individuals can choose which company should manage their occupational pension capital. The so-called portability right accrues to capital earned after July 1, 2007. Capital earned before this date can be moved if the default managing company itself has agreed to give their investors this right. It is estimated that around 44 percent of the occupational pension capital today is covered by the portability right. Thus, the share of pension capital that can be moved will increase over time, which will further strengthen the competition and keep the fees low. As discussed in the background section, there are also policy proposals to extend the portability rights and reducing the associated moving costs. In May 2022, the parliament decided to extend the portability rights also to pension capital accumulated before 2007.

The selectable companies within each pension plan are included through a procurement procedure which, especially in the last years, have kept the fees down. The companies and the corresponding charges within each pension plan are listed in Table SE6.

The disclosure of charges in the occupational pension system is quite good, although it can be difficult for the average citizen to understand the information that is available. In the occupational pension system, there is typically a yearly fixed fee and a percentage fee on the capital (i.e., management fee). The fixed fee is usually low and covers administrative costs of the pension company. Table SE6 shows the current fee structure in each of the four major occupational pension plans. The charges are relatively low and range between 0.1% and 0.5%.

²⁶¹ SOU 2012:64, page 466



Table	SE6. Charges 2nd pi	llar			
ITP 1					
Traditional insurance	Fixed cost, SEK	Management fee, %			
Alecta (default)	0	0.09			
AMF	50	0.17			
Folksam	0	0.14			
SEB	51	0.08			
Skandia	65	0.16			
Unit-linked insurance					
Futur Pension	0	0.11-0.19			
Handelsbanken	0	0.07-0.13			
Movestic	0	0.13-0.24			
SPP	0	0.08-0.14			
Swedbank	0	0.17-0.18			
	SAF LO				
Traditional insurance	Fixed fee, SEK	Management fee, %			
Alecta	65	0.17			
AMF	40	0.15			
Folksam	65	0.12			
AMF (default)	40	0.15			
SEB	65	0.09			
Unit-linked insurance					
AMF	60	0.13-0.20			
Folksam LO	50	0.21-0.34			
Futur Pension	65	0.19-0.43			
Handelsbanken	65	0.37-0.49			
Länsförsäkringar	65	0.12-0.20			
Movestic	65	0.12-0.17			
Nordea	65	0.29-0.38			
SEB	45	0.13-0.35			
SPP	65	0.14-0.28			
Swedbank	65	0.26-0.30			
	PA 03 & PA 16				
Traditional insurance	Fixed fee, SEK	Management fee, %			
Alecta	75	0.17			
AMF	75	0.15			
Kåpan Pensioner (default)	0	0.06			
Unit-linked insurance					
AMF	75	0.13-0.20			



Futur Pension	65	0,44
Handelsbanken	75	0.35
Länsförsäkringar	75	0,41
SEB	75	0.14-0.4
Swedbank	75	0.33-0.4
	AKAP-KL	
Traditional insurance	Fixed fee, SEK	Management fee, %
Alecta	65	0.17
AMF	65	0.15
KPA (default)	48	0.06
Skandia	65	0.16
Unit-linked insurance		
AMF	65	0.13-0.20
Folksam LO	65	0.22-0.33
Futur Pension	65	0,42
Handelsbanken	65	0.30
KPA Pension	65	0.13-0.30
Länsförsäkringar	65	0,31
Lärarfonder	65	0.35
Nordea	65	0.34-0.38
SEB	65	0.31-0.34
Swedbank	65	0.26-0.30

Source: The Swedish Consumers' Association Bureau 2021

Pillar III

For the private pension system, however, it is difficult to get a good overview of the available pension products and hence the charges on these products. There are two tax-favoured (pre-2016) private pension vehicles: IPS and private pension insurance. The majority of pension providers of IPS and private pension insurance charge a fixed fee (see Tables 7 and 8). These typically range between €10 and €40 per year and are hence higher than in the occupational pension system. In IPS, only two out of eleven providers charge a management fee. Instead, the individual is subject to fund fees which vary substantially by fund type and pension provider. It is also relatively expensive to move the IPS capital to another company. This fee typically amounts to €50, which in relation to the invested capital can be sizable.

In private pension insurance accounts, the fee structure depends on whether the capital is unit-linked or traditional. Traditional insurance only imposes a management fee whereas unit-linked insurance both contains management and fund fees. In some cases, investors also pay a deposit fee of 1% - 2%. The savings invested in these products will decrease since the deduction for private pension savings was abolished in January 2016.



In many private pension products (including individual occupational pension plans), there is a cost to move the capital to another company (not reported here). These fees typically range between 0%-3%, reaching 0% after a specific number of years of investment. These fees have been criticized for causing serious lock-in effects. For many it is simply not worth moving the capital, despite high management fees.

Table SE 7. Individual Pension Savings Account (IPS)— Fees						
	Fixed fee. SEK	Management fee. %	Fund fee (mixed funds). %			
Aktieinvest	0	0,00	0.10-1.90			
Avanza Bank	0	0,00	0.00-2.00			
Danske Bank	150	0,00	0.83-1.25			
Handelsbanken	0	2 (max SEK 125)	0.45-1.45			
Indecap	125	2 (max SEK 125)	1.34-1.66			
Länsförsäkringar Bank	125	0,00	0.20-2.00			
Nordea	140	0,00	0.40-2.00			
Nordnet Bank	0	0,00	0			
SEB	150	N/A	N/A			
Skandiabanken	0	0,00	0.90-181			
Swedbank	0	2 (max SEK 125)	0.20-1.75			

Source: The Swedish Consumers' Insurance Bureau, 2021



Table SE 8. Pension Savings Insurance – Fees						
Traditional insurance	Fixed fee. SEK	Management fee. %	Deposit fee. %			
Folksam Pensionsförsäkring	288	0.06	1,00			
Nordea Ålderspension	152	0.16	0,00			
SEB Traditionell Försäkring	195	0.13	0,00			
Skandia Framtid Internet	0	0.03	2,00			
Skandia Framtid Rådgivning	0	0.03	2,00			
SPP PLUSpension Traditionell	0	0.21	0,00			
Unit-linked			Fund fee. %			
Avanza Pension PrivatPension Depå	0	0	0.09			
Folksam Pensionsförsäkring Fond	295	0.7	0.33			
Futur Pension PrivatPension Fond	120	0.5	0.54			
Futur Pension PrivatPension Netto Fond	0	0	0.54			
Handelsbanken Privatpension	60	0.75	0.28			
Länsförsäkringar Privatpension Fond	240	0.5	0.28			
Movestic Pension Privat Fond	286	0.40-0.55	0.49			
Nordea Ålderspension Fond	152	0.4	0.34			
Nordnet Privatpension Depå	0	0	0,13			
SEB Privat Pensionsförsäkring Fond	316	0.65	0.48			
SEB Svensk Depåförsäkring	316	0.65	0.45			
Skandia Privatpension Depå	0	0.75	0.35			
Skandia Privatpension Internet Fond	0	0	0.37			
Skandia Privatpension Rådgivning Fond	360	0.65	0.37			
SPP PLUSpension Fond	0	0.35	0.26			
Swedbank Pensionsförsäkring Depå	240	0.65	0.18			
Swedbank Pensionsförsäkring Fond	240	0.65	0.18			

Source: The Swedish Consumers' Insurance Bureau, 2021

ISK

On ISK there is an annual standard rate tax, based on the value of the account as well as the government-borrowing rate. The financial institutions report the standard rate earnings to the tax authorities and there is no need to declare any profit or loss made within the account.

The calculation of the standard rate earnings is based on the average value of the account as well as the government-borrowing rate. The average value of the account is calculated by the account value of the first day of each quarter added together, divided by four, and the sum of all deposits during the year divided by four. The average value of the account multiplied with the government borrowing rate as of 30 November the previous year, plus 1 percentage point (0.75 percentage points before Jan 1, 2018), gives the standard earnings. The standard earnings cannot fall below 1.25%, however. The standard earnings are reported to the tax authority by the financial institutions. The standard earnings are taxed at 30%.



In 2021, the government borrowing rate was 0.23%, which means that the calculated average value of an account is taxed with 0.375% (0.3*0.0125=0.00375). The table below reports the total and average standard earnings for years 2012-2019.

Table SE9. ISK standard earnings						
Year	Standard earnings (msek)	In € (millions)	Average standard earning per account holder	In€		
2012	714	71	3 388	338		
2013	2 024	202	4 458	444		
2014	5 467	545	6 937	691		
2015	3 952	394	2 585	258		
2016	7 646	762	4 126	411		
2017	8 852	882	4 091	408		
2018	12 384	1 234	5 116	510		
2019	13 854	1 381	5 187	517		

Source: The Swedish Tax Agency

In contrast to individual pension savings accounts, the investment and savings accounts are free from management fees. The taxation of the accounts is very favourable, and the Swedish Pensions Agency considers the investment and savings account a great alternative to the individual pension savings account. There is no binding period, and withdrawals can be made free of charge at any given time. The taxation of the account is more favourable during periods with low borrowing rates, as the standard rate earnings are based partially on the government-borrowing rate. The taxation is also more favourable during periods of stock market rise than stock market decline, compared to saving vehicles with standard capital gains taxation.

Since ISK was introduced in 2012, the economy has been characterized by low interest rates and a positive stock market development. This, in combination with the abolishment of the deduction for private pension savings, has contributed to the rapid spread of ISK accounts. Some argue that ISK will replace the old tax-favoured private pension savings accounts. However, critics argue that ISK is more of a regular savings vehicle; ISK capital cannot be withdrawn as a life annuity, and it does not mandate the account holder to save long-term.

Taxation

Taxation during the accumulation phase looks different in the different pillars. In the public pension, individual contributions are deductible from the tax base and there is no tax on returns. Employers can partially deduct contributions to the second pillar.²⁶² When it comes

 $^{^{262}}$ Deductible contributions amount to maximum 35% of the wage of the employee. However, the deduction cannot exceed 10 prise base amounts.



to private pension savings, there was a tax deduction of 1,800 SEK (€179) per year available, but it was abolished in January 2016. There is no tax on returns in the first pillar. In contrast, returns in the occupational pension system and in the private pension vehicles are subject to an annual standard rate tax based on the value of the account and the government-borrowing rate. Specifically, the value of the account on January 1st multiplied by the government borrowing-rate gives the standard earnings which are then subject to a 15% tax rate.

During the decumulation phase, all pension income in Sweden is taxed as earned income. The rate varies depending on the size of the pension payment due to the progressive income taxation in Sweden. The Swedish income tax is even higher for pensioners than workers because of the earned income tax credit.²⁶³ The Swedish tax system works as follows. A proportional local tax rate applies to all earned income, including pension income. Furthermore, for income above a certain threshold, the taxpayer also has to pay central government income tax. The marginal tax rate is 20% for incomes above €50,756 (509,300 SEK) and 25% for incomes there above.²⁶⁴

Table SE10. Taxation on pension schemes							
	National pension	Occupational pension	Private pension				
Contributions	Individual contribution deductible, not employer's part	Partially deductible	Non-deductible from January 1, 2016.				
Tax on investments	Not subject to tax, instead the capital is taxed with income tax when paid out.	Subject to tax rate on standard earnings (15 % in 2020)	Subject to tax rate on standard earnings (15 % in 2020)				
Pay-out	Income tax	Income tax	Income tax				

Source: Pensionsmyndigheten, Konsumenternas, Alecta, Swedbank, MinPension

From a phase taxation point of view, Pillar I can be described as EET (contributions exempt-capital gains exempt- pay-outs taxed) and Pillars II and III ETT (contributions exempt – capital gains taxed – pay-outs taxed).

Pension Returns

This section reports on returns on pension capital in the first and second pillars. There are no readily available data on returns in the private pension system (Pillar III) — one would have to turn to the homepage of each pension provider for this information.

²⁶³ The Swedish earned income tax credit is a refundable tax credit for all individuals aged below 65.

²⁶⁴ Financial year 2020:

 $[\]underline{https://www.skatteverket.se/privat/skatter/beloppochprocent/2020.4.7eada0316ed67d728238ec.html\#h-\underline{Skiktgrans}$



Pillar I

Table SE11 shows average annual returns for default investors and those who opted out of the default. The average fee for the default fund and for "active" investors in 2021 is 0.08% and 0.21%, respectively.

Since the start of the premium pension in 2000, the default fund has on average performed better than the average "active" investor. The average annual real return for the default fund and "active" investors amounts to 7.78% and 4.95% respectively. It is important to remember that the "active" investors also include inert investors, i.e., investors that at some point made active contributions but then remained passive. The average returns for the "truly" active investors are therefore underestimated. In fact, Dahlquist et al. (2016) find that investors who are actively involved in managing their pension accounts earn significantly higher returns than passive (inert) investors.

The level of activity has changed significantly since the launch of the Premium Pension in year 2000. A total of 67% of those who entered the system in year 2000 chose their own portfolio of funds. Among those, as many as 32% have not made any subsequent choice. This can be compared with individuals that joined the system in 2010, for example. Of those only 1.6% opted out of the default in the first year. Five years later only 10% had made an active choice. The fact that the default fund on average has outperformed the active investors in most years is probably one explanation why an increasingly larger share chooses to stick with this option.

Table SE11. Average return (%) on Capital in the Premium Pension System						
	AP7 Såfa (default)				Other funds	
Year	Nominal	After charges	Net return	Nominal	After charges	Net return
2001	-27,3	-27,41	-29,65	-33,3	-33,9	-35,9
2002	18,4	18,25	16,31	17,3	16,7	14,8
2003	10,1	10,00	8,05	8,1	7,6	5,7
2004	24,9	24,78	23,66	33,0	32,4	31,2
2005	10,5	10,38	9,02	12,9	12,3	11,0
2006	4,6	4,49	2,99	6,0	5,6	4,1
2007	-36,1	-36,26	-37,84	-33,4	-33,8	-35,4
2008	35,0	34,84	32,03	34,5	34,1	31,3
2009	14,6	14,43	11,32	11,3	10,9	7,9
2010	-10,7	-10,85	-12,70	-10,8	-11,1	-13,0
2011	17,6	17,41	16,90	10,2	9,8	9,3
2012	31,8	31,72	30,36	16,8	16,4	15,2
2013	28,9	28,79	28,32	17,0	16,6	16,2
2014	6,3	6,16	5,87	6,5	6,2	5,9
2015	15,2	15,06	14,21	8,6	8,3	7,5



AVG	9,71%	9,58%	7,78%	7,09%	6,70%	4,95%
2021	31,5	31,4	25,8	27,1	26,9	21,4
2020	4,4	4,3	3,7	8,0	7,7	7,1
2019	32,2	32,11	29,85	27,6	27,3	25,2
2018	-2,7	-2,79	-4,84	-3,8	-4,1	-6,1
2017	16,4	16,30	14,32	10,5	10,2	8,3
2016	15,2	15,09	13,13	8,6	8,3	6,4

<u>Source</u>: The Swedish Pensions Agency; Note: methodology to calculate net returns and annualized averages changed slightly compared to previous editions

The two tables below summarise the annualized averages in the Swedish Premium Pension System based on standardised holding periods (1 year, 3 years, 7 years, 10 years and since inception or the latest data available for this report).

Table SE12. Standardised returns for the Premium Pension System (AP7 default)						
Holding Period	Gross	Net Nominal Annualized	Real Net Annualized			
riolaling i crioa	returns	Performance	Performance			
1-year	31,50%	31,40%	25,80%			
3-years	21,98%	21,89%	19,21%			
5-years	15,50%	15,41%	13,01%			
7-year	15,41%	15,31%	13,19%			
10-years	17,29%	17,18%	14,63%			
Since inception	9,71%	9,58%	7,78%			

Source: Table SE11

Table SE13. Standardised returns for the Premium Pension System (other funds)						
Holding	Gross	Net Nominal Annualized	Real Net Annualized			
Period	returns	Performance	Performance			
1-year	8,00%	7,70%	7,10%			
3-years	9,85%	9,57%	7,97%			
5-years	9,73%	9,44%	7,73%			
7-year	9,10%	8,80%	7,43%			
10-years	10,72%	10,40%	9,23%			
Since inception	6,18%	5,77%	4,18%			
C						

Source: Table SE11

These two tables (which reiterate data from the summary returns table at the beginning) are meant to provide better comparability with other pension vehicles in the countries analysed in this report.

Pillar II

Table SE12 shows returns for the occupational pension system. The first column shows the average return over the last 3 years. The next three columns display the nominal return, the nominal return net of charges, and the real return (net of charges and inflation) for year 2021,



respectively. The inflation (measured by CPI) in 2020 was 4.5 percent.²⁶⁵ In 2021, a year characterized by a strong recovery after the Corona pandemic, the unit-linked insurance funds have yielded better returns than the traditional insurance funds. The 3-year average of unit-linked insurance is also higher than the 3-year average of traditional insurance.

Table SE14. Return on capital, 2nd pillar, %							
ITP1							
Traditional insurance	Av. return 3 yrs	Return 2021	Net of charges	Net return			
Alecta (default)	16,8%	23,8%	23,7%	23,1%			
Folksam	16,8%	22,7%	22,5%	21,9%			
AMF	15,9%	20,6%	20,5%	19,9%			
SEB	5,7%	10,0%	9,9%	9,3%			
Skandia	7,7%	13,9%	13,7%	13,1%			
Unit-linked insurance							
Futur Pension	23,6%	34,3%	34,1%	33,5%			
Handelsbanken	25,7%	27,7%	27,6%	27,0%			
Movestic	23,0%	25,5%	25,3%	24,7%			
SPP	23,2%	32,1%	32,0%	31,4%			
Swedbank	27,5%	35,1%	34,9%	34,3%			
	SAF-LO						
Traditional insurance	Av return	Return	Net of	Not votum			
Alecta	3yrs	2020	charges	Net return			
AMF	16,8%	23,8%	23,6%	23,0%			
Folksam	16,2%	20,6%	20,5%	19,9%			
AMF (default)	17,7% 16,8%	22,7% 20,6%	22,6% 20,5%	22,0% 19,9%			
SEB	5,7%	10,0%	9,9%	9,3%			
SED	3,770	10,0%	9,970	9,5%			
Unit-linked insurance							
AMF	23,6%	35,3%	35,1%	34,5%			
Folksam LO	25,0%	29,7%	29,3%	28,7%			
Futur Pension	23,3%	34,0%	33,7%	33,1%			
Handelsbanken	24,4%	31,2%	30,7%	30,1%			
Länsförsäkringar	23,6%	35,3%	35,1%	34,5%			
Movestic	24,8%	31,5%	31,3%	30,7%			
Nordea	23,9%	34,4%	34,0%	33,4%			

 $^{{}^{265}\,\}underline{https://ec.europa.eu/eurostat/web/products-datasets/product?code=tec00118}$



SEB	25,6%	39,4%	39,1%	38,5%				
SPP	23,0%	32,0%	31,7%	31,1%				
Swedbank	26,6%	33,4%	33,1%	32,5%				
PA-16 - Avd I								
	Av return	Return	Net of					
Traditional insurance	3yrs	2020	charges	Net return				
Alecta	16,8%	23,8%	23,6%	23,0%				
AMF	17,0%	21,2%	21,1%	20,5%				
Kåpan (default)	19,5%	34,5%	34,4%	33,8%				
Unit-linked insurance								
AMF	23,6%	35,3%	35,1%	34,5%				
Futur Pension	21,1%	29,0%	28,6%	28,0%				
Handelsbanken	24,0%	32,6%	32,3%	31,7%				
Länsförsäkringar	22,1%	32,3%	31,9%	31,3%				
SEB	24,0%	39,2%	38,8%	38,2%				
Swedbank	30,9%	34,6%	34,2%	33,6%				
	AKAP-K	L						
	Av return	Return	Net of					
Traditional insurance	3yrs	2020	charges	Net return				
	•		_					
Alecta	16,8%	23,8%	23,7%	23,1%				
Alecta AMF	16,8% 16,8%	23,8% 20,6%	23,7% 20,5%	23,1% 19,9%				
Alecta AMF KPA (default)	16,8% 16,8% 10,3%	23,8% 20,6% 14,6%	23,7%	23,1%				
Alecta AMF	16,8% 16,8%	23,8% 20,6%	23,7% 20,5%	23,1% 19,9%				
Alecta AMF KPA (default)	16,8% 16,8% 10,3%	23,8% 20,6% 14,6%	23,7% 20,5% 14,4%	23,1% 19,9% 13,8%				
Alecta AMF KPA (default) Skandia	16,8% 16,8% 10,3%	23,8% 20,6% 14,6%	23,7% 20,5% 14,4%	23,1% 19,9% 13,8%				
Alecta AMF KPA (default) Skandia Unit-linked insurance	16,8% 16,8% 10,3% 7,7%	23,8% 20,6% 14,6% 13,9%	23,7% 20,5% 14,4% 13,9%	23,1% 19,9% 13,8% 13,3%				
Alecta AMF KPA (default) Skandia Unit-linked insurance AMF	16,8% 16,8% 10,3% 7,7%	23,8% 20,6% 14,6% 13,9%	23,7% 20,5% 14,4% 13,9%	23,1% 19,9% 13,8% 13,3%				
Alecta AMF KPA (default) Skandia Unit-linked insurance AMF Folksam LO	16,8% 16,8% 10,3% 7,7% 23,6% 25,0%	23,8% 20,6% 14,6% 13,9% 35,3% 29,7%	23,7% 20,5% 14,4% 13,9% 35,1% 29,4%	23,1% 19,9% 13,8% 13,3% 34,5% 28,8%				
Alecta AMF KPA (default) Skandia Unit-linked insurance AMF Folksam LO Futur Pension	16,8% 16,8% 10,3% 7,7% 23,6% 25,0% 21,1%	23,8% 20,6% 14,6% 13,9% 35,3% 29,7% 29,1%	23,7% 20,5% 14,4% 13,9% 35,1% 29,4% 28,7%	23,1% 19,9% 13,8% 13,3% 34,5% 28,8% 28,1%				
Alecta AMF KPA (default) Skandia Unit-linked insurance AMF Folksam LO Futur Pension Handelsbanken	16,8% 16,8% 10,3% 7,7% 23,6% 25,0% 21,1% 24,0%	23,8% 20,6% 14,6% 13,9% 35,3% 29,7% 29,1% 32,6%	23,7% 20,5% 14,4% 13,9% 35,1% 29,4% 28,7% 32,3%	23,1% 19,9% 13,8% 13,3% 34,5% 28,8% 28,1% 31,7%				
Alecta AMF KPA (default) Skandia Unit-linked insurance AMF Folksam LO Futur Pension Handelsbanken KPA Pension	16,8% 16,8% 10,3% 7,7% 23,6% 25,0% 21,1% 24,0% 18,3%	23,8% 20,6% 14,6% 13,9% 35,3% 29,7% 29,1% 32,6% 14,6%	23,7% 20,5% 14,4% 13,9% 35,1% 29,4% 28,7% 32,3% 14,3%	23,1% 19,9% 13,8% 13,3% 34,5% 28,8% 28,1% 31,7% 13,7%				
Alecta AMF KPA (default) Skandia Unit-linked insurance AMF Folksam LO Futur Pension Handelsbanken KPA Pension Länsförsäkringar	16,8% 16,8% 10,3% 7,7% 23,6% 25,0% 21,1% 24,0% 18,3% 22,1%	23,8% 20,6% 14,6% 13,9% 35,3% 29,7% 29,1% 32,6% 14,6% 32,3%	23,7% 20,5% 14,4% 13,9% 35,1% 29,4% 28,7% 32,3% 14,3% 32,0%	23,1% 19,9% 13,8% 13,3% 34,5% 28,8% 28,1% 31,7% 13,7% 31,4%				
Alecta AMF KPA (default) Skandia Unit-linked insurance AMF Folksam LO Futur Pension Handelsbanken KPA Pension Länsförsäkringar Lärarfonder	16,8% 16,8% 10,3% 7,7% 23,6% 25,0% 21,1% 24,0% 18,3% 22,1% 24,9%	23,8% 20,6% 14,6% 13,9% 35,3% 29,7% 29,1% 32,6% 14,6% 32,3% 32,9%	23,7% 20,5% 14,4% 13,9% 35,1% 29,4% 28,7% 32,3% 14,3% 32,0% 32,6%	23,1% 19,9% 13,8% 13,3% 34,5% 28,8% 28,1% 31,7% 13,7% 31,4% 32,0%				

Based on the data published by the Swedish Consumers' Insurance Bureau and collected by BETTER FINANCE through this report since the 2017 edition (end of 2016), the authors were



able to start aggregating annual return information (based on unweighted averages) for the Swedish second pillar:

	Table S	SE15. Retur	n on capita	al, 2nd pillar,	% (annual)		
AVG	2021	2020	2019	2018	2017	2016	
ITP1							
13%	25%	7%	24%	0%	11%	9%	
	SAF-LO						
14%	29%	8%	27%	-2%	10%	10%	
	PA-16 - Avd I						
14%	31%	8%	27%	-3%	11%	11%	
AKAP-KL							
14%	27%	8%	27%	-2%	11%	10%	

Source: Table SE14

What we can observe is that, although the different categories of vehicles under the Swedish occupational pensions pillar have different pension products (in sizes and numbers), the returns are very similar from one year to another, as such the average on the last five years (2016 - 2015) are almost the same.

Conclusion

The Swedish pension system is considered robust and sustainable. The balancing of the income-based system contributes to preserving the system's debt balance and secures the long-term nature of the system. The premium pension, which is a system unique to Sweden, also contributes towards spreading the risk in the system and enhancing the return on capital by enabling people to place part of their national pension capital on the stock market. As a result of the change in the Swedish pension system, individual responsibility will increase, and the occupational pension will constitute a bigger part of the total pension in the future.

The occupational pension system in Sweden covers more than 90 percent of the working population. The collectively negotiated pension schemes are procured for many workers, which leads to lower costs, and more transparent pension plans. Individual occupational pension plans and third-pillar pension accounts are, however, often characterized by higher management fees, deposit fees and less transparency.

The statistics on net returns in the second and third pillar pension plans are quite cumbersome to collect. The Swedish Consumers' Insurance Bureau reports fees and returns in most pension plans, but there is no immediately available information on net returns. It is also difficult to calculate historical returns in the second pillar because the set of funds that the retirement savers can choose from might change, for example due to procurement.

A source of concern is that the pension system is becoming increasingly complex. The number of occupational pension plans per individual is increasing both because job switches across



sectors become more common and because pension capital can be moved between companies. The ongoing transitions between old and new occupational pension plans also contribute to the increased complexity of the second pillar. All three pillars also contain many elements of individual choice both during accumulation and decumulation phase. Pension systems that are too complex risk leading to inertia and distrust, which in turn could lead to worse saving and retirement outcomes. Well-designed default fund options with low fees and appropriate risk exposure as well as comprehensive, user-friendly information/choice centres are necessary features in a complex pension system.

Although the Swedish pension system is considered robust and sustainable there is reason to be concerned. As life expectancy increases, the gap between wages and pensions will increase. The average exit age from the labour force has been increasing ever since the new public pension system was implemented in the late 1990s and is currently 64. However, the average claiming age has been constant. ²⁶⁶ The combination of constant claiming age, later labour force entry among youths, and indexation of pension benefits to life expectancy unavoidably means lower pension benefits.

The concern of decreasing replacement rates in the public pension system has spurred an intense political debate about raising the public pension. In June 2022, the parliament passed a historically large increase of the minimum guarantee equal to SEK 1,000 that will be implemented just prior to the national election of 2022. In addition to raising the minimum guarantee (and the means-tested housing allowance), the pension bill of 2022 also stipulates that a "pension gas" should be introduced in the income pension. The pension gas is the equivalent of the automatic balancing mechanism in the sense that it distributes excess capital to pension savers and retirees when system assets exceed system liabilities by a certain amount.

As calls for pension reforms have intensified, there are also recent reports that give a more nuanced picture of pensioners' finances. A report by the Swedish Fiscal Policy Council²⁶⁷ which was published on 6 May 2022 found that relative to the income development of the working population, the income of pensioners has also risen throughout the distribution since the reformation of the public pension system in the early 90s. Compared to the 34-64 age group, pensioners' disposable income has developed favourably at both the bottom and top of the income distribution — while the development of those in the median income part of the distribution has been similar to the compared age group. According to the report, new pensioners have been able to sustain relatively high replacement rates mainly due to increased labour income and occupational pensions. Occupational pensions constitute 29% of outgoing pension payments and play a relatively more important role for high-income earners.

²⁶⁶ This is mainly due to reduced disability pension rates (through stricter eligibility rules), which affects the exit age but not necessarily the claiming age if people claim their pension instead. Another explanation is that individuals who work past the age of 65 do not postpone the withdrawal of their pension.

²⁶⁷ The main results and conclusions are reported by the Swedish Fiscal Policy Council (2022) while Hagen et al (2022) contain the complete set of empirical analyses.



Since the retirement age has not increased in relation to life expectancy, the accrued pension entitlements have had to suffice for more and more years in retirement. One way to raise pension levels is to increase the pension contribution. But it should be remembered that fee increases reduce the salary space for those who work and are also not a viable path in the long run. The most important thing for pensions is a high level of employment and that working life is extended when we live longer. In particular, the Swedish Fiscal Policy Council points to the low employment rate of low-skilled and foreign-born people as a problem in the future. Also, certain groups on the labour market that are already at risk of receiving a low pension (such as gig workers, self-employed and immigrants) are often not eligible for an occupational pension.

To encourage later retirement, policy makers have agreed to raise various retirement ages in a stepwise manner. By 2026, the minimum claiming age, the eligibility age for the minimum guarantee, and the mandatory retirement are expected to have increased to 64, 67 and 69, respectively (currently at 62, 65 and 68, respectively). The 65-norm is still strong in the second pillar, however. In the private sector, pensions are usually paid out automatically at this age, and pension rights are in most cases not earned after this age. As replacement rates fall, individuals also need to take more responsibility for their private pension savings. This makes accessible good pension savings products with low fees even more important.

Policy recommendations:

- Expand the portability right of second pillar pension capital.
- Improve information on historical net returns and other fund characteristics in second and third pillar pension plans.
- The digital pension tool www.minpension.se makes it possible for individual retirement savers to collect information on their total pension savings. Since 2019, there is a related tool for planning pension withdrawals. A useful extension would be to allow users to execute their pension fund choices from this site.
- Replace automatic payment of occupational pensions at a certain age (usually 65) with a claiming requirement (as in the public pension system). Alternatively, raise the automatic payment age to 68 or higher.



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Acronyms

AIF Alternative Investment Fund
AMC Annual Management Charges
AuM Assets under Management

BE Belgium
BG Bulgaria
Bln Billion

BPETR 'Barclay's Pan-European High Yield Total Return' Index

CAC 40 'Cotation Assistée en Continu 40' Index

CMU Capital Markets Union

DAX 30 'Deutsche Aktieindex 30' Index

DB Defined Benefit plan

DC Defined Contribution plan

DE Germany

DG Directorate General of the Commission of the European Union

DK Denmark

DWP United Kingdom's Governmental Agency Department for Work and Pensions

EBA European Banking Authority

EE Estonia

EEE Exempt-Exempt-Exempt Regime
EET Exempt-Exempt-Tax Regime
ETF Exchange-Traded Fund

EIOPA European Insurance and Occupational Pensions Authority

ES Spain

ESAs European Supervisory Authorities

ESMA European Securities and Markets Authority

EU European Union

EURIBOR Euro InterBank Offered Rate

EX Executive Summary

FR France

FSMA Financial Services and Market Authority (Belgium)

FSUG Financial Services Users Group - European Commission's Expert Group

FTSE 100 The Financial Times Stock Exchange 100 Index

FW Foreword

GDP Gross Domestic Product

HICP Harmonised Indices of Consumer Prices

IBEX 35 Índice Bursátil Español 35 Index



IKZE 'Indywidualne konto zabezpieczenia emerytalnego' – Polish specific Individual

pension savings account

IRA United States specific Individual Retirement Account

IT Italy

JPM J&P Morgan Indices

KIID Key Investor Information Document

LV Latvia

NAV Net Asset Value

Mln Million

MSCI Morgan Stanley Capital International Indices

NL Netherlands

OECD The Organisation for Economic Co-Operation and Development

OFT United Kingdom's Office for Fair Trading

PAYG Pay-As-You-Go Principle

PIP Italian specific 'Individual Investment Plan'

PL Poland

PRIIP(s) Packaged Retail and Insurance-Based Investment Products

RO Romania

S&P Standard & Poor Indexes

SE Sweden SK Slovakia

SME Small and Medium-sized Enterprise

SPIVA Standard & Poor Dow Jones' Indices Research Report on Active Management

Scorecard performances

TEE Tax-Exempt-Exempt Regime

TCR/TER Total Cost Ratio/ Total Expense Ratio

UCITS Undertakings for the Collective Investment of Transferable Securities

UK United Kingdom



Glossary of terms

Accrued benefits* – is the amount of accumulated pension benefits of a pension plan member on the basis of years of service.

Accumulated assets* – is the total value of assets accumulated in a pension fund.

Active member* – is a pension plan member who is making contributions (and/or on behalf of whom contributions are being made) and is accumulating assets.

AIF(s) – or Alternative Investment Funds are a form of collective investment funds under E.U. law that do not require authorization as a UCITS fund. ²⁸⁹

Annuity* – is a form of financial contract mostly sold by life insurance companies that guarantees a fixed or variable payment of income benefit (monthly, quarterly, half-yearly, or yearly) for the life of a person(s) (the annuitant) or for a specified period of time. It is different than a life insurance contract which provides income to the beneficiary after the death of the insured. An annuity may be bought through instalments or as a single lump sum. Benefits may start immediately or at a pre-defined time in the future or at a specific age.

Annuity rate* – is the present value of a series of payments of unit value per period payable to an individual that is calculated based on factors such as the mortality of the annuitant and the possible investment returns.

Asset allocation* – is the act of investing the pension fund's assets following its investment strategy.

Asset management* – is the act of investing the pension fund's assets following its investment strategy.

Asset manager* – is(are) the individual(s) or entity(ies) endowed with the responsibility to physically invest the pension fund assets. Asset managers may also set out the investment strategy for a pension fund.

Average earnings scheme* – is a scheme where the pension benefits earned for a year depend on how much the member's earnings were for the given year.

Basic state pension* – is a non-earning related pension paid by the State to individuals with a minimum number of service years.

Basis points (bps) – represent the 100th division of 1%.

Benchmark (financial) — is a referential index for a type of security. Its aim is to show, customized for a level and geographic or sectorial focus, the general price or performance of the market for a financial instrument.

 $^{^{289}}$ See Article 4(1) of Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers and amending Directives 2003/41/EC and 2009/65/EC and Regulations (EC) No 1060/2009 and (EU) No 1095/2010, OJ L 174, 1.7.2011, p. 1–73.



Beneficiary* – is an individual who is entitled to a benefit (including the plan member and dependants).

Benefit* – is a payment made to a pension fund member (or dependants) after retirement.

Bonds – are instruments that recognize a debt. Although they deliver the same utility as bank loans, i.e., enabling the temporary transfer of capital from one person to another, with or without a price (interest) attached, bonds can also be issued by non-financial institutions (States, companies) and by financial non-banking institutions (asset management companies). In essence, bonds are considered more stable (the risk of default is lower) and in theory deliver a lower, but fixed, rate of profit. Nevertheless, Table EX2 of the Executive Summary shows that the aggregated European Bond Index highly overperformed the equity one.

Closed pension funds* – are the funds that support only pension plans that are limited to certain employees. (e.g., those of an employer or group of employers).

Collective investment schemes – are financial products characterised by the pooling of funds (money or asset contributions) of investors and investing the total into different assets (securities) and managed by a common asset manager. Under E.U. law collective investment schemes are regulated under 6 different legal forms: UCITS (see below), the most common for individual investors; AIFs (see above), European Venture Capital funds (EuVECA), European Long-Term Investment Funds (ELTIFs), European Social Entrepreneurship Funds (ESEF) or Money Market Funds.²⁹⁰

Contribution* – is a payment made to a pension plan by a plan sponsor or a plan member.

Contribution base* – is the reference salary used to calculate the contribution.

Contribution rate* – is the amount (typically expressed as a percentage of the contribution base) that is needed to be paid into the pension fund.

Contributory pension scheme* – is a pension scheme where both the employer and the members have to pay into the scheme.

Custodian* – is the entity responsible, as a minimum, for holding the pension fund assets and for ensuring their safekeeping.

Deferred member* – is a pension plan member that no longer contributes to or accrues benefits from the plan but has not yet begun to receive retirement benefits from that plan.

Deferred pension* – is a pension arrangement in which a portion of an employee's income is paid out at a date after which that income is actually earned.

Defined benefit (DB) occupational pension plans* – are occupational plans other than defined contributions plans. DB plans generally can be classified into one of three main types, "traditional", "mixed" and "hybrid" plans. These are schemes where "the pension payment is defined as a percentage of income and employment career. The employee receives a thus pre-defined pension and does not bear the risk of longevity and the risk of investment. Defined

²⁹⁰ See European Commission, 'Investment Funds' (28 August 2019) https://ec.europa.eu/info/business-economy-euro/growth-and-investment/investment-funds en.



Benefits schemes may be part of an individual employment contract or collective agreement. Pension contributions are usually paid by the employee and the employer".²⁹¹

"Traditional" DB plan* – is a DB plan where benefits are linked through a formula to the members' wages or salaries, length of employment, or other factors.

"Hybrid" DB plan* — is a DB plan where benefits depend on a rate of return credited to contributions, where this rate of return is either specified in the plan rules, independently of the actual return on any supporting assets (e.g. fixed, indexed to a market benchmark, tied to salary or profit growth, etc.), or is calculated with reference to the actual return of any supporting assets and a minimum return guarantee specified in the plan rules.

"Mixed" DB plan* – is a DB plans that has two separate DB and DC components, but which are treated as part of the same plan.

Defined contribution (DC) occupational pension plans* – are occupational pension plans under which the plan sponsor pays fixed contributions and has no legal or constructive obligation to pay further contributions to an ongoing plan in the event of unfavourable plan experience. These are schemes where "the pension payment depends on the level of defined pension contributions, the career and the returns on investments. The employee has to bear the risk of longevity and the risk of investment. Pension contributions can be paid by the employee and/or the employer and/or the state". ²⁹²

Dependency ratio* – are occupational pension plans under which the plan sponsor pays fixed contributions and has no legal or constructive obligation to pay further contributions to an ongoing plan in the event of unfavourable plan experience.

Early retirement* – is a situation when an individual decides to retire earlier later and draw the pension benefits earlier than their normal retirement age.

Economic dependency ratio* – is the division between the number of inactive (dependent) population and the number of active (independent or contributing) population. It ranges from 0% to 100% and it indicates how much of the inactive population's (dependent) consumption is financed from the active population's (independent) contributions. ²⁹³ In general, the inactive (dependent) population is represented by children, retired persons and persons living on social benefits.

EET system* – is a form of taxation of pension plans, whereby contributions are exempt, investment income and capital gains of the pension fund are also exempt, and benefits are taxed from personal income taxation.

²⁹¹ Werner Eichhorst, Maarten Gerard, Michael J. Kendzia, Christine Mayrhruber, Connie Nielsen, Gerhard Runstler, Thomas Url, 'Pension Systems in the EU: Contingent Liabilities and Assets in the Public and Private Sector' EP Directorate General for Internal Policies IP/A/ECON/ST/2010-26.

²⁹³ For more detail on the concept, see Elke Loichinger, Bernhard Hammer, Alexia Prskawetz, Michael Freiberger, Joze Sambt, 'Economic Dependency Ratios: Present Situation and Future Scenarios' MS13 Policy Paper on Implications of Population Ageing for Transfer Systems, Working Paper no. 74, 18th December 2014, 3.



Equity (or stocks/shares) – are titles of participation to a publicly listed company's economic activity. With regards to other categorizations, an equity is also a security, a financial asset or, under E.U. law, a transferable security.²⁹⁴

ETE system* – is a form of taxation whereby contributions are exempt, investment income and capital gains of the pension fund are taxed, and benefits are also exempt from personal income taxation.

ETF(s) — or Exchange-Traded Funds are investment funds that are sold and bought on the market as an individual security (such as shares, bonds). ETFs are structured financial products, containing a basket of underlying assets, and are increasingly more used due to the very low management fees that they entail.

Fund member* – is an individual who is either an active (working or contributing, and hence actively accumulating assets) or passive (retired, and hence receiving benefits), or deferred (holding deferred benefits) participant in a pension plan.

Funded pension plans* – are occupational or personal pension plans that accumulate dedicated assets to cover the plan's liabilities.

Funding ratio (funding level) * – is the relative value of a scheme's assets and liabilities, usually expressed as a percentage figure.

Gross rate of return* – is the rate of return of an asset or portfolio over a specified time period, prior to discounting any fees of commissions.

Gross/net replacement rate – is the ratio between the pre-retirement gross or net income and the amount of pension received by a person after retirement. The calculation methodology may differ from source to source as the average working life monthly gross or net income can used to calculate it (divided by the amount of pension) or the past 5 year's average gross income etc. (see below OECD net replacement rate).

Group pension funds* – are multi-employer pension funds that pool the assets of pension plans established for related employers.

Hedging and hedge funds — while hedging is a complex financial technique (most often using derivatives) to protect or reduce exposure to risky financial positions or to financial risks (for instance, currency hedging means reducing exposure to the volatility of a certain currency), a hedge fund is an investment pool that uses complex and varying investment techniques to generate profit.

Indexation* – is the method with which pension benefits are adjusted to take into account changes in the cost of living (e.g., prices and/or earnings).

Individual pension plans* – is a pension fund that comprises the assets of a single member and his/her beneficiaries, usually in the form of an individual account.

²⁹⁴ Article 4(44) of Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU, OJ L 173, p. 349–496 (MiFID II).



Industry pension funds* – are funds that pool the assets of pension plans established for unrelated employers who are involved in the same trade or businesses.

Mandatory contribution* – is the level of contribution the member (or an entity on behalf of the member) is required to pay according to scheme rules.

Mandatory occupational plans* — Participation in these plans is mandatory for employers. Employers are obliged by law to participate in a pension plan. Employers must set up (and make contributions to) occupational pension plans which employees will normally be required to join. Where employers are obliged to offer an occupational pension plan, but the employees' membership is on a voluntary basis, these plans are also considered mandatory.

Mandatory personal pension plans* - are personal plans that individuals must join, or which are eligible to receive mandatory pension contributions. Individuals may be required to make pension contributions to a pension plan of their choice normally within a certain range of choices or to a specific pension plan.

Mathematical provisions (insurances) – or *mathematical reserves* or *reserves*, are the value of liquid assets set aside by an insurance company that would be needed to cover all current liabilities (payment obligations), determined using actuarial principles.

Minimum pension* – is the minimum level of pension benefits the plan pays out in all circumstances.

Mixed indexation* – is the method with which pension benefits are adjusted taking into account changes in both wages and prices.

Money market instruments – are short-term financial products or positions (contracts) that are characterized by the very high liquidity rate, such as deposits, short-term loans, repogreements and so on.

MTF – multilateral trading facility, is the term used by the revised Markets in Financial Instruments Directive (MiFID II) to designate securities exchanges that are not a regulated market (such as the London Stock Exchange, for example).

Multi-employer pension funds* – are funds that pool the assets of pension plans established by various plan sponsors. There are three types of multi-employer pension funds:

- a) for related employers i.e., companies that are financially connected or owned by a single holding group (group pension funds);
- b) for unrelated employers who are involved in the same trade or business (industry pension funds);
- c) for unrelated employers that may be in different trades or businesses (collective pension funds).

Money-Weighted Returns (MWR) - also referred to as the internal rate of return, is a measurement of performance that takes into account cash flows (contributions) when calculating returns.



NAV – Net Asset Value, or the amount to which the market capitalisation of a financial product (for this report, pension funds' or insurance funds' holdings) or a share/unit of it arises at a given point. In general, the Net Asset Value is calculated per unit or share of a collective investment scheme using the daily closing market prices for each type of security in the portfolio.

Net rate of return* – is the rate of return of an asset or portfolio over a specified time period, after discounting any fees of commissions.

Normal retirement age* – is the age from which the individual is eligible for pension benefits. **Non-contributory pension scheme*** – is a pension scheme where the members do not have to pay into scheme.

Occupational pension plans* – access to such plans is linked to an employment or professional relationship between the plan member and the entity that establishes the plan (the plan sponsor). Occupational plans may be established by employers or groups of thereof (e.g., industry associations) and labour or professional associations, jointly or separately. The plan may be administrated directly by the plan sponsor or by an independent entity (a pension fund or a financial institution acting as pension provider). In the latter case, the plan sponsor may still have oversight responsibilities over the operation of the plan.

Eurostat aggregate replacement rate for pensions refers to median individual pension income of population aged 65-74 relative to median individual earnings from work of population aged 50-59, excluding other social benefits.

Old-age dependency ratio - defined as the ratio between the total number of elderly persons when they are generally economically inactive (aged 65 and above) and the number of persons of working age.²⁹⁵ It is a sub-indicator of the economic dependency ratio and focuses on a country's public (state) pension system's reliance on the economically active population's pensions (or social security) contributions. It is a useful indicator to show whether a public (Pillar I) pension scheme is under pressure (when the ratio is high, or the number of retirees and the number of workers tend to be proportionate) or relaxed (when the ratio is low, or the number of retirees and the number of workers tend to be disproportionate). For example, a low old-age dependency ratio is 20%, meaning that 5 working people contribute for one retiree's pension.

Open pension funds* – are funds that support at least one plan with no restriction on membership.

Pension assets* – are all forms of investment with a value associated to a pension plan.

Pension fund administrator* – is(are) the individual(s) ultimately responsible for the operation and oversight of the pension fud.

Pension fund governance* – is the operation and oversight of a pension fund. The governing body is responsible for administration, but may employ other specialists, such as actuaries,

²⁹⁵ See Eurostat definition: http://ec.europa.eu/eurostat/web/products-datasets/product?code=tsdde511.



custodians, consultants, asset managers and advisers to carry out specific operational tasks or to advise the plan administration or governing body.

Pension fund managing company* – is a type of administrator in the form of a company whose exclusive activity is the administration of pension funds.

Pension funds* – the pool of assets forming an independent legal entity that are bought with the contributions to a pension plan for the exclusive purpose of financing pension plan benefits. The plan/fund members have a legal or beneficial right or some other contractual claim against the assets of the pension fund. Pension funds take the form of either a special purpose entity with legal personality (such as a trust, foundation, or corporate entity) or a legally separated fund without legal personality managed by a dedicated provider (pension fund management company) or other financial institution on behalf of the plan/fund members.

Pension insurance contracts* — are insurance contracts that specify pension plans contributions to an insurance undertaking in exchange for which the pension plan benefits will be paid when the members reach a specified retirement age or on earlier exit of members from the plan. Most countries limit the integration of pension plans only into pension funds, as the financial vehicle of the pension plan. Other countries also consider the pension insurance contract as the financial vehicle for pension plans.

Pension plan* – is a legally binding contract having an explicit retirement objective (or – in order to satisfy tax-related conditions or contract provisions – the benefits cannot be paid at all or without a significant penalty unless the beneficiary is older than a legally defined retirement age). This contract may be part of a broader employment contract, it may be set forth in the plan rules or documents, or it may be required by law. In addition to having an explicit retirement objective, pension plans may offer additional benefits, such as disability, sickness, and survivors' benefits.

Pension plan sponsor* – is an institution (e.g., company, industry/employment association) that designs, negotiates, and normally helps to administer an occupational pension plan for its employees or members.

Pension regulator* – is a governmental authority with competence over the regulation of pension systems.

Pension supervisor* – is a governmental authority with competence over the supervision of pension systems.

Personal pension plans* - Access to these plans does not have to be linked to an employment relationship. The plans are established and administered directly by a pension fund or a financial institution acting as pension provider without any intervention of employers. Individuals independently purchase and select material aspects of the arrangements. The employer may nonetheless make contributions to personal pension plans. Some personal plans may have restricted membership.

Private pension funds* – is a pension fund that is regulated under private sector law.



Private pension plans* – is a pension plan administered by an institution other than general government. Private pension plans may be administered directly by a private sector employer acting as the plan sponsor, a private pension fund or a private sector provider. Private pension plans may complement or substitute for public pension plans. In some countries, these may include plans for public sector workers.

Public pension plans* – are pensions funds that are regulated under public sector law.

Public pension plans* – are the social security and similar statutory programmes administered by the general government (that is central, state, and local governments, as well as other public sector bodies such as social security institutions). Public pension plans have been traditionally PAYG financed, but some OECD countries have partial funding of public pension liabilities or have replaced these plans by private pension plans.

Rate of return* – is the income earned by holding an asset over a specified period.

REIT(s) or Real Estate Investment Trust(s) is the most common acronym and terminology used to designate special purpose investment vehicles (in short, companies) set up to invest and commercialise immovable goods (real estate) or derived assets. Although the term comes from the U.S. legislation, in the E.U. there are many forms of REITs, depending on the country since the REIT regime is not harmonised at E.U. level.

Replacement ratio* – is the ratio of an individual's (or a given population's) (average) pension in a given time period and the (average) income in a given time period.

Service period* – is the length of time an individual has earned rights to a pension benefit.

Single employer pension funds* – are funds that pool the assets of pension plans established by a single sponsor.

Summary Risk Reward Indicator - a measurement developed by the European Securities and Markets Authority (former CESR) to be included in the Key Investor Information Document (KIID) for UCITS (undertakings for collective investment in transferable securities) to reflect the risk profile of a certain fund.

Supervisory board* – is(are) the individual(s) responsible for monitoring the governing body of a pension entity.

System dependency ratio* – typically defined as the ratio of those receiving pension benefits to those accruing pension rights.

TEE system* – is a form of taxation of pension plans whereby contributions are taxed, investment income and capital gains of the pension fund are exempt, and benefits are also exempt from personal income taxation.

Time-Weighted Returns (TWR) - is the standard method of calculating returns (and performance) of an investment and simply represents the growth/decrease in value without incorporating the distorting effects of cash inflows and outflows (for pensions, that means contributions and

Trust* – is a legal scheme, whereby named people (termed trustees) hold property on behalf of other people (termed beneficiaries).



Trustee* – is a legal scheme, whereby named people (termed trustees) hold property on behalf of other people (termed beneficiaries).

UCITS – or Undertakings for Collective Investment in Transferable Securities, is the legal form under E.U. law for mutual investment funds that are open to pool and invest funds from any individual or institutional investor, and are subject to specific authorisation criteria, investment limits and rules. The advantage of UCITS is the general principle of home-state authorisation and mutual recognition that applies to this kind of financial products, meaning that a UCITS fund established and authorised in one E.U. Member State can be freely distributed in any other Member State without any further formalities (also called *E.U. fund passporting*).

Unfunded pension plans* – are plans that are financed directly from contributions from the plan sponsor or provider and/or the plan participant. Unfunded pension plans are said to be paid on a current disbursement method (also known as the pay as you go, PAYG, method). Unfunded plans may still have associated reserves to cover immediate expenses or smooth contributions within given time periods. Most OECD countries do not allow unfunded private pension plans.

Unprotected pension plan* – is a plan (personal pension plan or occupational defined contribution pension plan) where the pension plan/fund itself or the pension provider does not offer any investment return or benefit guarantees or promises covering the whole plan/fund.

Voluntary contribution — is an extra contribution paid in addition to the mandatory contribution a member can pay to the pension fund in order to increase the future pension benefits.

Voluntary occupational pension plans - The establishment of these plans is voluntary for employers (including those in which there is automatic enrolment as part of an employment contract or where the law requires employees to join plans set up on a voluntary basis by their employers). In some countries, employers can on a voluntary basis establish occupational plans that provide benefits that replace at least partly those of the social security system. These plans are classified as voluntary, even though employers must continue sponsoring these plans in order to be exempted (at least partly) from social security contributions.

Voluntary personal pension plans* – Participation in these plans is voluntary for individuals. By law individuals are not obliged to participate in a pension plan. They are not required to make pension contributions to a pension plan. Voluntary personal plans include those plans that individuals must join if they choose to replace part of their social security benefits with those from personal pension plans.

Wage indexation* – is the method with which pension benefits are adjusted taking into account changes in wages.

Waiting period* – is the length of time an individual must be employed by a particular employer before joining the employer's pension scheme.



Winding-up* – is the termination of a pension scheme by either providing (deferred) annuities for all members or by moving all its assets and liabilities into another scheme.

World Bank multi-pillar model – is the recommended design, developed by the World Bank in 1994, for States that had pension systems inadequately equipped to (currently and forthcoming) sustain a post-retirement income stream for future pensioners and alleviate the old-age poverty risk. Simpler, it is a set of guidelines for States to either enact, reform or gather legislation regulating the state pension and other forms of retirement provisions in a form that would allow an increased workers' participation, enhance efficiency for pension savings products and a better allocation of resources under the principle of solidarity between generations.

The standard design of a robust pension system would rely on five pillars:

- a) the non-contributory scheme (pillar 0), through which persons who do not have an income or do not earn enough would have insured a minimum pension when reaching the standard retirement age;
- b) the public mandatory, Pay-As-You-Go (PAYG) scheme (**Pillar I**), gathering and redistributing pension contributions from the working population to the retirees, while accumulating pension rights (entitlements) for the future retirees;
- c) the mandatory funded and (recommended) privately managed scheme (**Pillar II**), where workers' contributions are directed to their own accumulation accounts in privately managed investment products;
- d) the voluntary privately managed retirement products (**Pillar III**), composed of pension savings products to which subscription is universal, contributions and investments are deregulated and tax-incentivised;
- e) the non-financial alternative aid scheme (pillar IV), through which the state can offer different forms of retirement support such as housing or family support. Albeit the abovementioned, the report focuses on the "main pillars", i.e., Pillar I, II and III, since they are the most significant (and present everywhere) in the countries that have adopted the multi-pillar model.

Definitions with "*" are taken from OECD's Pensions Glossary - http://www.oecd.org/daf/fin/private-pensions/38356329.pdf.



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