



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

The background is a stylized illustration. The top half shows a dark, stormy sky with heavy rain falling diagonally from the left. A bright yellow lightning bolt strikes down from the center. Below the clouds, a sunburst of yellow rays emanates from the right side. The landscape is composed of rolling hills in shades of green and yellow. A winding path leads from the bottom towards the sunburst. In the foreground, two elderly people are walking away from the viewer on the path. The person on the left is wearing a light blue jacket and grey trousers, carrying a black bag. The person on the right is wearing a brown jacket and blue trousers, also carrying a black bag. They are holding a large red umbrella together. The overall mood is one of hope and resilience despite a difficult environment.

Long-Term and Pension Savings | The Real Return

2021 Edition



Pension Savings: The Real Return

2021 Edition

A Research Report by BETTER FINANCE

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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 performances
Scorecard	
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.¹

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.

¹ 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.²

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

² See European Commission, 'Investment Funds' (28 August 2019) https://ec.europa.eu/info/business-economy-euro/growth-and-investment/investment-funds_en.



and does not bear the risk of longevity and the risk of investment. Defined Benefits schemes may be part of an individual employment contract or collective agreement. Pension contributions are usually paid by the employee and the employer”.³

“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”.⁴

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.⁵ In general, the inactive (dependent) population is represented by children, retired persons and persons living on social benefits.

³ Werner Eichhorst, Maarten Gerard, Michael J. Kendzia, Christine Mayrhuber, 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.

⁴ Ibid.

⁵ 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.



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.

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.⁶

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 be 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).

⁶ 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).



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.

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, repo-agreements 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.⁷ 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 fund.

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, custodians,

⁷ See Eurostat definition: <http://ec.europa.eu/eurostat/web/products-datasets/product?code=tsdde511>.



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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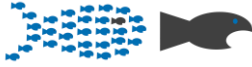
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Pension Savings: The Real Return

2021 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?”⁸

Despite improvements, real returns of pension savings still struggle to deliver value for money

How much did pension savers earn on average?

The main question this report seeks to answer is: How much was the pension saver left with, on average, after charges and inflation were deducted from his benefits at the end of different periods, compared to the amounts he saved? The aggregate summary return tables show – for occupational/collective (“Pillar II”) and voluntary/individual (“Pillar III”) pension products - the annual average rate of return on investments in each country based on 5 periods: 1, 3, 7, 10 years and since the start of the available reporting period (differs case by case). These standardised periods eliminate inception and market timing biases, allowing to “purely” compare performances between different pension schemes.

⁸ 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>.



Aggregate summary return table			Pillar II						
	1 year		3 years		7 years		10 years		max. available *
	2020	2019	2018-2020	2017-2019	2014-2020	2013-2019	2011-2020	2010-2019	
Austria	1,41%*	8,01%	1,23%	1,78%	2,35%	2,53%	1,79%	2,01%	1,48%
Belgium	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Bulgaria	1,41%	2,71%	-1,06%	-0,24%	2,06%	2,59%	1,96%	1,74%	-1,35%
Croatia	-0,29%	8,06%	2,81%	4,68%	4,99%	5,77%	4,10%	4,91%	3,28%
Denmark	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Estonia	4,64%	7,97%	2,10%	0,57%	2,13%	1,65%	1,31%	1,24%	0,67%
France	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Germany	n.a.	3,02%	n.a.	1,77%	n.a.	2,54%	n.a.	2,40%	2,28%
Italy	3,30%	7,30%	1,85%	1,76%	2,81%	3,33%	2,66%	2,57%	0,84%
Latvia	1,94%	8,43%	1,12%	0,77%	1,54%	1,62%	1,45%	1,83%	-0,07%
Lithuania	5,19%	14,92%	4,72%	3,04%	4,07%	4,15%	3,52%	3,65%	1,72%
Netherlan	6,23%	13,00%	5,01%	4,26%	5,79%	5,10%	5,26%	5,42%	2,89%
Poland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Romania	2,59%	5,05%	1,81%	0,61%	2,68%	3,64%	2,95%	3,33%	2,41%
Slovakia	0,45%	5,37%	0,70%	-0,27%	1,50%	1,57%	0,79%	0,74%	-0,03%
Spain	2,10%	7,89%	1,74%	2,14%	2,80%	4,28%	2,94%	2,60%	0,79%
Sweden	6,45%	24,08%	8,23%	9,03%	n.a.	n.a.	n.a.	n.a.	8,32%
UK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Source: BETTER FINANCE own composition; see methodological explanation box below

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.

- Data for 2020 is estimated. So are the previous 2019 figures, which are now consolidated.
- Returns for Bulgaria are time-weighted, and the dataflow is updated compared to the last edition.
- In Germany AOPP is used as a proxy for pillar II returns.
- For Romania, returns are calculated in EUR and differ from previous editions. See Romanian country case explanations.
- For Spain, pillar II returns have been recalculated based on the weighted average between employer-sponsored and associate plans.



Aggregate summary return table			Pillar III						
	1 year		3 years		7 years		10 years		whole reporting period*
	2020	2019	2018-2020	2017-2019	2014-2020	2013-2019	2011-2020	2010-2019	
Austria	1.82%*	1,2%	1,34%	1,01%	1,70%	1,73%	1,50%	1,51%	2,05%
Belgium	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Bulgaria	1,91%	3%	-0,92%	0,08%	2,57%	3,28%	2,65%	2,48%	0,17%
Croatia	-1,41%	8,57%	2,13%	3,58%	4,57%	5,07%	3,75%	4,58%	3,59%
Denmark	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Estonia	4,51%	13,84%	2,37%	1,64%	3,19%	3,03%	2,04%	2,45%	1,54%
France*	1,30%	2,83%	0,44%	0,46%	1,23%	3,55%	1,23%	2,81%	1,36%
Germany*	2,68%	0,67%	1,30%	0,68%	1,62%	1,53%	1,64%	1,58%	1,51%
Italy	0,03%	6,40%	1,18%	1,22%	2,58%	2,84%	2,49%	1,99%	1,85%
Latvia	2,14%	8,66%	0,82%	0,59%	1,75%	1,94%	1,58%	n.a.	1,58%
Lithuania	4,83%	8,72%	2,29%	1,22%	2,85%	2,93%	1,98%	2,48%	1,05%
Netherlands	1,83%	0,40%	1,39%	1,40%	1,14%	0,97%	0,27%	-0,08%	0,13%
Poland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Romania	0,99%	3,99%	0,35%	-0,41%	1,53%	2,69%	1,91%	2,06%	-0,85%
Slovakia	1,30%	5,68%	0,00%	0,22%	1,00%	0,98%	0,44%	0,37%	0,60%
Spain	0,80%	8,11%	0,86%	1,24%	1,83%	3,25%	2,00%	2,15%	0,32%
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.

*Source: BETTER FINANCE own composition; *whole reporting period differs between countries; for DE, pillar III can be proxied through both Riester and Rurup pensions, the authors chose Riester for the purposes of this graph (Acquisition charges are included and spread over 5 years); for BG, VPF is proxied for pillar III returns and the returns are time-weighted; for FR, pillar III comprises life insurance, corporate savings plans, public employee pension schemes; for AT, the returns for 2020 are estimated, so were the 2019 figures which are now consolidated;*

Unfortunately, due to unavailability of data breakdowns, for some country cases (UK, Netherlands, Belgium, Denmark, Poland, Sweden) we were not able to calculate the annual real average returns by Pillar. Nevertheless, the results by retirement provision vehicle are available in Graphs 18 and Table 20 in the *General Report*.

Note: 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.



Taxation

What happens to investment returns after charges and inflation are deducted?

Charges, investment strategies and inflation influence earnings, but the actual sum the pension saver will be able to withdraw and spend at retirement will depend on the taxation regime. In other words, when and how much do savers lose of their pensions due to taxes?

The actual taxation rates (in %) are highlighted in Table GR10 and in the *Taxes* sub-section of each individual country case. However, the purpose of the “pillar”-system is to stimulate pension savings by giving tax incentives (exemptions, lower taxes, deductibility, subsidises etc).

The table below shows whether the three pension saving steps (contribution – *what you pay for your pension*; returns – *what your investments earn*; and pay-outs – *what you will withdraw*) are **exempt (E)** or **taxed (T)** in each country under review.

Taxation of pension savings						
	Contributions		Returns		Pay-outs	
	Pillar II	Pillar III	Pillar II	Pillar III	Pillar II	Pillar III
Austria	E	E	E	E	T	T
Belgium	E	E	E	E	T	T
Bulgaria	E	E	E	E	E	E
Croatia	E	E	E	E	T	T
Denmark*	T	T	T	T	T	T
Estonia	E	E	E	E	T	T
France	E	E/T	T	T	T	T
Germany	T	T	E	T	T	T
Italy	E	E	T	T	T	T
Latvia	E	E	E	E	T	T
Lithuania	E	E	E	E	E	E
Netherlands	E	E	E	E	T	T
Poland	T	E/T	E	E	E	E/T
Romania	E	E	E	E	T	T
Slovakia*	E/T	E	E	E	E	T
Spain*	E	E	E	E	T	T
Sweden	E	E	T	T	T	T
UK	E	E	E	E	T	T

*There are rules and exceptions based on the type of pension vehicle. For details, see the relevant country case; Source: BETTER FINANCE own composition

Pension plan types: defined contribution on top

Who bears the risk of adequate pensions at retirement?

Originally, the level of pension (*benefit*) would be pre-defined by the provider of the pension plan, usually based on a formula that used some standard variables for each saver (income/salary,



inflation, etc). As such, the pension plan provider bears the risk of obtaining the necessary resources (money) to pay out this **defined benefit** pension to the saver at retirement age.

Nowadays, most private pension plans (Pillar II and III) use a **defined contribution** rule. This means that the saver only knows how much he can pay for his future pension, but the actual amount and income level at retirement will depend on external factors and will be subject to capital market fluctuations, just as any other investment. In other words, the risk of obtaining an adequate pension at retirement depends on the investment decisions made by the saver, where the provider is only obliged to pay-out the **real net returns**, before tax, earned during the investment period.

Pension scheme type (<i>who bears the risk?</i>)				
	Provider (defined benefit)		Saver (defined contribution)	
	Pillar II	Pillar III	Pillar II	Pillar III
Austria	X		X	X
Belgium	X	X	X	X
Bulgaria			X	X
Croatia	X			X
Denmark	X	X	X	X
Estonia			X	X
France	X		X	X
Germany	X		X	X
Italy			X	X
Latvia			X	X
Lithuania			X	X
Netherlands	X		X	X
Poland			X	X
Romania			X	X
Slovakia			X	X
Spain	X		X	X
Sweden	X		X	X
UK	X		X	X

Source: BETTER FINANCE own composition

For more details on how this information unfolds, what factors influence pension savings and how governments tax pension earnings, read the following chapter or the individual country case corresponding to your domicile.



Pension Savings: The Real Return

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EU Policy Updates

The High-Level Forum on the Future of the Capital Markets Union⁹ made three important recommendations¹⁰ for the European Commission to pursue in the area of pensions, to which BETTER FINANCE contributed and fully supported:

- establishing ***national pension dashboards***, which are systems of indicators for EU Member States “to monitor the state of play in Member States and, where applicable, the progress achieved by Member States with regard to pension sustainability and pension adequacy”;
- establishing ***individual pension tracking systems***, which would be platforms where EU citizens can see all their pensions data (State pension and private pension vehicles) with the purpose of providing “an overview and an estimate of the future retirement income from different sources”;
- supporting EU Member States in establishing ***auto-enrolment in occupational pension schemes***, which would mean that workers would by default contribute to a pension plan, with the possibility to opt-out (stop contributions) at no cost.

The European Commission (EC) and European Insurance and Occupational Pensions Authority (EIOPA) followed-up on these proposals and have started work towards their implementation. The EC formally initiated the process by mandating EIOPA to gather evidence, data, and technical recommendations on the first two actions while also commissioning a study from a consortium of consultants on best practices in auto-enrolment systems. Consequently, EIOPA published two public consultations requesting:

- [technical advice on the development of pension dashboards and the collection of pensions data](#), which is meant to gather input from stakeholders on where and how to aggregate the necessary information – and what indicators to use – to set up and update the pension dashboards;
- [technical advice on pension tracking services](#), which is meant to collect views from stakeholders on what types of investment products will be aggregated in the tracking service, what and how the estimations of the retirement pot will be made, etc.

BETTER FINANCE, together with the experts that collaborate with the writing of this report, will leverage the long-term experience accumulated through the efforts of publishing this report since 2013 and will provide EIOPA with technical advice on both topics.

⁹ A group of experts from EU public authorities, industry, and consumer associations established by the European Commission between November 2019 and May 2020 to brainstorm and make recommendations to improve the regulation and supervision of EU capital markets and create better conditions to invest for EU citizens; see https://ec.europa.eu/info/publications/cmu-high-level-forum_en.

¹⁰ See the Final Report here:

https://ec.europa.eu/info/sites/default/files/business_economy_euro/growth_and_investment/documents/200610-cmu-high-level-forum-final-report_en.pdf, Recommendation 11, page 85.



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Value for Money for Long-term and Pension Savings

For too many editions in a row (since 2013), BETTER FINANCE's annual report on the real returns of long-term and pension savings finds, in many EU jurisdictions, poorly performing retirement saving vehicles (whether pension funds, products, or life-insurances used for pension provision) once fees and inflation are deducted. With a few notable exceptions, such as occupational pension funds in the Netherlands or the AP7 Safa fund in Sweden, the majority of products barely cover for inflation and only a handful come close to a simple, broad capital markets benchmark (50% equity and 50% bonds). Unfortunately, there is also a share – quite high – of products that deliver negative returns, which means that, in hindsight, keeping savings “under the mattress” would have been a more profitable solution.

Considering the impact on economic output generated by the global health pandemic, the strains on public pension systems, the current low interest rate environment, and the shift from defined-benefit to defined-contribution pensions, addressing the pensions time-bomb is long overdue.¹¹

While there is no silver bullet to rectify poor pension returns, BETTER FINANCE formulates a set of proposals to define *value for money* for retirement provision investments.

BETTER FINANCE already initiated the debate on *value for money* for retail investment products in November 2019, when it released the joint BETTER FINANCE-CFA Institute report on *Sustainable Value for Money*.¹² The report, gathering the views of investment professionals and retail investors, found, among others, that the duty of care (*to act in the best interests of clients*) should be mandatory for finance professionals and that consumers should be presented with simple and standardised information on cost and past performance.

Moreover, an earlier (2016) report by the CFA Institute found that retail investors have high expectations for finance professionals to generate similar or better returns than those of the benchmark, and that the charges and fees paid must reflect the value of the relationship, but with a level of satisfaction much lower in both regards.¹³

In 2021, the European Insurance and Occupational Pensions Authority (EIOPA) launched a public consultation aimed at gathering stakeholders' views on the proposed framework to assess value for

¹¹ See BETTER FINANCE's Press Release of 29 November 2017 “BETTER FINANCE Applauds EU Proposal for a Pan-European Personal Pension (PEPP) to Defuse the Ticking Pensions Time Bomb”, available at: <https://betterfinance.eu/wp-content/uploads/publications/PR-PEPP-INITIATIVE-19072017-01.pdf>.

¹² BETTER FINANCE-CFA Institute Report, *Sustainable Value for Money* (2019), p. 6, available at: https://betterfinance.eu/wp-content/uploads/BETTER-FINANCE-CFA-Institute-Report-on-SUSTAINABLE-VALUE-FOR-MONEY-201119_correct.pdf.

¹³ CFA Institute, *From Trust to Loyalty: A Global Survey of What Investors Want*, (2016), p. 14., available at: <https://www.cfainstitute.org/-/media/documents/survey/from-trust-to-loyalty.ashx>.



money for unit-linked insurance-based investment products.¹⁴ According to EIOPA, value for money would mean that *“the costs and charges are proportionate to the benefits (i.e., investment performance, guarantees, coverage and services) to the identified target market and reasonable taking into account the expenses born by providers and in comparison to other comparable retail solutions on the market”*.¹⁵ EIOPA’s definition sets a very important milestone as it builds the concept of value for money (VfM) around cost and performance but, very important, not in a vacuum: what retail investors pay for their investments must be comparably better compensated through returns and other product features than other options on the market. On this occasion, BETTER FINANCE put forward several proposals to improve on EIOPA’s definition, namely:

- while comparability with *“other solutions on the market”* is a step in the right direction, in many cases the entire peer-group of a product may be poorly performing – as is already the case – which may still leave investors with undesirable outcomes; thus, BETTER FINANCE proposed to replace *“other solutions on the market”* with the market index benchmark, i.e., the underlying investments;
- a product’s purpose (objective and investment policy) must be aligned with the concept of value for money;
- the products’ costs must be reviewed regularly.

At the same time, inspiration can also be drawn from the practice of the UK Financial Conduct Authority (FCA), which spearheaded (and continues to) retail investor protection in Europe. To begin with, the UK was the first country in Europe to ban commissions, kickbacks, retrocessions (collectively, *“inducements”*) for retail investment services and products. Besides creating a conflict of interests, inducements also increase the cost of investing, which further erodes net returns.¹⁶

Second, the UK FCA issued a handbook (guidance) for fund managers on how to evaluate and report to clients the value their investment services deliver for the money they are paid. The guidance highlights that fund managers should assess the value of services in light of costs (in general and comparing classes of units), comparable market rates, the quality of the service (also in comparison

¹⁴ The framework takes the form of a supervisory convergence mechanism under the tools of EIOPA and it would be ultimately addressed to national insurance supervisors when evaluating the provision of insurance-based investment products to retail investors.

¹⁵ See the EIOPA Consultation Paper on Addressing Value for Money risk in the European unit-linked market, available at: https://www.eiopa.europa.eu/document-library/consultation/consultation-framework-address-value-money-risk-european-unit-linked_en.

¹⁶ See the BETTER FINANCE Report on the Correlation between Cost and Performance in eu Equity Retail Funds, where we analysed active funds’ ability to outperform the market and the impact of fees on mutual fund performance, finding that *“the more you pay, the less you get”* - <https://betterfinance.eu/wp-content/uploads/BETTER1.pdf>. See also the ESMA Annual Statistical Report Cost and Performance (latest the 2021 edition), highlighting that passive equity funds and UCITS ETFs (which are much cheaper) overperform the more expensive actively managed ones – https://www.esma.europa.eu/sites/default/files/library/esma_50-165-1710_asr_performance_and_costs_of_eu_retail_investment_products.pdf; see also the ESMA Annual Statistical Report on Cost and Performance of 2020, highlighting that more expensive, actively managed funds impact returns and underperform not only their passive and index-tracking peers, but also the benchmark - to passive and ETFs UCITS, ultimately impacting performance" - https://www.esma.europa.eu/sites/default/files/library/esma50-165-1106-asr-performance_and_costs.pdf.



with other services), and performance. The performance must be “*considered over an appropriate timescale having regard to the scheme’s investment objectives, policy and strategy*”.¹⁷

Recently, the FCA furthered their efforts in driving value for money in retail investment products by issuing a policy statement on *assessing value for money in workplace pension schemes and pathway investments*.¹⁸ The FCA highlights that managers¹⁹ of occupational pension funds must take into account three key elements in assessing whether they deliver value for money or not:

- costs and charges,
- investment performance, and
- the quality of services,

in comparison “*with other similar propositions on the market*”.

At the same time, one must also factor in *pension adequacy* when analysing the returns of retirement provision vehicles. Although there is no unified understanding of pension adequacy, a few sources can give an adequate starting point.

The European Commission builds the concept of pension adequacy (from public pensions) on three pillars: eliminating the risk of poverty in old age, smooth transition from work income to retirement income and the length of retirement.²⁰ By smooth transition, the European Commission refers to a pensions’ ability to replace the working-life income in such a way as to limit the financial impact brought about by this transition. In simpler words, an adequate pension must ensure, at the very least, that pensioners are not in a far worse position than when they were earning work income.

The European Commission also correctly noted that adequacy is achieved if individuals “*can spend a reasonable share of their lives in retirement*”.²¹

Other authors define pension adequacy as allowing individuals “*to maintain, to a reasonable degree, their standard of living after retirement*”.²² A World Bank report on adequate pension systems focused, besides the smooth transition between work-life and retirement and poverty in old age, also on smoothing consumption. In short, smoothing consumption over the lifetime of

¹⁷ See the Collective Investment Schemes sourcebook (COLL) rules that require fund managers to carry out a Value Assessment (AoV) at least annually, to report publicly on the conclusions of the AoV, and to appoint independent directors on AFM Boards - <https://www.handbook.fca.org.uk/handbook/COLL.pdf>.

¹⁸ UK Financial Conduct Authority, *Assessing Value for Money in Workplace Pension Schemes and Pathway Investments: Requirements for IGCs and GAAs* (October 2021) Policy Statement PS21/12, available at: <https://www.fca.org.uk/publication/policy/ps21-12.pdf>.

¹⁹ Independent Governance Committee (IGC) or Governance Advisory Arrangement (GAA).

²⁰ European Commission Pension Adequacy Report 2021 (Vol. I), p. 22.

²¹ Ibid.

²² Margherita Borella, Elsa Fornero, *Adequacy of Pension Systems in Europe: An Analysis Based on Comprehensive Replacement Rates* (April 2009), ENEPRI Research Report no. 68, AMI WP 9, available at: <https://www.ceps.eu/download/publication/?id=6260&pdf=1837.pdf>.



workers means that achieving an adequate level of pensions should not necessitate exaggerated savings during working life.²³

Therefore, it can be argued that pension adequacy:

- should not be achieved by “saving more and more”;
- should not be achieved by extending the work life (starting work earlier and retiring later);
- is achieved if the working income is replaced by a pension that is sufficient to ensure a smooth transition, or maintain the same lifestyle, from work-life to retirement.

Although pension adequacy is mostly aimed at statutory (public) pension systems, we believe that the growing importance of private pension savings in pension provision requires the application of the same “adequacy” standards.

Drawing inspiration from the above practices, but also from the knowledge and empirical findings of 9 editions of this report, BETTER FINANCE formulates the following definition for *Value for Money* in long-term and pension saving products.

Value for Money through design, objective, and governance

A long-term and pension savings product delivers value for money for individual, non-professional savers when:

- The investment objective is clearly defined by the provider in the key disclosures;
- Simple and clear full cost and performance disclosure is made publicly available and is comparable to those of other investment products with similar goals;
- the costs borne by savers are commensurate with the investment objective (e.g., if “active” level fees are charged, then the product must overperform the relevant investment universe over the recommended holding period) and commensurate with other comparable retail solutions on the market (e.g., sometimes index products on offer are ten times more expensive than the equivalent ETF solution);
- there are at least two independent members in the governing body of the product representing investors (can be the fund itself if it has legal personality or the product manufacturer) like in the UK (asset manager level) and in the US (fund level);
- the product’s cost and performance must be evaluated, periodically, against the investment objectives of the provider (for example for an active fund charging active level fees, it will be its benchmark or the performance of its investment universe);

²³ Robert Holzman, Richard Hinz, *Old Age Income in the 21st Century* (2005) World Bank, available at: <https://openknowledge.worldbank.org/bitstream/handle/10986/7336/32672.pdf?sequence=1&isAllowed=y>.



The services provided in relation to the distribution and management of a product that delivers Value for Money should encompass the following:

- the management or governing body should report annually and in a simple and concise manner on how the product delivered Value for Money for its beneficiaries;

SUPERVISION

- supervisory authorities should conduct annual assessments of Value for Money reporting;
- EU supervisory authorities (EIOPA) should use their product intervention powers which should also cover value for money issues.



Pension Savings: The Real Return

2021 Edition

General Report

I. INTRODUCTION

In June 2013, BETTER FINANCE published a research report entitled "[Private Pensions: The Real Return](#)"²⁴ which evaluated the return of private pension products after charges, after inflation ("real" returns) and – where possible – after taxation, in Denmark, France and Spain.

In September 2014, BETTER FINANCE published the second edition of the "[Pension Savings: The Real Return](#)"²⁵ report, which included data updates for the three initial countries covered and new in-depth evaluations of pension savings for five new countries: Belgium, Germany, Italy, Poland and the United Kingdom.

The following editions added 10 more countries to the report and updated the figures for those already included. This year's edition (the ninth in a row) expands the geographic scope once again to include Croatia.

The actual performance of this market is 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 data on real net performances. Since a comprehensive approach to provide this indispensable information to savers is not yet provided by public authorities or other independent bodies, this report aims to improve transparency and comparability on the real returns of long-term and pension savings in Europe. This is in line with the European Commission's current "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 the ESAs are undertaking in the area of personal pension products with respect to past performance and cost comparison.

Indeed, apart from the OECD's (the Organisation for Economic Co-operation and Development) report on pensions and EIOPA's (European Insurance and Occupational Pension's Authority) reports on cost and performance, which covers a part of the private pensions market, the contributors to this research report could not find any other more complete or more recent published

²⁴ Link for the print version available here:

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

²⁵ Link for the print version available here: http://www.oee.fr/files/betterfinance_pensions_report_2014.pdf.



comprehensive series of net real pension savings returns for such a wide coverage of EU countries and the UK.

The data reported by the OECD²⁶ are unfortunately quite incomplete:

- At the time of writing, the most recent OECD publication on *pension funds*' returns, "Pension Funds in Figures 2021", provides only 1-year preliminary data (for 2020) on the real returns of *pension funds* in selected OECD and non-OECD countries;²⁷
- The OECD "Pension Markets in Focus 2020" covers 15-year returns maximum (until 2019) only for *pension funds*.²⁸
- Although the OECD reports 5-year returns for 23 EU countries, it drops to 16 for 10-year horizons and to 11 for 15-year horizons, ending in 2019;
- A part of occupational pension products, and most - if not all - individual pension products are missing as well, as OECD performance data include only "pension funds" stricto sensu, and exclude all "*pension insurance contracts and funds managed as part of financial institutions (often banks or investment companies), such as the Individual Retirement Accounts (IRAs) in the United States*";
- It is questionable that the OECD was able to capture all expenses borne by pension savers - entry fees for example - because the OECD relies mostly on reporting by national authorities and, typically, this is not something covered by them;
- Finally, OECD figures are all before taxes, except for Italy.

EIOPA's Annual Report on Cost and Performance of 2021 covers only 57% of the unit-linked insurances market and 62% of the profit-participation one, and the personal pensions (insurance-based) part covers only a few (210) products from 14 jurisdictions in the EU. Moreover, and unfortunately, the cost data in EIOPA's report is the Reduction-in-Yield from the PRIIPs KID and only covers the previous 5 years.

In comparison, the present report documents a principal component of, and reason for, the generalised level of distrust of EU citizens in capital markets, namely the frequent poor performance of private pension products, once inflation, charges and (when possible) taxes are deducted from nominal returns, when compared to the relevant capital market benchmarks.

Totalling 17 EU Member States under review (Austria, Belgium, Bulgaria, Croatia, Denmark, Estonia, France, Germany, Italy, Latvia, Lithuania, Poland, Romania, Slovakia, Spain Sweden and The Netherlands), the BETTER FINANCE research now covers 87% of the EU27 population.²⁹ It also

²⁶ Namely the OECD "Pension Markets in Focus 2017" (1, 5 and 10 year data), and the subsequent editions (2018, 2019, 2020), available at: <https://www.oecd.org/pensions/private-pensions/pensionmarketsinfocus.htm>.

²⁷ <https://www.oecd.org/daf/fin/private-pensions/Pension-Funds-in-Figures-2021.pdf>.

²⁸ <https://www.oecd.org/daf/fin/private-pensions/Pension-Markets-in-Focus-2020.pdf>.

²⁹ As of January 1st, 2020 – Eurostat, [demo_gindl] <http://appsso.eurostat.ec.europa.eu/nui/show.do>.



extends the period of time covered in order to now measure performance over the 21-year period ranging from 2000 to 2020, in as far as data was available.

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.

The net real return³⁰ 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;
- 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).

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).

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

This report shows that it is not an impossible, albeit 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 2020 (2021 edition), we find that **the availability and quality of 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 on 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

³⁰ 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.



longer available since 2018; in the UK, the survey conducted by the Department for Statistics has been discontinued and information on the British pension funds stopped at 2017;

- **Late information**: at the time of printing, still a lot of 2020 return data have not been released by the national trade organisations or other providers. OECD has published preliminary data for December 2020, but on a limited number of jurisdictions and only for pension funds; however, considering that, in many countries, pension funds are not the most popular vehicle, this constitutes a large information gap.
- **Unchecked information**: 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.

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).

Moreover, savvy retail savers and EU public authorities must rely on private databases (and divergent methodologies) to learn about some of the costs and performances of “retail” saving products. This is because the PRIIPs Key Information Document (KID) eliminated pre-contractual 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.

How to achieve pension adequacy?

Public pension authorities typically stress two requisites for pension savings 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”*.³¹

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).

³¹ World Economic Forum White Paper: ‘We’ll live to 100 – How can we afford it?’ May 2017



A simple example will illustrate why saving “*more and for longer periods*” is not sufficient, and too often even detrimental.

Assuming no inflation, saving 10% of activity income for 30 years (as recommended by Public Authorities, 25-year life expectancy at retirement, gross of fees and taxes) 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%

© BETTER FINANCE, 2018

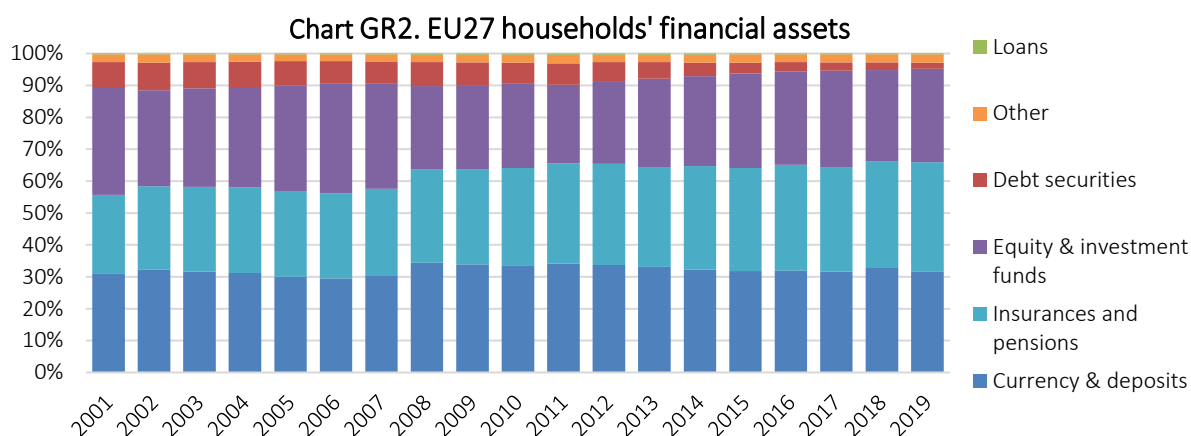
To achieve *pension adequacy*, retirement benefits altogether (State and private pensions) should amount to at least 70%-80% of late working life gross salary.

Nevertheless, this is harder and harder to achieve due to ageing populations, higher pension contributions, longer life expectancy, higher discounting rates etc.

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.

Most pension products recently improved but underperformed

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).



Source: BETTER FINANCE based on Eurostat data; 2020 data not yet available

Our research findings show that most long-term and pension savings products did not, on average, return anything close to those of capital markets, and in too many cases even destroying the real value for European pension savers (i.e., provided a negative return after inflation).

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 since 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 GR4 and Graph GR5 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 GR4. Real case of a Belgian life insurance (branch 23)

Capital markets vs. Belgian individual pension insurance 2000-2020 performance

Capital markets (benchmark index*) performance

Nominal performance	275%
Real performance (before tax)	186%

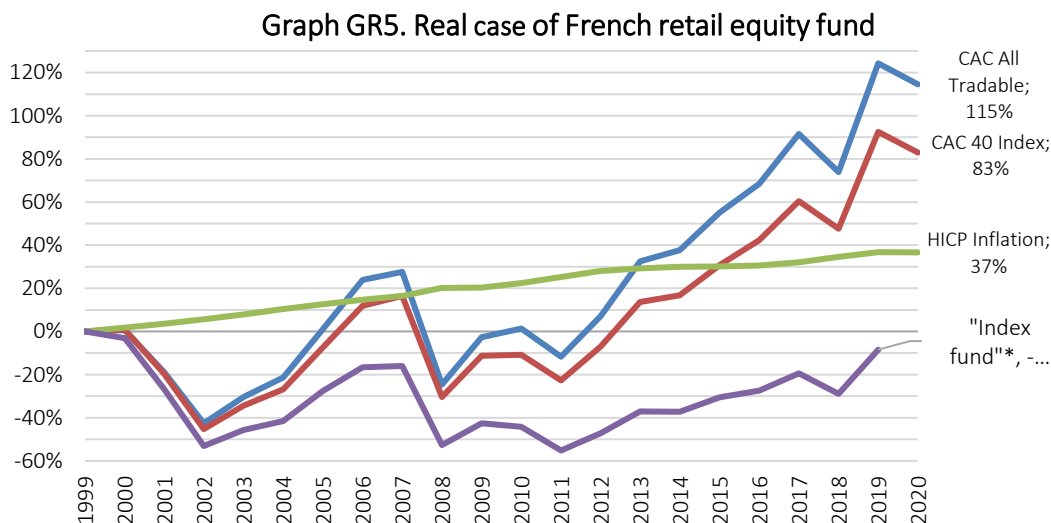
Pension insurance performance (same benchmark)

Nominal performance	82%
Real performance (before tax)	23%

*Source: BETTER FINANCE own computations based on Morningstar public website; *Benchmark is composed of 50% bonds (LP06TREU) and 50% Barclay's Pan-European Aggregate Bond Index + 50% FTSE WORLD TGR*



The real case of Graph GR5 illustrates a unit-linked life insurance product (Pillar III), in Belgium. The pension product's nominal return amounted to less than a third of its corresponding capital market benchmark's return.



*Source: BETTER FINANCE research, fund manager; * 2000-2003 simulated*

The real case above illustrates an investment fund domiciled in France, a so-called retail CAC 40 “index” fund³². The fund actually underperformed the relevant equity index by 101.4 p.p. after 20 years of existence (loss of -8.4% instead of a +83% profit), 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 “index-tracking” one, and that no warning is to be found on the Key Information Document (KIID) of the fund. Unfortunately, the index fund has been sold to another manager and the 2020 performance is no longer relevant.

European Pension returns outlook

The overall mid-term outlook for the adequacy of European pension savings in 2021 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 last 20 years (as we are already seeing stagnation or even signs of a downward trend), due to the continuous fall of interest rates, currently at rock-bottom levels; moreover, the global health crisis has already destroyed the record 2019 capital market returns;

³² Wrapped in an insurance contract as suggested by the distributor.



- b) The negative impact of this foreseeable trend in bond returns on pensions' returns will be reinforced by a higher proportion of bonds being taken up in pension products' portfolios in recent years; this is all the more relevant in light of the monetary policy response to the health-generated recession.
- c) The transparency of cost disclosures is not improving.
- d) While it seemed unlikely that inflation – just like interest rates – would turn into deflation, and the consequences of the “non-conventional” monetary policies of central banks on possible market “bubbles” are still uncharted, currently inflation (with its known devastating impact on the purchasing power of pension income) is surging, hitting record high after record high.
- e) Taxes on long-term and pension savings do not show any significant downward trend either.

The pan-European Personal Pension (PEPP) product

In an attempt to revitalise voluntary pension savings, the EU engaged in a project to create an EU quality label for personal retirement products, mainly to enable cross-border workers to save simply and efficiently for retirement. Named the pan-European Personal Pension product (PEPP), it is designed as a voluntary/personal pension product (pillar III), and should be:

- portable, allowing the PEPP saver to move across Europe and either continue contributing to his PEPP or switch to a new national sub-account without fees;
- simple, transparent and cost-efficient, embedding proper long-term risk-mitigation techniques; and
- benefiting of tax-incentives in a harmonised manner.

The last two objectives have not been attained – yet. First, taxation is still the sovereign competence of EU Member States and found strong opposition from national Governments, although the Commission and European Parliament have asked or recommended it.³³

Second, EIOPA allowed insurance-based investment products (IBIPs) manufacturers to charge the cost of guarantees separately from the “all inclusive” 1% cap for the basic PEPP.³⁴ What is more, is that the capital protection is a “scam” enshrined by EU law. The fact that EU savers would be informed that their capital (meaning accumulated contributions) would be protected, but only after the deduction of fees and without taking into account inflation, is highly misleading.³⁵

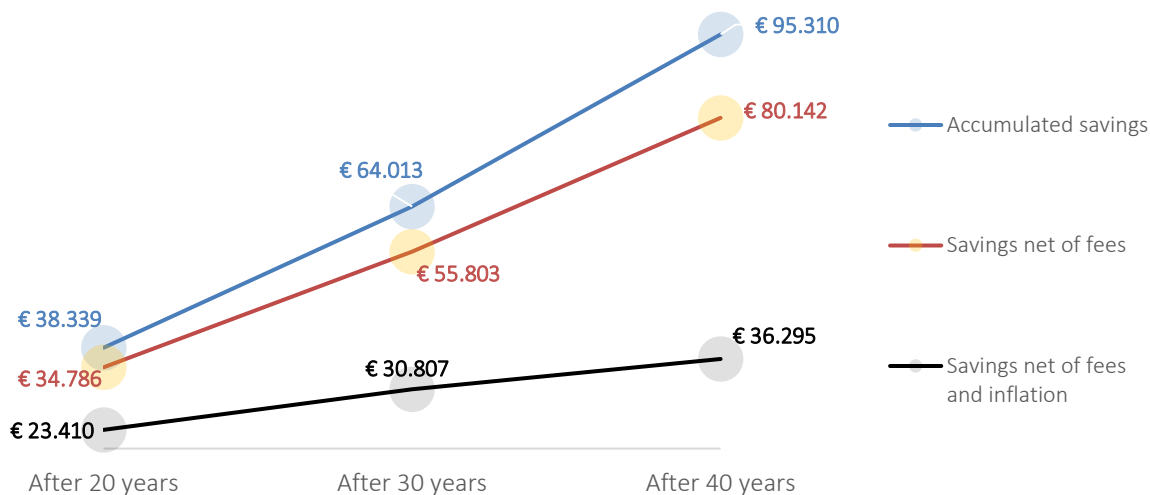
³³ Most recently, the European Parliament's Economic and Monetary Affairs' (ECON) own initiative report on the Further Development of the Capital Markets Union (CMU) does contain a resolution to incentivise and harmonise PEPP tax treatments across the EU; however, at the time of writing, the resolution was not yet final.

³⁴ See EIOPA Final Regulatory Technical Standards (RTS) supplementing Regulation (EU) 2019/1238 on the PEPP: https://www.eiopa.europa.eu/sites/default/files/publications/eiopa-20-500_pepp_draft_rtss.pdf.

³⁵ See BETTER FINANCE YouTube Video on the “PEPP Capital Protection SCAM”.



Graph GR7. Nominal, net and real capital protection



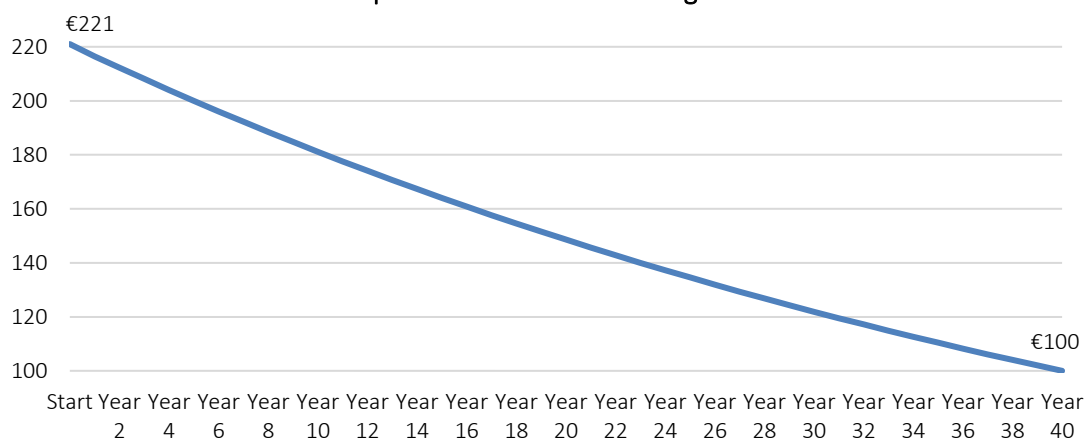
Source: BETTER FINANCE PEPP Level 2 position paper

Pension products have the longest investment horizon, usually until retirement age, which should imply 35 to 40 years of investments. The cumulative effect of inflation, assuming a modest inflation rate, over 40 years would decrease the value of savings by 56%.

What is a “ nominal rate ” of return?	What is a “ real rate ” of return?
<p>A <i>nominal</i> value and rate represent the actual amount of money (or mathematical result) of an investment. <i>Nominal returns</i> or profits in <i>nominal terms</i> designate the current entitlement from an investment at a certain point in time.</p> <p>E.g.: A €100 investment that increase by a quarter will have a nominal value of €125 (nominal profit of €25) or a nominal rate of return of 25%.</p> <p>In finance, rates are mostly expressed in <i>nominal</i> and, usually, <i>gross</i> terms. This shows the pure profit generated by an investment before fees, commissions, taxes are deducted and before inflation is adjusted for.</p> <p>Nominal returns can be recalculated into real returns (see right-hand side) by adjusting for inflation.</p>	<p>The real rate is a nominal rate adjusted by inflation. The real return is a “down to earth” indicator because it factors in the practicality (<i>reality</i>) of actually using the money:</p> <ul style="list-style-type: none"> • If inflation has been positive, then the <i>real value</i> of money will be smaller than the <i>nominal value</i>. • If inflation has been negative, then the <i>real value</i> of money will be higher than the <i>nominal one</i>. <p>This is because inflation (or deflation) shows how many goods or services one can buy with the same amount of money at different points in time. Economists call it the <i>purchasing power</i> and it calculates whether the same €10 bill earned in 2010 (for instance) can be exchanged for less, the same, or more of the same goods in 2020 (for instance).</p>



Graph GR8. Real value of savings



Source: BETTER FINANCE PEPP Level 2 position paper

BETTER FINANCE highlights and warns about the “money illusion” and how detrimental it is to consider pension savings in nominal terms rather than in **real** terms, i.e., adjusting for inflation.

II. COUNTRY PROFILES

This second part onward analyses each country profile available in this study. Tables GR9 (A and B) include some key indicators of the pension systems in the countries under review in this research report. These indicators, explained below, are representative of the sustainability of a pension system, or otherwise the pressure on State (public) pensions. Our aim is to highlight the importance of additional private pension savings for pension adequacy.

What is old-age dependency ratio?

It is 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:

- when the ratio is low (e.g., Slovakia with 25% or 1 pensioner to 4 workers), it means that the pressure on the state pension is low;
- when the ratio is high (e.g., Italy with 37% or 1 pensioner to less than 3 workers), it means that the burden on PAYG schemes is high, and it can be alleviated through private pension sources.

What is population ageing trend?

An ageing population means that the number of retirees increases relative to the number of workers. This indicator refers to public (PAYG) pensions.

The effect is that the same pension contributions need to pay for a higher number of pensioners, which can make it difficult for the state pension to ensure an adequate level of retirement income stream.

What is the projected old-age dependency ratio?

It shows how the number of pensioners to working people will evolve in time.

If the old-age dependency ratio is now, on average, 1-to-3, by 2050 this level will be for most countries in this Report above 50%. In other words, every state pension will depend on the level of contributions of almost two working-age individuals.



What is the net equity of households?

It represents the value of technical (mathematical) provisions insurance and pension fund providers hold to pay future pension liabilities (entitlements of savers). This indicator is expressed both in nominal terms (in € billion) and as a percentage of the GDP for 2019. Therefore:

- a high value-to-GDP rate of *net equity of households* reflects well established privately funded systems, indicating a lower dependency on state pensions;
- a low value-to-GDP shows either that the private system is relatively new (as in Romania or Bulgaria) or that households do not contribute too much to pension funds and life insurances, relying more on state pensions.

What is the aggregate replacement ratio for pensions?

It represents the ratio between 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.

Note: In the previous editions of this report, the indicator used was *net pension replacement rate* – aggregated by the OECD – which was discontinued in 2019. Thus, the research team replaced it with the *aggregate replacement ratio for pensions* computed by Eurostat.

Table GR9(A). EUROPEAN UNION (EU27) at the end of 2019, except otherwise provided

Net equity of households in pension funds reserves (in € bln)	4,232	Net equity of households in pension funds reserves as % of GDP	30.30%
Net equity of households in life insurance reserves (in € bln)	5,226	Net equity of households in life insurance reserves as % of GDP	37.40%
Active population (mil.), 2020	214.4	Old-Age dependency ratio, old (% of working population)	32.40%
Population ageing trend (2020-2050)	61%	Projected old-age dependency ratio by 2050	52%
Aggregate replacement ratio for pensions (excl. social benefits), total, 2019		57%	

Source: for both parts, BETTER FINANCE own composition based on OECD, WorldBank, Eurostat data

Table GR9(B). Country Profiles (end 2019, except otherwise provided)

Austria			
Net equity of households in pension funds reserves (in € bln)	60	Net equity of households in pension funds reserves as % of GDP	15.10 %
Net equity of households in life insurance reserves (in € bln)	83	Net equity of households in life insurance reserves as % of GDP	20.90 %
Active population (mil.), 2020	4.6	Old-Age dependency ratio, old (% of working population), 2020	28.93 %
Population ageing trend (2020-2050)	63%	Projected old-age dependency ratio by 2050	47.20 %
Aggregate replacement ratio for pensions (excl. social benefits), total, 2020			61%
Belgium			
Net equity of households in pension funds reserves (in € bn), 2020	120	Net equity of households in pension funds reserves as % of GDP, 2020	27%



Net equity of households in life insurance reserves (in € bn), 2020	204	Net equity of households in life insurance reserves as % of GDP, 2020	45.20 %
Active population (mil.) 2020	5.1	Old-Age dependency ratio, old (% of working population), 2020	30.22 %
Population ageing trend (2020-2050)	48%	Projected old-age dependency ratio by 2050	44.80 %
Aggregate replacement ratio for pensions (excl. social benefits), total, 2020			46%
Bulgaria			
Net equity of households in pension funds reserves (in € bn)	8	Net equity of households in pension funds reserves as % of GDP	13.20 %
Net equity of households in life insurance reserves (in € bn)	1	Net equity of households in life insurance reserves as % of GDP	1.30 %
Active population (mil.), 2020	3.2	Old-Age dependency ratio, old (% of working population), 2020	33.62 %
Population ageing trend (2020-2050)	64%	Projected old-age dependency ratio by 2050	55.00 %
Aggregate replacement ratio for pensions (excl. social benefits), total, 2020			34%
Croatia			
Net equity of households in pension funds reserves (in € bn)	15	Net equity of households in pension funds reserves as % of GDP	27.70 %
Net equity of households in life insurance reserves (in € bn)	3	Net equity of households in life insurance reserves as % of GDP	4.70 %
Active population (mil.), 2020	1.8	Old-Age dependency ratio, old (% of working population), 2020	33.10 %
Population ageing trend (2020-2050)	59%	Projected old-age dependency ratio by 2050	52.50 %
Aggregate replacement ratio for pensions (excl. social benefits), total, 2020			39%
Denmark			
Net equity of households in pension funds reserves (in € bn)	212	Net equity of households in pension funds reserves as % of GDP	68.00 %
Net equity of households in life insurance reserves (in € bn)	293	Net equity of households in life insurance reserves as % of GDP	93.90 %
Active population (mil.), 2020	3.0	Old-Age dependency ratio, old (% of working population), 2020	31.73 %
Population ageing trend (2020-2050)	37%	Projected old-age dependency ratio by 2050	43.40 %
Aggregate replacement ratio for pensions (excl. social benefits), total, 2019			45%
Estonia			
Net equity of households in pension funds reserves (in € bn)	5	Net equity of households in pension funds reserves as % of GDP	16.80 %



Net equity of households in life insurance reserves (in € bn)	1	Net equity of households in life insurance reserves as % of GDP	2%
Active population (mil.), 2020	0.7	Old-Age dependency ratio, old (% of working population), 2020	32.27 %
Population ageing trend (2020-2050)	52%	Projected old-age dependency ratio by 2050	49.10 %
Aggregate replacement ratio for pensions (excl. social benefits), total, 2020			43%
France			
Net equity of households in pension funds reserves (in € bn)	0	Net equity of households in pension funds reserves as % of GDP	0%
Net equity of households in life insurance reserves (in € bn)	2,084	Net equity of households in life insurance reserves as % of GDP	85.90 %
Active population (mil.), 2020	30.0	Age dependency ratio, old (% of working-age population), 2020	33.69 %
Population ageing trend (2020-2050)	46%	Projected old-age dependency ratio by 2050	49%
Aggregate replacement ratio for pensions (excl. social benefits), total, 2019			65%
Germany			
Net equity of households in pension funds reserves (in € bn)	911	Net equity of households in pension funds reserves as % of GDP	26%
Net equity of households in life insurance reserves (in € bn)	1,069	Net equity of households in life insurance reserves as % of GDP	31.00 %
Active population (mil.), 2020	43.4	Old-Age dependency ratio, old (% of working population), 2020	33.70 %
Population ageing trend (2020-2050)	43%	Projected old-age dependency ratio by 2050	48.30 %
Aggregate replacement ratio for pensions (excl. social benefits), total, 2019			44%
Italy			
Net equity of households in pension funds reserves (in € bn)	238	Net equity of households in pension funds reserves as % of GDP	13.30 %
Net equity of households in life insurance reserves (in € bn)	808	Net equity of households in life insurance reserves as % of GDP	45%
Active population (mil.), 2020	25.1	Old-Age dependency ratio, old (% of working population), 2020	36.57 %
Population ageing trend (2020-2050)	68.15 %	Projected old-age dependency ratio by 2050	62%
Aggregate replacement ratio for pensions (excl. social benefits), total, 2019			73%
Latvia			
Net equity of households in pension funds reserves (in € bn)	5	Net equity of households in pension funds reserves as % of GDP	16.00 %



Net equity of households in life insurance reserves (in € bn)	1	Net equity of households in life insurance reserves as % of GDP	2.40 %
Active population (mil.), 2020	0.98	Old-Age dependency ratio, old (% of working population), 2020	32.90 %
Population ageing trend (2020-2050)	72%	Projected old-age dependency ratio by 2050	56.70 %
Aggregate replacement ratio for pensions (excl. social benefits), total, 2019			38%
Lithuania			
Net equity of households in pension funds reserves (in € bn)	4	Net equity of households in pension funds reserves as % of GDP	8.30 %
Net equity of households in life insurance reserves (in € bn)	1	Net equity of households in life insurance reserves as % of GDP	2%
Active population (mil.), 2020	1.5	Old-Age dependency ratio, old (% of working population), 2020	32.26 %
Population ageing trend (2020-2050)	75%	Projected old-age dependency ratio by 2050	56.50 %
Aggregate replacement ratio for pensions (excl. social benefits), total, 2019			43%
Netherlands			
Net equity of households in pension funds reserves (in € bn)	1,725	Net equity of households in pension funds reserves as % of GDP*	212.9 0%
Net equity of households in life insurance reserves (in € bn)	170	Net equity of households in life insurance reserves as % of GDP*	21.00 %
Active population (mil.), 2020	9.4	Old-Age dependency ratio, old (% of working population), 2020	31%
Population ageing trend (2020-2050)	44%	Projected old-age dependency ratio by 2050	45%
Aggregate replacement ratio for pensions (excl. social benefits), total, 2020			51%
Poland			
Net equity of households in pension funds reserves (in € bn), 2020	40	Net equity of households in pension funds reserves as % of GDP, 2020	7.80 %
Net equity of households in life insurance reserves (in € bn), 2020	15	Net equity of households in life insurance reserves as % of GDP, 2020	3.00 %
Active population (mil.), 2020	18.2	Old-Age dependency ratio, old (% of working population), 2020	28.37 %
Population ageing trend (2020-2050)	84%	Projected old-age dependency ratio by 2050	52.20 %
Aggregate replacement ratio for pensions (excl. social benefits), total, 2019			60%
Romania			
Net equity of households in pension funds reserves (in € bn), 2020	16	Net equity of households in pension funds reserves as % of GDP, 2020	7.40 %



Net equity of households in life insurance reserves (in € bn), 2020	2	Net equity of households in life insurance reserves as % of GDP, 2020	0.90 %
Active population (mil.), 2020	9.0	Old-Age dependency ratio, old (% of working population), 2020	29.47 %
Population ageing trend (2020-2050)	85%	Projected old-age dependency ratio by 2050	54.50 %
Aggregate replacement ratio for pensions (excl. social benefits), total, 2020			41%
Slovakia			
Net equity of households in pension funds reserves (in € bn), 2020	13	Net equity of households in pension funds reserves as % of GDP, 2020	14%
Net equity of households in life insurance reserves (in € bn), 2020	5	Net equity of households in life insurance reserves as % of, 2020	5%
Active population (mil.), 2020	2.7	Old-Age dependency ratio, old (% of working population), 2020	24.65 %
Population ageing trend (2020-2050)	109%	Projected old-age dependency ratio by 2050	51.40 %
Aggregate replacement ratio for pensions (excl. social benefits), total, 2019			53%
Spain			
Net equity of households in pension funds reserves (in € bn), 2020	176	Net equity of households in pension funds reserves as % of GDP, 2020	16%
Net equity of households in life insurance reserves (in € bn), 2020	200	Net equity of households in life insurance reserves as % of GDP, 2020	18%
Active population (mil.), 2020	22.8	Old-Age dependency ratio, old (% of working population), 2020	30.44 %
Population ageing trend (2020-2050)	95%	Projected old-age dependency ratio by 2050	59.50 %
Aggregate replacement ratio for pensions (excl. social benefits), total, 2019			70%
Sweden			
Net equity of households in pension funds reserves (in € bn), 2020	531	Net equity of households in pension funds reserves as % of GDP, 2020	107.1 0%
Net equity of households in life insurance reserves (in € bn), 2020	116	Net equity of households in life insurance reserves as % of GDP, 2020	24%
Active population (mil.), 2020	5.5	Old-Age dependency ratio, old (% of working population), 2020	32.76 %
Population ageing trend (2020-2050)	19.04 %	Projected old-age dependency ratio by 2050	39.00 %
Aggregate replacement ratio for pensions (excl. social benefits), total, 2020			55%



United Kingdom				
Net equity of households in pension funds reserves (in € bn)	3,571	Net equity of households in pension funds reserves as % of GDP*	137.2	0%
Net equity of households in life insurance reserves (in € bn)	830	Net equity of households in life insurance reserves as % of GDP*	31.90	%
Active population (mil.), 2020	34.7	Old-Age dependency ratio, old (% of working population), 2020	29.30	%
Population ageing trend (2020-2050)	-	Projected old-age dependency ratio by 2050	-	
Aggregate replacement ratio for pensions (excl. social benefits), total, 2018				55%

Source: Eurostat; OECD; World Bank; own composition

Table GR10. Funding level of private pension systems				
Pension Funds' assets (2020)			All retirement vehicles' assets (2020)	
	% of GDP	in € mil	% of GDP	in € mil
Austria	7%	24,969	n.a.	
Belgium	9%	41,959	37%	169,071
Bulgaria	15%	8,900	15%	8,900
Croatia	35%	16,959	35%	16,959
Denmark	58%	182,588	239%	436,290
Estonia	20%	5,302	20%	5,302
France	3%	58,500	11%	254,241
Germany	8%	269,582	n.a.	
Italy	10%	161,658	13%	209,158
Latvia	2%	610	19%	5,707
Lithuania	10%	4,663	10%	4,663
Netherlands	210%	1,679,386	n.a.	
Poland	6%	32,420	6%	32,420
Romania	7%	16,041	7%	16,041
Slovak Republic	14%	13,195	14%	13,195
Spain	10%	117,359	14%	161,373
Sweden	4%	19,719	95%	468,546
United Kingdom	119%	2,641,370	n.a.	

Source: OECD, 2021



In some countries the level of accumulated assets in pension funds is almost the same as that of the total value of pension vehicles (such as in Italy, Bulgaria or Romania), in others we see that the total amount of funded retirement products is up to four times higher than the amount for pension funds (Denmark – 219% of GDP).

III. RETURN ATTRIBUTION

Pension returns drivers

This report seeks to explain the (often poor) performance of pension vehicles, especially when compared to capital market returns. The underperformance (compared to a benchmark) of most pension vehicles can be explained by several return *drivers*:

- **inflation**, which over a full contribution period (40 years) at a modest rate can erode even more than 50% of nominal returns,
- pension portfolios' **asset allocation** and **performance**,
- the **asset managers' skills** in terms of picking securities and market timing,
- the **investment charges** deducted by asset managers and other financial intermediaries, to a great extent from net real returns of private pensions,
- ultimately by the **tax** burden.

These return drivers are analysed separately in the following sections.

Inflation

As explained in the previous section, inflation is a measurement for the *purchasing power of money* over time: positive inflation rate means that the **real value** of our money decreases over time; negative inflation rate means that the **real value** of our money increases.

For several of the countries analysed in this research report, inflation rates were significant and consequently had a severe impact on returns in real terms over the periods in review. One has to keep in mind that even for those countries with moderate inflation, the compound effect over long periods, as applicable to the case of retirement savings, can lead to considerable losses in purchasing power.



Table GR11(A). Inflation in Eurozone Member States (in %)

Year	AUSTRIA	BELGIUM	ESTONIA	FRANCE	GERMANY	ITALY	LATVIA	LITHUANIA	NETHERLANDS	SLOVAKIA	SPAIN
2000	1.8%	3.0%	5.0%	1.8%	2.2%	2.7%	1.7%	1.7%	2.9%	8.4%	4.0%
2001	1.8%	1.9%	4.2%	1.5%	1.4%	2.3%	3.2%	2.0%	5.1%	6.7%	2.5%
2002	1.7%	1.3%	2.7%	2.2%	1.1%	3.0%	1.5%	-0.9%	3.2%	3.2%	4.0%
2003	1.3%	1.6%	1.2%	2.4%	1.1%	2.5%	3.6%	-1.3%	1.6%	9.4%	2.7%
2004	2.5%	2.0%	4.8%	2.2%	2.3%	2.3%	7.3%	2.8%	1.3%	5.9%	3.3%
2005	1.5%	2.8%	3.7%	1.8%	2.1%	2.0%	7.1%	3.0%	2.0%	3.8%	3.7%
2006	1.6%	2.1%	5.1%	1.7%	1.4%	2.1%	6.7%	4.6%	1.7%	3.7%	2.7%
2007	3.5%	3.1%	9.7%	2.8%	3.1%	2.8%	14.0%	8.2%	1.6%	2.5%	4.3%
2008	1.5%	2.7%	7.5%	1.2%	1.1%	2.4%	10.4%	8.5%	1.7%	3.5%	1.4%
2009	1.1%	0.3%	-1.9%	1.0%	0.9%	1.1%	-1.4%	1.2%	0.7%	0.0%	0.9%
2010	2.2%	3.4%	5.4%	2.0%	1.8%	2.1%	2.4%	3.6%	1.8%	1.3%	2.9%
2011	3.4%	3.2%	4.1%	2.7%	2.2%	3.7%	3.9%	3.5%	2.5%	4.6%	2.3%
2012	2.9%	2.1%	3.6%	1.5%	2.1%	2.6%	1.6%	2.9%	3.4%	3.4%	3.0%
2013	2.0%	1.2%	2.0%	0.8%	1.2%	0.6%	-0.4%	0.5%	1.4%	0.4%	0.3%
2014	0.8%	-0.4%	0.1%	0.1%	0.1%	0.0%	0.3%	-0.1%	-0.1%	-0.1%	-1.1%
2015	1.1%	1.5%	-0.2%	0.3%	0.2%	0.1%	0.4%	-0.2%	0.5%	-0.5%	-0.1%
2016	1.6%	2.2%	2.4%	0.8%	1.6%	0.5%	2.1%	2.0%	0.7%	0.2%	1.4%
2017	2.3%	2.1%	3.8%	1.2%	1.5%	1.0%	2.2%	3.8%	1.2%	2.0%	1.2%
2018	1.7%	2.2%	3.3%	1.9%	1.7%	1.2%	2.5%	1.8%	1.8%	1.9%	1.2%
2019	1.8%	0.9%	1.8%	1.6%	1.5%	0.5%	2.1%	2.7%	2.8%	3.2%	0.8%
2020	1.0%	0.4%	-0.9%	0.03%	-0.7%	-0.3%	-0.5%	-0.1%	0.9%	1.8%	-0.6%
AVG	1.9%	1.9%	3.2%	1.5%	1.4%	1.7%	3.3%	2.4%	1.8%	3.1%	1.9%

Source: BETTER FINANCE own composition based on Eurostat data



Table GR11(B). Inflation in non-Eurozone Member States (in %)

Year	BULGARIA	CROATIA	DENMARK	POLAND	ROMANIA	SWEDEN	UK
2000	11.3%	5.9%	2.4%	8.4%	40.7%	1.3%	0.8%
2001	4.8%	2.4%	2.0%	3.5%	30.3%	3.2%	1.1%
2002	3.8%	2.8%	2.6%	0.8%	17.8%	1.7%	1.6%
2003	5.6%	2.2%	1.2%	1.7%	14.2%	1.8%	1.3%
2004	4.0%	2.0%	1.0%	4.3%	9.3%	0.9%	1.6%
2005	7.4%	4.0%	2.3%	0.8%	8.7%	1.2%	1.9%
2006	6.1%	2.1%	1.6%	1.4%	4.9%	1.5%	3.0%
2007	11.6%	5.4%	2.4%	4.3%	6.7%	2.5%	2.1%
2008	7.2%	2.8%	2.5%	3.3%	6.4%	2.1%	3.0%
2009	1.6%	1.8%	1.1%	3.9%	4.7%	2.8%	2.9%
2010	4.4%	1.7%	2.8%	2.9%	7.9%	2.1%	3.6%
2011	2.0%	2.1%	2.4%	4.6%	3.2%	0.4%	4.3%
2012	2.8%	4.4%	1.9%	2.1%	4.6%	1.0%	2.6%
2013	-0.9%	0.5%	0.5%	0.6%	1.3%	0.4%	2.0%
2014	-2.0%	-0.1%	0.1%	-0.7%	1.0%	0.3%	0.5%
2015	-0.9%	-0.3%	0.3%	-0.4%	-0.7%	0.7%	0.2%
2016	-0.5%	0.7%	0.3%	0.9%	-0.1%	1.7%	1.6%
2017	1.8%	1.3%	0.8%	1.7%	2.6%	1.7%	2.9%
2018	2.3%	1.0%	0.7%	0.9%	3.0%	2.2%	2.1%
2019	3.1%	1.3%	0.8%	3.0%	4.0%	1.7%	1.3%
2020	0.02%	-0.3%	0.4%	3.4%	1.8%	0.6%	-
AVG	3.5%	2.1%	1.4%	2.4%	7.8%	1.5%	-

Source: BETTER FINANCE own composition based on Eurostat data

Table GR11(C). EU27 inflation

2000	2001	2002	2003	2004	2005
4.0%	3.0%	2.5%	2.2%	2.6%	2.4%
2006	2007	2008	2009	2010	2011
2.1%	3.4%	2.0%	1.3%	2.5%	2.8%
2012	2013	2014	2015	2016	2017
2.3%	0.8%	-0.2%	0.2%	1.1%	1.4%
2018	2019	2020	AVG		
1.6%	1.6%	0.2%	1.9%		

Source: Eurostat HICP monthly index (2015=100, prc_hicp_aind), annual averages (AAVG) are calculated by BETTER FINANCE.



Why is inflation calculated per country/region?

Inflation is a relative term and depends on the "area" where one lives.

e.g.: €10 earned in 2010 will be worth more in 2020 in Germany than in Austria.

In 2020, we can observe deflation (negative inflation) in several countries, which means that the purchasing power of the currency increased over the course of the year. This is the case for Estonia, Germany, Italy, Latvia, Lithuania, Spain, and Croatia. With a few exceptions, the other countries in scope have recorded very low inflation rates. This can be attributed to decreasing prices of consumer goods and services, but also to lower economic output and pressure on the labour market. From a central bank's point of view, deflation can be alarming as it reveals an undesired state of the economy. At the same time, deflation slightly increases real returns. In real terms, a 5% nominal return in 2020 actually means 5.53% given a deflation of -0.5%.

Aiming to maintain inflation rates below, but close to, 2%, the European Central Bank undertook considerable monetary policy efforts to bring the rates back to the desired levels.

Table GR12. Public sector deficit and debt (in %)

	Public Sector Deficit as a % of GDP						Public Debt as a % of GDP					
	2015	2016	2017	2018	2019	2020	2015	2016	2017	2018	2019	2020
EU	-1.9	-1.4	-0.8	-0.4	-0.5	-6.9	84.8	84.0	81.5	79.5	77.5	90.7
Austria	-1.0	-1.5	-0.8	0.2	0.6	-8.9	84.9	82.8	78.5	74	70.5	83.9
Belgium	-2.4	-2.4	-0.7	-0.8	-1.9	-9.4	105.2	105.0	102.0	99.8	98.1	114.1
Bulgaria	-1.7	0.2	1.2	2.0	2.1	-3.4	26.0	29.3	25.3	22.3	20.2	25
Croatia	-3.5	-0.9	0.8	0.2	0.3	-7.4	84.3	80.8	77.6	74.3	72.8	88.7
Denmark	-1.2	0.1	1.8	0.7	3.8	-1.1	39.8	37.2	35.9	34	33.3	42.2
Estonia	0.1	-0.4	-0.7	-0.6	0.1	-4.9	10.0	9.9	9.1	8.2	8.4	18.2
France	-3.6	-3.6	-3.0	-2.3	-3.1	-9.2	95.6	98.0	98.3	98	97.6	115.7
Germany	1.0	1.2	1.4	1.8	1.5	-4.2	72.3	69.3	65.1	61.8	59.7	69.8
Italy	-2.6	-2.4	-2.4	-2.2	-1.6	-9.5	135.3	134.8	134.1	134.4	134.6	155.8
Latvia	-1.4	0.2	-0.8	-0.8	-0.6	-4.5	37.1	40.4	39.0	37.1	37	43.5
Lithuania	-0.3	0.2	0.5	0.6	0.5	-7.4	42.5	39.7	39.1	33.7	35.9	47.3
Netherlands	-2.1	0.0	1.3	1.4	1.8	-4.3	64.7	61.9	56.9	52.4	48.7	54.5
Poland	-2.6	-2.4	-1.5	-0.2	-0.7	-7	51.3	54.2	50.6	48.8	45.6	57.5
Romania	-0.6	-2.6	-2.6	-2.9	-4.4	-9.2	37.8	37.3	35.1	34.7	35.3	47.3
Slovakia	-2.7	-2.6	-1.0	-1.0	-1.3	-6.2	51.9	52.4	51.5	49.6	48.2	60.6
Spain	-5.2	-4.3	-3.0	-2.5	-2.9	-11	99.3	99.2	98.6	97.4	95.5	120
Sweden	0.0	1.0	1.4	0.8	0.6	-3.1	43.7	42.3	40.7	38.9	35	39.9
UK	-4.6	-3.3	-2.5	-2.2	-2.1	-	86.9	86.8	86.2	85.7	85.4	-

Source: Eurostat: (1) Public Sector Deficit as a % of GDP; (2) Public Debt as a % GDP

In 2020, public spending on healthcare and economic support (due to the COVID-lockdowns) have put strains on state coffers. All countries analysed have recorded deficits, ranging from 1.1% of GDP (Denmark) to 11% of GDP (Spain). As such, public debt has increased everywhere: at EU27 level,



public debt increased by 13.2 p.p., and in the countries analysed the public debt increase ranges between 4.8 p.p. (Bulgaria) to 24.5 p.p. (Spain).

We recall the two criteria concerning public deficit and debt deriving from the Maastricht Treaty, i.e., EU countries should not exceed:

- “-3% ratio of the planned or actual government deficit to gross domestic product at market prices”,³⁶
- “60% for the ratio of government debt to gross domestic product at market prices”.³⁷

In this light, more than half of the countries analysed are still under the 60% threshold and 16 out of the 17 have exceeded the 3% deficit threshold. Data for the UK is no longer available from Eurostat, so it was excluded from the analysis.

Asset Allocation

There are striking differences between the asset allocation of pension funds across countries and products.

Equities dominate only in Poland and Lithuania, being the only two jurisdictions where pension funds are more than 50% invested in shares. Bonds are the main portfolio component in 8 out of 10 countries, and at least 40% in another 6 countries. In the UK, Germany, Spain and Slovakia at least a third of the capital is invested in collective investment scheme units or other instruments; cash and deposits are marginally used, mostly for short-term liquidity purposes.

The average portfolio composition remained almost constant, with a slight shift from liquidity and bonds to collective investment schemes (11% in 2015 to 15% in 2020) across the jurisdictions analysed in this report.

The decrease in government bond interest rates since 1999 have had a positive impact on outstanding assets, especially in countries where this asset class dominates, but it reduces the capacity to provide a good remuneration on new investment flows. The downside, starting in 2019, is that yields for sovereign bonds have started to turn negative.

In this edition we also continue to observe striking differences between pension funds’ asset allocations across European countries as shown by the following table.³⁸

³⁶ Article 1 of the Protocol No. 12 on the excessive deficit procedure of the Treaty on European Union, OJ C 115, 9.5.2008, p. 279–280.

³⁷ Ibid.

³⁸ We could not find any available data for France.



Table GR13(A). Pension funds' asset allocation, [2020, in % of total assets]

Country	Year	Cash and deposits	Bills and bonds	Equities	Other
Austria	2005	3%	53%	37%	4%
	2016	9%	46%	33%	12%
	2017	7%	44%	35%	13%
	2018	8%	45%	33%	14%
	2019	7%	43%	34%	16%
	2020	2%	32%	29%	37%
Belgium	2005	2%	6%	9%	78%
	2010	7%	43%	38%	13%
	2015	4%	44%	42%	10%
	2016	N/A	N/A	N/A	N/A
	2017	5%	45%	43%	7%
	2018	6%	47%	41%	5%
	2019	2%	40%	42%	15%
	2020	3%	46%	38%	13%
Bulgaria	2015	12%	65%	19%	4%
	2016	16%	63%	17%	4%
	2017	6%	61%	17%	16%
	2018	9%	57%	17%	17%
	2019	8%	66%	12%	14%
	2020	8%	61%	12%	19%
Croatia	2015	3%	73%	24%	0%
	2016	5%	72%	22%	1%
	2017	4%	73%	22%	0%
	2018	6%	72%	21%	1%
	2019	2%	72%	25%	1%
	2020	4%	69%	26%	1%
Denmark	2005	1%	50%	26%	21%
	2010	3%	42%	5%	50%
	2015	0%	63%	18%	19%
	2016	0%	62%	17%	21%
	2017	1%	59%	19%	21%
	2018	0%	59%	21%	19%
	2019	0%	59%	21%	19%
	2020	0%	52%	21%	27%
Estonia	2010	9%	17%	4%	69%
	2015	20%	48%	31%	0%
	2016	23%	43%	34%	0%
	2017	4%	59%	36%	0%
	2018	3%	62%	34%	1%
	2019	4%	56%	40%	0%
	2020	3%	48%	49%	0%
France	2020	2%	68%	12%	18%



Germany	2005	3%	31%	35%	2%
	2010	2%	46%	5%	46%
	2015	4%	54%	5%	38%
	2016	4%	51%	6%	39%
	2017	4%	50%	6%	40%
	2018	4%	49%	5%	41%
	2019	4%	47%	6%	43%
	2020	3%	46%	7%	44%
Italy	2005	5%	37%	10%	17%
	2010	6%	47%	11%	36%
	2015	4%	50%	20%	27%
	2016	4%	49%	20%	26%
	2017	6%	45%	21%	28%
	2018	6%	45%	19%	30%
	2019	6%	45%	21%	28%
	2020	6%	44%	23%	28%
Latvia	2015	19%	46%	35%	1%
	2016	12%	61%	23%	4%
	2017	10%	57%	29%	4%
	2018	6%	42%	51%	1%
	2019	8%	59%	31%	2%
	2020	10%	56%	31%	3%
Lithuania	2015	9%	51%	38%	2%
	2016	9%	46%	41%	1%
	2017	5%	46%	46%	2%
	2018	7%	47%	44%	2%
	2019	2%	20%	75%	3%
	2020	2%	21%	74%	3%
NL*	2005	2%	41%	46%	4%
	2010	4%	56%	20%	20%
	2015	3%	46%	38%	13%
	2016	2%	45%	39%	14%
	2017	3%	48%	46%	2%
	2018	3%	51%	44%	2%
	2019	3%	50%	46%	0%
	2020	3%	52%	45%	0%
Poland	2005	4%	63%	32%	0%
	2010	3%	59%	36%	1%
	2015	7%	10%	82%	0%
	2016	7%	9%	83%	1%
	2017	6%	9%	85%	0%
	2018	6%	9%	85%	0%
	2019	7%	10%	82%	0%
	2020	4%	11%	85%	0%



Romania	2010	7%	80%	12%	0%
	2015	5%	73%	22%	0%
	2016	7%	71%	22%	0%
	2017	9%	68%	23%	0%
	2018	8%	72%	20%	0%
	2019	4%	71%	25%	0%
	2020	1%	74%	25%	0%
Slovakia	2005	78%	11%	7%	4%
	2010	27%	71%	1%	0%
	2015	17%	78%	2%	2%
	2016	12%	80%	3%	5%
	2017	12%	58%	2%	28%
	2018	11%	58%	2%	28%
	2019	11%	57%	3%	30%
Spain	2020	5%	59%	3%	33%
	2005	5%	58%	19%	18%
	2010	19%	58%	12%	11%
	2015	17%	62%	11%	9%
	2016	15%	64%	14%	7%
	2017	11%	47%	13%	28%
	2018	10%	48%	13%	29%
Sweden	2019	8%	44%	14%	33%
	2020	9%	44%	14%	34%
	2005	1%	58%	34%	7%
	2010	N/A	N/A	N/A	N/A
	2015	2%	67%	18%	13%
	2016	N/A	N/A	N/A	N/A
	2017	N/A	N/A	N/A	N/A
UK	2018	N/A	N/A	N/A	N/A
	2019	2%	45%	24%	29%
	2020	2%	42%	26%	30%
	2005	3%	19%	39%	27%
	2010	N/A	N/A	N/A	N/A
	2015	2%	34%	20%	43%
	2016	4%	43%	22%	31%
AVG 2020	2017	2%	28%	13%	57%
	2018	2%	30%	9%	59%
	2019	2%	30%	9%	59%
	2020	2%	45%	26%	27%
AVG 2020		4%	48%	30%	18%

Sources: OECD Pension Funds in Figures Preliminary Data 2021;



The asset allocation data in this table include both direct investments in cash and deposits, bills and bonds (both sovereign and corporate), equities and indirect investments through collective investment schemes (investment funds such as UCITS³⁹ or AIF⁴⁰) and other assets, such as loans, land and buildings, real estate investment trusts (REITS), hedge funds, derivatives, commodities and precious metals, insurance contracts, money market instruments, private equity funds and other structured (unallocated) products. Data for the asset allocation in collective investment schemes is not available for all jurisdictions and all years.

On average in 2020 as well, most pension funds employed a conservative/defensive investment strategy, investing more than half (51%) of the capital in debt securities (bills and bonds). Equities are the second largest position with an average of 28%.

However, there are significant deviations from the average:

- In countries such as Germany, Spain or Slovakia, the equity allocation is of small significance (7%, 14%, and 3%);
- In countries such as Poland and Lithuania, most assets are invested in equity (74% and 85%).

Table GR13(B). Evolution of average asset allocation in pension funds				
	Cash & Deposits	Bills & bonds	Equity	Other (incl. CIS)
2015	8%	54%	27%	11%
2016	9%	54%	26%	11%
2017	6%	50%	29%	15%
2018	6%	50%	29%	16%
2019	5%	48%	30%	17%
2020	4%	48%	30%	18%
2015-2020	6%	51%	28%	15%

Source: own computations based on Table GR13(A).

So far, we were not able to obtain information on ESG-factored investments to correspond to the current reporting standards.

Asset performance

Concerning the recent **positive capital markets returns (1999 – 2020)**, equity markets managed to rebound well above the February 2020 level by the time of writing this report. Since the beginning of the 21st century, capital market returns have been positive (moderately for equities while strongly for bonds):

³⁹ “UCITS” stands for Undertakings for Collective Investment in Transferable Securities, which is the most common legal form mutual funds in the EU take, in particular because of the *passporting rights*.

⁴⁰ “AIFs” stand for Alternative Investment Funds, which are all the non-UCITS funds.



- Over the last 20 years, on a nominal basis (before taking inflation into account), world stock markets have grown in value (in €) by 151%,⁴¹ where the US stock market has grown by 176%⁴² and the European ones by 74% in the last 21 years;⁴³
- On a real basis (net of inflation), European stock markets (MSCI Europe NR) returned to positive cumulated performances by 2013, and once again reached significant levels by 2017 (+32%) and reached +17.4% in 2019.

Equity markets

Equity returns are more volatile in the short-term and hence need to be observed with a long-term perspective in mind. The real return calculations in this report date back to 31/12/1999 at the earliest, so we take a look at how equity markets performed over that same period. Overall, the 21st century began with one of the most severe bear markets in history and faced, in conjunction with the downward cycle of 2007-2008, two longer-lasting upward cycles from 2003-2006 and 2009-2019. Data in the table below is calculated based on gross performances (*nominal return*), then adjusted by inflation (*real return*).

Country	Period	Nominal Return	Real return
Austria	(2000-2020)	3.2%	1.25%
Belgium	(2000-2020)	0.44%	-1.60%
Bulgaria	(2006-2020)	-9.10%	-3.61%
Croatia	(2003-2020)	5.24%	2.75%
Denmark	(2000-2020)	10.78%	9.20%
Estonia	(2000-2020)	11.95%	7.90%
Europe (EU27)	(2000-2020)	0.25%	-1.74%
France	(2000-2020)	-0.30%	-1.85%
Germany	(2000-2020)	3.29%	1.84%
Italy	(2000-2020)	-3.05%	-4.89%
Latvia	(2001-2020)	10.45%	6.12%
Lithuania	(2001-2020)	12.0%	8.6%
Netherlands	(2000-2020)	-0.34%	-2.4%
Poland	(2000-2020)	5.16%	2.5%
Romania	(2000-2020)	10.58%	1.06%
Slovakia	(2000-2020)	7.40%	4.42%
Spain	(2000-2020)	-0.91%	-2.96%
Sweden	(2000-2020)	1.43%	-0.20%

Sources: MSCI, Yahoo! Finance; Investing.com; NASDAQ Baltic; Bucharest Stock Exchange; GPW

Since not all equity indexes have the same coverage or data availability, it is difficult to perfectly compare the performances of the national equity markets. Most of the equity indices recorded negative nominal returns in 2020, ranging between -14.67% to -3.19%; the rest delivered positive

⁴¹ As measured by the MSCI All Country World Index (ACWI) Net Returns denominated in €.

⁴² As measured by the MSCI USA Net Returns Index, calculated in €.

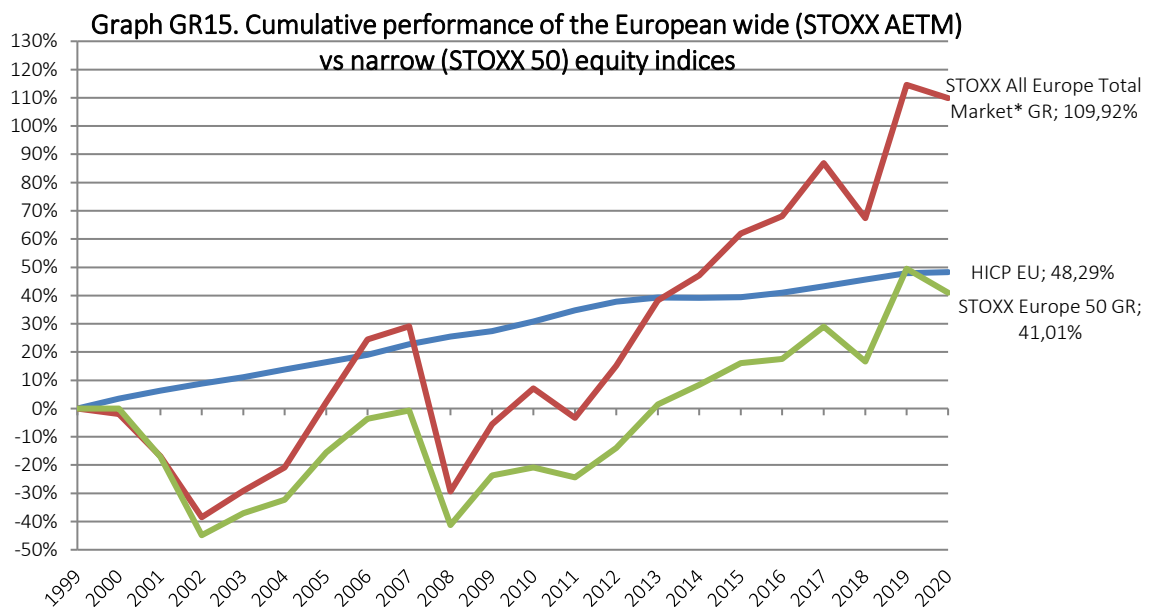
⁴³ As measured by the MSCI Europe Net Returns Index, denominated in €.



nominal returns ranging between 0.03% and 32.44%. In real net terms, due to predominant deflation, 2020 returns improved slightly. On average, the real returns for the equity markets listed in Table GR14 above are 2.34 p.p. lower than the nominal returns over their respective time periods.

When looking at the cumulated results at European level, as well as in the individual countries where we developed this analysis (see French, German and Spanish country cases), broad stock market indices performed much better than the better known and much narrower large cap or “blue chip” indices (Stoxx Europe 50, DAX 30, IBEX 35, CAC 40).

The following graph shows a comparison of the broad STOXX All Europe Total Market index which includes 1,793 European stocks (as of 2 September 2020)⁴⁴ and the much narrower Stoxx Europe 50.



Source: BETTER FINANCE; Eurostat; STOXX

At European level, the difference at the end of our 21-year period is an astonishing 69% in favour of the broader stock market index in nominal terms. And whereas the performance of the narrow index (29% nominal) was heavily outmatched by inflation (39%) over the last 18 years, the broader European stock market recorded a positive real performance with a cumulated gain of 34%.

⁴⁴ <https://www.stoxx.com/index-details?symbol=TE1P>. There was no data available for year of 2000. The performance of the narrower MSCI Europe TR (Net) index (435 components as of 02 September 2020) for that year was taken as a proxy instead.



Government bond markets

As already mentioned above, it is important to note that a decrease in interest rates translates into an increase in the mark-to-market value of bonds which had a positive impact on outstanding debt assets of pension funds. On the other hand, the capacity to provide good remuneration through new bond issuances is hereby reduced.

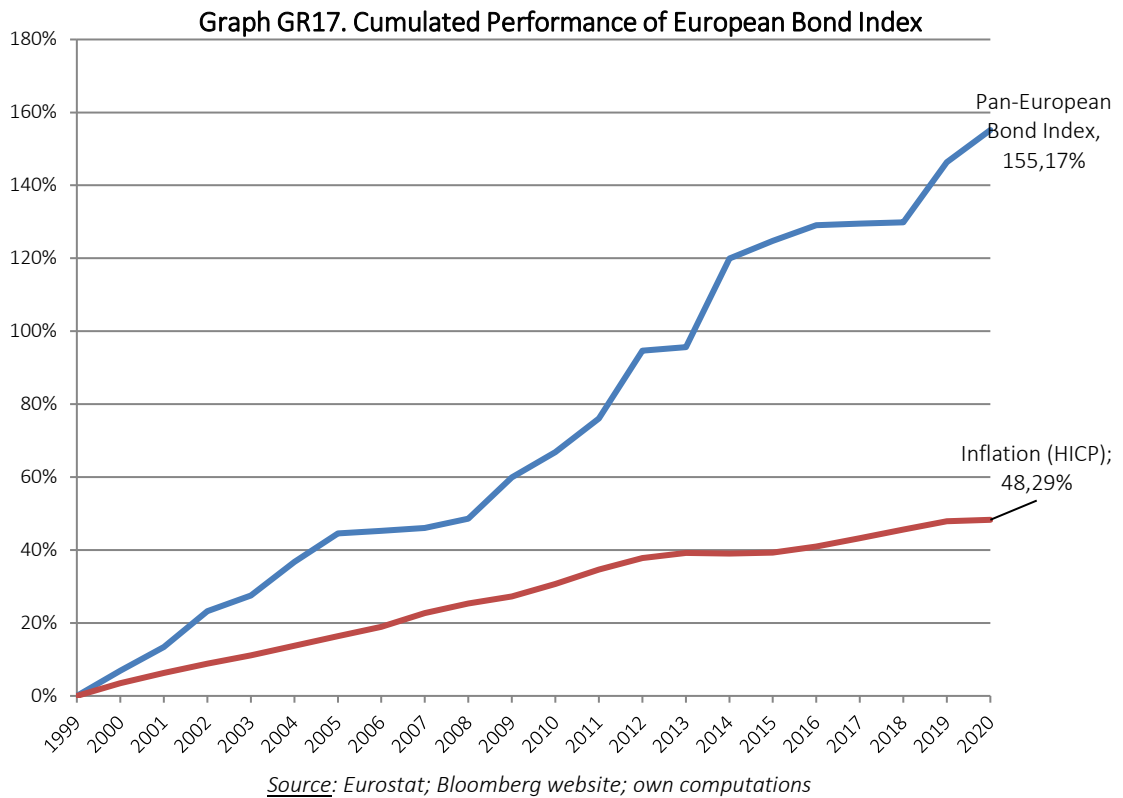
The following table indicates the returns of thirteen major European bond markets for the period 2000-2019.

Table GR16. Historical Returns on Bond Markets, yearly average			
Country	Year	Nominal Return	Real Return
Belgium	(2008-2019)	5.15%	3.35%
Croatia	(2009-2019)	6.03%	4.76%
Denmark	(2008-2019)	4.70%	3.54%
Germany	(2008-2019)	4.15%	2.82%
Spain	(2008-2019)	5.47%	4.24%
France	(2008-2019)	4.70%	3.43%
Italy	(2008-2019)	5.33%	3.99%
Lithuania	(2008-2019)	-	-
Netherlands	(2008-2019)	4.47%	2.92%
Romania	(2008-2019)	-	-
Slovakia	(2008-2019)	-	-
Sweden	(2008-2019)	2.98%	1.54%
UK	(2008-2019)	4.52%	2.23%
EMU	(2008-2019)	4.65%	3.31%

Sources: Morningstar Direct, Eurostat HICP annual average

The European government bond markets all showed steady nominal average returns over the past 10 years, ranging between 6.03% (Croatia) and 2.98% (Sweden). Real average returns ranged even closer together, with the highest in Croatia at 4.76% and Sweden and UK at the lower margin.

The following graph shows the long-term cumulated returns of European bonds as a whole - that is both government and corporate bonds - as measured by the Barclays Pan-European TR index:



Over the last 20 years, European bonds as a whole enjoyed a very positive nominal return which was significantly higher than the return of European equities. It is difficult to foresee a continuation of this past trend given the negative interest rates reached today. However, in 2019 this index grew from 129.86% to 146% in nominal terms. Overall, the real cumulative growth of the broad bond index was of 166.2%.



What are “**equities**”?

Equities, also referred to as *shares* or *stocks*, represent a certificate of ownership over a certain part of a company or undertaking.

Equity gives the *shareholder* the right to benefit of profits (through dividends) and the obligation to support losses, proportionally to his “ownership share” over the company. At the same time, it allows the *shareholder* to take part in the decision-making process of the company.

The value of a share is primarily determined by its growth potential, coupled with the amount and frequency of *dividend* payments: see here the BETTER FINANCE video about *Investing in Shares*.⁴⁵

If the company is going well, the **share price goes up**.

What are “**bonds**”?

Bonds, commonly referred to as *debt* or *fixed income securities*, represent a very liquid, easily fungible, and transferable **loan**.

The borrower issues the *bond*, which has a *principal* amount (sum to be repaid), a maturity (repayment date) and *coupon* (interest rate).

Bonds are used because they facilitate a very fast financing channel for borrowers (instead of making a loan contract with each lender) and a less risky source of investment return for lenders.

The price of a bond is primarily determined by the *credit rating* of the issuer, the *principal amount* and the *maturity*.

If the issuer is doing good, then the **bond price goes down**.

Graph GR15 shows that this period has indeed been particularly favourable to bonds as an asset class as illustrated by the considerable outperformance of European inflation over time.

Portfolio Manager / Advisor Competence

The initial BETTER FINANCE study highlighted that, in almost all categories of investment funds, a majority of funds under-performed their benchmarks. Investment funds play an important role in today’s asset allocation of pension vehicles, thus it is interesting to compare investment fund performances to benchmarks.

The Standard & Poor’s annual “SPIVA” report measures the proportion of active funds that have beaten their benchmark. The results from the latest SPIVA Europe Scorecard for year-end 2016 are shown in the following table:

⁴⁵ Link also here: <https://www.youtube.com/watch?v=bhYW-YnbEmc>.



Table GR18. Percentage of European Equity Funds Beating their Benchmarks

Fund Category	Comparison Index	1-year (2020)	3-year (2018- 2020)	5-year (2016- 2020)	10-year (2011- 2020)
Funds denominated in Euro (€)					
Europe Equity	S&P Europe 350	63	30	25	14
Eurozone Equity	S&P Eurozone BMI	42	21	13	8
France Equity	S&P France BMI	66	9	14	8
Germany Equity	S&P Germany BMI	54	35	26	20
Italy Equity	S&P Italy BMI	45	12	18	20
Spain Equity	S&P Spain BMI	38	22	26	17
Netherlands Equity	S&P Netherlands BMI	17	0	0	0
Funds denominated in local currencies					
U.K. Equity	S&P United Kingdom BMI	80	66	44	35
Denmark Equity	S&P Denmark BMI	32	11	47	15
Poland Equity	S&P Poland BMI	94	68	39	37
Sweden Equity	S&P Sweden BMI	52	35	31	19

Source: BETTER FINANCE own computation based on S&P SPIVA Scorecard Year-End 2020 (<https://www.spglobal.com/spdij/en/documents/spiva/spiva-europe-year-end-2020.pdf>); Outperformance is based on equal-weighted fund counts. Index performance based on total return.

The latest findings for 2020 once again reveal that the large majority of funds do not outperform their respective benchmarks over the past 10 years. For funds investing in European equities, only 14% were able to outperform their benchmark, the S&P Europe 350. The worst results on a country basis were recorded for funds investing in the Netherlands equity where already since 2016 funds haven't overperformed the Dutch broad market index (S&P Netherlands BMI), as well Eurozone and France where only 9% and 10% of the equity funds delivered a cumulative profit over the past 10 years above that of their benchmark.

For retirement savings products, consistent positive long-term returns are of particular importance. However definitive conclusions cannot be drawn from these calculations because they relate to a period that is too short, including no more than two cyclical periods: equity markets fell sharply in 2008 and 2009, then they recovered progressively until the end of 2019, with short sub-periods of decline in most countries, as was the case again in 2020. Prior research found that investment funds tend to outperform their benchmarks in a bearish market while they underperform in a bullish market.⁴⁶

For a longer time-horizon and especially in the case of retirement savings, a study⁴⁷ provides relevant results for UK personal pension funds operated by 35 providers over a 30-year period (1980-2009). Big personal pension fund providers performed better than their prospectus benchmarks, but underperformed treasury bills over the period of a fund's lifespan. Similarly, specialisation of portfolio managers in the investment universe is shown to deliver superior average

⁴⁶ IODS (2014): Study on the Performance and Efficiency of the EU Asset Management Industry, a study for the European Commission (Internal Market and Services DG) and the Financial Services User Group (FSUG), August 2014

⁴⁷ Anastasia Petraki and Anna Zalewska (April 2014), "With whom and in what is it better to save? Personal pensions in the UK", working paper of the Centre for Market and Public Organisation, University of Bristol.



annual returns but does not show superior long-term performances. More generally, they found that short-term performances based on arithmetic annual averages are not relevant indicators of the long-term performance calculated as geometric compounded returns similar to the methodology used in the present study. The authors also showed that younger funds perform better than older ones, which are under lower competitive pressure given the cost of leaving a fund to join a better performing one.

A research report published by BETTER FINANCE in 2019 analysed the drivers of over- or underperformance of the comparison or benchmark index of EU Equity Retail Investment funds domiciled in France, Belgium and Luxembourg. While only 2 funds out of 2,086 managed to consistently deliver overperformance over 10 years between 2008-2017, the rest that managed to beat their respective markets seem to have done so by coincidence or luck.⁴⁸

In attempting to give an explanation for the latter, the analysis deployed showed that fees are the most negative factor for fund (over)performance or – in other words – *“the more you pay, the less you get”*.⁴⁹ More information on fees and charges is given in the following section.

IV. INVESTMENT CHARGES

Fees and commissions substantially reduce the performances of pension products, especially for personal “packaged” pension products, and for unit-linked life-insurance. Charges are often complex, opaque, and far from being harmonised between different pension providers and products. Some countries have started to impose overall caps on fees for some pension products (UK, Romania, Latvia).

Findings of the initial study by BETTER FINANCE on the opacity and weight of charges did not change dramatically over the successive research reports. Generally speaking, charges are heavier on personal pension products than on occupational pension funds, as employers are in better position to negotiate with competing providers than individuals are.

To tackle this complexity, some pension providers – for example, some auto-enrolment schemes in the United Kingdom – set up fixed costs per member, but this penalises low paid workers.

Following the OFT study, the Department for Work and Pensions issued a regulation which took effect on 6 April 2015⁵⁰. The default schemes used by employers to meet their automatic enrolment duties are subject to a 0.75% cap on AMCs. The cap applies to most charges, excluding transaction costs. Moreover, an audit was conducted on schemes being “at risk of being poor value for money”. It found that about one third of surveyed schemes had AMCs superior to 1% and that a significant

⁴⁸ BETTER FINANCE, *Study on the Correlation between Cost and Performance of EU Equity Retail Funds* (June 2019) <https://betterfinance.eu/wp-content/uploads/BETTER1.pdf>.

⁴⁹ Press Release, “New research by BETTER FINANCE on the Correlation between Costs and Performance of EU Retail Equity Funds without a doubt establishes a negative correlation between returns and fees” <https://betterfinance.eu/publication/the-more-you-pay-the-less-you-are-likely-to-get/>.

⁵⁰ <https://www.legislation.gov.uk/ukpga/2015/8/contents/enacted>



number of savers would have to pay exit fees superior to 10% in case they wanted to switch to a better performing fund. Moreover, starting from October 2017, existing early exit charges in occupational pension schemes cannot exceed 1% of the member's benefits and no new early exit charges can be imposed on members who joined that scheme after 10 October 2017.

V. Taxation

Finally, taxes also reduce the performance of investments. The general model applied to pension products is deferred taxation, with contributions being deducted from taxable income and pension pay-outs being taxed then. The accumulated capital can be withdrawn at least partially at retirement as a lump-sum, which is often not taxable. Our calculations of net returns are based on the most favourable case, i.e., assuming that the saver withdraws the maximum lump-sum possible.

One of the key elements of a pension system, as designed by the World Bank's conceptual framework of 1994,⁵¹ is to incentivise savings and private investments by giving fiscal advantages, either as deferred taxation, exemptions, or tax reductions.

Pension taxation concerns three stages: contributions, investment returns and payments (benefit drawdowns).

The general model applied to pension products is usually deferred taxation: contributions are deducted from the taxable income and pensions (pay-outs) are taxed within the framework of income tax or, usually, at a more favourable rate. Some countries are currently in the middle of a transitional phase comprising proportionate deferred taxation which will lead to entire deferred taxation in the future.

The so-called EET regime, *"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"*⁵², is predominant in the countries covered by this research report. There are only a few exceptions, like in Poland, where the reverse rule is applied: contributions are paid from the taxable income while pensions are tax-free (the only exception from the TEE regime are IKZEs – individual pension savings accounts). Pensions in Denmark are taxed at all three stages with contributions to occupational pensions being partially deductible as the only exception. Furthermore, in Bulgaria and for the funded pensions in Slovakia, one can even observe EEE regimes with no pension taxation at all within defined tax exemption limits. In other countries, such as France or Poland, specific conditions apply in order to be tax-exempt or not.

⁵¹ World Bank, 'Averting the Old Age Crisis: Policies to Protect the Old and Promote Growth' (1994) 10, <http://documents.worldbank.org/curated/en/973571468174557899/pdf/multi-page.pdf>.

⁵² OECD definition: <https://stats.oecd.org/glossary/detail.asp?ID=5225>



Usually, the accumulated capital can be withdrawn by the saver as a lump sum at retirement age, at least partially. Our calculations of returns net of taxation (where available) are based on the most favourable taxation case and assume that the saver withdraws the maximum lump sum possible.

Savings products used as retirement provision, but which are not strictly pension products, might benefit from a favourable tax treatment. This is the case of life insurance in France but successive increases of the rate of “social contributions” on the nominal income tend to diminish the returns of the investment.

An overview of the main taxation rules applied on a country basis can be found in the following table:

Table GR19. Overview of Main Taxation Rules Applied in the Country Reports

Austria	<ul style="list-style-type: none"> ● EET regime – generally, only payments are taxed; <ul style="list-style-type: none"> o direct commitments, occupational pension funds and group insurance have tax-exempt contributions, tax-exempt capital accumulation, and (income) taxed benefits; o life insurance contributions are subject to insurance tax (4%), investment returns are exempt, and payments are taxed (“TET” regime); o premium subsidised products carry a premium based on the contribution, the capital accumulation phase is tax-exempt, and benefits are also tax free if they are converted into an annuity (“TEE” regime).
Belgium	<ul style="list-style-type: none"> ● EET regime - only withdrawals/payments are taxed; <ul style="list-style-type: none"> o Contributions are tax deductible up to prescribed limits; o Employees pay generally 2% solidarity tax and 3.55% INAMI tax on benefits; o Pillar II: Taxation in pay-out phase depending on origin of contribution, local taxes to be added; o Pillar III: Taxation in pay-out phase at the age of 60, local taxes to be added.
Bulgaria	<ul style="list-style-type: none"> ● EEE regime; <ul style="list-style-type: none"> o Annual contributions of up to 10% of annual taxable income is tax free;
Croatia	<ul style="list-style-type: none"> ● EET regime <p>Contributions and investment income are tax-exempt, whereas benefits are taxed. The tax allowance for pensioners is 1.7 times higher than for employees, meaning that pensions are only modestly taxed.</p>
Denmark	<ul style="list-style-type: none"> ● TTT regime (combination of ETT and TTE); <ul style="list-style-type: none"> o Annuities, periodic instalments, and lump-sum pensions under the form of <i>kapitalpension</i> are income tax deferred and follow an ETT regime; o Lump-sum pensions under the form of <i>alderopsparing</i> are taxed TTE;
Estonia	<ul style="list-style-type: none"> ● EET regime for taxation: <ul style="list-style-type: none"> o Contributions paid towards the pension schemes are tax-exempt. o Returns achieved by respective pension funds are tax-exempt. o Benefits paid out during the retirement are subject to the income tax taxation.



France

- **ETT regime;**
 - o PERP, Prefon, Corem, CRH contributions are income tax deductible;
 - o Contributions to some DC pension plans (PERCO and PERP) are income tax deductible but no deductibility from social levies. No tax deductibility for life insurance contracts;
 - o taxation of employers' contributions to corporate savings plans (PEE and PERCO) and defined contribution plans ("Article 83") increased from 8% to 20%.
 - o the minimum tax rate on life insurance income is now 23%
 - o pay-outs are taxed in the retirement phase (sometimes with tax reductions).

Germany

- **EET regime**, taxation divides retirement savings into three groups:
 - o Statutory pension insurance and the Rürup pension: deferred taxation; contributions up to a deduction cap are exempted from taxation and generally subject to tax in its entirety during the pay-out phase.
 - o Standard pension insurance or life insurance products: contributions to the products come from taxed income; benefits are taxed at the personal income tax rate on the corresponding earnings in the retirement phase
 - o Occupational pensions and the Riester pension: deferred taxation; contributions up to a deduction cap are exempted from taxation and generally subject to tax in its entirety during the pay-out phase.

Italy

- **ETT regime**, contributions are tax deductible up to prescribed limits;
 - o Accruals are taxed at 20% (12.5% on income derived from public bonds) in the capital accumulation phase;
 - o Taxation in the pay-out phase varies from 9-15%.

Latvia

- **EET regime;**
 - o Pillar II – Contributions are personal income tax deductible item and therefore the contributions are not subject to additional personal taxation; Income or profits of the fund are not subject to Latvian corporate income tax at the fund level; a general principle for all investment and savings-based schemes to levy the income taxation on the final beneficiary.
 - o Pillar III – Voluntary private pensions are generally taxed as Pillar II, however there are deduction limits in the contribution phase: payments (contributions) made to funds shall be deducted from the sum amount of annual taxable income, provided that such payments do not exceed 10 % of the person's annual taxable income.

Lithuania

- **EEE regime;**
 - o Employee contributions are tax-deductible even if they are higher than required; for pillar III, there is a tax-refund policy during the contribution phase, which means that the contributions of up to 25% of gross earnings, the income tax (15%) is returned;

Poland

- **TEE regime** for Employees Pension Programs (PPE) and Individual Retirement Accounts (IKE); **EET** for Individual Retirement Savings Accounts (IKZE);
 - o benefits are taxed with a reduced flat-rate income tax (10%)



Romania	<ul style="list-style-type: none"> ● EET regime applies for both mandatory and voluntary pensions; <ul style="list-style-type: none"> o for funded pensions (Pillar II), pension benefits paid out during retirement will be subject to a personal income tax (10% tax rate) above a certain level (€460 in 2018); the social security contributions have been removed as of 2018 and are supported completely from the consolidated state budget. o for voluntary private pensions (Pillar III), contributions are tax deductible up to a deduction limit, investment income is tax exempted, and benefits are subject to the personal income tax.
Slovakia	<ul style="list-style-type: none"> ● Funded pensions are usually not taxed (EEE regime); ● Supplementary pensions follow the EET regime with several exceptions and specifications.
Spain	<ul style="list-style-type: none"> ● EET regime, contributions are tax deductible up to prescribed limits; ● No taxation in the capital accumulation phase; ● Pay-outs are taxed differently depending on whether they take the form of an annuity or the form of a lump sum payment.
Sweden	<ul style="list-style-type: none"> ● EET regime for public pensions; ETT regime for private pensions; <ul style="list-style-type: none"> o Employers can partially deduct contributions to the second pillar; returns are subject to an annual standard rate tax based on the value of the account and the government-borrowing rate o Investment return is subject to tax rate on standard earnings at 15%; o in Pillar III, until 2016 there was a tax deduction of SEK 1,800 per year available; returns are subject to an annual standard rate tax based on the value of the account and the government-borrowing rate
Netherlands	<ul style="list-style-type: none"> ● EET regime; ● Contributions paid into pension funds are tax deductible; ● Taxation is applied in the pay-out phase at the personal income tax rate.
UK	<ul style="list-style-type: none"> ● EET regime; ● Allowances and tax relief on contributions with test against lifetime allowance ● Pay-outs are taxed as income, there are three marginal rates in the UK at the moment.

Source: BETTER FINANCE own composition

VI. RETURNS OVERVIEW

The BETTER FINANCE report now reaches 21 years (or maximum available) of performance disclosure for some retirement provision products. Unfortunately, in the long run, real returns were on average quite low and below those of capital markets (equities and bonds). In the context of negative interest rates and decreasing yields on capital markets, the pensions outlook looks grim.

One has to keep in mind that the diversity of the European pension landscape and the lack of available data complicate the drawing of straightforward conclusions. Although the aim of



comparability would be to present all results in a harmonised manner (either Pillar II vs Pillar III or on product categories - investment funds vs insurance products), complete data for all is not reported, neither the maximum periods available, nor are the concepts (Pillars, occupational vs supplementary plans) so common in all EU Member States. Therefore, for ease of reference, the names of the pension vehicles have been used in Graphs 18 (A, B and C) and Table 19 as presented in each individual country case.

Out of the 15 pension vehicles on which we report performances over at least 18 years (Graph 18(A)):

- only one so far remains on the negative side (-0.66%, French unit-linked life insurances);
- the majority (8) reported less than 1.5% real net return per year, equalling less than 35% pre-tax profits over the past 20 years.

Considering that an EU capital markets-representative benchmark (50% European Equities – 50% European bonds) recorded 72% real profits before taxes (2.69% p.a.), the 2020 data update shows few product categories overperforming this broad market benchmark.

On shorter reporting time frames (Graphs 18(B) and (C)) performances were much higher, but this may be due to the fact that some products did not pass through the same crises as the long-term ones (Graph 18(A)) did.

In general, we could observe significant performance differences in each country case, either between pillars or between types of pension vehicles:

- in Romania, Pillar II mandatory pension funds massively overperformed Pillar III pensions;
- in Austria, pension insurances overperformed pension funds by almost 17 percentage points;
- in Italy, both PIP-products have turned positive: PIP with profits had positive returns over the past 13 years (1.36%) unit-linked PIP recorded an average gain of 2.23%; and
- in France, where capital guaranteed insurance products gained 1.6% p.a. and unit-linked insurance lost -0.7% p.a.

These poor or even negative real returns have led public authorities in some Member States to take measures in order to ensure transparency and cap the fees charged by certain pension providers (in countries such as the UK, Romania and Latvia). The issue is crucial, especially in countries like the United Kingdom where the standard of living of retirees is heavily dependent on pre-funded pension schemes. The following tables detail the long-term real returns of the main long-term and pension saving product categories in the 17 European countries analysed. The categorisation in Graphs GR18(A), (B), (C) AND (D) is by the starting reporting year available in this report.

In Italy, an ambitious reform was implemented (as of 2011) by Minister Elsa Fornero under the Monti government in order to secure the public PAYG system, despite very unfavourable demographic trends. As such, the poor returns of the personal pension plans will have a limited

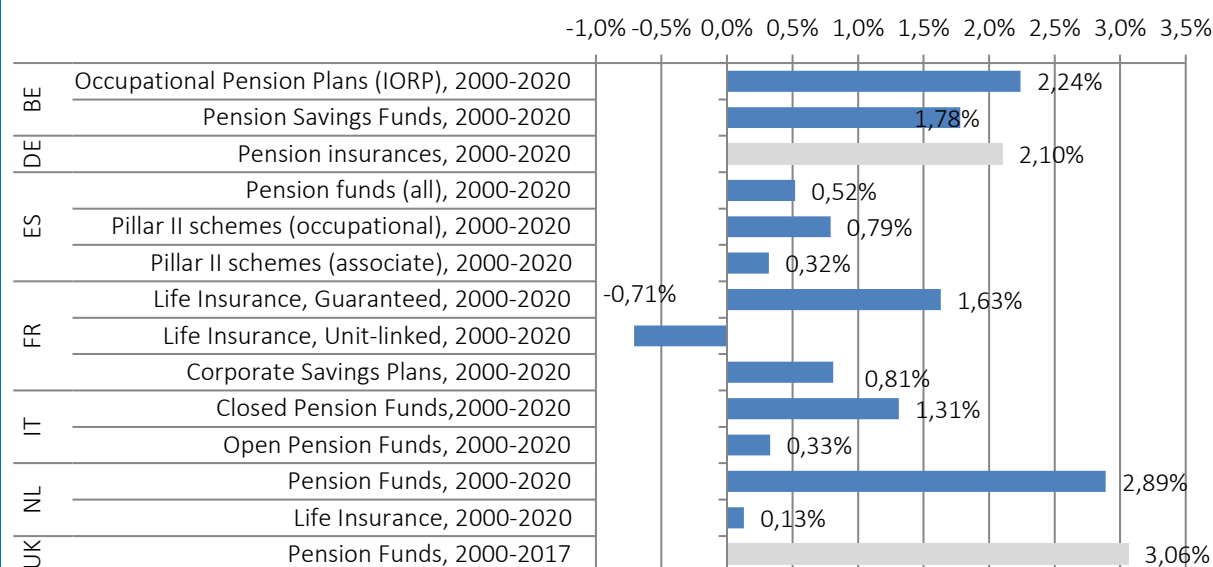


impact on the replacement rates of retirees' income, the downside being the heavier reliance on the public pension scheme.

By contrast, pensions in the UK are more heavily dependent on pre-funded schemes. As such, the total value of pension assets as % of the 2018 GDP reached 105%, which is modest compared to the Netherlands or Denmark, but four times higher than the average (pension fund assets 25% of GDP) in the 17 countries in scope of this Report. The Government has implemented "auto-enrolment" to extend the benefits of pension funds to most employees. There, the excessive charges borne by pension fund members have led public authorities to take measures in order to improve transparency and to limit the fees charged by pension providers.

Note: In Bulgaria, data on professional pension funds (occupational and voluntary) was no longer available for the 2018 update. The data reported in these graphs and tables is time-weighted returns.

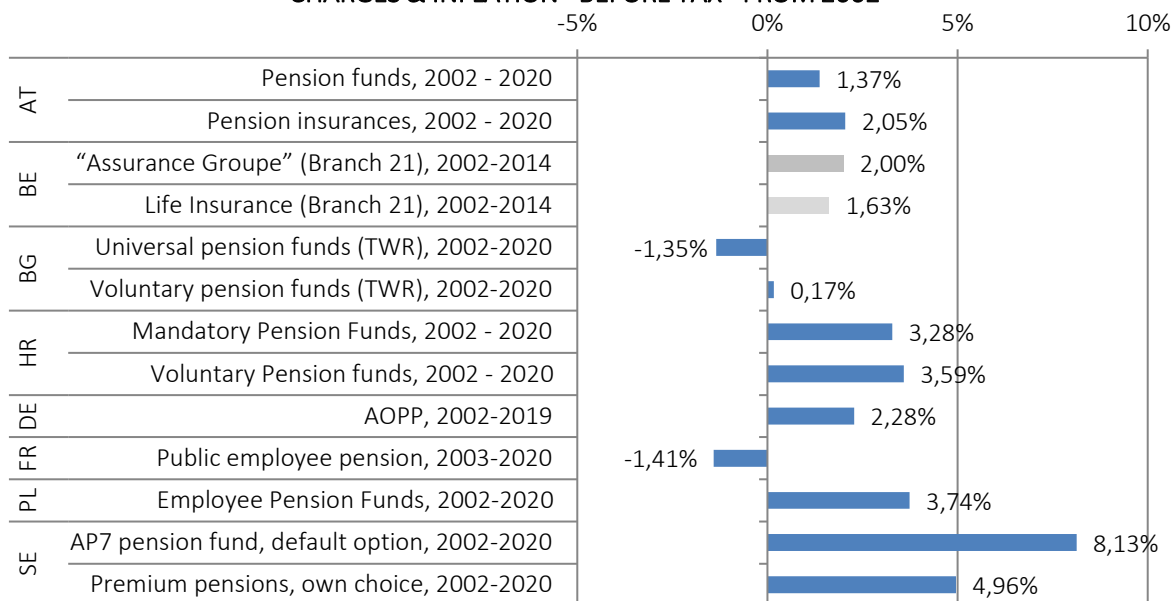
Graph GR19(A). ANNUALISED REAL RETURNS OF PENSION SAVINGS- AFTER CHARGES & INFLATION - BEFORE TAX - FROM 2000/01



Source: BETTER FINANCE Research (Table 20); * Net of taxes, charges and inflation

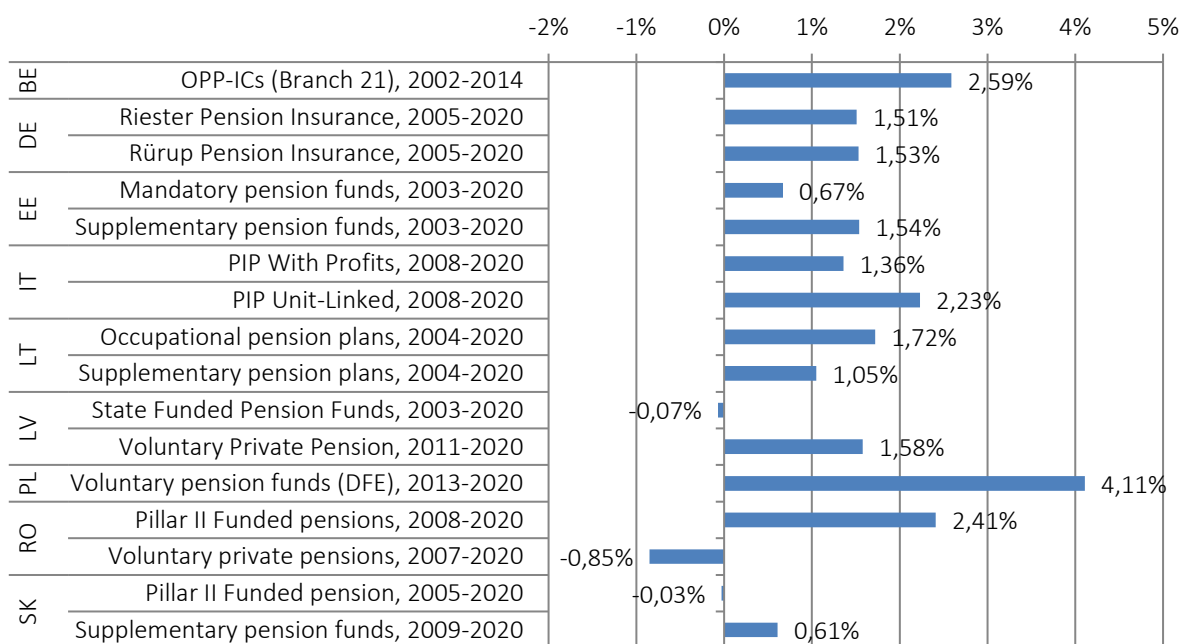


Graph GR19(B). ANNUALISED REAL RETURNS OF PENSION SAVINGS - AFTER CHARGES & INFLATION - BEFORE TAX - FROM 2002



Source: BETTER FINANCE Research (Table 20); * Gross of fees

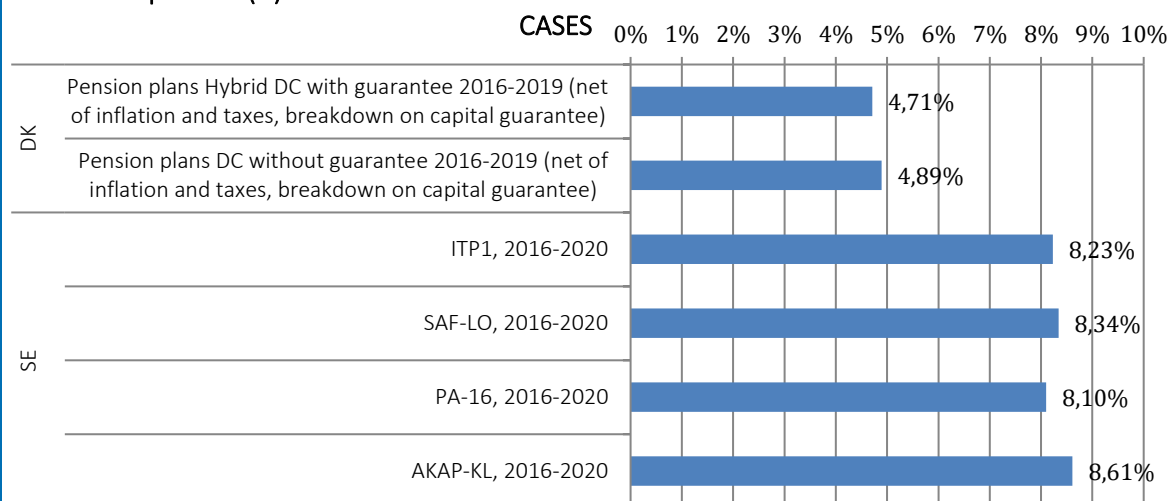
Graph GR19(C). ANNUALISED REAL RETURNS OF PENSION SAVINGS - AFTER CHARGES & INFLATION - BEFORE TAX - LATER STARTING DATES



Source: BETTER FINANCE Research, Table 20



Graph GR19(D). ANNUALISED REAL RETURNS OF PENSION SAVINGS - SPECIFIC



Source: Graph 20

The following table groups the pension vehicles available and reported on by country, and presents the average returns on the entire available reporting period.

Table GR20. Yearly Real Returns of Private Pension Products

Austria	Pension funds, 2002- 2020: +1.37%
	Life-insurances, 2002-2020: +2.05%
Belgium	Pension Funds (IORP [1]), 2000-2020: +2.24%
	“Assurance Groupe” (Branch 21), 2002-2014: + 2.00%
	Pension Savings Funds, 2000-2020: +1.78%
	Life Insurance, Guaranteed, 2002-2014: +1.63%
	OPP-ICs (Branch 21), 2002-2014: + 2.59%
	Universal Pension Funds (TWR), 2002-2020: -1.35%
Bulgaria	Voluntary Pension Funds (TWR), 2004-2020: 0.17%
Croatia	Mandatory Pension Funds, 2002–2020: +3.28%
	Voluntary Pension funds, 2002-2020: +3.59%
Denmark (after tax)	Pension plans Hybrid DC with guarantee 2016-2019: +4.71%
	Pension plans DC without guarantee 2016-2019: +4.89%
Estonia	Mandatory Pension Funds, 2003-2020: 0.67%
	Supplementary Pension Funds, 2003-2020: +1.54%
	Life Insurance, Capital guaranteed, 2000-2020: 1.6%
France	Life Insurance, Unit-linked, 2000-2020: -0.71%
	Corporate savings plans, 2000-2020: +0.81%



Germany	A.O.P.P.[1], 2002-2019: +2.28%
	Riester Pension Insurance, 2005-2020: +1.51%
	Rürup Pension Insurance, 2005-2020: +1.53%
	Pension Insurances, 2000-2020: +2.10%
Italy	Closed Pension Funds, 2000-2020: +1.31%
	Open Pension Funds, 2000-2020: +0.33%
	PIP with Profits, 2008-2020: +1.36%
	PIP Unit-Linked, 2008-2020: +2.23%
Latvia	State Funded Pension Funds, 2003-2020: -0.07%
	Voluntary Private Pension, 2011-2020: +1.58%
Lithuania	Occupational pensions 2004-2020: +1.72%
	Supplementary pensions 2004-2020: +1.05%
Poland	Employee Pension Funds, 2002-2020: +3.74%
	Voluntary Pension Funds, 2013-2020: +4.11%
Romania	Pillar II Funded Pensions, 2008-2020: +2.41%
	Voluntary Pension Funds, 2007-2020: -0.85%
Slovakia	Pillar II Pension Funds, 2005-2020: -0.03%
	Supplementary Pension Funds, 2008-2020: +0.60%
Spain	Pension Funds (all), 2000-2020: +0.52%
	Individual plans (agg.), 2000-2020: +0.32%
	Pillar II schemes (occupational), 2000-2020: +0.89%
	Pillar II schemes (associate). 2000-2020: +1.07%
Sweden	AP7 fund, default option: 2000-2020: +6.95%
	Premium pension, other funds: 2000-2020: +4.18%
	ITP1, 2016-2020: +8.23%
	SAF-LO, 2016-2020: +8.34%
	PA-16, 2016-2020: +8.10%
	AKAP-KL, 2016-2020: +8.61%
The Netherlands	Pension Funds, 2000 - 2020: +2.89%
	Life Insurance, 2000 - 2020: +0.13%
UK	Pension Funds, 2000-2017: +3.06%

*After tax

Source: Own Research, Better Finance Research

Occupational pension funds as per the definition and scope of the EU "Institutions for Occupational Retirement Provision Directive" (IORP); [1] A.O.P.P. stands for Autonomous Occupational Pension Funds.

[1] The returns on private pension products in Denmark cannot be calculated on average since the Danish Supervisory Authority started to report the returns for two categories: hybrid defined-contribution (DC) with guarantee and defined-contribution (DC) with no guarantee. Therefore, averages as of 2016 cannot be calculated.



Pension Savings: The Real Return

2021 Edition

Country Case: Austria

Summarisch

Rund 90% des durchschnittlichen Alterseinkommens in Österreich stammen aus dem öffentlichen Pensionssystem. Damit ist die Altersvorsorge sehr stark auf die erste Säule konzentriert. Die betriebliche Altersvorsorge wird in erster Linie von Pensionskassen und Versicherungsunternehmen getragen. Direktzusagen sind ein alternatives Instrument deren Nutzung seit Jahren stagniert. Die Möglichkeit für beitragsorientierte Pensionspläne in Pensionskassen und über Versicherungen hat die Verbreitung der betrieblichen Altersversorgung in Österreich gestärkt. Während betriebliche Formen der Altersvorsorge im Laufe der Zeit beliebter wurden, dämpften niedrige Zinssätze und die hohe Liquiditätspräferenz die Nachfrage nach individuellen Lebensversicherungsverträgen. In den Jahren 2002 bis 2020 war die Performance der Pensionskassen real und nach Abzug der Verwaltungskosten positiv. Die annualisierte Durchschnittsrendite lag bei 1,4% vor Steuern. Die Lebensversicherungsbranche verfolgt eine deutlich konservativere Anlagepolitik und erzielte eine durchschnittliche reale Nettorendite vor Steuern von 2,1% pro Jahr.

Summary

With around 90% of the average retirement income received from public pension entitlements, the Austrian pension system is very reliant on the first pillar. Occupational pensions are primarily offered through pension funds and insurance companies. Direct commitments are an alternative vehicle, but their usage stagnates. The option for defined contribution (DC) plans with favourable tax treatment offered either by pension funds or insurance companies boosted the prevalence of occupational pensions in Austria. While occupational pensions have become more popular over time, low interest rates and a high liquidity preference dampened demand for individual life insurance contracts. Over the years 2002 through 2020, the performance of pension funds in real net terms has been positive, with an annualised average return of 1.4% before tax. The life insurance industry followed a distinctly more conservative investment policy and achieved an average annual net real return before tax of 2.1%.



Introduction

The Austrian pension system consists of three pillars:

- Pillar I: Mandatory Public Pension Insurance
- Pillar II: Voluntary Occupational Pensions
- Pillar III: Voluntary Individual Pensions

The mandatory public pension insurance covers most of private sector employees (Pillar I). Civil servants have their own pension system which will gradually converge towards the public pension insurance system. The self-employed belong to various separate mandatory systems. The public pension system works as a PAYG scheme (Pay-As-You-Go) and was founded in 1945. The system covers 4.1 million people or 97% of the gainfully employed (2020). In 2020, all employees – except civil servants – were subject to a contribution payment of 22.8% of their income before taxes, with contributions shared between the employer (12.55%) and the employee (10.25%). Civil servants pay a contribution of 12.55% of their gross wage and the self-employed pay 18.5% of their profit before taxes into the pension system. The Austrian pension system will be fully harmonized across all insured persons by 2050. The public pension system has an income ceiling (maximum contribution basis) up to which contributions apply, income above this level is exempted from contributions but the ceiling also limits the pension benefit level. In 2020 the ceiling was between 5,370 € and 6,265 €, depending on the employment status. About 8% of the gainfully employed achieve an income above these ceilings. The theoretical gross pension replacement rate at the median income level for persons entering the labour market at age 22 corresponds to 76.5% of the average lifetime income while the net pension replacement rate is at 89.9% (OECD, 2019). Both theoretical replacement rates will be reached after 43 years of uninterrupted employment with earnings always at the average income level. Effective replacement rates are likely to be lower because careers are not continuous and life-time income profiles are not flat. Due to pension reforms gradually taking effect, the effective replacement rates are expected to fall for future pensioners. Nevertheless, high replacement rates for many of the gainfully employed limit the demand for occupational as well as private pension plans.

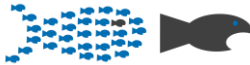
Accompanying a series of public pension reforms between 2003 and 2006 which implemented reductions in the expected benefit level, the Austrian government introduced the premium subsidised pension plan to make private old-age provision more attractive. This scheme became very popular until 2012 with 1.64 million contracts signed but it lost attraction after the government halved the premium subsidy in 2012 (to 4.25% of the premium paid) and after investment yields collapsed during the financial crisis in 2007. By 2020, only 1.1 million contracts were still active.



Introductory Table – Austrian Pension System overview

Pillar I	Pillar II	Pillar III
Mandatory Public Pension Insurance	Voluntary Occupational Pensions	Voluntary Personal Pensions
Practically all gainfully employed persons are subject to pension contributions of 22.8% of income before taxes	Employers can establish an occupational pension system of their preference	Supplement particularly for high earners
Means tested minimum pension	Direct commitments, pension funds, occupational life insurance. About 50% of employees are entitled	Life insurance with a coverage of about 50% of private households. The state-aided old-age insurance features 1.29 mil. contracts
Pension level depends on lifetime income (various kinds of supplementary insurance months are accounted, cf. motherhood, unemployment, military service)		
Mandatory	Voluntary	Voluntary
PAYG	DB or DC	DC
Quick facts		
Statutory retirement age is 60 (women) and 65 (men)		
The average effective age of retirement was 59,5 for women and 61.6 for men (2020, including invalidity pensions and early retirement schemes but excluding rehabilitation benefits)		
At 89.9% the theoretical net replacement rate in 2018 was considerably higher than the OECD average (8.6%).		
The mandatory public pension system covers 4.07 mil. insured persons and pays pensions to 2.44 mil. Beneficiaries	The voluntary occupational pension system covers 1.7 mil. entitled persons and pays pensions to 0.25 mil. beneficiaries ¹	Voluntary personal pension plans cover 3.14 mil. entitled persons and pays pensions to 0.32 mil. beneficiaries
The average pensioner receives 88% of his retirement income from public pensions	The average pensioner receives 5% of his retirement income from an occupational pension	The average pensioner receives 7% of his retirement income from a personal pension
S: BETTER FINANCE own composition.		

The annualised nominal, net and real net rates of returns for the Austrian retirement provision vehicles are summarised in the table below based on different holding periods: 1 year, 3 years, 7 years, 10 years and since inception (2002).



Summary Table Austria. Annualised Performance for Various Holding Periods (in %)

	Holding period	Nominal return before charges, inflation, and tax	Nominal return after charges, before inflation and tax	Real return after charges and inflation before tax
<i>Pension funds</i>	In years	In %		
	1	2.55	2.31	1.31
	3	2.80	2.61	1.11
	5	3.73	3.55	1.87
	7	4.10	3.94	2.47
	10	3.90	3.71	1.84
	Since 2002	3.49	3.25	1.37
<i>Pension insurance</i>				
	1	3.20	2.82	1.82
	3	3.21	2.84	1.34
	5	3.37	3.00	1.32
	7	3.53	3.17	1.70
	10	3.71	3.36	1.50
	Since 2002	4.29	3.93	2.05
S: Compare Tables AT4 and AT5. Annualised performance corresponds to geometric mean over the holding period.				

Occupational and voluntary personal pension vehicles

Private pensions are divided into voluntary occupational and voluntary personal pensions. About 6.5% of today's retirees receive regular benefits from an occupational or personal pension. This figure is made up by 4% of retirees receiving benefits from an occupational pension and 2.5% of retirees receiving annuities from a personal pension plan (Pekanov – Url, 2017). Given today's numbers of active plan members these shares can be expected to increase substantially over time.

Occupational pension vehicles (Pillar II)

At the beginning of 2003, the system of severance payments has been replaced by mandatory contributions towards occupational severance and retirement funds (Betriebliche Vorsorgekassen). While the old severance payment regulations continue to apply to existing employment relations, employment contracts established after the end of 2002 feature mandatory contributions of 1.53% of gross wages to these funds. The main characteristics of severance payments have been transferred to the new system, i.e., in case of dismissal the fund will pay out the accumulated amount. Beneficiaries, however, may voluntarily opt to use this instrument as a tax-preferred vehicle for old-age provision. Less than one percent of the beneficiaries use this option. We therefore do not count occupational severance and retirement funds as pension vehicles in the following.



Voluntary Occupational Pensions (Pillar III)

Occupational pension plans are typically provided on a voluntary basis by firms, only a few collective bargaining agreements include an obligation for member firms of the respective sector. Employers can also choose the coverage and the vehicle of their pension plan. There are three types of occupational retirement schemes:

- direct commitments funded by book reserves,
- pension funds and
- several types of life insurance schemes.

Each of these schemes has advantages and drawbacks. While direct commitments create a stronger link between employees and the firm, the future pension payments are subject to bankruptcy risk and, during the accumulation phase, the firm must either manage the assets backing the book reserves or seek some sort of reinsurance. External vehicles like pension funds or life insurance contracts imply less bonding because the vesting period is much shorter, but they also outsource the effort of investment choice and annuity payments to a financial intermediary. The design of a voluntary pension plan is at the full discretion of the employer, but usually an arrangement with the firm's workers council is necessary.

Over the last decades many firms switched from direct commitment schemes to pension funds. On the one hand, this was a strategy to reduce the cost of existing defined benefit pension schemes by switching to defined contribution plans, and on the other hand, these efforts shortened balanced sheets and cleaned them from items unknown to international investors.

Direct commitments ("Direktzusage")

Direct commitments are pension promises by the employer to the employee that are administrated within a firm. These types of arrangements dominated until the 1980s, when several large bankruptcies or near bankruptcies revealed their fragility. The main two characteristics of this arrangement are direct administration of the pension obligation within the firm and a defined benefit type of the pension plan: the pension level is related to the wage level of employees. The plan administration comprises the computation of individual pension obligations and the respective book reserves, their coverage by invested assets, as well as the annuity payment. Nevertheless, many activities can be outsourced to actuaries, investment funds, and insurance companies. Pension claims based on direct commitments are not subject to any reinsurance requirement, but the reserve funds dedicated to back book reserves are protected from creditors. Besides outsourcing, the Insolvenz-Entgelt-Fonds provides a further safeguard for entitled employees and pensioners to bankruptcy risk. This fund is a public fund covering wage entitlements by employees in case of bankruptcy. Currently, the Insolvenz-Entgelt-Fonds covers a maximum of 2 years of benefit payments or accrued entitlements (Insolvenz-Entgeltsicherungsgesetz § 3d). Due to their



voluntary character and a lack of supervision the incidence of direct commitments is hardly documented.

Pensions funds (“Pensionskassen”)

Pension funds are specialised financial intermediaries providing only services related to occupational pensions, i.e., they collect contributions, manage individual accounts, invest the accumulated capital, and they pay out an annuity to beneficiaries. Pension funds were introduced in 1990 with the Occupational Pension Law and the Pension Fund Law (Betriebspensions- und Pensionskassengesetz) which established a general legal basis for occupational pension schemes including pension funds. These laws facilitated the outsourcing of asset management and accounts administration from direct commitment systems into pension funds. This made individual pension entitlements transferable between companies, it made possible additional contributions by employees, but it also enabled firms to switch from defined benefit to defined contribution pension plans. By now, most pension plans are of the defined contribution type and beneficiaries are directly exposed to investment risk as well as to changes in mortality risk. For example, plan members whose entitlement was converted from a direct commitment into an entitlement vis-a-vis a pension fund still suffer from investment losses shortly after transferring the assets into pension funds around the year 2000 because the imputed interest rates used at that time were overly optimistic (Url, 2003B).

Pension funds may be either multi-employer pension funds, i. e. they are open to other firms, or alternatively, they may be firm specific pension funds (single-employer pension funds) administrating the pension plan for a single firm or a holding group. Over the last couple of years, many firm specific pension funds have been merged into multi-employer pension funds building independent risk and investment pools like UCITS. Pension funds are subject to supervision by the Austrian Financial Market Authority, and they feature investment advisory boards, where representatives of workers and employers can advance their opinion on the investment strategy. Nevertheless, the results from asset-liability management strategies dominate the portfolio choice of pension funds.

Pension funds offer primarily annuities because lump-sum payments are restricted to accounts with very small, accumulated assets. Pension funds have to offer accounts with guaranteed long-term yields on investment linked to the market yield of Austrian government bonds, although this option lost attractiveness due to the high costs of guarantees and a substantial weakening of the guaranteed type. The guarantee is backed by the own capital of the pension fund and by a minimum return reserve fund financed by contributions from beneficiaries (Mindestertragsrücklage). In case of bankruptcy of the pension fund, all entitlements are protected by separate ownership of the assets associated to each account (Deckungsstock).



Direct insurance

Firms can alternatively sign a contract with a life insurance company. This contract is either subject to the regulation covering occupational pensions (Betriebliche Kollektivversicherung) or it is designed as a life insurance policy and is subject to the regulation for life insurance products. Insurance companies also underwrite risks embedded in direct commitments. Direct insurance of occupational pension plans implies that the sponsoring firm will pay contributions into a life insurance contract with employees as beneficiaries. In this case, the firm outsources the management of personal accounts and assets, as well as the annuity payments to an insurance company.

The number of working and retired persons holding a life insurance policy is almost double the number of members in occupational pension plans. Despite high public pension levels and the voluntary character of occupational pensions, their use is comparatively widespread in Austria. There are two reasons for this: (1) the public sector offers an occupational pension scheme, and (2) occupational life insurance policies benefit from a tax loophole. Contributions up to € 300 annually (§ 3/1/15 EStG) are tax exempt and as a result almost 645,000 contracts have been signed until 2020. Given the small pension wealth accumulated in these accounts one cannot expect reasonable annuity payments resulting from this vehicle.

The Betriebliche Kollektivversicherung, on the other hand, provides occupational pensions with a favourable tax treatment up to 10% of individual gross wages. It is regulated according to the Occupational Pension Law, but this vehicle allows for more substantial long-term guarantees usually offered by classic life insurance contracts. Insurers also freeze mortality tables at the date of joining the pension plan.

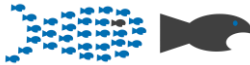


Table AT1. Entitlements to active occupational pensions (in million persons)

	Direct commitments	Pension funds	Life insurance	Total
2001	-	0.32	0.12	-
2002	0.13	0.34	0.12	0.59
2003	-	0.37	0.22	-
2004	0.14	0.4	0.29	0.82
2005	-	0.43	-0.5	-
2006	-	0.48	0.33	-
2007	0.13	0.49	0.38	1.00
2008	-	0.51	0.4	-
2009	-	0.74	0.41	-
2010	0.14	0.76	0.44	1.34
2011	-	0.79	0.5	-
2012	-	0.82	0.55	-
2013	-	0.84	0.62	-
2014	-	0.86	0.71	-
2015	0.14	0.88	0.78	1.80
2016	-	0.90	0.74	-
2017	-	0.92	0.75	-
2018	-	0.95	0.76	-
2019	-	0.98	0.78	-
2020	-	1.00	0.78	-

S: Fachverband der Pensionskassen, Austrian Insurance Association, Url (2003A), Url (2009), Url (2012), Pekanov - Url (2017). - Includes working and retired beneficiaries.

Life insurance and pension insurance contracts

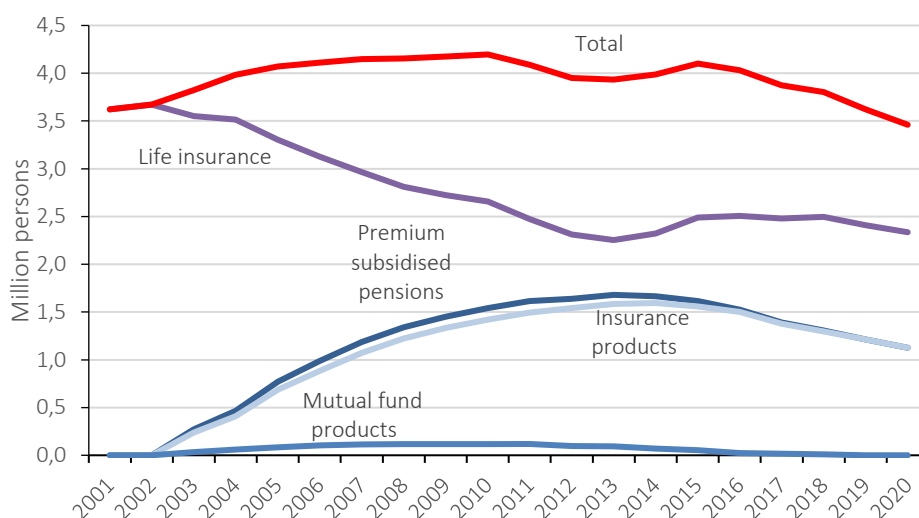
Life insurance policies are signed by private persons who pay contributions over an agreed period into their own pension account. The insurance company administrates the account and manages the accumulated assets. At the end of the contribution period, either a lump-sum amount is paid out to the insured person or alternatively the insurer converts the accumulated capital into an annuity.

There are two types of insurance contracts available which can be distinguished according to who is the bearer of investment risks. Insured persons with a unit-linked policy assume the investment risk and must choose their investment portfolio. Classic life insurance products, on the other hand, offer a minimum return guarantee but investment decisions are delegated to the insurance company. The maximum possible guaranteed rate of return is regulated by the Austrian supervisory authority; currently this rate is fixed at 0.5% per annum (since 1.1.2017; BGBl. II Nr. 266/2016). Investment returns in excess of the guaranteed level are distributed across the insured as variable profit participation.



The major public pension reforms between 2003 and 2006 left many private employees, employers, and civil servants with a lower expected public pension payment. As a compensation the Austrian government introduced the premium subsidised pension plan (Prämienbegünstigte Zukunftsvorsorge). Originally the premium was fixed at 9.5% of the annual contribution, but in 2012, fiscal consolidation measures resulted in a halving of the subsidy rate; it is currently fixed at 4.25%. Additionally, the yield on investment is fully tax exempt. Premium subsidised pension plans have a minimum contract length of 10 years. About one third of the contracts feature a length of more than 30 years and two thirds of the contracts have a minimum duration of 20 years. The portfolio choice for the assets of subsidised pension plans is restricted by law. A minimum share of the assets must be held in equities noted on underdeveloped stock exchanges. This measure was targeted to foster the Vienna stock exchange, but it resulted in highly concentrated investment risk. The strict regulation of investments has been weakened over the past years allowing for example life cycle portfolios with a reduction in the equity exposure when the retirement of entitled persons comes closer.

Chart AT1. Entitlements to active personal pensions



S: Austrian Insurance Association (AIA), WIFO. - Includes contributing and retired policy holders. The AIA adjusted its definitions of insurance products from 2020 onwards. This required a new approach to estimate the number of entitlements to active personal pension plans. Consequently, the numbers deviate from previous publications.

The halving of the subsidy premium and considerably negative returns on stock exchanges during the year 2008 reduced the interest in this new pension saving vehicle. The number of contracts is falling and contracts with the shortest possible duration of ten years have been mostly terminated with a lump-sum payment. This triggers an exit from the annuity phase with a mandatory repayment of the subsidy.



Charges

Information on all types of charges for occupational and private pension products are hard to obtain. Within direct commitment systems, pensions are of the defined benefit type and firms cover all expenses. The remaining vehicles for occupational pensions are subject to some degree of competition between financial intermediaries, although most pension funds are owned by alliances of banks and insurance companies. Because occupational pension plans are always group products, i. e. the individual entitled person has only limited or even no choice during the savings and annuity phases, these products have a cost advantage over individual pension plans. Large firms also receive quantity discounts or customised tariffs with lower administrative charges. In Table AT2 administrative charges and investment expenses for pension funds are expressed as a percentage of the funds' total invested assets. There are no data published on acquisition costs. For the year 2019, a substantial reduction in charges has been recorded by the OECD.

Table AT2. Operating expenses as % of total assets for pension funds

	Administrative charges	Investment expenses
2003	0.23	0.18
2004	0.23	0.12
2005	0.38	0.14
2006	0.39	0.15
2007	0.26	0.16
2008	0.32	0.16
2009	0.35	0.17
2010	0.28	0.17
2011	-	-
2012	-	-
2013	0.30	0.16
2014	0.00	0.17
2015	0.18	0.18
2016	0.19	0.18
2017	0.19	0.18
2018	0.20	0.19
2019	0.11	0.12

S: OECD Pension indicators.



Table AT3. Life Insurance expense ratios

	Acquisition charges	Administrative charges
	In % of total premiums	In % of mean capital investments
2005	11.28	0.43
2006	11.49	0.38
2007	11.10	0.38
2008	10.66	0.38
2009	9.97	0.37
2010	10.75	0.36
2011	11.01	0.39
2012	11.68	0.33
2013	11.37	0.32
2014	10.67	0.33
2015	10.80	0.33
2016	11.49	0.35
2017	10.44	0.36
2018	10.27	0.37
2019	10.57	0.37
2020	10.85	0.38

S: Financial Market Authority, Austrian Insurance Association.

The costs of acquisition and administration for life insurance products are published by the Financial Market Authority. Acquisition costs amount to roughly one tenth of total premium income. Since 1 January 2007 the Insurance Contract Law includes a provision that acquisition fees have to be distributed over at least the first five years of the contract length. Before 2017 it was possible to charge the full acquisition fee in the first year, making the cancellation of a life insurance contract extremely costly. Administration costs are presented as a ratio to the mean of the invested assets.

Since 1 January 2017, every consumer receives a short product information (Key Information Document) before signing an insurance contract. These information sheets are standardised and contain details of individual charges and investment fees allowing a better comparison of offers.

Taxation

The taxation of old-age provision varies over different vehicles and depends mainly on the history associated to the vehicle. For example, the taxation of occupational pensions is very much oriented towards the treatment of direct commitments, which were the first vehicle used for occupational pensions. Direct commitments work like a deferred compensation and therefore they are only taxed in the year of the payment. This corresponds to a system with tax-exempt contributions, tax-



exempt capital accumulation, and (income) taxed benefits (EET system). This philosophy carries over to contributions paid by the employer into a pension fund or a group insurance product following the pension fund regulation (Betriebliche Kollektivversicherung). Contributions to pension funds and group insurance products (Betriebliche Kollektivversicherung) are subject to a reduced insurance tax of 2.5%. Contributions by employees are fully taxed but the resulting annuity is subject to reduced income taxation.

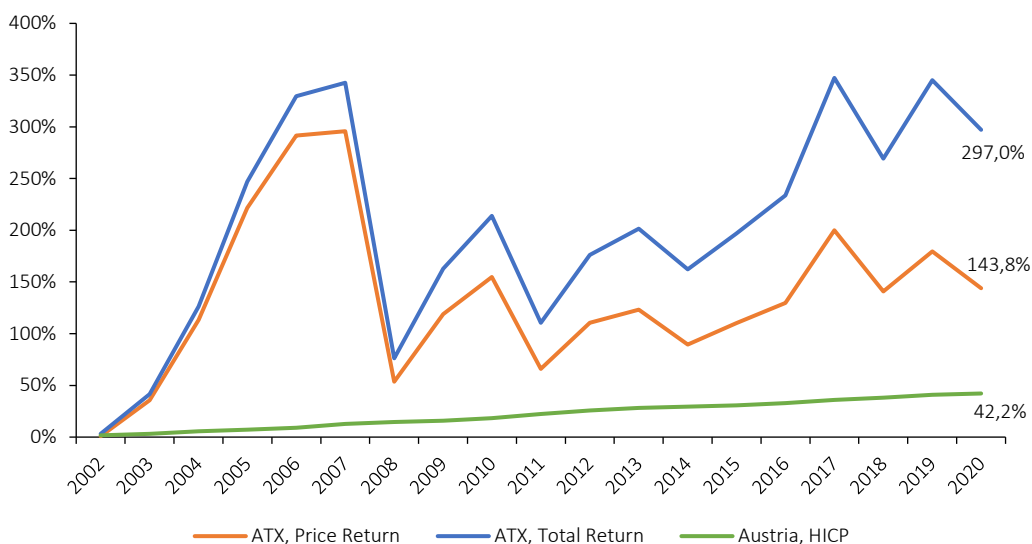
Contributions to classic life insurance products are not tax deductible and are subject to an insurance tax of 4%. During the capital accumulation phase all investment returns are tax exempt, and the taxation of benefits depends on the pay-out mode. Lump-sum payments are tax-free while annuities are subject to (reduced) income taxation. Additionally, premium subsidised products carry a premium based on the contribution, the capital accumulation phase is tax-exempt, and benefits are also tax free if they are converted into an annuity. Pekanov – Url (2017) provide a survey of the tax treatment of all vehicles for old-age provision using the present value approach as suggested by the OECD (2015, 2016). This approach compares the tax treatment of each vehicle to the tax treatment of a standard savings account. Expressed as a ratio to the present value of contributions, the tax advantage of employer payments into pension funds amount to 20%, i. e. the value of the tax subsidy corresponds to one fifth of life-time contributions. The lowest tax advantage results for life insurance products with an annuity payment. In this case, the tax subsidy makes up for 7% of life-time contributions. The maximum tax preference is associated with occupational life insurance policies subject to § 3/1/15 EStG. In this case, the subsidy amounts to 60% of life-time contributions, however, payments into this vehicle are restricted to a negligible € 300 per year.

Austrian Capital market returns

The performance of the Vienna stock exchange is shown in Chart AT2, where we distinguish between the price development of shares and the total return to equity investments in Austria including reinvested dividend payments. It is not surprising to observe that both indices have a positive long-term real return and are well above the cumulated inflation rate in 2020. Because the Austrian equity market is small, financial intermediaries spread their equity investment throughout Europe and the rest of the world. Therefore, equity returns of the Vienna stock exchange provide no guidance for the investment performance of Austrian pension products, except premium subsidised pension plans carrying an obligation to invest in under-developed equity markets.



Chart AT2. Cumulated Austrian Equity Market Performance, 2002-2020



S: Macrobond, Statistik Austria. Year-end values.

Pension Returns

Due to the defined benefit character of pensions derived from direct commitments and because accumulated assets for direct commitments have the narrow purpose of protecting individual pension claims in case of a firm bankruptcy, we do not compute pension returns for this vehicle. Furthermore, the asset class in which firms can invest are restricted to government bonds issued by OECD member countries.

The way of taxing contributions, investment returns, and pension payments varies according to the vehicle chosen, the party paying the contribution, i. e. employers or employees, and the personal income tax break of the retiree (cf. chapter on taxation). For this reason, we cannot compute a general after-tax return for Austria. Instead, we present the:

- nominal returns before charges, inflation, and tax,
- nominal returns after charges but before inflation and tax
- real returns after charges and inflation but before tax

for the two most important vehicles, i. e. pension funds and classic life insurance policies. The returns on classic life insurance policies are also representative for occupational pension plans using life insurance products under the occupational pension law (Betriebliche Kollektivversicherung).



Pension funds

Table AT4 shows the returns on assets held by pension funds. In the case of a defined benefit pension plan, investment returns are important for the sponsoring firm because if the return falls short of the imputed interest rate used for the computation of the expected pension level, the firm will have to provide additional contributions covering the shortfall. On the other hand, if a defined contribution pension plan has been established, the beneficiaries bear the risk of a shortfall in the realised return on investment, and consequently the realised pension level falls below its expected value.

Information on the performance of pension funds is published continuously by an independent third party, the Oesterreichische Kontrollbank⁵³, following a standardised procedure. The returns are available for all pension funds and separately for multi- and single-employer pension funds. The long-term performance of firm specific pension funds is about 0.5 percentage points higher as compared to multi-employer pension funds. The difference results probably from a less risk-oriented investment style followed by multi-employer pension funds, due to the wider usage of return guarantees in multi-employer pension funds. Nominal investment returns after charges but before inflation and taxes result from the subtraction of administrative charges of pension funds as presented in the chapter on charges. Real returns are computed by subtracting the HICP-inflation rate for Austria.

The Financial Market Authority publishes the asset allocation of pension funds as of year-end (FMA, 2021). The portfolio in 2020 was dominated by debt securities (37.2%) and equity investments (36.4%). The good performance of equity markets in the second half of 2020 led to continued low funds held in bank balances (7.9%). Real estate investments accounted for 5.5% of assets while the remainder was mixed throughout smaller asset categories (Chart AT3, upper panel). Given the strong exposure to equity, we find several years with negative returns, i. e. investment losses. Specifically, during the years after the bursting of the dotcom bubble (2000), the international financial market crisis (2007), and the public debt crisis in the euro area (2011), but also in 2018, when both bond and equity markets turned downwards. Nevertheless, pension funds achieved between 2002 and 2020 an annual average net real yield on investment of 1.4%. This corresponds to an average excess return over Austrian government bonds of 1.5%.

⁵³ <https://www.oekb.at/kapitalmarkt-services/unser-datenangebot/veranlagungsentwicklung-der-pensionskassen.html>.



Table AT4. Pension funds' average annual rate of investment returns (in %)

	Nominal return before charges, inflation, and tax	Nominal return after charges, before inflation and tax	Real return after charges and inflation before tax
2002	-6.31	-6.56	-8.26
2003	7.60	7.37	6.07
2004	7.34	7.11	4.61
2005	11.37	10.99	9.39
2006	5.55	5.16	3.56
2007	1.95	1.69	-1.81
2008	-12.93	-13.25	-14.75
2009	9.00	8.65	7.60
2010	6.45	6.17	3.97
2011	-2.96	-3.19	-6.59
2012	8.40	8.17	5.27
2013	5.14	4.84	2.84
2014	7.82	7.82	7.02
2015	2.32	2.14	1.04
2016	4.18	3.99	2.39
2017	6.13	5.94	3.64
2018	-5.14	-5.34	-7.04
2019	11.66	11.56	9.76
2020	2.55	2.31	1.31
Annual	3.49	3.25	1.37

S: Fachverband Pensionskassen, OECD Pension indicators, Statistik Austria. - Charges estimated by mean value for the years 2002, 2011, 2012, and 2020, cf. Table AT2. Annual average corresponds to geometric mean.

Life insurance contracts

The return on investment in the classic life insurance industry is regularly computed by the Austrian Institute of Economic Research (WIFO). This computation excludes unit-linked contracts because the investment risk is borne by the insured and returns are usually retained within mutual funds and reinvested. The calculation of investment returns is based on investment revenues of the insurance industry and the related stock of invested assets in classic life insurance as provided by the Financial Market Authority. The method uses the mean amount of invested capital over the year as the basis for the computation and is documented in Url (1996). The charges used to correct the yield for administrative expenses are based on Table AT3. Real returns result from subtracting the HICP-inflation rate for Austria from the nominal return.

Obviously, nominal gross returns in the insurance industry are less volatile than in the pension fund industry (Table AT5). The main reason for this divergence is the more conservative asset allocation of insurance companies, i.e., they invest more heavily in bonds (46%) and their collective investments of 19% of the portfolio are also concentrated in bonds-oriented investment funds, creating a high exposure to fixed interest securities (FMA, 2021). Another important asset class in the insurance industry are shareholdings in related undertakings (19%), which are usually not listed at a stock exchange. Property investments sum up to 8% of the assets, while equity holdings form



just 1% of the portfolio (Chart AT3, lower panel). This gives insurance companies small exposure to volatile asset categories and consequently their investment performance is steadier. The resulting average net real rate of return of 2.1% was thus mainly due to the avoidance of losses after the year 2000. The insurance industry achieved an average excess return over Austrian government bonds (benchmark) of 2.3% over this period, and their investment return was above the one delivered by pension funds.

The particular way of distributing investment returns in classic insurance policies makes their performance even more steady. Insurance companies separate their investment income into two parts. The first part serves to cover underwritten minimum return guarantees and it is immediately booked towards the individual account. Any excess return will be distributed over a couple of years through the build-up and reduction of profit reserves. By transferring accumulated profit reserves smoothly into individual accounts, insurance companies make the individual accrual of investments returns less dependent on current capital market developments although asset values are marked to market.

Yields on fixed interest securities from highly rated debtors are low or even negative since a couple of years. This environment forces insurance companies to replace maturing securities featuring high yields with new lower yielding securities. In a few years, insurance companies will have completely replaced their stock of high-yield-high-grade securities and accordingly their average yields will continue to be low.

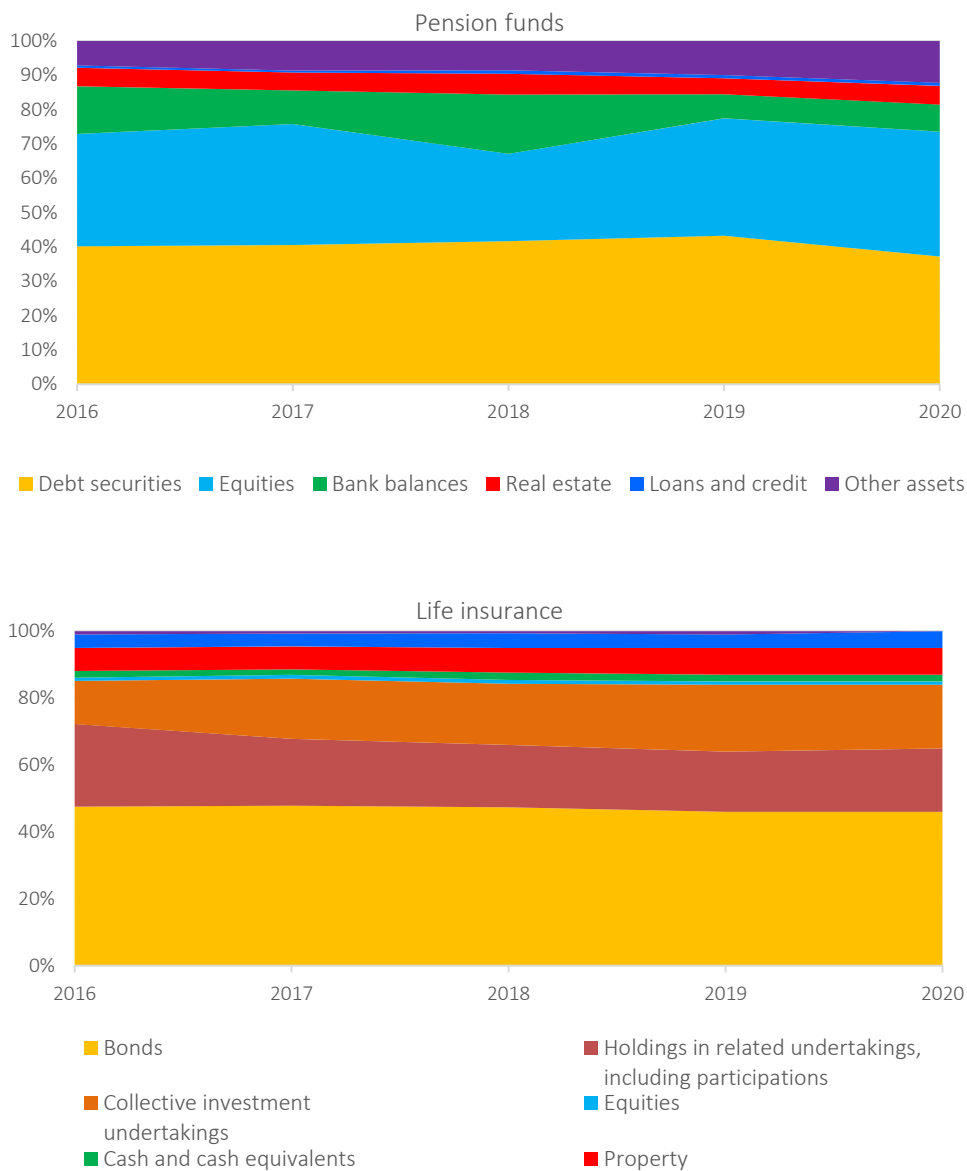
Table AT5. Pension insurances' average annual rate of investment returns (in %)

	Nominal return	Nominal return after	Real return after
2002	3.96	3.60	1.90
2003	5.60	5.24	3.94
2004	5.93	5.57	3.07
2005	6.32	5.88	4.28
2006	5.86	5.48	3.88
2007	5.18	4.80	1.30
2008	3.35	2.97	1.47
2009	3.80	3.43	2.37
2010	4.47	4.11	1.91
2011	3.70	3.31	-0.09
2012	4.42	4.09	1.19
2013	4.31	3.99	1.99
2014	3.90	3.58	2.78
2015	3.94	3.61	2.51
2016	3.73	3.38	1.78
2017	3.49	3.14	0.84
2018	3.10	2.73	1.03
2019	3.34	2.97	1.17
2020	3.20	2.82	1.82
Annual average	4.29	3.93	2.05

S: Financial Market Authority, Statistik Austria. – Annual average corresponds to geometric mean.



Chart AT3. Asset allocation of pension funds and life insurance 2016 to 2020



S: Financial Market Authority, Statistik Austria.



Conclusions

The performance of pension funds in real terms has been positive over the whole period from 2002-2020, with an annualised average real return of 1.4% after service charges and before taxation. Especially the difficult years after 2000, in 2008, 2011, and recently 2018 dampened the investment performance considerably. The consequences are either additional payments by sponsoring firms (defined benefit plans) or reduced expected and realised pension levels (defined contribution plans). A mediocre investment performance will be more intensively felt in risk and investment pools with a high imputed interest rate used for the computation of the expected pension level. For example, plan members whose entitlement was transferred from a direct commitment to a pension fund around the year 2000 still suffer from investment losses after the dotcom bubble because overly optimistic imputed interest rates had been used at that time.

The average real rate of return on investments by insurance companies benefits from a conservative asset allocation with strong government bonds holdings. This allowed insurers to avoid large losses in years with a financial market crisis and reach an average real rate of return of 2.1% annually after service charges and before taxation. Declining nominal interest rates and higher inflation increased the pressure on net real rates of return after 2015. Insurance companies benefit from the long duration of their investment portfolio, i. e. they still own bonds featuring high interest coupons, but these bonds will expire during the next few years creating a potential for low yield reinvestments. Consequently, demand for classic life insurance by individual households is shrinking and even premium subsidised pension insurance is in low demand now because subsidies were halved in 2012 and investment losses, due to the concentrated investment in small and under-developed markets, affected this vehicle disproportionately.

The opportunity to offer defined contribution plans has certainly boosted the spread of occupational pensions in Austria. Within pension funds around three quarters of the entitlements are defined contributions plans, while occupational pensions based on insurance contracts are all of the defined contribution type.

The COVID-19 crisis left a significant mark on Austria's economy. First estimates for the year 2020 show a decline in real output by 6.3% (YoY) and unemployment numbers reaching record levels of 410.000 persons, up 110.000 persons over the previous year's average. Although redundancies were concentrated in sectors with traditionally low prevalence of occupational pension plans (like accommodation, transport, and entertainment) contributions to occupational pensions throughout all vehicles took the expected hit in 2020 and declined by 23% (YoY); job displacements and the widespread use of short-time work lowered the wage bill. Given the strong recovery starting in May 2021, the wage bill will surpass its 2019 level by the end of 2021. Nevertheless, given high uncertainty about the infectiousness of Corona virus mutations, the setup of occupational pension plans by firms not yet offering them is unlikely in 2021. As of mid-2021, the build-up of pension



funds will benefit from sharply increased equity valuations throughout Europe and the USA, partly compensating for the bleak prospects for yields on fixed income securities.

Note: The addition of the Austrian Country Case was possible also thanks to our partners from Pekabe (the Austrian Association for the Protection of Pension Fund Investors), who reviewed the Country Case and co-funded it with BETTER FINANCE.

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Pension Savings: The Real Return

2021 Edition

Country Case: Belgium

Sommaire

En Belgique, le système de retraite est constitué de trois piliers. Le premier pilier par répartition reste le plus important des trois piliers. Les retraités bénéficient d'un taux de remplacement moyen de 66.2% en 2018. Les piliers 2 et 3 représentent les pensions complémentaires professionnelles et individuelles basées sur les cotisations volontaires des individus. Le nombre d'individus couverts par les véhicules de placements dans ces deux piliers continue de croître rapidement. Respectivement 75% et 66% de la population active est couverte par ces deux piliers. Dans chacun de ces piliers, les véhicules de placements peuvent être soit un fonds géré par une IRP dans le pilier 2 ou une banque dans le pilier 3 ou soit un contrat d'assurance groupe dans le pilier 2 ou un contrat d'assurance vie individuelle dans le pilier 3.

Sur une période de 21 ans (2000-2021), les fonds de pension gérés par les IRP (pilier 2) et les fonds d'épargne retraite (pilier 3) ont eu un rendement réel annuel moyen après charges de 2,24% et 1,8% respectivement. Au sein du pilier 2, tous les fonds à contributions définies gérés par les IRP et tous les contrats d'assurance groupe Branche 21 doivent verser un rendement minimum garanti de 1,75% sur les cotisations des employeurs et des employées. Avec la baisse des rendements des obligations d'Etat à 10 ans, les sociétés d'assurance ont revu à la baisse le rendement minimum garanti offert sur les nouvelles cotisations versées sur les contrats d'assurance groupe Branche 21. Cependant, les sociétés d'assurance continuent de garantir les anciens rendements sur les cotisations passées jusqu'au départ à la retraite. Les provisions passées sont toujours rémunérées avec des rendements garantis oscillant entre 3.25% et 4.75%. En 2018, le rendement garanti moyen était légèrement inférieur à 3%. En raison, du manque d'informations publiques, il est plus difficile de fournir des informations sur les rendements des contrats d'assurance-vie individuels souscrits dans le cadre du pilier 3.

Summary

The Belgian pension system is divided into three pillars. The first PAYG pillar is still important among the three pillar and provided on average a replacement rate of 66.2% in 2018. Pillar II and Pillar III are both based on voluntary contributions. Numbers of individuals covered by pillar II and pillar III pension schemes continue to grow rapidly. Respectively 75% and 66% of the active population is covered by these pillars. In both pillar II and pillar III, pension scheme can take the form of a pension



fund (managed by an IORP in pillar II and by a bank in pillar III) or can be an insurance contract (“Assurance Groupe” contracts in pillar II and individual life-insurance contracts in pillar III).

Over a 21-year period (2000-2021), occupational pension funds managed by IORPs (pillar II), and pension savings funds (pillar III) had annualized real performance after charges of 2.1

24% and 1.8% respectively. Within the pillar II, all Defined Contributions plans managed either by IORP and “Assurance Groupe” Branch 21 contracts are required to provide an annual minimum guaranteed return of 1.75% on both employee and employer contributions. With the decline in the return on the Belgian 10-year government bonds, insurance companies were forced to decrease the minimum guaranteed return offered to new contributions on “Assurance Groupe” Branch 21 contracts. However, insurance companies continue to guarantee the previous returns on the past contributions until the retirement. Past reserves continue to have guaranteed returns range from 3.25% to 4.75%. In 2018, the average guaranteed return was slightly under 3%. Due to a lack of information, it is more difficult to provide return information on individual life-insurance contracts subscribed in the framework of pillar III.



Introduction

The Belgian pension system is divided into three pillars:

Table BE1.1 - Multi-pillar pension system in Belgium		
PILLAR I	PILLAR II	PILLAR III
State Pension	Funded pension <i>The Supplementary Pension Law (the Vandenbroucke Law) implemented in 2003</i>	Voluntary pension
Federal Pension Service (SFP)	IORP and Insurance companies	Banks (pension savings fund) and Insurance companies (pension savings insurance and long-term savings plans)
Mandatory	Voluntary	Voluntary
Publicly managed	Privately managed pension funds and “Assurance Groupe contracts”	Privately managed pension funds and life-insurance contracts
PAYG	Funded	Funded
Earnings-related public scheme with a minimum pension	DB (Defined Benefits scheme) / DC (Defined Contribution scheme) Individual retirement accounts	
Quick facts		
Number of old-age pensioners (as of 1 st January 2020): 2,187,220	IORP: 192 Insurance Companies:28	Pension savings funds: 21 life insurance retirement savings product
Average old-age pension: €1,176€	AuM: €118.2 bn (2019)	AuM: €53.25 bn (2019)
Average income (gross): €3,345	Participants: 3.950 million	Participants: 3.3 million
Men and women’s average replacement ratio: 66.2% (2018)	Coverage ratio: 78% of active population is affiliated to a pension product, being active or dormant	Coverage ratio: 66%

First Pillar

The Belgian Pillar I is organised as a Pay-As-You-Go (PAYG) pension system consisting of three regimes: one for employees in the private sector, one for the self-employed individuals and one for civil servants. The legal retirement age is 65 for both women and men. It used to be 60 for women until 1993 but was progressively increased to reach 65 in 2010. The Act of 10 August 2015 increases the retirement age imposed by law to the age of 66 by 2025 and 67 by 2030. Pillar I pensions are PAYG systems based on career duration and income earned. A complete career



equals to 45 working-years. The calculation of the retirement pension depends on the individual's status, his/her career and his/her salary earned throughout his/her career. The amounts can therefore vary greatly from person to person. A guaranteed minimum pension and a maximum pension have been fixed. A retiree with a complete career will receive at least a guaranteed minimum pension of €1,690.01 if he/she lives within a household or € 1,352.44 if he/she lives alone⁵⁴. In 2018, the net replacement rate from the PAYG system for both men and women (with an average working wage) was 66.2%.⁵⁵

Second Pillar

Occupational pension plans are private and voluntary. This pillar exists for both employees and self-employed individuals. Employees can subscribe to occupational pension plans provided either by their employer (company pension plans) or by their sector of activity (sector pension plans). Company pension plans are traditionally dominant in the second pillar in comparison to sector pension plans. Self-employed individuals can decide for themselves to take part in supplementary pension plans.

An employer can set up a company pension plan for all its employees, for a group of employees or even for a single employee. In the case of sector pension plans, collective bargaining agreements (CBAs) set up the terms and conditions of pension coverage. Employers must join sector pension plans, unless labour agreements allow them to opt out. Employers who decide to opt out have the obligation to implement another plan providing benefits at least equal to those offered by the sector.

Company and sector pension plans can be considered as “social pension plans” when they offer a clause with solidarity benefits that provides employees with additional coverage for periods of inactivity (e.g., unemployment, maternity leave, illness). “Social pension plans” are becoming less and less prevalent, possibly as a result of the relatively high charges associated with these plans in comparison to pension plans without a solidarity clause.

Occupational pension plans are managed either by an Institution for Occupational Retirement Provision (IORP) or by an insurance company. Insurance companies predominantly manage them.

The Supplementary Pensions Act reform entered into force as of 1 January 2016. It amended the Act of 28 April 2003 by introducing the alignment of the supplementary pension age and the legal pension age (respectively 65, 66 in 2025 and 67 in 2030). Supplementary pension benefits will be paid at the same time as the legal pension's effective start. Previously, some occupational pension plans allowed early liquidation: lump sum payments or annuities from supplementary pension could be paid from the age of 60. Conversely, employees who decide to postpone their effective

⁵⁴ These amounts apply starting from the 1st of July 2021

⁵⁵ OECD, Pension at Glance 2019 Country Profiles – Belgium

<https://www.oecd.org/els/public-pensions/PAG2019-country-profile-Belgium.pdf>



retirement when having reached the legal pension age, have the possibility to claim their supplementary pension or to continue to be affiliated to the pension scheme until their effective retirement.

Moreover, many supplementary pension plans provided financial compensations to offset the income loss employees may encounter when they end prematurely their career. As of January 1st, 2016, all these existing beneficial anticipation measures were abolished. Affiliates who reached the age of 55 years on or before 31 December 2016, can still benefit from these existing measures. On the 1st of January 2020, approximatively 3.950 million Belgians (78% of the active population) were covered by occupational pension plans:

- 3.359 million employees were covered either by their company or by their sector of activity;
- 360,027 self-employed individuals were covered by supplementary pension plans;
- 229,390 individuals were covered both by their company or by their sector of activity and by a supplementary pension plan dedicated to self-employed.⁵⁶

Third Pillar

The third pillar's purpose is to provide Belgians with individual private and voluntary pension products, which allow them to have tax reliefs from their contributions. There are two types of available products for subscription: pension savings products managed either by asset management companies or by life insurance companies and long-term savings products managed by insurance companies. This pillar is significant in Belgium when compared to other EU member states. The tax rate applied to accrued benefits from pension savings products (funds or insurance) was lowered from 10% to 8% in 2015, in order to encourage savings in the framework of the third pillar.⁵⁷ The third pillar covered two thirds of the active population of Belgium in 2017, with 34% of workers subscribing to a life insurance retirement savings product (1.7 million Belgians) and 33% being covered by pension savings funds (1.6 million Belgians)⁵⁸.

The real net returns (before taxes) of the main retirement provision vehicles in Belgium are presented in the table below based on 5 recommended holding periods: 1 year (2020), 3 years (2018-2020), 7 years (2014-2020), 10 years (2011-2020), and since the earliest data available.

⁵⁶ Source: FSMA's publication: Le deuxième pilier de pension en images. Les pensions complémentaires expliquées. Situation au premier janvier 2020.

https://www.fsma.be/sites/default/files/legacy/content/FR/Pension/apercusectoriel_2020.pdf

Data presented in this publication were provided by the DB2P who manages the supplementary pensions database. It collects data related to supplementary pension plans such as individualised acquired pension rights of employees, self-employed individuals and civil servants.

⁵⁷ The lowering of the tax rate does not apply to long-term savings products.

⁵⁸ There is not more recent data for 2018 and 2019.



Summary Table BE1 – Real net returns of Belgian pension vehicles

	Pillar II			Pillar III	
	IORP	“Assurance Groupe Branch 21”	Pension savings funds	Life Insurance Branch 21 contracts	Life Insurance Branch 23 contracts
2020	4.22%	na	1.6%	na	na
2018-2020	4.11%	na	1.4%	na	na
2014-2020s	4.64%	na	3.4%	na	na
2011-2020	4.35%	na	3.4%	na	na
Since the earliest data available	<u>Since 1985</u> (source Pensio Plus): 4.7%	<u>2002-2014:</u> 2.54%	<u>1995-2020</u> (source BeAma): 5.2%	<u>2002-2014:</u> 1.94%	<u>2002-2014:</u> 1.57%

Source: Tables BE13-BE19

Pension Vehicles

Pillar II: Occupational pension plans

The second pillar refers to occupational pension plans designed to raise the replacement rate. Savings in these plans are encouraged by tax incentives. The second pillar is based on the capitalisation principle: pension amounts result from the capitalisation of contributions paid by the employer and/or employee in the plan or by self-employed individuals. There are three types of occupational pension plans in place:

- Company pension plans;
- Sector pension plans (CBAs);
- Supplementary pension plans for self-employed individuals, company directors and an additional pension agreement for self-employed as individuals (PLCI, PLCDE, PLCIPP).
- Supplementary pension plan for employees (PLCS)

In the following section devoted to occupational pension plans, the available data reported in Tables BE2 to BE5 were provided by the Financial Services and Markets Authority (FSMA), Assuralia and the National Bank of Belgium (NBB).

The FSMA annually reports detailed information on Institutions for Occupational Retirement Provision (IORP, the EU law term for non-insurance regulated occupational pension products provider⁵⁹). Every two years, the FSMA also reports detailed information on sector pension plans and supplementary pension plans for self-employed individuals. Information on “Assurance

⁵⁹ Article 6(1) of Directive (EU) 2016/2341 of the European Parliament and of the Council of 14 December 2016 on the activities and supervision of institutions for occupational retirement provision (IORPs) (recast), O.J. L354/37.



Groupe” contracts was reported by Assuralia (for Branch 21 contracts) and by the National Bank of Belgium (for Branch 23 contracts).

Management of occupational pension plans

The management of occupational pension plans can be entrusted to an Institution for Occupational Retirement Provision (IORP) or to an insurance company.

Institutions for Occupational Retirement Provision (IORP)

IORPs are asset management companies set up with the sole purpose of providing occupational retirement savings products under the form of investment funds, which can either be directly invested, through tailor-made portfolios, or which can be linked to other funds’ units (unit-linked).

FSMA reported the following data on IORP in 2019.

- 192 occupational pension plans were managed by an IORP and the number of affiliates to IORPs increased by 15% to 2,055,434. This increase was driven by a rise in the number of affiliates to DC sector pension plans of which a new plan.
- the number of affiliates to sector pension plans managed by IORPs continued to increase from 1,328,463 in 2018 to 1,539,170 in 2019 (+15.9%). It still represented the largest part in the total number of affiliates (74.9%), whereas their reserves (€5.4 billion) represented only 14.6% of the total reserves.
- Three supplementary pension plans for self-employed individuals (€2.2 billion of reserves) were managed by IORPs.

Based on the amount of reserves managed out of the total in Pillar II, IORPs had a market share of 31%, the rest being managed by insurance companies through Branch 21 and Branch 23 contracts, described below.

“Assurance Groupe” (Branch 21 and Branch 23 contracts)

Occupational pension plans are predominantly managed by insurance companies. Such pension plans are called “*Assurance Groupe*” contracts and can be divided into two different types of contracts:

- “Branch 21 contracts” are occupational plans, offering a guaranteed return on contributions made by employers and employees (1.75% since January 1st, 2016). The insurance companies who provide these contracts bear the risk and pay the guaranteed return in addition to a profit-sharing. All sector pension plans and all supplementary pension plans for self-employed individuals managed by insurance companies take the form of “Branch 21 contracts”. Most of company pension plans are also managed through “Branch 21 contracts” rather than “Branch 23 contracts”.



- “Branch 23 contracts” are unit-linked contracts and are invested mainly in investment funds and equity markets. Insurance companies do not offer a guaranteed return on contributions made into the plan. Their total returns depend on their portfolio composition. However, affiliates to “Branch 23 contracts” benefits from the legal minimum guaranteed return which is 1.75% since January 1st, 2016. In case of a shortfall on the individual account when paying a benefit or a transfer of reserves, the employer has to pay the difference. This kind of occupational plans are riskier for employers who bear the risk and are generally costlier.

In the second pillar, company pension plans and some PLCI are managed through Branch 23 contracts. PLCI managed through Branch 23 contract represent a small part in 2019 (less than €0.5 million euros). All Branch 23 contracts accumulated €4.7 billion in reserves in 2019, representing 5.8% of the total reserves managed within “Assurance Groupe” contracts (see Table BE2).

Table BE2. Total reserves managed in pillar II in (€ billion)					
	IORP (1)	“Assurance Groupe”: Branch 21 contracts (2)	“Assurance Groupe”: Branch 23 contracts (3)	Total “Assurance Groupe”(2) +(3)	Total (1)+(2)+(3)
2004	11.7	29.9	na	na	41.6
2005	13.4	30.6	1.6	32.2	45.6
2006	14.3	33.5	1.7	35.2	49.5
2007	14.9	37.3	1.7	39.0	53.9
2008	11.1	38.2	1.4	39.6	50.7
2009	11.2	41.2	1.8	43.0	54.2
2010	13.9	44.7	1.8	46.5	60.4
2011	14.0	48.6	1.6	50.2	64.2
2012	16.4	52.3	1.7	54.0	70.4
2013	18.0	56.7	1.9	58.6	76.6
2014	20.7	60.1	2.1	62.2	82.9
2015	21.9	64.2	2.1	66.3	88.2
2016	26.8	67.4	2.4	69.8	96.6
2017	32.0	70.3	3.2	73.5	105.5
2018	31.4	72.6	3.7	76.3	107.7
2019	36.9	76.6	4.7	81.3	118.2

Sources: Assuralia, BNB, BETTER FINANCE research, FSMA

Description of occupational pension plans

The following section provides information and figures for the different occupational pension plans within Pillar II in Belgium: sector pension plans, private supplementary pensions for self-employed individuals (PLCI) and company pension plans.



Sector pension plans⁶⁰

Sector pension plans are supplementary pension commitments set up on the basis of collective bargaining agreements and concluded by a joint committee or joint sub-committee. In the joint committee/sub-committee, a sectorial organiser responsible for the pension commitment is appointed. There are 53 joint committee in 2019.

In 2019, the total reserves managed by sector pension plans represented 6.3% of the total reserves within Pillar II. Reserves mainly managed by IORPs increased in 2019 and amounted to €5.4 billion. This amount represents 14.6% of total reserves managed by IORPs within the second pillar in 2019. Reserves of sector pension plans managed by insurance companies through Branch 21 contracts are less important. In 2019, they represented €2.1 billion of reserves, represented 2.7% of the total reserves managed through “Branch 21 contracts” within the second pillar in 2019.

Table BE3. Total reserves in sector pension plans (€ billion) ⁶¹			
	IORP	“Assurance Groupe” (Branch 21)	Total
2005	0.4	0.1	0.6
2007	1.4	0.7	2.1
2009	1.5	0.8	2.3
2010	1.6	0.9	2.6
2011	2.0	1.1	3.1
2012	2.5	1.3	3.8
2013	2.7	1.5	4.3
2014	3.1	1.7	4.8
2015	3.4	1.9	5.3
2016	4.0	1.8	5.8
2017	4.4	2.1	6.5
2018	4.1	2.6	6.7
2019	5.3	2.3	7.6

Source: FSMA, BETTER FINANCE calculations

Private Supplementary Pensions for self-employed individuals (PLCI)

In 2004, *Pension Libre Complémentaire pour Indépendants* (PLCI) – Private Supplementary Pensions for self-employed individuals – were integrated into the Supplementary Pensions Act. PLCI enable self-employed individuals to get a supplementary and/or a survival pension at their retirement.

Since 2004, self-employed individuals have the choice to contribute to supplementary pension plans. Moreover, they can henceforth choose the pension provider, either an IORP or an insurance

⁶⁰ All data provided comes from plans for which information is available.

⁶¹ Data for 2006 and 2008 was not available.



company. They can switch from one provider to another during the accumulation period. At January 1st, 2020, self-employed individuals had the choice between PLCI conventions managed by 3 IORPs and 19 insurance companies.

On January 1st, 2020, 500,492 self-employed individuals were covered by a PLCI convention. This number increased by 6% over the period 2018-2020. 55% of self-employed individuals were covered by a PLCI convention.

Self-employed individuals can also supplement their PLCI with several solidarity benefits, called social conventions (INAMI convention). 72,653 self-employed individuals were affiliated to PLCI with a social convention on January 1st, 2020. These conventions offer benefits such as the funding of the PLCI in the case of inactivity and/or the payment of an annuity in the case of income loss.

Self-employed individuals can save up to 8.17% of their income, without exceeding a maximum annually indexed amount (€3,302.77 in 2021). These ceilings can be increased up to 9.40% and €3,800.01 when a social convention is subscribed.

Contrary to sector pension plans, private supplementary pensions for self-employed individuals are predominantly managed by insurance companies through Branch 21 contracts.

Most of insurance companies offer contracts with social convention. In 2019, the contributions to PLCI convention reached €820 million. It represented an increase of 11.5% when compared to 2017 (€735 millions). 89% of contributions were transferred to PLCI conventions managed by insurance companies and 11% were transferred to IORP.

Table BE4. Total reserves managed in PLCI conventions (€ billion)

	IORP	"Assurance Groupe" (Branch 21 & Branch 23)	Total
2006	na	na	2.9
2007	na	na	3.3
2008	na	na	3.5
2009	1.6	2.4	4.0
2010	1.7	2.8	4.5
2011	1.4	3.7	5.1
2012	1.6	4.1	5.7
2013	1.6	4.6	6.2
2014	1.7	5.1	6.8
2015	2.0	5.7	7.7
2016	2.1	6.3	8.4
2017	2.1	6.8	7.5
2018	2.0	6.0	8.0
2019	0.8	7.9	8.7

Sources: FSMA, BETTER FINANCE calculations



Private Supplementary Pensions for Company Director (PLCDE)

The Private Supplementary Pension for Company Director is a tripartite relation between the company (the organizer), who can implement a pension commitment for the benefit of its director(s) and the commitment is managed by a pension organisation (either insurance companies or IORP).

FSMA publishes every two years since 2019, a bi-annual report on Private Supplementary Pensions for Company Director (PLCDE). The last report published in May, provides the following information on January 1st, 2020:

- The total number of organisers who implemented an individual or collective pension commitment for the benefit of its director(s) was 208,641. This represented an increase of 8% compared to January 1, 2018.
- The total number of commitments dedicated to Director increased and reached 319,052. Most of commitments were DC (94%) and were dedicated for only one affiliate (97%).
- The management of the pension commitments were managed quasi-exclusively by insurances companies (99% of reserves).
- The total reserves amounted to 19.6 billion euros and the contributions amounted to 1.66 billion euros (+3% since 2017).

232,593 directors were affiliated to a PLCDE. This is an increase of 6.4% from January 1, 2018. 1,835,064 employees (85%) were affiliated to “Assurance Group” contracts, while 326,806 employees (15%) were affiliated to IORP.

Table BE5. Total reserves managed in PLCDE (€ billion)						
	IORP	Assurance Groupe: Branch 21 contracts	Assurance Groupe: Branch 23 contracts	Assurance Groupe: Brach 21 + Branch 23 contracts	Total “Assurance Groupe”	Total
2015	0.11	11.85	0.06	3.02	14.92	15.04
2016	0.14	12.65	0.08	3.39	16.11	16.25
2017	0.15	13.29	0.13	3.90	17.32	17.47
2018	0.18	13.79	0.18	4.30	18.27	18.45
2019	0.20	14.38	0.19	4.80	19.37	19.57
<i>Source: FSMA</i>						

Convention for self-employed as individuals (PLCIPP or CPTI)

Since July 1st, 2018, self-employed individuals without a company, can subscribe a pension agreement for self-employed individuals (CPTI), whether or not combined with a PLCI. FSMA provides information on this new type of pension agreement on January 1st, 2020:



- There were 5,135 pension agreements which covered 5,027 self-employed individuals.
- The total reserves amounted to 70.4 million euros. 57.3% of reserves are managed by Branch 21 contracts, 33.6% by combined Branch 21 / Branch 23 contracts, 4.6% by Branch 23 contracts and 4.5% by IORP.
- The total amount of contributions amounted to 38.7 million euros in 2019

Company pension plans

Company pension plans are prevalent within the second pillar. For the first time, FSMA published a bi-annual report on company pension funds in May 2021. This report provides information at January 1st, 2020:

- The total number of employers who implemented a collective pension commitment for the benefit of their workers was 57,800. This is an increase of 6.5% compared to January 1, 2018, when 54,287 employers set up a pension scheme.
- The number of company pension plans were 116,595. It increased from 109,587 on January 1, 2018 to 113,099 on January 1, 2019. It represented an increase of 6.4%.
- More than half of company pension plans have commitment for 1 to 5 employees: 36% have 1 member, while 26% of them have 2 to 5 members. They are 11% to have 6 to 10 affiliates and 18% to have 11 to 50 affiliates. A minority of the schemes (9%) have more than 50 members.
- The total reserves amounted to 52.8 billion euros. 40.3 billion euros were managed by 20 insurance companies through “Assurance Groupe” Branch 21 or 23 contracts and 12.5 billion euros were managed by 144 IORP.
- 1,994,196 employees were affiliated to a company pension plan. This is an increase of 11% from January 1, 2018. 1,835,064 employees (85%) were affiliated to “Assurance Groupe” contracts, while 326,806 employees (15%) were affiliated to IORP.

Table BE6. Total reserves managed in company pension schemes (€ billion)

	IORP	Assurance Groupe: Branch 21 contracts	Assurance Groupe: Branch 23 contracts	“Assurance Groupe”: Brach 21 + Branch 23 contracts	Total “Assurance Groupe”	Total
2015	8.6	31.4	0.13	0.69	32.3	40.8
2016	9.9	33.2	0.20	0.75	34.2	44.1
2017	10.9	35.0	0.21	0.81	36.0	46.8
2018	11.4	36.9	0.24	0.86	38.0	49.5
2019	12.5	39.0	0.32	0.96	40.3	52.8

Source: FSMA



Supplementary pension for employees (PLCS)

Until March 2019, an employee could constitute an additional pension only if there is a pension plan within the company or the sector of activity which employs him / her. The legislator introduced a new form of pension constitution for employees on March 27, 2019. If the employee does not constitute a supplementary pension with his / her employer or within his /her sector of activity, or if it is low, the employee can, take the initiative to constitute an additional pension (PLCS). For the first time, FSMA published a bi-annual report on company pension funds in May 2021. This report provides information on January 1st, 2020:

- There were 319 pension agreements which covered 310 employees. This means that each employee constituting pension rights under the PLCS has signed only one agreement.
- The total reserves amounted to 149.797.
- These pension agreements are managed by two insurance companies. 94% of reserves are managed by combined Branch 21 / Branch 23 contracts and 6% by Branch 21 contracts.

Pillar III: Description of personal pension savings products

Pillar III refers to private pension plans contracted on an individual and voluntary basis. The Belgian market for personal pension plans is divided into two types of products:

1. Pension savings products, which can take two different statuses:
 - A pension savings fund;
 - A pension savings insurance (through individual Branch 21 contracts).
2. Long-term savings products, which consist mainly of a combination of Branch 21 and Branch 23 contracts.

Belgians can benefit from a tax relief based on their contributions made to pension savings products or long-term savings products. Upon retirement, individuals are free to choose how to liquidate the products: lump sum payment, periodic annuities or life annuity from invested benefits.

In 2020, 1,739,507-million Belgians saved through pension savings funds⁶². This number increased by 3.9% over a year. When adding up pension savings insurance contracts and long-term savings products, 2 out of 3 Belgians in the active population is covered by pension plans within the third pillar.

Pension savings funds

The Belgian pension savings funds market remains relatively concentrated since the launch of the first funds in 1987. The market has grown significantly in the past few years. 21 products were available for subscription at end-2020.

⁶² Chiffres secteur OPC 4ème trimestre 2020, BEAMA, June 9th, 2021



Table BE7 Net assets under management in pension savings funds (€ billion)	
2003	7.4
2004	8.7
2005	10.3
2006	11.5
2007	11.8
2008	9.0
2009	11.1
2010	12.0
2011	11.2
2012	12.6
2013	14.4
2014	15.6
2015	16.9
2016	18.0
2017	19.6
2018	18.2
2019	21.3
2020	22.3

Source: BeAMA

Pension savings funds are constrained by quantitative limits applied to their investments:

- A maximum of 75% in equity;
- A maximum of 75% in bonds;
- A maximum of 10% in euros or any currency of a country of the European Economic Area cash deposits;
- A maximum of 20% in foreign currency deposits;
- A maximum of 30% in equities from companies whose Market Capitalisation is less than or equal to €3 billion euros.

In practice, the majority of funds are predominantly exposed to the equity market. Their return is entirely variable and depends on the returns of the underlying assets and fee policy applied.

Pension savings insurance / Long-term savings products

Belgians can save for their retirement through life insurance products within two different frameworks: a pension savings insurance product (Branch 21 contracts) or a long-term savings product (Branch 21 and Branch 23 contracts combined). Assuralia reports annual statistics on contributions and reserves managed in individual life insurance products. Data for the whole year 2020 are unfortunately missing and will be published only by the end of 2021.



Assuralia also reports data on contributions and reserves managed through pension savings insurance and long-term savings products within the third pillar. In 2019, reserves managed within the framework of the third pillar represented 23.1% of total individual life-insurance reserves. For long-term savings products, there is no available information on the breakdown between Branch 21 and Branch 23 contracts (see Table BE7).

Table BE8 Contributions and reserves in individual life-insurance products within the third pillar in 2019 (€ billion)

	Contributions	Reserves	Pillar III reserves in % of total individual life insurance reserves
Pension savings insurance (Branch 21 contracts)	1.18	16.047	11.73%
Long-term savings products (Branch 21 & Branch 23 contracts combined)	1.11	15.903	11.62%
Total	2.29	31.95	23.35%

Source: "Assuralia"

Charges

Pillar II: Occupational pension plans

Charges in IORPs

There is no general data or available information on IORP charges. The only available information was for sector pension funds managed by IORPs⁶³: operating expenses ranged from 0.002% to 1.6% of reserves, with an average of 0.14% in 2019 (0.15% in 2018, 0.13% in 2017 and 0.15% in 2015).

Charges in "Assurance Groupe" (Branch 21 contracts)

The only historical information on administration and management costs as well as commissions on a yearly basis was for "Assurance Groupe" contracts (Branch 21), reported by "Assuralia".

⁶³Source: FSMA, Report on sector pensions plans, company pension funds and PLCLS, May 2021



Table BE9. Charges in % of reserves in “Assurance Groupe” contracts		
	Administrative & management costs (% of reserves)	Commissions (% of premiums)
2002	1.2	1.2
2003	1.0	1.3
2004	0.8	1.2
2005	0.9	1.4
2006	0.9	1.2
2007	0.8	1.4
2008	0.8	1.5
2009	0.8	1.3
2010	0.7	1.5
2011	0.7	1.5
2012	0.7	1.5
2013	0.7	1.5
2014	0.7	1.6
2015	0.6	1.6
2016	0.6	1.6
2017	0.6	1.8
2018	0.6	1.4
2019	0.6	1.5
<i>Source: “Assuralia”, own calculations</i>		

Many insurance companies apply fees on premiums. In the case of sector pension plans, the level of fees varies considerably, ranging from 0.5% to 13.8% of premiums in 2019. Half of the plans managed by insurance companies levied charges lower than 2% of premiums in 2019 (as in 2017 and 2015). The level of fees was below 1% for 13% of plans. Nevertheless, 18% of plans applied charges above 5% of premiums (as in 2017)⁶⁴.

In Branch 23 Group Insurances (“Assurance Groupe”), charges can be higher: in addition to contract fees other fees related to underlying “units” (typically investment funds) may apply. For more details, the reader can refer to the case analysis in the annex.

Pillar III: Personal pension savings products

Pension savings funds

Historical data on charges for pension savings funds is difficult to obtain for investors. Key Investor Information Documents (KID) must provide investors with information on all charges related to the funds on a yearly basis, but for UCITS only, not for other investment funds.

⁶⁴ Source: FSMA, Report on sector pensions plans, August 2019.



Using the prospectus of available pension savings funds for subscription in the Belgian market, the following average yearly charges were calculated in 2020:

- Entry fees: 2.38% of initial investment;
- Management fees: 0.95% of total assets under management;
- Total Expenses Ratio represented on average 1.28% of total assets under management;
- No exit fees.

The following table summarises the Total Expenses Ratio (TER) of 21 available funds for subscription in the Belgium market from 2016 to 2020. The average TER remain relatively stable in 2020 when compared to 2019 and 2018.

Table BE10. Historical Total Expense Ratio from 2015 to 2019 (% of assets under management)					
	2016	2017	2018	2019	2020
VDK Pension Fund (Accent Pension Fund)	1.31	1.29	1.29	1.28	1.28
Argenta Pension Fund (ARPE)	1.34	1.34	1.32	1.32	1.33
Argenta Defensive Pension Fund	1.35	1.33	1.33	1.32	1.33
Belfius Pension Fund Balanced Plus	1.32	1.32	1.39	1.39	1.39
Belfius Pension Fund High Equities Cap	1.16	1.16	1.31	1.36	1.35
Belfius Pension Fund Low Equities Cap	1.61	1.61	1.17	1.19	1.19
BNP Paribas B Pension Balanced	1.25	1.24	1.24	1.24	1.24
BNP Paribas B Pension Growth	1.25	1.25	1.24	1.24	1.24
BNP Paribas B Pension Stability	1.25	1.24	1.24	1.24	1.24
Hermes Pension funds	1.07	1.06	1.06	1.04	1.24
Interbeurs Hermes Pensioenfond	1.03	1.03	1.03	1.70	1.64
Metropolitan-Rentastro Balanced	1.25	1.25	1.25	1.25	1.25
Metropolitan-Rentastro Stability	1.25	1.25	1.25	1.25	1.25
Metropolitan-Rentastro Growth	1.25	1.24	1.23	1.24	1.24
Pricos	1.25	1.24	1.16	1.20	1.20
Pricos Defensive	1.24	1.24	1.15	1.19	1.20
Pricos SRI	-	-	1.37	1.31	1.33
Star Fund	1.18	1.18	1.16	1.17	1.17
Crelan pension funds Stability	1.29	1.29	1.27	1.28	1.28
Crelan pension funds Growth	1.29	1.29	1.27	1.28	1.28
Crelan pension funds Balanced	1.29	1.29	1.27	1.28	1.28
Total Expenses Ratio, Average (simple)	1.27	1.24	1.29	1.28	1.28



Pension savings insurance (Branch 21 contracts) / Long-term savings products (Branch 21 and Branch 23 contracts combined)

“Assuralia” provides us with historical data on administration and management costs as well as entry fees and other commissions paid for individual life insurance contracts. Data, for Branch 23 individual life insurance contracts, most likely do not include fees charged on the underlying units (investment funds).⁶⁵

Table BE11 Administration and management costs and commissions for individual insurance companies (%)

	Branch 21		Branch 23	
	Administrative and management costs (% of reserves)	Commissions (% of premiums)	Administrative and management costs (% of reserves)	Commissions (% of premiums)
2002	1.2	4.8	na	2.5
2003	1.8	3.7	na	3.0
2004	1.4	3.6	na	2.7
2005	0.7	3.3	0.3	2.0
2006	0.7	4.7	0.3	3.4
2007	0.6	4.6	0.3	4.2
2008	0.7	5.4	0.4	5.4
2009	0.6	5.8	0.3	5.6
2010	0.5	5.7	0.3	4.8
2011	0.5	6.0	0.3	4.6
2012	0.5	6.6	0.3	2.9
2013	0.6	8.8	0.3	4.8
2014	0.6	7.8	0.4	5.2
2015	0.5	9.1	0.4	4.9
2016	0.5	8.0	0.4	5.7
2017	0.6	8.8	0.4	5.4
2018	0.6	8.4	0.4	5.4
2019	0.6	8.2	0.3	5.5

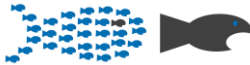
Source: “Assuralia”, BETTER FINANCE calculations

Taxation

Pillar II: Occupational pension plans

Regarding the second pillar in Belgium, the tax regime for the whole saving period is an EET model. Employees are not taxed during the first two phases that constitute the process of saving via a pension scheme: contribution and accrued interests are not taxed. Employees are taxed during the third phase on the benefits’ payment.

⁶⁵ The reader can refer to the case analysis in the annex.



Employees pay two taxes on their benefits:

- A solidarity contribution varying up to a maximum of 2% of the benefits depending on the retiree's income;
- An INAMI ("Institut National d'Assurance Maladie-Invalidité") contribution of 3.55% of the benefits.

In addition, benefits from occupational pension plans are taxed depending on how they are paid out:

- A lump sum payment;
- Periodic annuities;
- A life annuity issued from invested benefits.

Lump sum payment

In the case of a lump sum payment, the taxation of benefits depends on the beneficiary's age and who contributed to the plans (employer or employee). Since July 2013, the rules detailed in Table BE11 are applied to taxation on benefits from occupational pension plans. Before July 2013, benefits from employer's contributions were taxed at the flat rate of 16.5% regardless the beneficiary's age at the time of the payment of the benefits.

Table BE12. Taxation of benefits from occupational pension plans			
Benefits paid before the legal pension		Benefits paid at the same time as the legal pension	
Benefits from employee's contribution	Benefits from employer's contributions	Benefits from employee's contribution	Benefits from employer's contributions
16.5% for contributions made before 1993	60 years old: 20%	16.5% for contributions made before 1993	10% if the employee remains employed until legal pension age (65 years old)
10% for contributions made since 1993	61 years old: 18%	10% for contributions made since 1993	
	62-64 years old: 16.5%		
+ local tax	+ local tax	+ local tax	+ local tax

Source: "Assuralia", Wikifin.be

The local tax can vary from 0% to 10%, with an average of 7%.



Periodic annuities⁶⁶

Periodic annuities are considered to be an income and are taxed at the applicable progressive personal income tax rate.

Converting the accumulated capital into a life annuity

An employee can convert the lump sum payment into a life annuity. In this case, the INAMI contribution and the solidarity contribution have to be paid according to the rules applied to the lump sum payment. Then the retiree has to pay a withholding tax of 15% on the annuity each year.

Pillar III: Personal pension savings products

Regarding the third pillar in Belgium, the tax regime for the whole saving period is an EET model with a limited ceiling on contributions during the first phase for pension savings products and with a limited ceiling on the maximum tax benefit depending on the level of the saver's yearly earnings for long-term savings products.

Pension savings products (fund or life insurance contracts)

➤ Tax relief on contributions during the accumulation phase

Contributions invested in pension savings products (fund or insurance) are deductible from the income tax. Individuals can make contributions into pension savings products up to a rather low annual ceiling (€990 in 2021). The tax ceiling on pension savings products was frozen in 2020. This is still the case in 2021. The next indexation will take place in 2024

Since 2012 and until 2018, a tax relief rate equal to 30% of the contributions was applied, regardless of the taxpayer's income.

In 2018, in order to further promote the third pillar and contributions to pension savings products (fund or life-insurance contracts), a new tax relief system was introduced. Two tax relief systems now co-exist, and the amount of the individual contribution determines the tax relief:

- For any contribution less or equal to €990, individuals can still benefit from a 30% tax relief rate. This may result in a maximum tax relief of €297 per year.
- If the individual chooses to make a contribution above €1,270 and informs the provider of the product, he / she can benefit from a tax relief rate equal to 25%. The maximum contribution cannot exceed €1,270, with a maximum tax-relief of €317,5.

⁶⁶ For pillar II, employees can choose to redeem capital in a lump sum payment or in annuities. In practice, few people choose annuities, and most employees redeem their product in a lump sum payment.



The tax relief of pension savings products is “stand-alone”. Taxpayers can claim tax relief for only one contract even if they make contributions to several products.

➤ Final taxation on the accumulated pension rights

Since 1 January 2015, the final taxation on the accumulated capital was lowered from 10% to 8% and still depends on the beneficiary’s age at the time of the subscription. From 2015 onwards, a part of the taxation is levied in advance (except in case of early retirement before the age of 60). From 2015 to 2019, the pension reserves (per 31 December 2014) are subject to a tax of 1% each year, which constitutes an advance on the final tax due.

Table BE13. Taxation of pension savings products (funds and insurance)	
Subscription to pension savings products before the age of 55	
Benefits paid before the age of 60	The accumulated capital is taxed under the personal income tax system.
At the age of 60	<p>8% of the accumulated capital is levied (excluding participation to annual earnings);</p> <p>The taxation is based on a theoretical return of 4.75%;</p> <p>The saver can continue investing and enjoying tax relief until the age of 64;</p> <p>The accumulated capital is no longer taxed after the 60th birthday of the beneficiary.</p>
Subscription to pension savings products at the age of 55 or after	
Benefits paid before the age of 60	The accumulated capital is taxed under the personal income tax system.
Benefits paid between the age of 60 and 64	The accumulated capital is taxed at the rate of 33%.
At the age of 65 or after (i.e., when the contract reaches its 10 th birthday)	<p>8% of the accumulated capital is levied (excluding participation to annual earnings);</p> <p>The taxation is based on a theoretical return of 4.75%;</p> <p>To benefit from this lower taxation, the beneficiary has to stay at least 10 years in the fund and make at least five contributions.</p>

Sources: “Assuralia”, Wikifin.be



Long-term savings products (life insurance contracts)

The maximum amount of tax relief based on contributions invested in long-term savings products depends on the level of the saver's yearly earnings, without exceeding the ceiling of €2,350 in 2021. The tax ceiling on long term savings products was frozen at the same level to that of 2018 and it will be reviewed in 2024. However, the tax relief is determined jointly for long-term savings products and mortgage deductions. If a saver already receives a tax relief for a mortgage, it may be impossible to obtain a further tax relief for life insurance products under the third pillar.

The same rules of taxation to that of pension savings products (fund or insurance) apply to long-term savings products. The taxation depends on the beneficiary's age at the time of subscription (before or after 55) (see Table BE12).

However, the taxation differs in two points:

- The pension reserves are taxed by considering the real return of the long-term savings products over the period of holdings instead of a theoretical return of 4.75%.
- The lowering of the tax rate to 8% does not apply to the capital accumulated through long-term savings products, which remain taxed at 10%.

Pension Returns

Pillar II: Occupational pension plans

The returns of occupational pension plans depend on how they are managed, either by an IORP or by an insurance company. From 2004 to 2015, all DC plans managed either by IORP or insurance companies through Branch 21 contracts were required to provide an annual minimum return of 3.75% on employees' contributions and 3.25% on employers' contributions. The Supplementary Pensions Act reform entered into force as of 1 January 2016, in order to ensure the sustainability and social character of the supplementary pensions. The level of the minimum guaranteed return for both employer and employee contribution is set each year according to economic rules considering the evolution of government bond yields in the future:

- the new guaranteed return must be within the range of 1.75% to 3.75%;
- the new guaranteed return represents 65% of the average of 10-year government bonds rates over 24 months, rounded to the nearest 25 basis points to prevent it from fluctuating too frequently.⁶⁷

In addition, the alignment of the supplementary pension age and the legal pension age (respectively 65, 66 in 2025 and 67 in 2030) affects the minimum guaranteed return offered to employees. When

⁶⁷ The rate of 65% could be increased to 75% in 2018 and to 85% in 2020 according to the FSMA decision.



the affiliate reaches the age of 60, his/her occupational pension plan is extended until he/she reaches the age of 65. During the extension period, the minimum guaranteed return continues to be applied to reserves. Its level corresponds to the new effective minimum guaranteed return that will be recalculated and published each year by FSMA. In 2020, the legal minimum guaranteed return remained steady at 1.75%.

In the following sub-sections, the real returns after taxation of occupational pension plans were calculated under the hereunder assumptions:

- The employee claims his supplementary pension at the same time as the legal pension and remains employed until the legal age (65 years old);
- The benefits are paid as a lump sum payment;
- Solidarity contributions of 2% of benefits and the INAMI contribution of 3.55% of benefits are levied;
- Only the employer's contributions were paid;
- In addition to an average local tax of 7%, a flat tax rate of 10% is applied to the final benefits.

Occupational pension plans managed by IORPs

In 2019, among the 192 pension plans managed by an IORP, 165 had a promise of returns (DB plans) or were hybrid plans (Cash Balance, DC + rate), 28 were DC plans. While newly opened plans are always DC plans, a large part of assets are still managed in plans offering promises of returns.

PensioPlus, the Belgium's occupational pension plans association reported an average return of 4.59% in 2020. This represents the gross average weighted returns after charges of occupational pension plans that participated in the annual financial and economic survey of PensioPlus in 2020.⁶⁸

⁶⁸ 62 IORP participated in the 2020 annual PensioPlus' survey. They represented 32.4 billion euros under management (81% of the market share)



Table BE14 Nominal and Real Returns of occupational pension plans managed by IORPs in Belgium

2000	0.92		-0.07		-2.96
2001	-4.18		-5.12		-6.91
2002	-11.05		-11.92		-13.08
2003	10.37		9.29		7.53
2004	9.85		8.93		6.78
2005	16.04		14.96		11.87
2006	10.26		9.27		7.05
2007	2.21		1.39		-1.67
2008	-17.06		-17.72		-19.88
2009	16.58		15.69		15.31
2010	10.28	4.99	9.50	4.15	5.92
2011	0.01		-0.70		-3.77
2012	12.90		12.10		9.81
2013	7.46		6.70		5.47
2014	11.85		11.06		11.50
2015	5.23		4.48		2.99
2016	5.82		5.07		2.80
2017	6.03		5.28		3.16
2018	-2.41		-3.07		-5.18
2019	16.06		15.24		14.19
2020	5.26		4.59		4.22

Table BE15 Annualized performance of occupational pension plans managed by IORPs (%)

Holding Period	Gross returns	Net Nominal Annualized Performance	Real Net Annualized Performance
1-year	5.34%	4.59%	4.22%
3-years	6.06%	5.32%	4.11%
5-years	6.01%	5.26%	3.66%
7-year	6.71%	5.96%	4.64%
10-years	6.70%	5.94%	4.35%
2000-2021	4.99%	4.15%	2.24%

Over a 21-year period (2000-2020), occupational pension plans managed by IORPs experienced negative nominal returns before charges four times: in 2001, 2002, 2008 and in 2018. Over the period 2000-2020, the annualised performance after charges, tax and inflation is positive (2.24%).



PensioPlus reported the average asset allocation of IORP at end-2020, as follows: 36% in equities, 52% in Fixed Income securities, 2% in Real Estate, 3% in cash and 7% in other asset classes. The asset allocation remained quite steady in 2020. The proportion of fixed income assets still represented the largest part of assets. The proportion of real estate decreased significantly.

Occupational pension plans managed by insurance companies (Branch 21 contracts)

Assuralia used to annually report net returns after charges in percentage of the total reserves in its annual report⁶⁹. Since 2015, this report no longer contains available information on the returns of “Assurance Groupe” Branch 21 contracts. We are thus unable to update this information for the whole years after 2015.

FSMA reported an average net return of 2.40% for sector pension funds managed through “Assurance Groupe” contracts in 2019 (against 1.66% in 2018, 2.63% in 2017, 2.91% in 2016 and 3.01% in 2015)⁷⁰. The downward trend that has been observed for several years is confirmed. One can observe the same assessment for PLCI conventions.

A self-employed individual who subscribes to a PLCI convention had on average a return of 2.5% on his /her contracts in 2019 (against 2.64% in 2017 and 2.75% in 2015).

The minimum guaranteed return of PLCI varied between 0% and 4.75%. Some conventions subscribed before July 1st, 1999, offer a guaranteed return of 4.75% on past and future premiums. The average (pondéré des réserves acquises) return decreased to 1.79% (against 2.15% in 2017) and the average participation to benefits was 0.43%, equal to that of 2017.

Assuralia updated information on “Assurance Groupe” contracts with data at the end-2018⁷¹.

At the end-2018, “Assurance Groupe” contracts and individual contracts through Branch 21 contracts⁷² were invested with the following assets allocation:

- 73% in fixed income assets (of which 32% in Belgian government bonds);
- 9% in equities and UCITs;
- 16% in loans and real estate;
- 2% in other assets.

With the decline in the return on the Belgian 10-year government bonds since 2011, insurance companies were forced to decrease the guaranteed return offered to new contributions on

⁶⁹ In November 2019, Assuralia published its annual report including Statistics for the whole year 2018 .

⁷⁰ Source FSMA, Report on sector pension, company pension and PLCLS, May 2021.

⁷¹ <http://assuralia.be/fr/infos-secteur/publications-secteur/775-l-assurance-de-groupe-un-tour-d-horizon-au-niveau-du-secteur>

⁷² The insurance law of March 13, 2016 (Solvency II law) requires that investments relating to “Assurance group” contracts and individual life insurance have to be managed together. In this way, the insurer benefits from economies of scale and more possibilities for diversification, which should benefit the return.



“Assurance Groupe” Branch 21 contracts. However, insurance companies continue to guarantee the previous returns on the past contributions until the retirement. Past reserves continue to have guaranteed returns range from 3.25% to 4.75%. In 2018, the average guaranteed return continued to decrease but remained at 2.74%. When including the profit share, the average guaranteed return reached 3% of the total reserves. For older pension plans the return was higher than this rate, for newer plans it was lower.

Graph BE1: Average guaranteed return on “Assurance Groupe” Branch 21 contracts



Table BE16. Returns of occupational pension plans managed by insurance companies (“Branch 21” contracts) (%)

	Nominal return before charges, tax and inflation	Nominal return after charges, before tax and inflation	Real return after charges and inflation, before tax
2002	5.4	4.1	2.6
2003	6.3	5.3	3.7
2004	6.3	5.4	3.4
2005	6.8	5.8	3.2
2006	6.7	5.7	3.3
2007	6.6	5.7	3.8
2008	2.0	1.2	-3.2
2009	5.4	4.6	4.6
2010	5.3	4.5	2.2
2011	4.0	3.3	-0.1
2012	5.4	4.6	1.9
2013	5.4	4.7	3.5
2014	5.5	4.8	4.3

Sources: “Assuralia”, BETTER FINANCE’s calculations



“Assurance Groupe” Branch 21 (2002-2014) occupational pension plans experienced a positive real annual average return after charges and taxation of 2.0%.

Table BE17. Annual average return of “Branch 21” occupational pension plans managed by insurance companies (2002-2014) (%)

Nominal return before charges, tax and inflation	5.5
Nominal return after charges, before tax and inflation	4.6
Real return after charges and inflation, before tax	2.5
Real return after charges, tax and inflation	2.0
<i>Source: “Assuralia”, BETTERFINANCE’S calculations</i>	

Occupational pension plans managed by insurance companies (Branch 23 contracts)

“Assurance Groupe” Branch 23 occupational pension plans seem to have suffered negative real returns over the last 15 years⁷³. The following graph show the returns on “Assurance Groupe” Branch 23 from 2009 to 2018. Returns on “Assurance Groupe” Branch 23 contracts are variable and depend on the performance of underlying assets. These contracts experienced negative returns in 2011 and 2018. Their net average returns are very close to those of occupational funds managed by IORP (around - 4% in 2018).

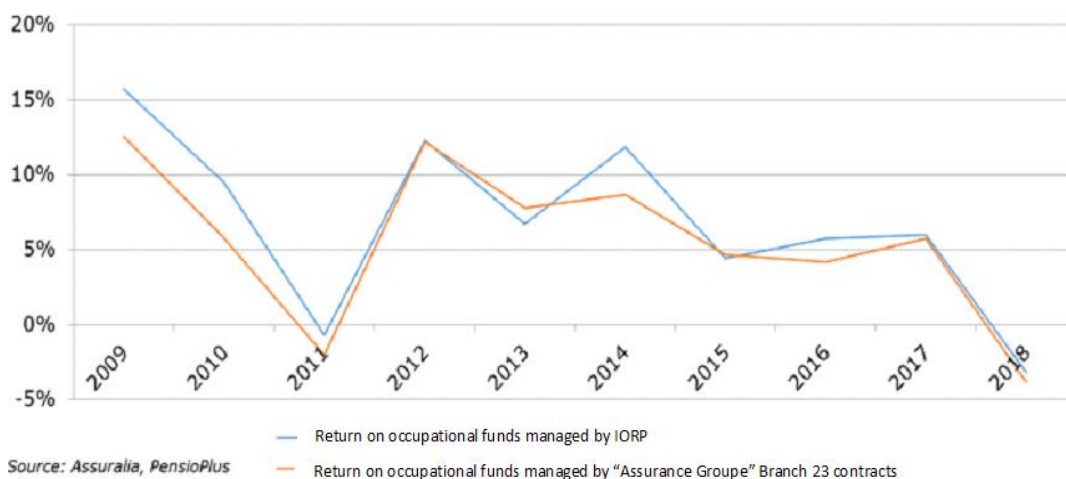
Insurance companies do not offer guaranteed return on these contracts. However, affiliates benefit from the legal minimum guaranteed return on their contributions, which is currently equal to 1.75%. When the affiliate claim for its pension rights, if the final payment is less than the amount including the minimum guaranteed return, the employer has to pay the difference.

Since 2015, Assuralia no longer provides information on the returns of returns of “Assurance Groupe” Branch 23 contracts.

⁷³ See Annex: Case analysis of a Branch 23 “Assurance Groupe” occupational pension plan.



Graph BE2. Average return on “Assurance Groupe” Branch 23 contracts



Pillar III: Personal pension savings products

Pension savings funds

The Belgian Asset Management Association (BeAMA) provides quarterly data on the annual average returns of pension savings funds. The most recent data was on an annual basis at end-2020.

Table BE18 Annualised performance of pension savings funds

Over 1 year	Over 3 years	Over 10 years	Over 25 years
2%	2.6%	5.0%	5.2%

Source: BeAMA

These average returns were calculated based on the average returns of all available funds in the market, after expenses but before taxation and inflation.

Annual returns are also available in the prospectus of each pension savings fund provided by the asset management company that commercialises the fund. In general, there is no available information on returns before 2002 in the fund prospectuses. The following table displays the average return of all available funds for subscription in the Belgian market from 2000 to 2020.

From 2013 to 2020, TER expressed as a percentage of total assets under management were collected and were used in returns calculations. However, there is no historical data for TER before 2013. For the period from 2000-2012, TER from 2013 were used and assumed to remain stable.

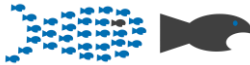


Table BE19. Nominal and Real Returns of pension saving funds in Belgium (%)

2000	-2.81		-4.00		-6.77
2001	-3.32		-4.50		-6.30
2002	-13.44		-14.50		-15.62
2003	16.02		14.60		12.75
2004	20.19		18.72		16.38
2005	18.54		17.09		13.95
2006	10.45		9.10		6.88
2007	3.75		2.48		-0.61
2008	-25.06		-25.98		-27.92
2009	20.03		18.56		18.17
2010	8.59	4.98	7.26	3.69	3.75
2011	-3.97		-5.14		-8.07
2012	13.30		11.92		9.63
2013	12.53		11.16		9.88
2014	8.96		7.61		8.04
2015	9.67		8.27		6.72
2016	4.00		2.70		0.49
2017	7.98		6.64		4.49
2018	-6.73		-7.87		-9.86
2019	16.51		15.05		13.99
2020	3.27		1.96		1.61

Table BE20 Annualized performance of pension saving funds (%)

Holding Period	Gross returns	Net Nominal Annualized Performance	Real Net Annualized Performance
1-year	3.3%	2.0%	1.6%
3-years	3.9%	2.6%	1.4%
5-years	4.7%	3.4%	1.9%
7-year	6.0%	4.7%	3.4%
10-years	6.3%	5.0%	3.4%
2000-2021	5.0%	3.7%	1.8%

Pension savings funds within the third pillar experienced negative nominal returns from 2000 to 2002, as well as in 2008, 2011 and in 2018. Unlike occupational pension plans, these pension savings funds are not obliged to pay a guaranteed return to retirees. Over the 21-year period (2000-2020), they delivered relatively similar nominal returns to occupational pension plans managed by IORPs. Benefits are taxed at a flat rate of 8%⁷⁴, considering an annual return of 4.75% during the accumulation phase, irrespective of the pension savings fund returns.

⁷⁴ To calculate the taxation, the following assumptions are made: the saver subscribes before the age of 55. The final taxation is levied at her / his 60th birthday.



Pension savings insurance (Branch 21 contracts) and long-term savings products (Branch 23 contracts)

In order to save for their retirement, Belgian can subscribe to pension savings insurance or to long-term savings products. Pension savings insurance consists in investing in individual life-insurance Branch 21 contracts with a guaranteed capital. Long-term savings products combine Branch 21 contracts and unit-linked Branch 23 contracts. Assuralia used to report net returns after charges in percentage of the total reserves managed through Branch 21 and Branch 23 contracts. This information gave an insight into returns of reserves invested within the third pillar. However, we were unable to update returns for the whole year 2015 as there was no available information on the annual data published by Assuralia. Over the whole period from 2002-2014, the real annual average return after charges and taxation remained positive to 1.67% for Branch 21 contracts and to 1.30% for Branch 23 contracts.

Branch 23 contracts experienced negative nominal and real returns in 2008 and 2011. Nevertheless, there is no available information on return after the year 2014.

Table BE21. Returns of individual Branch 23 contracts ⁷⁵ (%)			
	Nominal return before charges, tax and inflation	Nominal return after charges, before tax and inflation	Real return after charges and inflation, before tax
2005	11.9	11.5	8.8
2006	7.5	7.1	4.7
2007	1.6	1.3	-0.5
2008	-18.2	-18.5	-22.0
2009	13.3	12.9	12.9
2010	7.5	7.1	4.7
2011	-2.6	-2.9	-6.1
2012	9.4	9.1	6.3
2013	5.9	5.6	4.3
2014	8.3	7.9	7.4

Sources: "Assuralia", BETTER FINANCE calculations



Table BE22. Annual average return of individual life-insurance Branch 23 contracts
(2005-2014) (%)

Nominal return before charges, tax and inflation	4.1
Nominal return after charges, before tax and inflation	3.7
Real return after charges and inflation, before tax	1.6
Real return after charges, tax and inflation	1.3

Sources: "Assuralia", BETTER FINANCE'S calculations

In our calculations, we considered that benefits from Branch 21 contracts were taxed like pension savings schemes and a flat tax rate of 10% was applied to the accrued benefits from Branch 23 contracts.

Conclusions

Belgians are encouraged to save for their retirement in private pension vehicles. In 2003, the implementation of the Supplementary Pensions Act defined the framework of the second pillar for sector pension plans and supplementary pension plans for self-employed individuals. The number of employees covered by occupational pension plans keeps rising as well as the number of self-employed individuals covered by supplementary pension plans.

Measures to guarantee the sustainability and social character of the supplementary pensions were enforced in January 2016:

- The guaranteed minimum return on contribution was lowered to 1.75% for both employee and employer contributions. This return will be revised according to an economic formula considering the evolution of government bond yields in the future;
- The supplementary pension age and the legal pension age were aligned;
- Beneficial anticipation measures granted to employees when they claim their supplementary pension before the legal age were abolished.

Over a 21-year period (2000-2020), occupational pension funds managed by IORPs (pillar II) and pension savings funds (pillar III) had a real annualised performance before taxation of 2.24% and 1.8% respectively. These funds offer returns linked to the performance of the underlying assets. Unlike insurance companies, asset management companies are less constrained in their asset allocation and can more easily benefit from potential increases in markets.

Assuralia reported some information on "Assurance Groupe" contracts on its website. In 2018, "Assurance Groupe" Branch 21 contracts offered on average nearly 2.74% of return (including profit share) and "Assurance Groupe" Branch 23 contracts offered a return close to -4%. The case analysis in the annex reports the return of an occupational pension plan invested through a Branch 23 contract. Nevertheless, we do not have any information on return for and individual life-insurance contracts within the third pillar since 2014.



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Pension Savings: The Real Return

2021 Edition

Country Case: Bulgaria

Executive Summary (English)

The long-term real returns the future pensioners receive on their accounts in the defined contribution pension schemes are crucial for the ability of their Pillar II and Pillar III pensions to actually supplement their retirement income. Yet, long-term real returns are neither calculated, nor published in Bulgaria. This report fills in the gap of evaluating long term pension funds' performance from the viewpoint of the pension saver. The main findings are as follows:

- 1) Pension savers in Bulgaria receive low returns. The real return, credited to pension savers' accounts in universal pension funds in 2002-2020 was an annual average of 0.9% (MWR), while pension savers in voluntary pension funds have received 0.2% (MWR) annual average real return over the same period. Accumulating assets in Bulgarian pension funds appears to be a very long shot.
- 2) Bulgarian pension funds of all types - universal, voluntary and professional - have underperformed a simple benchmark portfolio with comparable investment strategy. The benchmark portfolio is investable with a management fee of 0.07%, while total fees and charges of Bulgarian pension funds exceed 1%. Thus, pension savers in Bulgaria overpay for underperformance.
- 3) Bulgarian universal pension funds are not only failing to provide supplementary pensions to the pension savers but are also unable to compensate the reduction of the state pensions over a full contributory period⁷⁶, thus reducing the total pension income and its adequacy for the great majority of pension savers. Changes to the Social Insurance Code, adopted in December 2020, have unwillingly highlighted this problem, unreasonably lowering the reduction of the state pensions of the participants in the universal pension funds, with no economic rationale. Despite the fact that these changes will temporarily improve the results for the participants in the universal pension funds, they are discriminating against women, all people born before 1960 and all people who have already opted out of the Pillar II.

⁷⁶ This is due to the fact that contributions to UPFs are not supplemental. They are deducted from the contributions to the State pension fund. Therefore, the state pension is reduced for those contributing to UPFs. The pension from the UPF needs to first compensate for the state pension reduction before it can produce a supplemental pension.



The report concludes with policy recommendations, aimed at making the Bulgarian pension system work for all pension savers, without reducing the state pension for anybody.

Executive Summary (Bulgarian)

Дългосрочната реална доходност, която осигурените в пенсионни фондове фактически получават по партидите си, е критично важна за тяхната способност да натрупат средства и да теглят пенсии в бъдеще. Въпреки това, тази доходност не се публикува в България. Приносът на този доклад е в оценката на дългосрочното представяне на пенсионните фондове от позициите на осигурените. Основните резултати са както следва:

- 1) Фактическата доходност, получавана от осигурените, е коректно да се изчислява по парично претегления метод (MWR). Реалната доходност, получена от всички осигурени в универсални пенсионни фондове (УПФ) между 2002 и 2020г. е 0.9% годишно), докато осигурените в доброволни пенсионни фондове (ДПФ) са получили реална доходност от 0.2% годишно. Натрупването на средства по партиди в пенсионните фондове в България се оказва много трудна задача.
- 2) Българските пенсионни фондове – универсални, професионални и доброволни – показват резултати, по-ниски от тези на прост бенчмарк със съпоставима инвестиционна стратегия. В портфейла-бенчмарк може да се инвестира при такса за управление от 0.07%, докато таксите на българските пенсионни фондове надвишават 1%. Така осигурените в България плащат такси над пазарните, за да получат доходност по-ниска от пазарната.
- 3) Универсалните пенсионни фондове в България не само се провалят в осигуряването на допълнителна пенсия на осигурените, но и са неспособни да компенсират намалението на държавните пенсии в течение на целия осигурителен период.⁷⁷ Измененията в Кодекса за социално осигуряване, приети през декември 2020 г., се превърнаха в неволна демонстрация на този проблем, неоснователно редуцирайки намалението на държавните пенсии на осигурявалите се в УПФ. Въпреки, че тези промени временно ще подобрят резултатите за осигурените в УПФ, те са дискриминационни спрямо жените, всички, родени преди 1960г. и всички, вече прехвърлили вноските си от УПФ в ДОО.

Докладът завършва с предложения за реформиране на пенсионната система така, че държавната пенсия да не бъде намалявана за никого, а на осигурените в пенсионни фондове да се гарантира наистина допълнителна пенсия.

⁷⁷ Това се дължи на факта, че вноските в УПФ не са допълнителни, а се изваждат от вноската в държавното обществено осигуряване. Съответно и държавната пенсия на осигурените в УПФ ще бъде намалена. Пенсията от УПФ трябва първо да замести намалението на държавната пенсия, преди да осигури допълнителна.



Methodological disclaimer

The return computations in this report mainly utilise the Money-Weighted Returns (MWR) methodology, compared to the other country cases which use Time-Weighted Returns (TWR). Therefore, the cost and inflation data series are also different from the others.

Money-Weighted Returns (or the internal rate of returns) take into account the positive and negative cash flows (contributions/deposits and pay-outs/withdrawals) to an investment product and, as such, they are a valuable indicator to analyse the decisions of the investment manager.

Time-Weighted Returns simply show the relative change (%) of the product's net asset value between two different points in time.

The contributors for this country case believe MWR are more representative for Bulgarian pension savers taking into account the specificities of the Bulgarian private pension schemes.

For comparability purposes, we also calculated annualised time-weighted returns in Table BG4, which are used in the General Report.



Introduction

The Bulgarian pension system, introduced in 2000, rests on three pillars:

- Pillar I – Mandatory, publicly managed, unfunded, defined benefit Social Security;
- Pillar II – Quasi-mandatory privately managed, fully funded, „Supplementary Mandatory Pension Schemes” (SMPS);
- Pillar III – Voluntary privately managed, fully funded, defined contribution, „Supplementary Voluntary Pension Schemes” (SVPS).

The aim of the 2000 pension reform was to ease the financial pressure on the public Social Security in the face of a rising old-age dependency ratio. Currently the pension system relies on combining the principle of intergenerational solidarity (Pillar I) with the opportunity for pension savers to boost their retirement income by participating in one or more privately managed supplementary pension schemes (Pillars II and III).

While it is mandatory for all employed and self-employed to make contributions to the pension system, it is a matter of individual choice for all, born after 1959, whether to split their mandatory contribution between Pillar I and Pillar II, or direct all of it to Pillar I instead. Those, born prior to 1960, participate in the Pillar I state pension fund only. Contributions to Pillar III pension schemes are voluntary.

Since pension insurance is mandatory, the employees covered by Pillar I pension insurance is universal. The mandatory pension insurance contribution rate is 19.8% of the gross insurable income for the majority of the working population (up to the maximum monthly insurable income of €1,534 in 2020). It is split between employer (56%) and employee (44%), while the self-employed are liable for the full contribution.

The contribution rate is higher for the employed in strenuous and hazardous conditions - “category I and category II workers”, as well as for those employed in the national security services, who are eligible for early retirement.

Those born after 1959 are eligible for the two schemes under Pillar II: universal pension funds (UPF) and professional pension funds (PPF). Participation in universal pension funds was mandatory between 2002 and 2015, but it has been optional since. Universal pension funds participants could opt out of those funds and transfer their pension insurance to the Pillar I state pension fund up to five years before reaching the statutory retirement age.⁷⁸

The contribution to the universal pension funds is set by law at 5% of insurable income (up to the maximum insurable income) and is split between the employer and the employee. The contribution to the universal pension funds is not supplementary. It is rather deducted from the mandatory pension insurance contribution of 19.8% of the insurable income. Those participating in universal

⁷⁸ This period has been shortened for the first cohorts of future UPF pensioners in 2021.



pension funds in essence split their contribution between the state pension fund (14.8% of insurable income) and the universal pension fund of their choice (5% of insurable income). Thus, the Pillar II universal pension funds are not “supplementary” but rather represent partial privatization of the state pension insurance.

Correspondingly, those contributing to a universal pension fund will see their state pension reduced. Until 2020, that reduction was set by law in proportion to the lower level of contributions to the State Pension Fund they have made and was slated to provide equal state pension for equal contribution. In December 2020, as changes to the Social Insurance Code were adopted⁷⁹, lowering this reduction. A lower than proportional state pension reduction all else equal increases the state pension only for the participants in UPF. Lowering the state pension reduction has been achieved by:

- 1) Treating a part of the budget transfers to the State Pension Fund between 2009 and 2015 as “contributions”
- 2) Including the period of social insurance of the people participating in UPF, accumulated before the year 2000, while the same period is excluded for those who have opted out of UPF.

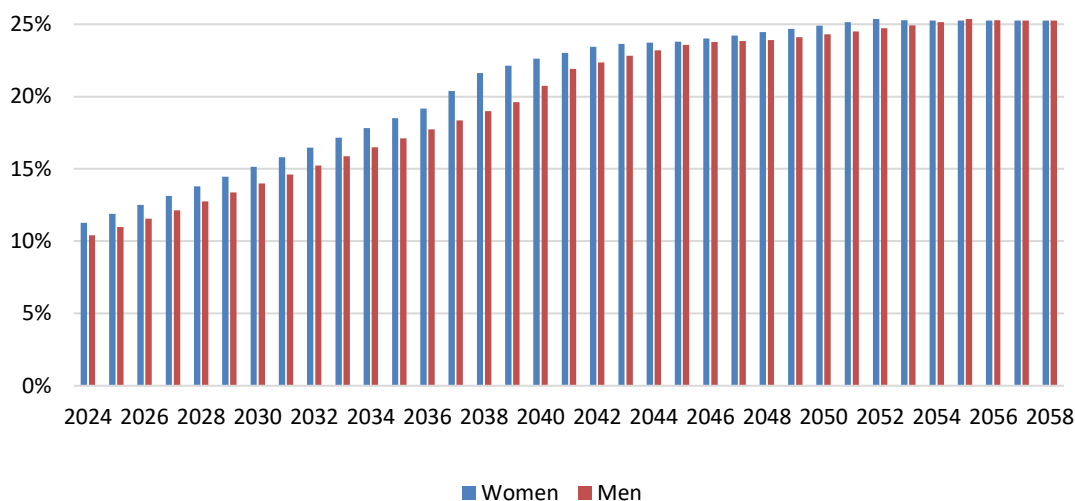
While these changes will increase the state pension for the first cohort of UPF pensioners, they treat differently those contributing to the UPFs with the ones contributing to the State Pension Fund only, discriminating against the latter.

The lowering of the state pension reduction is gender discriminating as well. The state pension of men and women contributing to UPF, and starting their retirement in the same year, will be reduced by different percentage points. This percentage will be larger for women, due to the fact that men have had 3 years more to make contributions to the state pension fund before 2000. (FIG BG1)

⁷⁹ Art. 70, Social Insurance Code. <http://noi.bg/images/bg/legislation/Codes/KCO.pdf>



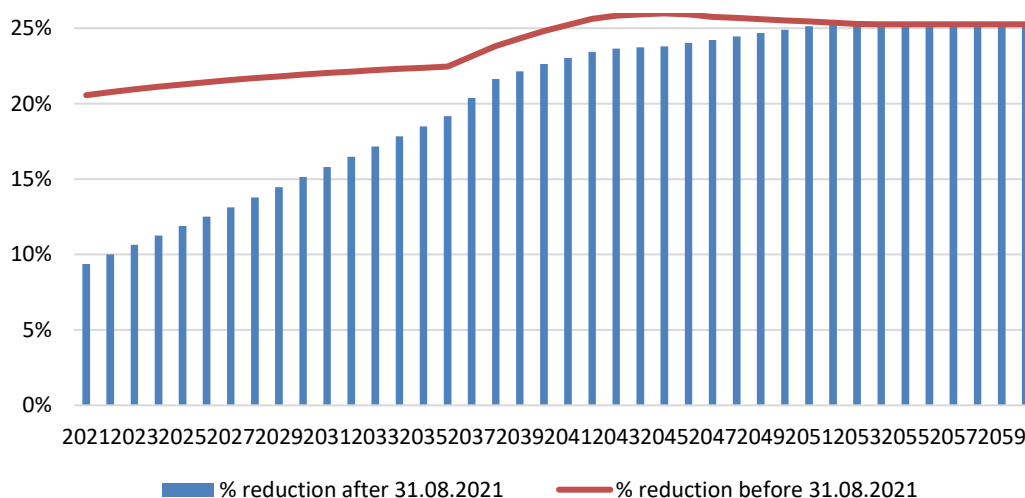
Chart BG1. State pension reduction by gender and year of retirement (%
in force after 31.08.2021)



Source: NSSI

As reported in FIG BG2, the effects of the lowered reduction of the state pensions for the participants in UPF will be temporary and will largely run out by 2040.

Chart BG2. Comparing state pension reduction before and after
31.08.2021



Source: NSSI



Eligible for participating in the professional pension funds are those employed as “category I and category II” workers. Their participation is non-contributory, meaning that the contributions are entirely at the expense of the employer. They are eligible to receive a fixed term pension from the professional pension funds for the period between their early retirement and the statutory pension age. They too have the right to opt out from the professional pension funds at the time of application for early state pension.

There are two pension schemes under Pillar III, voluntary pension funds and voluntary professional pension funds. All persons of at least 16 years of age are eligible to contribute to a voluntary pension fund. Voluntary professional pension funds are open only to participants of Pillar II professional pension funds.

The main features of the Bulgarian pension system are summarized in the table below:



Table BG3. Bulgarian Pension System at a Glance

National Social Insurance Institute	Financial Supervision Commission			
<u>PILLAR I</u>	<u>PILLAR II</u>		<u>PILLAR III</u>	
State Pension	Funded Pensions			
Mandatory	Mandatory / Possibility to opt out		Voluntary	
Management type: Public	Management type: Private			
Pay-as-you-go	Fully funded			
Defined Benefit	Defined Contribution / Individual Accounts			
State Pension “Fund”	Universal Pension Funds	Professional Pension Funds	Voluntary Pension Funds	Voluntary Professional Pension Funds
Pensions are granted at statutory pension age, provided the length of service requirement is met. Possibility to draw a reduced pension one year before the statutory pension age.	Pensions at statutory pension age. Possibility to draw a pension up to five years before the statutory pension age provided funds in the account are sufficient for granting a pension, equal to the minimal state pension.	Fixed term pension for the period between the reduced pension age for eligible workers and the statutory pension age.	Pensions at statutory pension age. Possibility to draw a pension up to five years before the statutory pension age.	Fixed term pensions at age 60 or five years earlier if provided in the collective social insurance contract.
Quick facts:				
Number of old-age pensioners: 1,511,200	Accounts: 3,850,566	Accounts: 312,866	Accounts: 645.569	Accounts: 10,138
Average old-age pension: €212	Funds / Administrators: 9	Funds / Administrators: 9	Funds / Administrators: 9	Funds / Administrators: 1
Official poverty line: €186				
Average salary (gross)**: €751	AUM: € 7,547 mil.	AUM: € 657 mil.	AUM: €629 mil.	AUM: €9.4 mil.
Average replacement ratio (excl. social benefits) 2020: 34%	N/A	N/A	N/A	N/A

Sources: National Social Security Institute (BG), National Statistics Institute (BG), Eurostat, Financial Supervision Commission (BG)



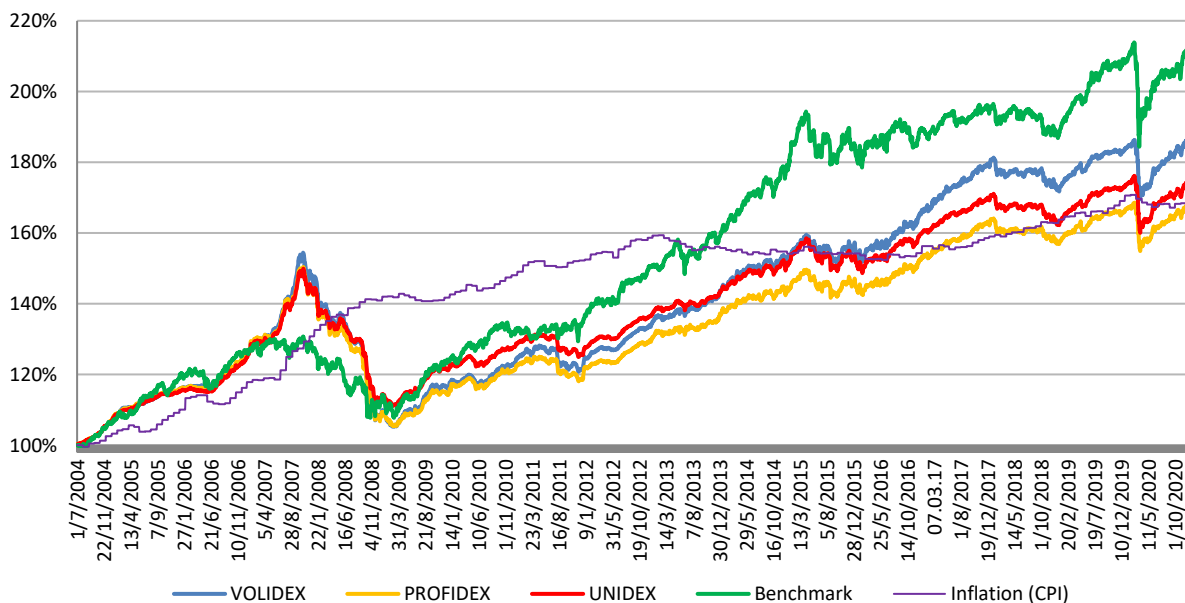
The performance of the two major pension vehicles (universal and voluntary pension funds) is presented in Table BG4 and Chart BG5.

Table BG4. Annualized Time-Weighted Returns						
Holding period	Universal pension funds			Voluntary pension funds		
	Gross Returns	Nominal Net Returns	Real Net Returns	Gross Returns	Nominal Net Returns	Real Net Returns
1 year (2020)	2.63%	1.43%	1.41%	2.41%	1.94%	1.91%
3 years (2017-2019)	2.08%	0.80%	-1.06%	1.50%	0.91%	-0.92%
7 years (2013-2019)	4.17%	2.65%	2.06%	3.92%	3.15%	2.57%
10 years (2010-2019)	4.53%	2.81%	1.96%	4.26%	3.46%	2.65%
Since 2002	5.88%	2.51%	-1.35%	4.99%	3.50%	0.17%

Source: Own calculations based on FSC data (<https://www.fsc.bg/bg/pazari/osiguritelnepazar/statistika/statistika-i-analizi/>) and Eurostat (http://ec.europa.eu/eurostat/data/database?node_code=prc_hicp_midx)

Chart BG5 depicts the daily performance of both the benchmark portfolio and the pension funds from 1 July 2004 to 31 December 2020.

Chart BG5. Pension funds' performance vs. Benchmark



Source: Sources: BETTER FINANCE calculations based on

1. Financial Supervisory Commission, Unit values of pension funds
2. STOXX Europe 600 Index
3. S&P Eurozone Sovereign Bond Index



The different lines depict the performance of the voluntary and universal pension fund indexes. The green line represents the benchmark portfolio, constructed as a blend of 35% of the STOXX Europe 600 Index and 65% S&P Eurozone Sovereign Bond Index, in line with the investment constraints, imposed on pension fund management by law. It is to be noted that the Benchmark portfolio is investable as there are ETFs that replicate the performance of both indexes, namely Lyxor Core STOXX Europe 600 (DR) UCITS ETF Lyxor Core Euro Government Bond (DR) UCITS ETF

As is evident, all types of pension vehicles in Bulgaria underperform the market, represented by a simple, investable portfolio over longer periods at, as we will see below, higher fees and charges. Bulgarian pension savers overpay for underperformance.

Pension vehicles

The privately managed pension funds in Bulgaria come in four varieties. Universal and professional pension funds fall under Pillar II, while Pillar III consists of voluntary pension funds and voluntary professional pension funds.

Pension funds are managed by specially licensed, privately owned and operated pension companies. As of the end of 2020, a total of nine companies are licensed to manage pension funds in Bulgaria. They are subject to various governance and capital requirements.

Each pension company is allowed to manage a single fund of each type: universal, professional, voluntary and voluntary professional. As of end 2020, one company offers all four pension fund vehicles, and the remaining eight companies offer three pension fund types each (universal, professional and voluntary).

The insurance industry in Bulgaria is excluded from the mandatory pension savings and investment. While purchasers of Life Insurance enjoy the same tax advantage as investing in a voluntary pension fund (investment of up to 10 % of the annual income is tax free), Life insurance does not play any significant role in the pension system in Bulgaria.

Universal pension funds

The universal pension funds are by far the most important pension vehicle in Bulgaria with over 3.8 million individual accounts and €7.5 billion⁸⁰ in assets under management (as of end 2020). Participation in the universal funds was mandatory for employees born after 1959 until August 2015 and has been optional since for those who participated at least one year in a universal pension fund. Participation in universal pension funds is tied to the employment status of the insured and both the employee and the employer are required to make contributions. Universal pension funds operate at national level and not at company or industry level.

⁸⁰ For the conversion of the Bulgarian Lev (BGN) to euros, the official fixed exchange rate of € 1 = BGN 1.95583 is being used throughout this report.



Contributions

Contributions to the universal funds are set by law at 5% of insurable income⁸¹, which in 2019 was capped at BGN 3000 (€1,534) per month and remains the same in 2020 and 2021.

Minimum Returns

Pension companies are obliged to manage assets in such a way as to achieve a minimum nominal return. The minimum nominal return is set quarterly by the regulator, the Financial Supervision Commission, on the basis of the average return, achieved by all pension companies over a period of the preceding 24 months. The minimum return is equal to either 60% of the average for all universal pension funds, or 300 bp (basis points) below the average, whichever is smaller.

In case a fund's actual performance is weaker than the minimum nominal return determined by the regulator, the pension company is obliged to top up individual pension accounts to the extent of the shortage. The source for this obligatory top-up is the pension companies' own reserves, which should be maintained at between 1% and 3% of assets under management.

Another source of funds could be reserves accumulated within the respective pension fund. These reserves are accumulated when the actual fund's performance exceeds the average industry performance for the respective period by either 40% or 300 bp, whichever is larger.

Reserves

Pension companies are mandated to maintain pension reserves to cover the actuarial longevity risk when lifetime pensions are offered. These regulations were amended in 2021.

Distribution

Participants in universal pension funds become eligible for "supplementary" pensions at the statutory retirement age. However, universal pension plan participants can start drawing on their account one year prior to reaching full pension age, provided their accumulated assets are sufficient to ensure a lifetime pension of at least the state-mandated minimum pension.

In the case of a premature death of an insured member or retiree, the universal pension fund distributes the balance of the account to his or her heirs either as a lump sum or as scheduled withdrawals. Should there be no heirs, the balance of the account is transferred to the universal fund's reserves.

Paying out lifetime pensions contradicts the requirement to preserve individual accounts after retirement. This has been an issue for urgent legislative intervention, as the first cohorts of women born in 1960 will start drawing pensions from the universal pension funds in 2021. Draft legislation to this effect existed in 2020 but was passed in 2021.

⁸¹ The 5% statutory contribution to universal pension funds is split between the employee (2.2%) and the employer (2.8%).



Professional pension funds

Only those employees who work under strenuous and hazardous conditions such as miners, air pilots and similar are eligible to participate in professional pension funds. People working under these conditions are entitled to an early retirement. The purpose of professional pension funds is limited to ensuring pensions for a prescribed period of time until those employees become eligible to draw pensions from the universal pension funds. With €657 million in assets under management and well over 312 thousand participants (as of end 2020), professional pension funds play a more limited role in the Bulgarian pension system.

Contributions

Professional pension funds are non-contributory. Only employers pay into the funds.

Minimum returns

The quarterly nominal returns are subject to the same floor as universal pension funds are – either 60% of the average return for the previous 24 months or 300 bp below the average return, whichever is smaller.

Reserves

The same provisions as for universal pension funds apply.

Distribution

Employees, eligible for a pension from a professional pension fund, are normally promised a fixed-term pension covering the period starting from the date of their early retirement to the date they achieve the statutory retirement age.

Should a person who has been insured through a professional pension fund fail to meet the eligibility criteria for early retirement, he or she has a choice at the time of reaching the regular retirement age to:

- either withdraw his or her balance from the professional pension fund as a lump sum, or
- transfer the balance of his professional fund account to his or her universal pension fund account.

Similar to inheritance rights for universal pension funds, the heirs of a deceased insured or retired person inherit the account balance and may choose to receive the entitlement as either a lump sum or as a scheduled withdrawal. Contrary to the rule for universal pension funds, should a deceased insured or retiree leave no heirs, the remaining balance on the account is transferred to the state budget.



Voluntary pension funds

Voluntary pension funds form the core of pillar III of the Bulgarian pension system. Nine voluntary pension funds operating in Bulgaria manage 645 thousand individual accounts and €629 million in assets under management (as of end 2020). Any person 16 years of age or older may contribute to a voluntary pension fund. Contributions are either personal or made by a third party (such as an employer) on behalf of the insured.

Minimum returns

The performance of voluntary pension funds is not subject to a minimum return obligation.

Reserves

As a matter of legal obligation, where voluntary pension funds promise lifetime pensions, they are required to maintain pension reserves to cover the longevity risk. As a matter of practice, currently voluntary pension funds have accumulated such reserves only for the limited number of lifetime pension contracts currently extended.

Distributions

Participants in voluntary pension funds have a variety of choices in drawing on their accounts.

One option is for participants to withdraw funds accumulated through their own contributions at any time prior to reaching the statutory retirement age. This right does not apply to funds accumulated as a result of any employers' contributions.

Another option gives them the right to a lifetime pension upon meeting the age and length of service requirements for a public pension. However, participants may choose to draw a lifetime pension up to five years prior to meeting these eligibility criteria.

Lastly, participants can choose between drawing the balance from their account as a lump sum or a scheduled withdrawal over a certain period of time.

The heirs of an insured or retired person who leaves a balance in his or her account at the time of death, are entitled to the balance as either a lump sum or to scheduled withdrawals over a specified period of time. Should there be no heirs the balance is transferred to the voluntary pension fund reserves.

Voluntary professional pension funds

With only two voluntary professional funds with 10,138 participants and €9.4 mln. in assets under management as of end-2020, this vehicle is a rather insignificant part of the Bulgarian pension system and will be dropped from the real return analysis. Only participants in professional pension schemes can contribute to voluntary professional pension funds. Their employers may elect to make contributions on behalf of employees too.



To meet their future obligations, pension companies set aside technical reserves. The technical reserves need to be maintained at any moment in time and invested appropriately to ensure liquidity.

Participants acquire a right to a term pension from a voluntary professional fund upon reaching the age of 60 for both men and women. They have the choice to either a lump sum or scheduled withdrawals.

The heirs of a deceased insured or retiree are entitled to receive the remaining balance on the account as either a lump sum or scheduled withdrawals.

Asset Allocation (Investment Strategy)

Pension companies in Bulgaria are allowed to manage only one pension fund (one portfolio) per category (universal, professional, voluntary or voluntary professional). Thus, they are prevented by law from assessing the suitability and appropriateness of any pension fund to the insured. Every client of the respective type of fund, offered by a pension company, receives the same portfolio irrespective of his or her time horizon, investment objectives, risk tolerance, financial circumstances or the ability to bear losses.

At the same time pension funds' portfolios are subject to investment restrictions. Universal and professional funds' investments in 2020 were limited to no more than 60% investments in dynamic assets and no less than 40% in fixed income and cash equivalents – a slightly more relaxed investment restrictions in comparison to previous years, when no more than 45% could be invested in dynamic assets.

Specifically, the limits were as follows:

- No more than 25% in equities;
- No more than 20% in collective investment schemes such as mutual funds and ETFs. Since the investment focus of these collective schemes is not defined, theoretically they can be invested only in equities;
- No more than 10% in REITs (Real Estate Investment Trusts) and
- No more than 5% directly in investment property⁸².

Investment restrictions for voluntary pension funds are more relaxed and focus primarily on limiting concentration and exchange rate risk.

We report the asset allocation per major pension category in Table BG6. In the three most recent years universal and professional pension funds held about 45-56% in government bonds; 9-11 % in corporate and municipal fixed income instruments and about 21-31% in equities and collective investment schemes.

⁸² Art. 176-178. Social Insurance Code. <http://noi.bg/images/bg/legislation/Codes/KCO.pdf>



Voluntary pension funds hold on average 24-36% in equities and collective investment schemes with 42-56% in government bonds and another 7-8% in corporate and municipal fixed income instruments.

Table BG6. Asset Allocation of the main pension vehicles in Bulgaria

Universal Pension Funds	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Cash & Cash Equivalents	27.1%	30.7%	26.9%	26.2%	20.6%	21.1%	12.1%	12.5%	15.9%	7.0%	10.6%	9.2%	9.1%
Government Bonds	32.7%	23.0%	21.6%	30.9%	35.4%	35.0%	41.6%	44.8%	44.8%	48.9%	47.4%	56.8%	52.8%
Corporate and Municipal Bonds	24.7%	23.7%	23.4%	21.9%	23.8%	19.6%	16.2%	12.4%	11.2%	13.0%	10.1%	10.2%	8.7%
Equity & Mutual Funds	11.5%	18.7%	23.5%	16.1%	16.2%	20.7%	26.8%	27.3%	25.5%	28.5%	29.2%	21.4%	27.0%
Real Estate	3.9%	3.9%	4.5%	4.8%	4.1%	3.6%	3.3%	3.0%	2.7%	2.5%	2.7%	2.4%	2.3%
Professional Pension Funds	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Cash & Cash Equivalents	26.4%	28.8%	27.4%	25.6%	22.8%	17.3%	11.1%	9.9%	12.7%	6.9%	9.6%	7.3%	9.5%
Government Bonds	28.3%	21.0%	17.8%	27.4%	28.3%	33.5%	40.1%	44.0%	42.5%	45.6%	44.6%	51.5%	45.2%
Corporate and Municipal Bonds	25.0%	24.0%	23.5%	20.9%	23.4%	20.2%	16.3%	12.4%	11.4%	13.5%	10.6%	11.2%	10.5%
Equity & Mutual Funds	14.3%	20.3%	25.5%	19.1%	20.5%	24.5%	28.3%	29.6%	29.4%	30.2%	31.2%	26.1%	31.1%
Real Estate	6.0%	5.9%	5.8%	7.0%	4.9%	4.6%	4.2%	4.0%	4.0%	3.7%	4.1%	3.8%	3.8%
Voluntary Pension Funds	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Cash & Cash Equivalents	20.7%	29.8%	19.8%	18.8%	16.0%	13.2%	9.1%	10.5%	12.5%	7.2%	9.1%	7.3%	7.2%
Government Bonds	23.1%	13.3%	13.6%	23.1%	26.9%	29.7%	30.3%	35.6%	37.6%	38.3%	42.6%	55.6%	49.4%
Corporate and Municipal Bonds	25.0%	25.7%	28.0%	24.9%	25.2%	20.7%	18.2%	13.8%	12.1%	13.8%	7.5%	8.5%	7.3%
Equity & Mutual Funds	16.8%	20.1%	27.7%	22.1%	22.9%	28.0%	35.0%	33.5%	31.8%	35.7%	36.2%	24.5%	32.0%
Real Estate	14.4%	11.1%	10.9%	11.1%	9.0%	8.4%	7.4%	6.6%	6.1%	5.0%	4.6%	4.1%	4.0%

Source: Own calculations based on data published by the Financial Supervision Commission

Thus, pension funds in Bulgaria are managed quite conservatively, especially considering that they are largely in accumulation phase. Conservative strategies imply lower expected returns going



forward, which makes it less likely for pension savers to enjoy an adequate income in retirement, once the temporary effect of the lowered reduction runs out (2037-2040). The asset allocation of all pension funds in Bulgaria, including the post-crisis period, and the decision to maintain less exposure to riskier asset classes explains why their investments did not fully participate in stock market recovery that has occurred since 2009 and their long-term performance still lags the market return as shown on Figure BG5 above. While conservative portfolios dampen their volatility, they expose the insured to inflation risk and lower real retirement incomes.

Charges⁸³

Participants in pension funds are subject to fees and charges, defined and capped by law. Four types of fees and charges apply:

- Entry fee on pension fund contributions;
- Account opening fee (for voluntary funds)
- Annual investment management fees on account balances (or the annual return in the case of voluntary funds);
- Other fees

The law caps those fees and charges as follows (as of end 2020):

Table BG7. Legal caps on fees and charges in 2020		
Fees	Universal/ Professional Pension Funds	Voluntary Pension Funds
Entry fee	3.75%	≤ 7%
Management fee	0.75%	≤ 10 %*
Account opening fee	€ 0.00	€ 5.11
Other fees	€ 5.11	€ 10.22

Source: Social Insurance Code, * Up to 10% of the positive nominal return to the fund/ individual account.

Pension companies are banned from charging any fees other than the ones listed. The entry fee applies to each contribution, while the management fee applies to the balance of the account (or the annual return in the case of voluntary funds). The transfer fee is charged when a participant initiates a transfer of his or her account to a different pension management company. Only one transfer of the account per year is permitted. Companies managing voluntary pension funds are allowed to collect several other administrative fees, as long as those are explicitly allowed and specified in the law.

In practice, most of the pension companies managing universal and professional funds charge the maximum loads and fees, but some offer discounts to long-term participants.

⁸³ Data on charges are collected from individual pension companies' Internal Rules and Regulations for managing pension funds. These documents are publicly accessible on the web page of each pension company.



The entry fees charged by pension companies for voluntary pension funds vary more widely and are typically between 2.5 and 4.5%. The amount of the entry fee varies according to the amount of the contribution, or the number of employees signed up to a voluntary pension fund by their employer. The majority of pension companies charge the maximum allowed 10% of returns in investment management fees. Four companies charge lower investment management fees: one charges 4.5%, the other charges 7% and the remaining two, including the largest company, charge 9% on positive returns.

Administrative charges are normally one-time and nominal.

A gradual reduction of fees and charges for the Pillar II funds was mandated by law⁸⁴. The reduction was fully phased in 2019, and they stayed the same in 2020 as follows:

Table BG8. Pension funds fees and charges for Universal/ Professional Funds (2016-2020)					
	2016	2017	2018	2019	2020
Front Load	4.50%	4.25%	4.00%	3.75%	3.75%
Management fee	0.90%	0.85%	0.80%	0.75%	0.75%

As reported on Figures BG13 and BG14 below, fees and charges have reduced the yield to pension savers by 1.7% annual average for universal pension funds and 1.2 % for voluntary pension funds over the 2002-2020 period.

Taxation - EEE

Individual contributions to pension funds are income tax free. A contribution to voluntary pension funds of up to 10% of annual taxable income is tax-free, while any additional contributions can be made from after-tax income. Investment income accrues tax-free to individual pension accounts. Pension payments are also free of tax.

Employers deduct contributions to pension funds of up to BGN 60 (€30.68) per employee per month from their annual revenue before taxes. Pension companies' services and revenues are free from VAT and tax respectively.

The tax regime of the pension companies and pension funds does not drive a wedge between nominal and real returns in Bulgaria.

Pension Returns

Pension funds returns can be calculated using one of two methods: time-weighted or money-weighted returns⁸⁵. While time-weighted returns are useful when comparing pension funds'

⁸⁴ National Assembly, (2015), Social Insurance Code, State Gazette, No. 61, 11.08.2015 (In Bulgarian)

⁸⁵ Feibel, Bruce J., (2003), "Investment Performance Measurement", John Wiley & Sons, Inc., Hoboken, New Jersey, p. 53



performance to a benchmark, it is only money-weighted returns that matter to participants, since their accumulated capital before retirement depends on their contributions, the length of the contributing period and their average money-weighted return they earned on their accounts. For comparability purposes with other country cases, the General Report and Executive Summary (where data for Bulgarian pension funds is presented) use Time-Weighted Returns, not the below returns, which are Money-Weighted Returns. The methodologies differ and Time-Weighted Returns should not be compared with Money-Weighted Returns.

Note: The computations for the Bulgarian country case include additional data flows on the contributions paid to the NSSI.

We reported the 1, 3-, 7-, and 10-year time weighted nominal and real returns in the introduction and observed that all types of pension funds in Bulgaria underperform a simple investable benchmark portfolio. In this section, we report both the annual nominal and real money-weighted returns (2002-2020) and the returns over 1, 3-, 7-, 10- year trailing returns and since 2002 for the two main pension vehicles: universal and voluntary funds.

Money-weighted Returns

The pension savers' annual returns in the two dominant pension vehicles in Bulgaria: universal and voluntary pension funds, are reported in Tables BG9 and BG10.



Table BG9: Universal Pension Funds (UPF) Money-Weighted Returns

	Nominal Return (Net of Fees)	Fees and charges**	Nominal Return (Gross of Fees)	HICP (Annual Average)	Real Return (Gross of Fees)
2002*	13.4%	16.1%	-2.7%	4.1%	-6.8%
2003	7.4%	5.8%	1.5%	6.9%	-5.4%
2004	13.6%	5.8%	7.8%	4.3%	3.5%
2005	8.2%	4.1%	4.1%	7.1%	-3.0%
2006	9.1%	3.5%	5.5%	5.7%	-0.2%
2007	16.2%	3.8%	12.4%	11.8%	0.6%
2008	-19.3%	2.5%	-21.8%	4.6%	-26.4%
2009	9.3%	3.0%	6.2%	1.6%	4.6%
2010	6.2%	2.5%	3.7%	4.4%	-0.7%
2011	0.6%	2.1%	-1.6%	1.9%	-3.5%
2012	8.6%	2.1%	6.5%	2.8%	3.7%
2013	5.9%	1.9%	3.9%	-0.9%	4.8%
2014	7.0%	1.8%	5.2%	-2.0%	7.2%
2015	2.5%	1.7%	0.8%	-0.9%	1.7%
2016	5.2%	1.5%	3.7%	-0.4%	4.1%
2017	7.0%	1.4%	5.6%	1.9%	3.7%
2018	-3.3%	1.2%	-4.5%	2.1%	-6.7%
2019	7.0%	1.3%	5.7%	3.2%	2.6%
2020	2.5%	1.2%	1.4%	0.0%	1.3%
Average (2002-2020)	4.0%	2.3%	2.3%	1.4%	0.9%

Source: Own calculations based on FSC data; *UPFs have been launched in April 2002; **No official statistics for 2002 and prior to 2002 - estimation for these years

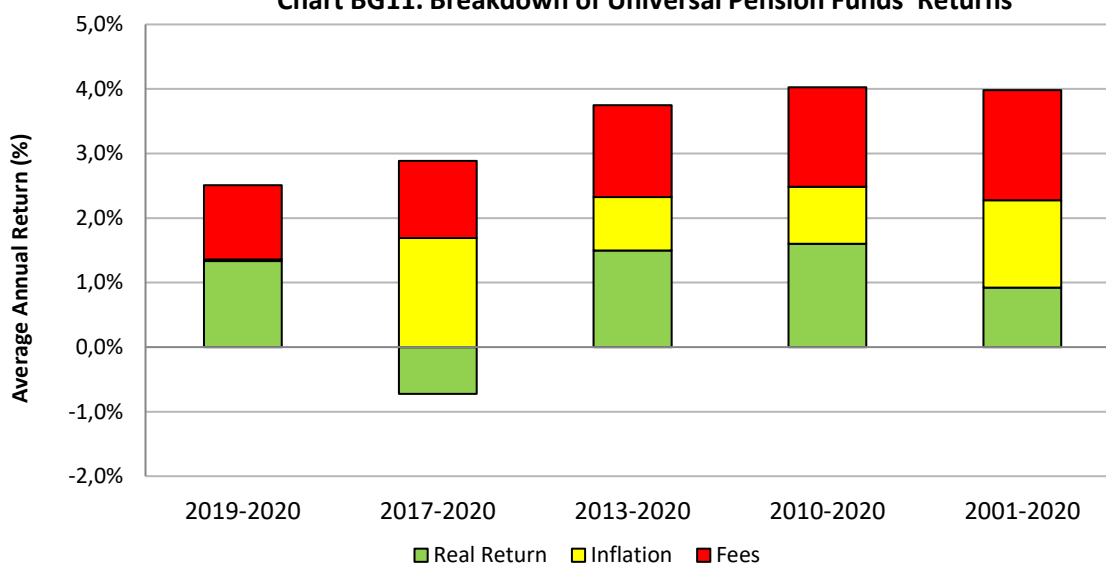


Table BG10. Universal Pension Funds and Pension Savers' Returns (UPF) – Money-Weighted Returns

Return type / holding period	2019-2020	2017-2020	2013-2020	2010-2020	2002-2020
Gross returns	2.5%	2.2%	3.8%	4.0%	4.0%
Net returns	1.4%	1.0%	2.3%	2.5%	2.3%
Real returns	1.3%	-0.7%	1.5%	1.6%	0.9%

Source: Computations based on Table BG9

Chart BG11. Breakdown of Universal Pension Funds' Returns



Source: Own calculations based on data from table BG9

Data for professional pension funds (PPF) is no longer publicly available and the authors could not update it.



Table BG12. Voluntary Pension Funds (VPF) Money-Weighted Returns

	Nominal Return (Net of Fees)	Fees and charges**	Nominal Return (Gross of Fees)	Inflation (Annual Average HICP)	Real Return (Gross of Fees)
2002*	9.2%	5.0%	4.2%	3.9%	0.3%
2003	9.9%	2.8%	7.1%	6.0%	1.0%
2004	12.0%	2.6%	9.4%	4.2%	5.2%
2005	9.6%	2.3%	7.3%	7.4%	0.0%
2006	7.5%	1.9%	5.6%	6.0%	-0.4%
2007	17.9%	3.2%	14.8%	11.9%	2.8%
2008	-25.1%	0.5%	-25.6%	5.0%	-30.7%
2009	8.3%	1.3%	6.9%	1.7%	5.2%
2010	5.7%	1.0%	4.7%	4.5%	0.2%
2011	-0.6%	0.4%	-1.0%	2.0%	-3.0%
2012	8.9%	1.2%	7.7%	2.9%	4.8%
2013	6.9%	1.0%	6.0%	-0.9%	6.9%
2014	7.1%	1.1%	6.1%	-2.1%	8.1%
2015	2.0%	0.6%	1.4%	-0.9%	2.3%
2016	5.6%	0.8%	4.8%	-0.5%	5.3%
2017	7.9%	1.2%	6.8%	1.9%	4.9%
2018	-4.7%	0.3%	-5.1%	2.1%	-7.2%
2019	7.3%	1.0%	6.3%	3.2%	3.1%
2020	2.4%	0.5%	1.9%	0.0%	1.9%
Annual Average (2001-20)	4.0%	1.2%	2.7%	2.6%	0.2%

Source: own calculations based on FSC data; *Voluntary Pension Funds existed prior to 2002 but there are no official statistics available on the electronic site of the Financial Supervision Commission (FSC); **No official statistics for 2002 and prior to 2002 - estimation for these years

Pension funds returns vs. pension savers' nominal and real returns by holding period are reported in the following tables:

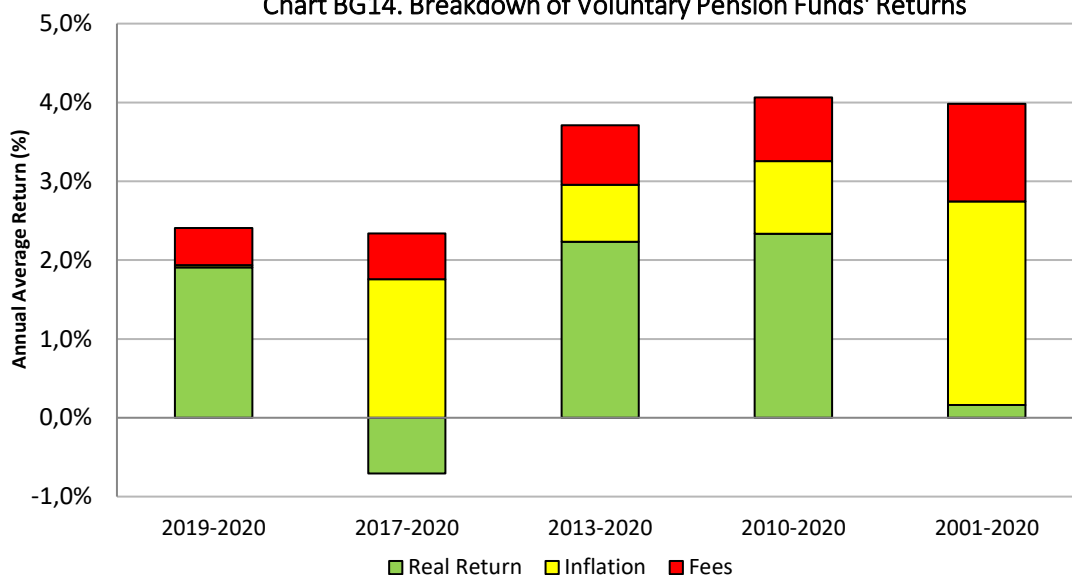


Table BG13. Universal Pension Funds and Pension Savers' Returns (UPF) – Money-Weighted Returns

Return type / holding period	2019-2020	2017-2020	2013-2020	2010-2020	2002-2020
Gross Returns, nominal	2.4%	1.6%	3.7%	4.1%	4.0%
Net Returns, nominal	1.9%	1.1%	3.0%	3.3%	2.7%
Real returns	1.9%	-0.7%	2.2%	2.3%	0.2%

Source: Computations based on Table BG11

Chart BG14. Breakdown of Voluntary Pension Funds' Returns



Source: Own calculations based on data from table BG12

While in 2002-2020 pension savers in voluntary pension funds earned just 0.2% real average annual return, pension savers' accounts in universal pension funds were credited with a real average annual return of 0.9%. This result is grossly insufficient for pension savers to actually receive a "supplementary" pension from UPFs. If the past performance over the last 19 years persists, the great majority of those insured in universal pension funds will see their retirement income reduced below the full state pension.

The last point requires some elaboration. While contributions to voluntary pension funds are truly additional to the mandatory pension contributions, the contribution to a universal pension fund is financed at the expense of the contribution to the State Pension Fund⁸⁶. This means that while the mandatory pension contribution is the same for all insured, those who participate in universal

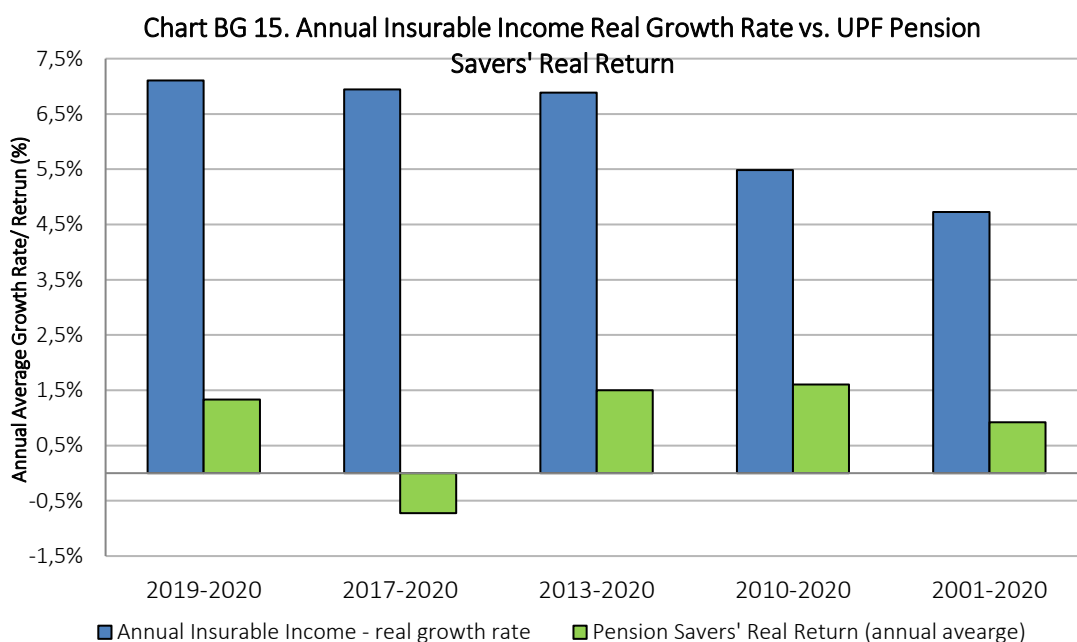
⁸⁶ Second Pillar contributions are financed at the expense of the first pillar in all Eastern European countries, except Estonia, which introduced an additional contribution for second pillar funds. See Krzyzak, Krystyna. (2018). "CEE: A system in flux". In IPE. January 2018. <https://www.ipe.com/pensions/country-reports/cee/cee-a-system-in-flux/10022463.article>



pension funds, divert about a quarter of their mandatory contribution to an UPF. Their contribution to the State Pension Fund, therefore, is smaller compared to the contribution of those insured who have opted out of universal pension funds. Consequently, those who contribute to an UPF will be entitled to a reduced state pension, compared to those who do not participate in a UPF.

Therefore, for an UPF pension to be truly “supplemental”, it would need to first offset the reduction of the state pension. This raises the question under what circumstances an expected “supplemental” pension from an UPF will be able to offset exactly the reduction of the state pension?

This question has been researched elsewhere.⁸⁷ The conclusion is that the necessary and sufficient condition for an UPF pension to fully offset the reduction of the state pension is that the actual real return of an UPF account exceeds the annual real rate of growth of the average insurable income over the entire contributory period. In fact, as illustrated on Figure BG15 below, the situation in the 2002-2020 period has been the exact opposite – the average annual rate of growth of the insurable income in Bulgaria has substantially and consistently outpaced the returns received by pension savers in UPFs.



Source: own calculations based on data from the National Social Security Institute and Eurostat.

⁸⁷ Christoff, Lubomir. (2016). “Pension (In)Adequacy in Bulgaria”) (In Bulgarian - August 17, 2016). Available at SSRN: <https://ssrn.com/abstract=2825011>



Going forward, the National Social Insurance Institute expects the real growth of the average insurable income in Bulgaria to slow down to 3.2% per annum in real terms⁸⁸. Under this assumption, an insured person, who has contributed to an UPF since 2002 and will retire in 2042 after 40 years of uninterrupted contributions, will need to receive a 3.9%⁸⁹ real annual rate of return between 2020 and 2041 in order for his “supplemental” UPF pension to just offset the reduction of his state pension. The required 3.9% real return is not only far in excess of the realized real return of 0.9% over the 2002-2020 period, but is also unrealistic to expect, given the long-term capital market expectations⁹⁰.

Thus, contributing to an UPF over 40 years will reduce pension savers’ retirement income in comparison with the state pension they would have been entitled to, had they not participated in an UPF at all. By producing returns below the growth rate of the average insurable income in Bulgaria, universal pension funds harm pension savers by reducing the adequacy of their pensions and preventing them from maintaining their living standards after retirement.

While the legislator created an opportunity to opt-out of UPFs at any time up to one year before reaching the statutory retirement age, contributing to an UPF remains the default option for those, who enter the labour market for the first time.

Conclusion

With the pay-as-you-go pension pillar in Bulgaria under financial stress and the universal pension funds being the default option for employees born after 1959, the defined contribution pillars are growing in importance in securing adequate pensions for future retirees. However, as the analysis of the real return of pension funds from 2002 to 2020 illustrates, with very low real returns in universal pension funds and voluntary pension funds, the task of providing Bulgarians with adequate pensions and old age security is proving beyond reach.

Pension fund charges in Bulgaria are limited in number, capped by law and transparent. They have proved, however, too high a hurdle for fund managers across all pension vehicles to overcome and deliver market-like long-term returns.

Bulgarians can choose whether to contribute to universal pension funds but if they do, they don’t have a choice as to how their savings are to be managed. Their contributions are invested

⁸⁸ National Social Security Institute. (2019). “Actuarial Report 2019.” Sofia. (In Bulgarian). p. 31, Table 6 and p. 38, Table 8. <https://noi.bg/aboutbg/st/analyses/415-actuerreports>

⁸⁹ Christoff, Lubomir. (2019). “Pension (In)Adequacy in Bulgaria”. (In Bulgarian). Available at SSRN: <https://ssrn.com/abstract=3354170>

⁹⁰ Dobbs Richard, Tim Koller, Susan Lund, Sree Ramaswamy, Jon Harris, Mekala Krishnan and Duncan Kauffman. (2016). “DIMINISHING RETURNS: WHY INVESTORS MAY NEED TO LOWER THEIR EXPECTATIONS”, McKinsey & Company, p. IX <https://www.mckinsey.com/industries/private-equity-and-principal-investors/our-insights/why-investors-may-need-to-lower-their-sights>



irrespective of their individual time horizon and risk tolerance, which indicates that perhaps a majority of the Bulgarians invest their pension savings in unsuitable portfolios.

Universal pension funds – by far the largest pension vehicle by number of participants and assets under management – is detrimental to pension savers interests as it cannot generate the returns needed to ensure a supplemental pension and on the contrary, will reduce the pension income of future retirees as two pensions in Bulgaria are less than one, over a full contributory period.

The discriminatory reduction of the state pension introduced in 2020 will soften the blow of the effect “Two pensions are less than one” in Bulgaria, but only temporarily as shown above. This is because this measure patches the symptoms but doesn’t address the cause of why UPF pensions cannot compensate for the reduction of the state pension. The root cause of the inability of UPFs to deliver supplementary pensions are the low and insufficient real returns they have been generating over the past 19 years.



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Pension Savings: The Real Return

2021 Edition

Country Case: Croatia

Croatian summary

Hrvatska je stvorila tipični mirovinski sustav s tri stupa, gdje se državni organizirani mirovinski stup na temelju PAYG-a (preraspodjela doprinosa radno sposobnog starijeg stanovništva) nadopunjuje obveznim financiranim mirovinskim sustavom (II. Stup) i subvencionira se (izravno kao i neizravno) dobrovoljni mirovinski sistem štednje (III. stup).

Povećavajući omjer obuhvata radnog stanovništva od strane II. stup nadoknađuje slaba pokrivenost unutar III. stup. To bi moglo donijeti rastući problem niskog životnog standarda za umirovljenje populacije u budućnosti, jer I. stup pruža samo 30% stopu zamjene, a preostala dva stupa neće moći dodati značajne izvore za pojedince tijekom umirovljenja. Iako su izvedbe oba financirana stupa prilično solidne, prilično mali doprinosi i nizak omjer pokrivenosti III. Stup postavlja pitanja o adekvatnosti mirovinskog sustava u Hrvatskoj.

Summary

Croatia has created typical 3-pillar pension system, where the state organized pension pillar based on PAYG (redistribution of contributions from working to elderly population) is supplemented by mandatory funded pension scheme (II. pillar) and subsidized (directly as well as indirectly) voluntary pension saving scheme (III. pillar).

Increasing coverage ratio of working population by the II. pillar is offset by low coverage within the III. pillar. This might bring the increasing problem of low living standard for retiring population in future as the I. pillar provides only 30% replacement rate and remaining two pillars will not be able to add significant sources for individuals during retirement. Even if the performance of both funded pillars is quite solid, rather small contributions and low coverage ratio of the III. pillar raises questions about the adequacy of the pension system in Croatia.

Introduction

Croatian pension system is since 2002 designed on conventional World bank 3-pillar model. Croatian pension system was as of 1 January 1999 reformed by introducing a mixed public-private pension system consisting of three pillars of pension insurance:

- I. **pillar** – compulsory pension insurance based on generational solidarity;
- II. **pillar** – compulsory pension insurance based on individual capitalized savings;
- III. **pillar** – voluntary pension insurance based on individual capitalized savings.



Introductory Table - HR Pension System Overview		
Pillar I	Pillar II	Pillar III
Pension Insurance Act	Mandatory Pension Funds Act	Voluntary Pension Funds Act
Croatian Pension Insurance Institute (HZMO)	Croatian Financial Services Supervisory Agency (HANFA) ⁹¹	
Mandatory state pension insurance	Mandatory DC-based funded pensions	Voluntary fully funded DC Individual accounts
PAYG principle	Individual accounts	Coverage: 11.63%
Coverage: 99%	Coverage: 62.55%	
Managed by the Social Insurance Company	Managed by Pension Asset Management Companies	
Contribution rate: 15.00%;	Contribution rate: 5.00%	8 open-ended pensions funds
Replacement ratio: 30.6%;	12 pension funds	20 closed pension funds
Average pension: €320	(3 risk-reward classes)	
	NAV: 15,767 mil. Eur	NAV: 892.60 mil. Eur
	Members: 2,057,391	Members: 365,102
Quick facts		
Retirement age – 65 years for men; 62 years and 6 months for woman (2020)		
A relatively high old-age dependency ratio of 32.6% in 2020		
An average gross pre-retirement income replacement ratio of 29.77% (net 40.57%)		

Source: authors' composition, data valid for the year 2020 based on HZMO data and Eurostat data (<https://ec.europa.eu/eurostat/databrowser/bookmark/1465c16e-6176-4985-bf5a-00ad06636738?lang=en>)

I. pillar – PAYG scheme

The I. pillar of pension insurance is called a pillar of generational solidarity based on pay-as-you-go (redistributional) principle, as persons who work pay contributions for pension insurance, whereas such contributions serve for giving pensions to current pension beneficiaries. In addition to contributions collected from insured persons, the first pillar is also funded from the state budget. According to the Pension Insurance Act⁹², insured persons are compulsorily insured in accordance with principles of reciprocity and solidarity for the event of ageing, reduction of working capacity with remaining working capacity and partial or total loss of working capacity, and the members of their families in the event of insured person's or pension beneficiary's death (right to an old-age

⁹¹ <https://www.hanfa.hr/pillar-ii-and-iii-pensions-and-pension-payments/>

⁹² <https://zakon.hr/z/91/Zakon-o-mirovinskom-osiguranju>



pension, early retirement pension, disability pension, temporary disability pension, survivors' pension, minimum pension, basic pension).

Funding: the system of generational solidarity is a defined benefits system. The Contribution Act⁹³ prescribes the obligation to pay contributions for funding of compulsory insurance, including contributions for pension insurance. Contributions are collected by the Tax Administration and the contribution rate for insured persons who are insured only in the I. pillar amounts to 20% of gross salary, while the contribution rate for I. pillar for insured persons who are insured in both compulsory pillars (I. and II. pillar) amounts to 15%.

The implementation of pension insurance based on generational solidarity falls within the competence of the Croatian Pension Insurance Institute⁹⁴. The Croatian Pension Insurance Institute (HZMO) is the competent institution for exercising the right exclusively from pension insurance based on generational solidarity (I. pillar).

The right to an old-age pension payable from the I. pillar is acquired by an insured person who has reached 65 years of age, if he/she has completed 15 years of qualifying periods. Insured persons – women in the period from 2014 to 2029 are entitled to an old-age pension at a lower age. In 2014, they could retire at the age of 61 (under the condition of 15 years of service), where the age requirement for each calendar year increases by 3 months until 2029. By way of exception, raising the retirement age by 4 months every year was stipulated by the law that was in force from 1 January to 31 December 2019. However, the amendments to the law that enter into force on 1 January 2020 introduced a transitional period for women under more favourable conditions again. Raising of the retirement age is reduced from 4 to 3 months every year, with an exceptional raise by 2 months in 2020 in relation to 2019. As of 1 January 2030, women and men can exercise the right to old-age pension benefit under the same conditions, having reached the age of 65 and 15 years of pensionable service, irrespective of the gender of the insured person.

The amount of old-age pension is calculated by multiplying personal points, pension factor and the actual value of pension. The pension factor is determined by the type of pension to be realised, and the actual value of the pension is determined by the Governing Board of the Croatian Pension Insurance Institute (HZMO), based on the data of the Croatian Bureau of Statistics, no later than two months after the end of each half-year. Personal points are calculated by multiplying the average value point with achieved qualifying periods and the initial factor. The initial factor affects the amount of pension in case of old-age pensions and early retirement pensions, so that:

- An old-age pension is increased to insured persons who are granted pension for the first time after the age of 65, and have 35 years of qualifying periods, by 0.34% for each month

⁹³ <https://zakon.hr/z/365/Zakon-o-doprinosima>

⁹⁴ <https://www.mirovinsko.hr/>



after reaching the prescribed age for acquiring the right to an old-age pension, but no longer than 5 years,

- An early retirement pension is reduced for the insured persons by 0.2% for each month of early retirement before reaching the statutory retirement age of the insured person for the acquisition of the right to an old-age pension.

The average value point is calculated based on salaries earned over the entire working life in relation to the average annual salary in the Republic of Croatia.

The right to an early retirement pension is acquired by an insured person who has reached 60 years of age and completed 35 years of qualifying periods. There are again some exceptions for women. The amount of the old-age pension is permanently reduced for each calendar month of the earlier exercise of entitlement, up to the completed years of life of the insurer prescribed for the acquisition of the right to an old-age pension, linearly by 0.2% for each month of early retirement, i.e., 2.4% per year up to a maximum of 12% for a maximum of 5 years prior to retirement.

Paid old-age pensions are adjusted twice a year in relation to economic trends in the Republic of Croatia. The adjustment rate, applied starting from 1 January 2015, is determined by the variable ratio of the consumer price index and gross salaries of all employees in the Republic of Croatia in the previous year, compared to the year preceding it (70:30, 50: 50 or 30:70, whichever is preferred). From July 1, 2019, it is aligned as follows: from January 1 to July 1 each calendar year according to the 70:30 or 30:70 model.

II. pillar

II. pillar has been effectively introduced starting January 2002. The II. pillar represents individual capitalized savings. Individual savings refer to personal assets of insured persons and the fact that paid funds are recorded in personal accounts, while capitalized savings refer to return on investment achieved upon payment to the selected compulsory pension fund. This form of pension insurance was introduced to expand the source of funding in relation to compulsory pension insurance based on generational solidarity, which sought to achieve greater individual responsibility for the safety of the elderly.

II. pillar includes compulsory insured persons of up to 40 years of age. The rate of contributions for persons insured in II. pillar amounts to 5 % of the gross salary, whereby insured persons may themselves choose a compulsory pension fund and compulsory pension fund category to which they will contribute the said amount. Persons compulsorily insured in I. and II. pillar and insured persons who voluntarily chose II. pillar have the right in the process of exercising the right to a pension to choose in which system the pension will be realized, that is, the system which is more favorable for them (opt-out system). Insured persons can:



- Leave the II. pillar and get the pension exclusively from I. pillar;
- Stay in II. pillar and get the pension from both pillars (in this case, the pension from I. pillar is determined for the years of service completed by December 31, 2001, with a supplement of 27% and for the years of service completed from January 1, 2002, with a supplement of 20.25 %, determined by the factor of basic pension (0.75%).

Management of savings within the II. pillar is carried out through compulsory pension management companies offering pension funds, while the payout phase is carried out exclusively through pension insurance companies. The pension system based on capitalized savings is regulated by two statutory regulations, depending on whether they refer to the phase of accumulation and capitalization of contributions regulated by the Act on Compulsory Pension Funds⁹⁵ or the phase of pension payouts regulated by the Act on Pension Insurance Companies⁹⁶. The Central Register of Insured Persons (REGOS) is the competent institution for insurance based on individual capitalized savings (II. pillar).

Compulsory pension fund is established by a pension company that manages such fund on its behalf and for the joint account of pension fund members. Pension fund may fall under categories A, B or C, and are managed by the same pension company. Pension funds of different categories have different investment strategies and vary according to membership limitations (considering life expectancy of savers/members), investment strategy and investment limitations. The assumed risk should be the lowest in category C funds, and the largest in category A pension funds.

The right to pension and based on individual capitalized savings – II. pillar is realized based on the Decision on Retirement Benefits issued by the Croatian Pension Insurance Institute (HZMO). From January 1, 2019, all insured persons who are insured in both pension pillars can, when they apply for old-age or early old-age pension, select whether they want to receive pension only from the I. pillar or pension from both pillars through a personal statement to the Central Register of Insured Persons (REGOS).

For a member of the fund to choose a more favourable pension, REGOS will collect informative pension calculations from the Croatian Pension Insurance Institute (HZMO) and the Pension Insurance Company (MOD) and submit them to the home address. If a member of the fund opts for pension only from the compulsory pension insurance based on generational solidarity (I. pillar), the HZMO will determine the pension as if the insured was only insured in the I pillar. The selection of this pension means that a member of the fund wants to leave II. pillar, i.e., compulsory pension insurance of individual capitalized savings, and the total capitalized funds from the personal account of the member of the fund are transferred to the state budget. If a member of the fund opts for a combined pension from I. and II. pillars, HZMO will determine the basic pension from compulsory

⁹⁵ <https://www.zakon.hr/z/708/Zakon-o-obveznim-mirovinskim-fondovima>

⁹⁶ <https://www.zakon.hr/z/712/Zakon-o-mirovinskim-osiguravaju%C4%87im-dru%C5%A1tvima>



pension insurance for generational solidarity and submit to REGOS the data from the Decision. Upon receipt of the Decision, which is provided to REGOS by HZMO, REGOS checks the data from the Decision regarding the status of the future pension beneficiary. It is checked whether the personal account of the future pension beneficiary is opened and whether he or she has exited from the II pillar. After selecting the pension insurance company, REGOS will close the personal account of the member of the fund and transfer the overall funds to the pension insurance company which will contact the beneficiary for the conclusion of the pension agreement. The compulsory pension company that manages the compulsory pension fund has a deadline of five working days from the date of initiating the closing of the personal account to allocate funds to the payment account for II. pillar contributions. Upon settlement of the obligation by the custodian bank, the following working day it is verified whether the funds have been transferred to the account of the legal recipient of funds – the Raiffeisen Pension Insurance Company (currently the only MOD) that will pay the pension on the basis of individual capitalized savings. REGOS informs the Pension Insurance Company electronically on the data from R-POD form and the amount of transferred funds. Upon receipt of the aforementioned information, the pension insurance company will contact the future pension beneficiary regarding the conclusion of the Contract on pension based on individual capitalized savings.

If the old-age pension from the I. pillar is higher than 15% of the minimum pension from the I. pillar according to the Pension Insurance Act, the future pension beneficiary from II. pillar can decide on a partial, one-time cash payment of 15% in the gross amount of the total capitalized funds allocated to MOD.

III. pillar

Voluntary pension funds were also introduced in 2002 and complete the three-pillar system. III. pillar is a voluntary pension savings DC-based scheme. Voluntary pension schemes are either offered by voluntary pension funds or can be set up by trade unions and employers, making open and closed funds possible. Open-ended pension funds are open for membership to any natural person interested in becoming a member of an open-ended pension fund, whereas closed-ended pension funds form their membership out of natural persons who are either employed with an employer, or are trade union members, members of associations of self-employed persons or self-employed persons. Voluntary pension funds need to have at least 2,000 members two years after being established.

The payment of retirement benefits within the framework of mandatory pension insurance based on individual capitalised savings of members of mandatory pension funds is made by pension insurance companies only. The payment of retirement benefits within the framework of voluntary pension insurance based on individual capitalised savings of members of voluntary pension funds is made by pension insurance companies, but exceptionally, the payment of retirement benefits on



a temporary basis may be made by voluntary pension funds under the conditions laid down in the Act on Voluntary Pension Funds.

The collection of funds within the framework of III. pillar of pension insurance is carried out through voluntary pension funds, while payouts of pensions are made by pension insurance companies, and, exceptionally, pension companies, that may carry out temporary pension payouts from voluntary pension funds. Pension reform, which entered into force on January 1, 2019, has also introduced the possibility of pension payments by the life insurance companies.

There are no limitations on membership. Also, there are no time restrictions on the duration of membership. A member may choose the amount, duration, and dynamics of payments to the fund. Payments are not compulsory and depend solely on payer's current capabilities. The membership in the fund is not terminated by termination of payments or irregular payments. All paid funds are personally owned by a member, no matter who their payer is, and they can be inherited in full. The only condition for using the funds is reaching 50 years of age.

The Act on Voluntary Pension Funds⁹⁷ regulates the establishment and operation of voluntary pension funds, while the Act on Pension Insurance Companies regulates the establishment and operation of pension insurance companies, pension schemes and pensions and their distribution. HANFA provides supervision over the business of pension insurance companies.

Overall, the returns of II. and III. pillar pension funds over different holding periods are presented in the table below.

Table HR.02 Average nominal and real net returns of Croatian II. pillar pension funds		
Holding Period	Net Nominal Annualized Performance	Real Net Annualized Performance
1-year	-0.59%	-0.29%
3-years	3.45%	2.81%
5-years	5.38%	4.60%
7-year	5.75%	5.25%
10-years	5.32%	4.28%
Since inception	5.25%	3.38%

Source: Own elaboration, 2021

⁹⁷ <https://www.zakon.hr/z/709/Zakon-o-dobrovoljnim-mirovinskim-fondovima>



Table HR.03 Average nominal and real net returns of Croatian III. pillar pension funds

Holding Period	Net Nominal Annualized Performance	Real Net Annualized Performance
1-year	-1.71%	-1.41%
3-years	2.76%	2.13%
5-years	4.05%	3.27%
7-year	5.07%	4.57%
10-years	4.79%	3.75%
Since inception	5.45%	3.59%

Source: Own elaboration, 2021

Pension Vehicles

II. pillar – Mandatory Pension Funds

There are 4 mandatory pension asset management companies operating in Croatia in 2020 (HANFA, 2020):

1. Allianz ZB d.o.o. društvo za upravljanje obveznim i dobrovoljnim mirovinskim fondovima
2. ERSTE d.o.o. - društvo za upravljanje obveznim i dobrovoljnim mirovinskim fondovima
3. PBZ CROATIA OSIGURANJE d.d. za upravljanje obveznim mirovinskim fondovima
4. Raiffeisen društvo za upravljanje obveznim i dobrovoljnim mirovinskim fondovima dioničko društvo

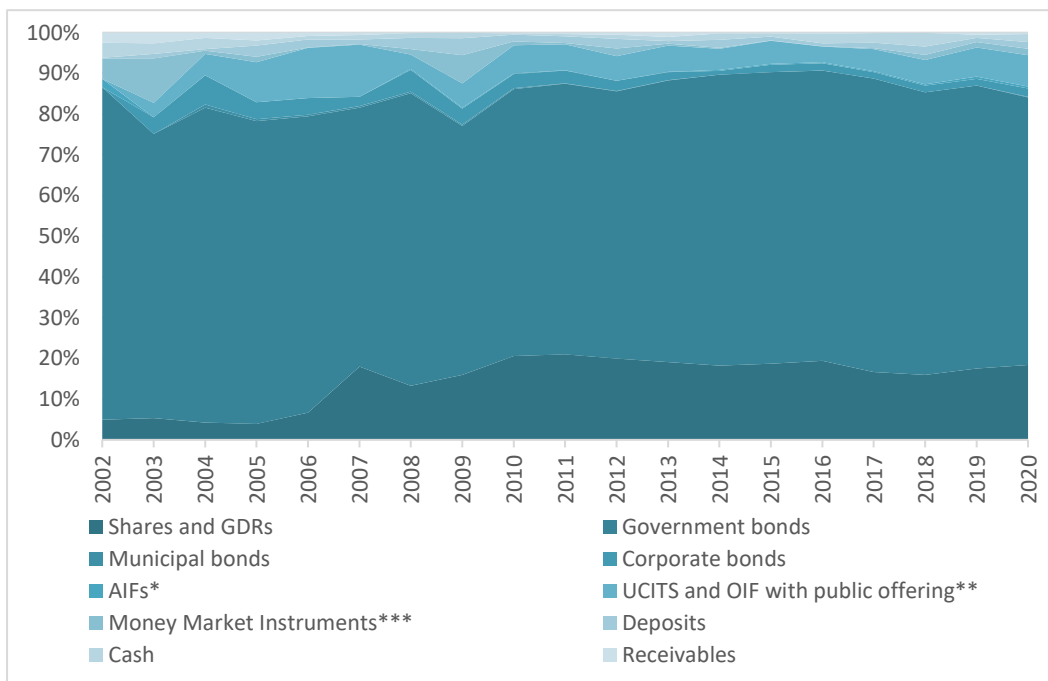
There are 12 mandatory pension funds offered to savers, while each mandatory pension company manages 3 pension funds with different investment strategy:

1. Type “A” mandatory pension fund with riskier investing strategy. Members of this fund can be persons who are at least 10 years old until the age requirements for acquiring the right to an old-age pension are met. At least 30% of the fund's net assets are invested in bonds of the Republic of Croatia, EU or OECD countries. Maximum 55% of the fund's net assets are allocated in shares of issuers from the Republic of Croatia, EU member states or OECD countries and at least 40% of the fund's net assets are denominated in kuna.
2. Type “B” mandatory pension fund – balanced investment strategy. Initially, all members will be members of this fund, unless they choose Fund A or C themselves. At least 50% of the fund's net assets are invested in bonds of the Republic of Croatia, EU or OECD countries. Maximum 35% of the fund's net assets are invested in shares of issuers from the Republic of Croatia, EU member states or OECD countries and at least 60% of the fund's net assets are denominated in kuna.
3. Type “C” mandatory pension fund – conservative investment strategy. It is suitable for older members of the fund who have less than 5 years left to meet the age requirements



for acquiring the right to an old-age pension. According to this condition, REGOS will automatically transfer policyholders from the category B fund to the category C fund. At least 70% of the fund's net assets should be allocated in bonds of the Republic of Croatia, EU member states or OECD countries. Investment in shares is not allowed, and exposure to investment funds is limited to 10%. At least 90% of the fund's net assets are denominated in kuna.

Portfolio structure of the mandatory pension funds is presented below.



Source: Own elaboration based on HANFA data, 2021

Considering the portfolio structure of all mandatory pension fund, most of the investments (almost 80%) are allocated in government and municipal bonds.

III. pillar – Voluntary Pension Funds

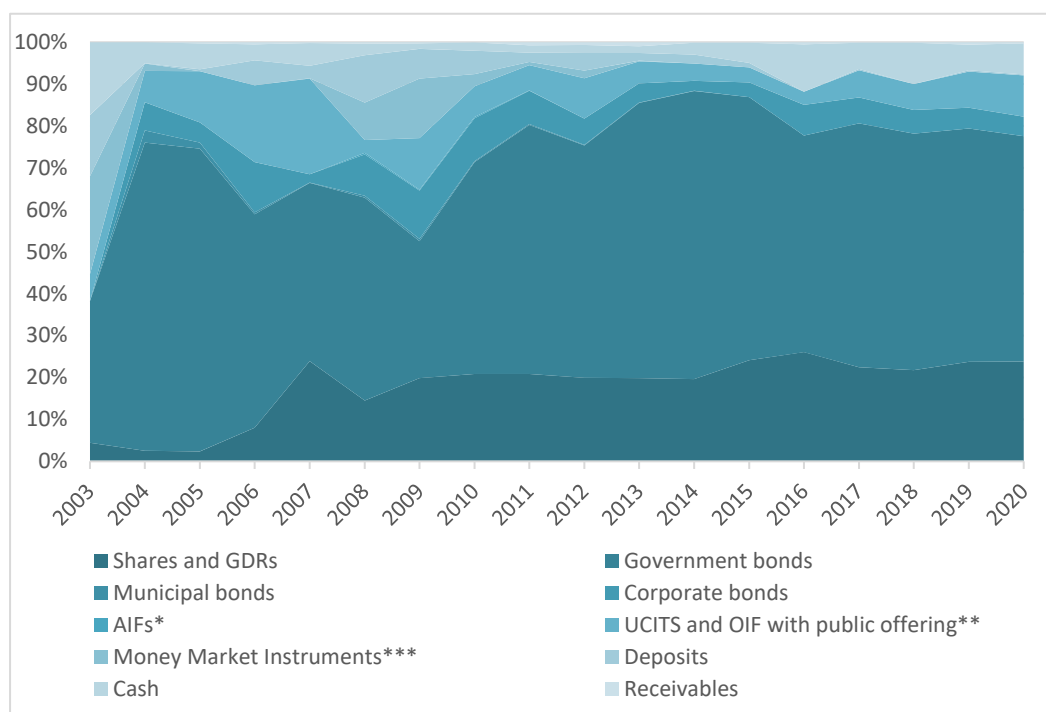
Voluntary pension savings scheme offers more flexibility for providers. There are 4 voluntary pension asset management companies in Croatia:

1. Allianz ZB d.o.o. društvo za upravljanje obveznim i dobrovoljnim mirovinskim fondovima
2. CROATIA osiguranje mirovinsko društvo za upravljanje dobrovoljnim mirovinskim fondom d.o.o.
3. ERSTE d.o.o. - društvo za upravljanje obveznim i dobrovoljnim mirovinskim fondovima
4. Raiffeisen društvo za upravljanje obveznim i dobrovoljnim mirovinskim fondovima dioničko društvo



These companies manage mandatory as well as voluntary pension funds. Within the III. pillar, the companies can offer open-ended funds to any member as well as closed-ended funds to predefined range of members. Currently (as of December 31, 2019), there are 20 closed-ended funds and 8 open-ended voluntary pension funds offered to savers. However, open-ended funds manage more than 80% of all III. pillar assets.

Portfolio structure of voluntary pension funds is presented below.



Source: Own elaboration based on HANFA data, 2021

Voluntary pension funds can be considered more riskier compared to the mandatory pension funds. Almost 20% of assets is allocated into equities and equities based UCITS funds and 60% in government bonds.

Charges

Croatian II. pillar pension funds managed by 4 companies do exhibit regulated fee policy ensuring relatively low level of fees. Detailed structure of fees of mandatory pension funds offered within II. pillar is presented below.



Table HR.04 Charges and fees in Croatian II. pillar pension funds

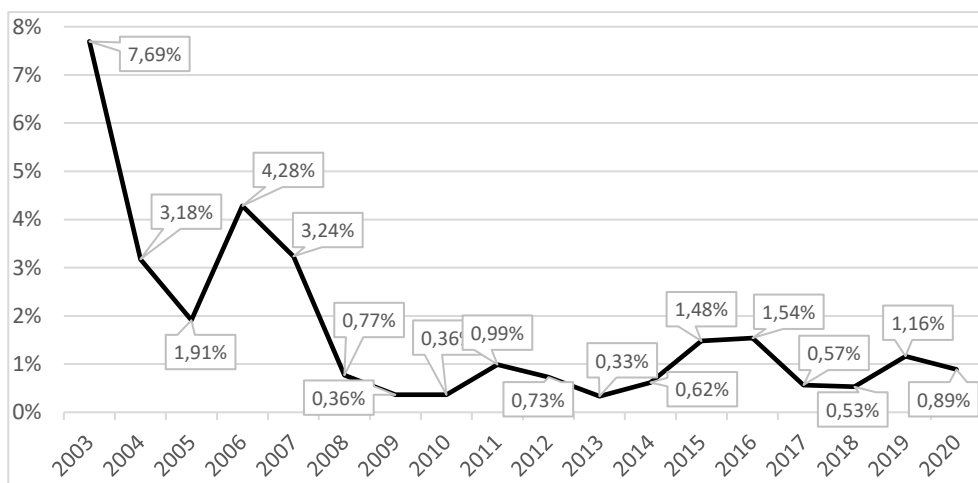
Fund name	Fee type	2020
AZ obvezni mirovinski fond kategorije A	Management fee	0.284% p.a.
	Exit fee	0.80% in 1 year, 0.40% in 2 year, 0.20% in 3 year and than 0.00%.
	Entry fee	0.50%
	Depository fee	0.016% p.a.
	Total cost indicator	0.35%
AZ obvezni mirovinski fond kategorije B	Management fee	0.284%
	Exit fee	0.80% in 1 year, 0.40% in 2 year, 0.20% in 3 year and than 0.00%.
	Entry fee	0.50%
	Depository fee	0.016% p.a.
	Total cost indicator	0.32%
AZ obvezni mirovinski fond kategorije C	Management fee	0.284%
	Exit fee	0.80% in 1 year, 0.40% in 2 year, 0.20% in 3 year and than 0.00%.
	Entry fee	0.5%
	Depository fee	0.016% p.a.
	Total cost indicator	0.32%
ERSTE PLAVI OBVEZNI MIROVINSKI FOND KATEGORIJE A	Management fee	0.284% p.a.
	Exit fee	0.80% in 1 year, 0.40% in 2 year, 0.20% in 3 year and than 0.00%.
	Entry fee	0.50%
	Depository fee	0.02% p.a. (max. 0.10% p.a.)
	Total cost indicator	0.4726%
ERSTE PLAVI OBVEZNI MIROVINSKI FOND KATEGORIJE B	Management fee	0.284% p.a.
	Exit fee	0.80% in 1 year, 0.40% in 2 year, 0.20% in 3 year and than 0.00%.
	Entry fee	0.50%
	Depository fee	0.02% p.a. (max. 0.10% p.a.)
	Total cost indicator	0.3519%
ERSTE PLAVI OBVEZNI MIROVINSKI FOND KATEGORIJE C	Management fee	0.284%
	Exit fee	0.80% in 1 year, 0.40% in 2 year, 0.20% in 3 year and than 0.00%.
	Entry fee	0.50%
	Depository fee	0.02% p.a. (max. 0.10% p.a.)
	Total cost indicator	0.3262%
PBZ CROATIA OSIGURANJE obvezni mirovinski	Management fee	0.284% p.a.
	Exit fee	0.80% in 1 year, 0.40% in 2 year, 0.20% in 3 year and than 0.00%.
	Entry fee	0.50%



fond - kategorija A	Depository fee	0.019% p.a.
	Total cost indicator	0.44%
PBZ CROATIA OSIGURANJE obvezni mirovinski fond - kategorija B	Management fee	0.284% p.a.
	Exit fee	0.80% in 1 year, 0.40% in 2 year, 0.20% in 3 year and than 0.00%.
	Entry fee	0.50%
	Depository fee	0.019% p.a.
	Total cost indicator	0.34%
PBZ CROATIA OSIGURANJE obvezni mirovinski fond - kategorija C	Management fee	0.284% p.a.
	Exit fee	0.80% in 1 year, 0.40% in 2 year, 0.20% in 3 year and than 0.00%.
	Entry fee	0.50%
	Depository fee	0.019% p.a.
	Total cost indicator	0.32%
Raiffeisen obvezni mirovinski fond kategorije A	Management fee	0.284%
	Exit fee	0.80% in 1 year, 0.40% in 2 year, 0.20% in 3 year and than 0.00%.
	Entry fee	0.50%
	Depository fee	0.017% p.a.
	Total cost indicator	0.35%
Raiffeisen obvezni mirovinski fond kategorije B	Management fee	0.284%
	Exit fee	0.80% in 1 year, 0.40% in 2 year, 0.20% in 3 year and than 0.00%.
	Entry fee	0.50%
	Depository fee	0.017% p.a.
	Total cost indicator	0.33%
Raiffeisen obvezni mirovinski fond kategorije C	Management fee	0.284% p.a.
	Exit fee	0.80% in 1 year, 0.40% in 2 year, 0.20% in 3 year and than 0.00%.
	Entry fee	0.50%
	Depository fee	0.017% p.a.
	Total cost indicator	0.32%

Source: Own elaboration using funds prospectuses, 2021

Obtaining data for voluntary pension funds is quite challenging and only average cost ration for all voluntary pension funds is available (see graph below). The fee structure suggests that the total costs are quite dependent on the overall performance and thus the performance-tied fees play key role in the fee structure of voluntary pension funds in Croatia.



Source: Own elaboration, 2021

Taxation

Taxation of the mandatory pension scheme (II. pillar) is of the EET type. Contributions and investment income are tax-exempt, whereas benefits are taxed. The tax allowance for pensioners is 1.7 times higher than for employees, meaning that pensions are only modestly taxed.

At each pension payment, as well as a one-time payment of 15% of the total capitalized funds allocated to MOD, the pension insurance company calculates and pays income tax and surtax on income tax in accordance with the Income Tax Act and pays the net amount to the pension beneficiary. Tax rates for pensioners are reduced and are 12% and 18%, depending on tax brackets. Based on the final income tax calculation that is done by the Tax Administration, the pension beneficiary may be required to pay a tax or may be entitled to a refund of overpaid income tax, depending on the received receipts and the personal deductions used in that year.

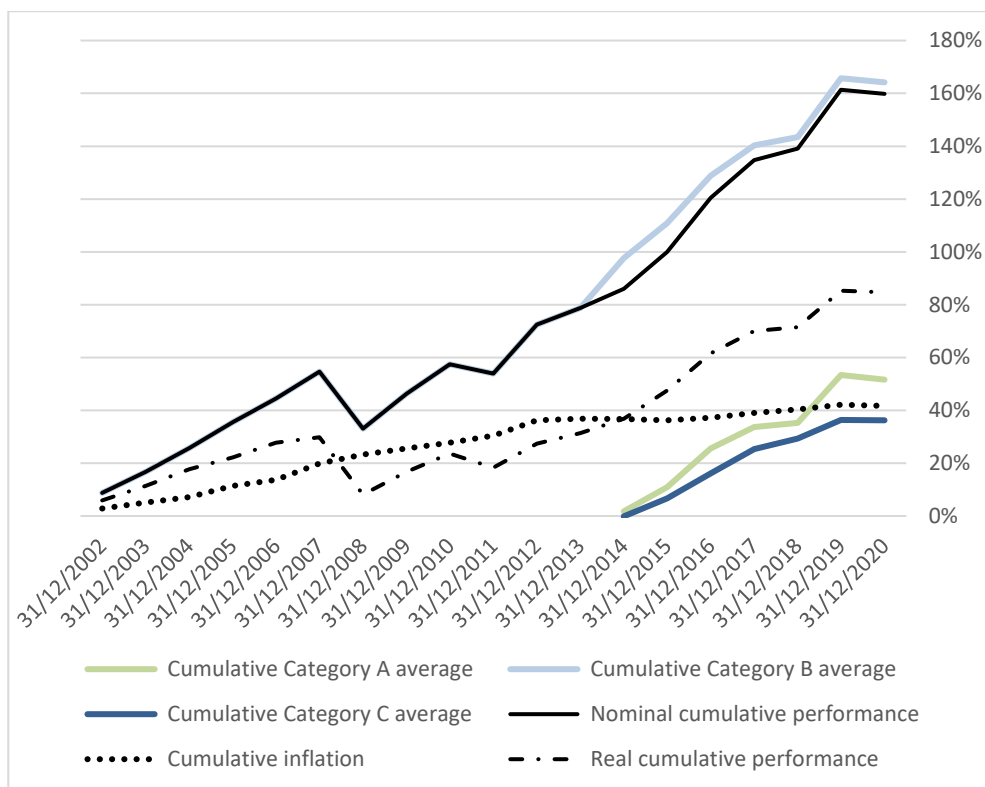
Voluntary pension savings (III. pillar) are the only form of saving which includes two types of state incentives: state incentive funds and tax incentives for employers. Croatia encourages pension savings and approves the incentive to all members of III. pillar in the amount of 15% of the annual payment, up to a maximum of HRK 5,000.00 (672 Eur), that is, the highest state incentive can amount to HRK 750.00 (101 Eur). Every resident can exercise the right to receive incentives only during the period that he/she pays compulsory pension insurance – II. pillar. The membership in a voluntary pension fund offers its member the option of voluntary pension savings being paid by his employer. All payments made by the employer in III. pillar of pension insurance up to the monthly amount of HRK 500 (67.2 Eur), that is, up to HRK 6,000 (806.5 Eur) a year, are not considered a salary. That amount is considered a tax-recognized expense or employer's expense. Paid pension benefits are subject to personal income tax. Therefore, we can say that the taxation scheme for III. pillar pension savings is EET with exceptions.



Pension Returns

II. pillar

Mandatory pension funds have beaten the inflation over the analyzed period of 2002 – 2020. The graph below shows the cumulative performance of mandatory pension funds compared to the inflation (dotted line on the graph below).



Source: Own elaboration, 2021

The table below presents the annual nominal as well as real performance of mandatory pension funds in Croatia.



Table HR 05 Nominal and Real Returns of Mandatory pension funds in Croatia

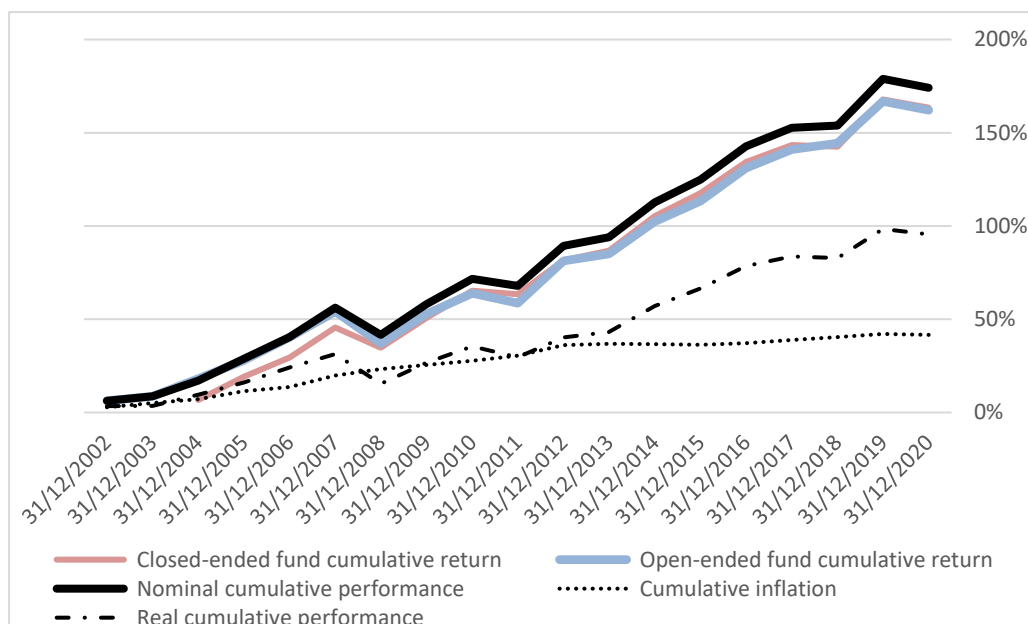
2002		8.77%		5.92%	
2003		7.33%		5.18%	
2004		7.66%		5.70%	
2005		7.77%		3.79%	
2006		6.64%		4.52%	
2007		7.03%		1.62%	
2008		-13.88%		-16.72%	
2009		9.84%		8.00%	
2010	Nominal return after charges, before inflation and taxes	3.63%	5.25%	Real return after charges and inflation and before taxes	5.89%
2011		-2.20%		-4.34%	3.38%
2012		12.05%		7.65%	
2013		3.63%		3.18%	
2014		5.90%		6.00%	
2015		7.50%		7.80%	
2016		10.21%		9.50%	
2017		6.50%		5.23%	
2018		1.86%		0.86%	
2019		9.32%		8.06%	
2020		-0.59%		-0.29%	

Source: Own calculations, 2021

III. pillar

Voluntary pension funds have achieved slightly higher cumulative performance when compared to the II. pillar peers. This could be attributed to the more riskier investment strategy. However, when inspecting the performance on a fund level, there are differences attributed to the different investment strategies.

The graph below presents the cumulative performance of all voluntary pension funds in Croatia.



Source: Own elaboration, 2021

The table below presents the nominal and real annual returns of voluntary pension funds offered in Croatia.

Table HR 06 Nominal and Real Returns of Voluntary pension funds in Croatia

2002	6.29%	3.44%
2003	2.22%	0.07%
2004	7.71%	5.76%
2005	9.96%	5.98%
2006	9.14%	7.03%
2007	11.24%	5.83%
2008	-9.35%	-12.18%
2009	11.69%	9.85%
2010	8.53%	6.80%
2011	-2.16%	-4.30%
2012	12.72%	8.32%
2013	2.43%	1.97%
2014	9.63%	9.73%
2015	5.73%	6.03%
2016	7.94%	7.23%
2017	4.12%	2.85%
2018	0.52%	-0.48%
2019	9.83%	8.57%
2020	-1.71%	-1.41%

Source: Own elaboration, 2021



Overall, both mandatory and voluntary pension funds were able to beat inflation on a cumulative basis and can be considered attractive for savers even if the year 2020 brought negative returns in both pillars.

Conclusions

Croatian pension system offers rather low replacement rates from the state organized I. pillar. This leaves the working population to rely on individual savings and thus the importance of mandatory as well as voluntary pension savings will rise over time and will play a significant role of one's income during the retirement.

Mandatory as well as voluntary pension funds have provided the savers with solid returns over the last 18 years. II. pillar is compulsory for the working population and thus the coverage ratio will be expected to rise in future. The problem could be seen in rather low coverage ratio within the III. pillar, where only 12% of working population saves for retirement.

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Policy considerations

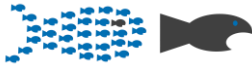
Understating weak points of Croatian pension system (low coverage ratio and relatively low contribution rates for funded schemes), the pension system could be improved by:

1. allowing for additional voluntary contributions for mandatory pension pillar on top of 5% contribution rate envisaged by the current law as the II. pillar offers quite solid performance with low cost ratio;



2. increase indirect state support and further enhance the tax exemption for III. pillar contributions in order to increase the coverage ratio.

Overall, the performance of Croatian pension funds could be considered solid, compared to other peers in other countries. However, the performance is driven mostly by bond yields of domestic issuers, which would not hold for the longer period.



Pension Savings: The Real Return

2021 Edition

Country Case: Denmark

Danish Summary

Det danske pensionssystem er et veludbygget 3-søjle-system. De tre søjlers betydning har gradvist ændret sig i løbet af de sidste 30 år. PAYG-systemet i søjle 1 (folkepensionen) er fortsat den væsentligste indkomstkilde for de fleste pensionister, men arbejdsmarkedspensionerne spiller en stadig større rolle. Mere end 80 pct. af arbejdsstyrken er medlem af en eller flere arbejdsmarkedspensioner. Den gennemsnitlige dækningsgrad er på et niveau omkring 75%, og forventes at stige i de kommende år.

Det danske pensionssystem er karakteriseret ved en høj grad af forudgående opsparing og ved en klar arbejdsdeling mellem de offentlige, skattefinansierede pensioner og de private, opsparingsbaserede pensionsordninger. Den samlede pensionsopsparing udgør i 2019 4.430 mia. DKK eller næsten det dobbelte af BNP.

I international sammenligning skille det danske pensionssystem ud ved, at der er meget få økonomiske fattige pensionister og pensionernes dækningsgrader er høje. Systemet er finansielt sammehængende, og de offentlige finanser er holdbare i forhold til den aldrende befolkning. Der er således ingen akut reformbehov, den grundlæggende struktur er hensigtsmæssig. Der er imidlertid udfordringer knyttet til incitamenterne til opsparing og senere tilbagetrækning, og der er også fortsat en restgruppe, der kun har en beskeden pensionsopsparing.

Arbejdsmarkedspensionerne er i de senere år ændret i retning af markedsbaserede produkter, hvor opsparene mere direkte bærer risikoen knyttet til blandt andet afkastvariationer. Det har skabt mulighed for højere afkast, men rejser spørgsmål om risikoniveauer og risikodeling. Historisk har afkastene været høje, på gennemsnit tæt på et reelt afkast på 5% efter skatter over de sidste godt 10 år. Pensionssektoren har også kunnet håndtere store kriser som fx den finansielle krise og coronakrisen. En ny normal med lave afkast udfordrer mulighederne for at levere afkast på det samme niveau som set historisk.

Summary

The Danish pension system is a well-established 3-pillar system. The role of the pillars has changed gradually within the last 30 years. The PAYG- system of Pillar I still provides the basic income for most elderly, but occupational DC pension schemes play an increasingly important role. More than



80% of the Danish labour force is enrolled in one or more occupational schemes. The average replacement ratio is expected to increase in the years to come from today's level at around 75%.

The Danish pension system is characterized by a high degree of funding and clear roles for the tax-based public pensions of Pillar I and the privately funded pensions. The total value of funded pension schemes in 2019 is close to €600 billion,⁹⁸ or almost twice the Danish GDP.

In international comparison the Danish pension system stands out. There are few pensioners falling below the poverty line, and replacement rates are generally high. The system is financially viable, and public finances satisfy sustainability criteria taking into account an ageing population. There is thus no urgent need for reforms, the basic structure is sound. However, there are challenges not least in ensuring sufficiently strong incentives for savings and for later retirement, and there remains a so-called residual group with low or no pension savings.

The occupational pension schemes have in recent years changed in the direction of so-called market-based products, where the saver more directly carries the risk arising e.g., due to return variations. This has created room for higher returns but raises questions on levels of risk and risk diversification. Historically returns have been high with an average after-tax real return about 5 % over the last decade. The pension sector has also handled crisis, including the financial crisis and the corona crisis. A new normal with lower rates of returns challenges the possibilities of reaching returns at the levels seen in the past.

Introduction

The Danish pension system is in a transition from being largely based on defined-benefit tax financed pensions to a larger role of defined benefit, funded occupational pensions. The latter have been expanded to most of the labour market in the 1990s and will mature in two or three decades. This arrangement both serves to ensure decent pensions for all retired, and pension adequacy in terms of high replacement rates. The system is financially robust and prepared for an ageing population.

In international comparisons, the Danish pension system stands out by low poverty rates among the old and high replacement rates. Conditions for the financial viability is ensured also against the backdrop of large demographic shifts. This position is reflected in a consistently high ranking (1st 2012-17, and 2nd 2018-2020) in the Melbourne Mercer Global Pension Index.⁹⁹

The challenges for the system included how to ensure an incentive structure supporting savings and later retirement. The sustainability of the system depends critically on retirement ages

⁹⁸ All currency conversions are made at the exchange rate provided by the ECB Statistical database for EUR/DKK on 31.12.2019, 1 EUR = 7.4409 DKK.

⁹⁹ Melbourne Mercer Global Pension Index 2019, <https://www.mercer.com.au/our-thinking/global-pension-index.html#contactForm>



increasing alongside increases in longevity. The heterogeneity in work career and health has raised debated on more flexible exit routes from the labour market. Moreover, it remains a challenge that groups are not covered by occupational pension arrangements.

Description of the pension system

- The Danish pension system is a three-pillar system: the aim of the **first pillar** (Pillar I) is to prevent poverty in old age. Pillar I provides all Danish pensioners with a minimum pension. The pension schemes of the Pillar I are compulsory and regulated by law.
- The **second pillar** (Pillar II) is based on collective agreements in the labour market or employment contract ensuring that the individual contributes to a defined contribution, funded pension scheme. Collective agreements determine the contribution rates, and the pension therefore depends on income earned throughout the work career. Pillar II aims to secure a standard of living reflecting the level of income before retirement.
- The **third pillar** (Pillar III) provides individual opportunities for supplementary saving based on individual needs both in explicit pension saving schemes with special tax treatment and in general voluntary savings.

Table DK1. Pension System Overview		
Pillar I	Pillar II	Pillar III
Base pension plus means-tested supplements, tax-financed	Occupational Pension; DC, funded schemes	Voluntary Personal Pension
Poverty prevention in old age	Ensures a standard of living reflecting the level of income before retirement	Supplementary saving based on individual needs
	More than 80% of Danish labour force is enrolled in one or more occupational schemes.	Voluntary pension savings is declining in importance due to the growing role of occupational pensions
An individual entitlement (residence requirement) regulated by law	Determined by collective agreements, but contribution is mandatory for the individual	Voluntary
Quick facts		
Danish pension system has been top ranked (no 2) in the Melbourne Mercer Global Pension Index		
The average replacement ratio is about 75%		
The total value of funded pension schemes exceeds 600 billion euro, or more than twice the Danish GDP		
Period 2007-2017 the average annual after-tax real rate of return for private pension schemes was close to 5%		

Source: BETTER FINANCE own composition



The occupational pension scheme is still in a build-up phase. Contribution rates have been steady at current levels since 2010, and it takes several decades for the scheme to mature in the sense of having contributed during an entire work-career and getting a pension throughout retirement based on the accumulated savings. The system with mature in two to three decades. As a consequence, occupational pensions will eventually become more important than Pillar I schemes.

Table DK2. Participation in the three pillars					
	ATP	Pillar I Folkepension	Pillar II	Pillar III	Pillar II and/or III
Contributors (as % of the work force)	94%	0%	81%	25%	91%
Retirees (as % of retirees)	90%	99%			61%

Source: Forsikring Pension DK - Folkepension og ATP

The total value of funded pension schemes in Denmark in the last 20 years (2000-2019) is presented below (both in DKK and EUR).

Table DK3. Total value of funded pension schemes 2000-2019 (in bln)							
	Life insurance companies	Industry wide pension funds	Company pension funds	Banks	ATP	Total	currency
2000	650	270	43	215	247	1,424	DKK
	87	36	6	29	33	191	€
2001	650	272	40	215	247	1,423	DKK
	87	37	5	29	33	191	€
2002	669	277	37	198	243	1,424	DKK
	90	37	5	27	33	191	€
2003	732	302	38	215	263	1,550	DKK
	98	41	5	29	35	208	€
2004	810	339	39	244	307	1,740	DKK
	109	46	5	33	41	234	€
2005	953	381	42	298	365	2,040	DKK
	128	51	6	40	49	274	€
2006	1,010	402	43	347	372	2,174	DKK
	136	54	6	47	50	292	€
2007	1,054	412	43	369	389	2,268	DKK
	142	55	6	50	52		€
2008	1,119	396	44	308	678	2,545	DKK
	150	53	6	41	91	342	€
2009	1,212	436	45	378	609	2,680	DKK



	163	59	6	51	82	360	€
2010	1,351	478	51	405	758	3,043	DKK
	182	64	7	54	102	409	€
2011	1,496	556	53	399	776	3,279	DKK
	201	75	7	54	104	441	€
2012	1,682	565	57	438	791	3,533	DKK
	226	76	8	59	106	475	€
2013	1,757	585	53	445	677	3,517	DKK
	236	79	7	60	91	473	€
2014	2,013	646	59	424	812	3,955	DKK
	271	87	8	57	109	532	€
2015	2,074	672	60	446	781	4,033	DKK
	279	90	8	60	105	542	€
2016	2,289	692	59	460	870	4,369	DKK
	308	93	8	62	117	587	€
2017	2,368	727	56	385	893	4,429	DKK
	318	98	8	52	120	595	€
2018	2,344	726	60	354	907	4,431	DKK
	315	98	8	48	122	595	€
2019	2,710	848	68	393	1,024	5,082	DKK
	364	114	9	53	138	683	€

Source: Danish FSA

Statutory ages in the pension system (for public pensions, for early retirement, and age limits for payment of funds from pension schemes) are established by law and thus regulated at the political level. The effective retirement age has been gradually increasing over the years, and it is currently about 63 years. A sequence of reforms has tightened the possibilities for early retirement and increased the statutory pension age (and early retirement age). The statutory pension age has increased in steps from 65 years to reach 67 years in 2022. Thereafter the statutory retirement age is indexed to the development in life expectancy at the age of 60 in order to target the expected pension period to 14.5 years (17.5 including early retirement) in the long run (currently about 18.5/23.5 years). There is a “speed limit” stipulating that the statutory retirement at not can be increased by more than one year every fifth year. In accordance with the indexation rules, parliament decided in 2015 to raise the statutory retirement to 68 years in 2030, and in 2020 it was increased to 69 years in 2035. The next decision comes up in 2025, and according to development in longevity, the statutory retirement age will increase to 70 years.

The indexation scheme has recently been debated, and it has been questioned whether it is too tough, especially when implying a statutory pension age above 70 years. The higher statutory pension age has also prompted a discussion of early exit options from the labour market for those



who have a reduced work capability, but not so severely that they are eligible for a disability pension. Recently a so-called senior pension has been introduced giving an option to retire six years prior to reaching the statutory retirement age, provided work capability is reduced (unable to work at least 15 hours per week). A new scheme “early pension” (tidlig pension) is available for persons who at the age of 61 have worked at least 42 years in the labour market. Finally, early retirement (efterløn) remains a possibility to retire in a window (after reforms reduced from five to three years) prior to the statutory pension age for persons who have contributed to the scheme for at least 30 years. The number of persons eligible for early retirement is decreasing.

Table DK4. Retirement age in Denmark 2000-2020

Year	Average retirement age
2000	62.4
2001	62.4
2002	62.3
2003	62.2
2004	62.2
2005	62.3
2006	62.3
2007	62.5
2008	62.7
2009	62.9
2010	63.1
2011	63.3
2012	63.4
2013	63.5
2014	64.2
2015	64.5
2016	64.9
2017	65.2
2018	65.6
2019*	66.0
2020*	66.0

*Source: Forsikringpension.dk, *preliminary*



Pillar I

Pillar I basically consists of two pension plans: the tax financed public pension (Folkepension) and the ATP, a mandatory pension scheme comprising the larger part of the population. Both schemes are regulated by law.¹⁰⁰

The state pension (Folkepension)

The public pension includes a basic amount (flat-rate pension) and means-tested supplements (I: supplementary pension ("pensionstillægget") and II: supplementary pension benefit ("ældreachek")). In addition, there are needs-based supplement, e.g., housing, medical expenses. The supplements are means-tested on a family basis. All are entitled to the public pension when reaching the statutory retirement age provided a residence requirement is satisfied and earned income is below a certain threshold¹⁰¹. Public pensions are indexed to wages.

The state pension consists of a basic pension and a personal supplementary pension. For 2021 the base pension is DKK 78.0216 a year (€10,500), and the maximum supplement (for a single) is DKK 85.464 (€14.300). The means-testing is relatively complicated depending on family situation and other sources of income. As an example, for a single the pension supplement is reduced by 30.9% of income above a lower threshold, and therefore there is no supplement for a sufficiently high income e.g., from an occupational pension scheme.

ATP

ATP (The Labour Market Supplementary Pension Scheme) is part of the Danish welfare system for old-age pensioners.

By law, all wage earners and recipients of transfer income contribute to the supplementary labour market pension (ATP). It is a funded defined contribution scheme to which all contribute the same monthly amount (depending on working hours) in 2021 DKK 3.408 (Euro 458). The contribution has been unchanged nominally since 2016. The pension benefit is a guaranteed life-annuity. If the beneficiary dies prematurely (before reaching an age equal to the statutory pension age plus five years), a lump-sum amount is paid to the heirs.

For a person with full-time employment, the pension benefit corresponds to about 1/3 of the base pension in the public pension system. About 40% of current pensioners do not have any pension beyond the public pension and the ATP. Also in the future, the ATP will constitute a significant part of the basic provision of pensioners in the Danish system.

¹⁰⁰ See: "Lov om sociale pensioner" (<http://www.socialjura.dk/content-storage/love/love/pensionslov/>) and "Lov om Arbejdsmarkedets Tillægspension" (<https://www.retsinformation.dk/Forms/R0710.aspx?id=164210>).

¹⁰¹ To be eligible for the full amount, residence in Denmark for 40 years after the age of 15 is required, otherwise the amount is reduced proportionally to the period of residence. To be eligible for the full amount, labour income cannot exceed DKK 344,600 (2021).



As of 2020, a mandatory pension scheme has been introduced for recipients of public transfers. The contribution rate, paid by the state, starts at 0.3% and increases in steps to 3.3% in 2030. The contributions are part of the ATP-pension.

Pillar II

Occupational pensions are an outcome of collective bargaining¹⁰². Before 1990, Pillar II schemes were almost exclusively for civil servants and white-collar workers in the private sector. A tripartite agreement between the government and the social partners in the late 1980s resulted in occupational pension schemes for the larger part of the labour market. In a process contribution rates were increased over a sequence of years, and they have remained constant at their current level since 2010. Contribution rates differ across groups and is 12% for blue collar workers and 15-18% for white collar workers (reflecting their longer longevity). Normally, 2/3 is paid by the employer and 1/3 by the employee.

As a result of the phasing in of the occupational pension scheme most pension funds are still in a building up phase with contributions exceeding pay-outs. Accumulated funds are thus on an increasing trajectory, and in total amounts to about two times GDP.

Total contributions to occupational pension schemes amounted to DKK 127.6 billion (€17 billion) in 2020, close to three times higher than the level in 2000. The total work force is around 3 million people, so the overall average contribution can be estimated to about 42,000 DKK per year (€5,684).

All private pension schemes are fully funded. The vast majority are defined contribution (DC) schemes. Even in the very few defined benefit (DB) schemes, where the employer guarantees a pension proportional to the salary, the guarantee must be funded in a pension fund or a life insurance company.

Year	Individual schemes	Occupational schemes	Total
2001	1,255,931	2,604,127	3,860,058
2002	1,187,110	2,837,482	4,024,592
2003	1,126,061	3,016,891	4,142,952
2004	953,925	3,055,831	4,009,756
2005	1,022,752	3,361,712	4,384,464

¹⁰² Collective agreements cover a large part of the labour market. There is a tradition for tripartite consultations between the Government, unions and employers' organizations, and labour market issues are generally settled by collective agreement rather than law. The establishment of occupational pensions is an example of this. An agreement of the three parties was made in 1989 and it marked the start of introduction of occupational pension schemes to more of the private labour market (most public employees were already covered).



2006	1,095,731	3,405,394	4,501,125
2007	1,112,714	3,589,372	4,702,086
2008	1,293,226	3,771,977	5,065,203
2009	1,378,350	3,898,196	5,276,546
2010	1,142,774	3,891,501	5,034,275
2011	1,208,941	4,059,209	5,268,150
2012	1,398,422	3,997,145	5,395,567
2013	1,481,007	3,801,555	5,282,562
2014	1,431,842	4,153,361	5,585,203
2015	1,403,226	4,265,022	5,668,248
2016	1,568,273	4,028,323	5,596,596
2017	1,645,745	4,403,822	6,049,567
2018	1,666,448	4,513,366	6,179,814
2019	1,750,005	4,515,485	6,265,490
2020	1,786,682	4,620,069	6,406,751

Source: ForsikringogPension.dk

Around 80% of all working people contribute to a Pillar II scheme within a year. However, there is a so-called residual group comprising i) persons not covered by an occupational pension, ii) persons with interrupted working careers (unemployment, sickness, parental leave etc), and thus not contributing consistently through working ages, and iii) self-employed. There are ongoing discussions on how to address this problem. The mandatory pension recently introduced (see above) is a partial solution of the problem.

Pillar II schemes are established in either life insurance companies, in pension funds (pensionskasser) or - not very commonly – in banks (around 2%). By the end of 2020, pension funds and life insurance companies had a total of about 4.6 mln. contracts concerning occupational pension. In the same year, around 2.6 mln. persons paid contributions to one or more occupational schemes, implying that some employees are enrolled in more than one occupational pension scheme.

Pillar II DB schemes

Previously, it was common for civil servants in the state and in local governments to be entitled to a tax-financed DB pension. These schemes are being phased out. Today, only about 30.000 civil servants in the state are still entitled to a pension of this type when they retire. Civil servants in local governments now enrol in a DC scheme, and the very few remaining DB schemes are typically funded in an insurance company.



A small number of private companies still offer DB schemes for some of their employees. These schemes are funded in specific pension funds – *firmapensionskasser*. Their importance has been decreasing for many years and so have their numbers, total assets and number of insured. The number of insured has fallen 1/3 from around 18,000 in 2008 to about 12,000 in 2021. Today, only four *firmapensionskasser* hold assets of more than DKK 1,000 million (€134 million), and they only constitute 1.1% of the total market, and most of the funds do not enrol new members anymore. About 2,000 persons made contributions in 2019, whereas benefits were paid out to around 10,000 people.

Pillar III

In principle, Pillar III pension schemes provide the same opportunities for the individual citizen as occupational schemes. Products available and tax rules are approximately identical. Individual schemes are offered by banks, insurance companies and most pension funds, but only if the saver is already enrolled through his job.

The strong growth of Pillar II schemes has, to some degree, diminished the interest for individual savings in explicit pension schemes. Also, changes in tax regulation have negatively influenced the demand for Pillar III schemes. Moreover, many households hold assets outside the pension scheme, primarily in the form of real estate.

In 2000, approximately 1 million persons contributed to an individual scheme, but this number has steadily declined until 2013, and since then increased somewhat to about 630.000 persons in 2019. The huge fall in 2013 is due to a shift in the lump sum pension from kapitalpension to alderopsparing. There may take time to get acquainted with the new scheme, and at the cap on the contributions to the periodic instalments or fixed term annuities (*ratepension*) in 2012 is also contributing to explain the decline¹⁰³.

In 2000, contributions to individual schemes amounted to DKK 16,209 mln (€2,177 mln), or around 30% of total contributions for pension schemes. The figure decreased until 2013 and has been growing slowly thereafter. In 2020, contributions to individual schemes were nominally DKK 17.195 min (€2.310 mln).

Tax rules have, as already mentioned, especially for periodic instalments and lump sum pensions. This may also have had an impact on the demand for Pillar III schemes. In Pillar II schemes, the change of regulations has led to growing contributions to lifelong annuities, but the same substitution has not been seen in Pillar III.

Savings in banks have played a much more important role for individual schemes than for occupational schemes. Until 2013, when the tax regulation for lump sum pension was changed,

¹⁰³ See <https://www.forsikringogpension.dk/media/7019/pensionsindbetalinger-cps.pdf>



individual pension saving schemes were predominantly held in banks, rather than in insurance companies and pension funds. Today, around 60% of contributions are in insurance companies or pension funds and 40% are in banks.

Replacement ratio and pension benefits

Table DK5 shows the replacement ratio for different educational groups and people not working prior to retirement. The replacement rate is calculated as the disposable income in the year after retirement relative to the year before retirement. The income is presented net of taxes.

Table DK5. Replacement ratio and educational background							
Working before retirement							Not working before retirement
Education							
	Unskilled workers	Skilled workers	Short cycle higher education	Medium cycle higher education	Long cycle higher education	All	
2004	72.2	71.2	73.9	82.9	88.2	73.5	88.5
2005	71.9	71.5	75.2	82.1	89.3	73.7	91.4
2006	69.6	69.4	72.7	79.9	84.6	71.4	95.3
2007	68.1	67.7	70.8	77.3	83.3	69.7	96
2008	67.7	67.5	70	76.8	81.1	69.4	100.5
2009	67.4	66.6	69.4	76.5	77.3	68.8	100.9
2010	70.3	69.5	73	78.2	80.1	71.5	103.2
2011	67.2	66.5	73.3	76.2	77.2	68.8	101.6
2012	67.9	66.5	70.1	74.9	77.2	68.8	101.9
2013	70.2	69.2	72.7	77	78.6	71.2	107.6
2014	72.1	71.9	74.1	80	81.9	73.8	107.4
2015	71.4	71	77.3	79.6	83.5	73.5	108
2016	73.1	72.2	78.4	79	83.6	74.4	107.1
2017	72.1	71	76.1	76.3	78.3	73.1	104.8
2018	74.5	71.8	77.5	77.6	78.5	74.3	105.5
2019	75.1	71.97	77.17	75.82	75.73	74.07	103.1

Source: Forsikring & Pension Danmark

The average net replacement rate was 74% in 2019, and the replacement rate is generally increasing with education reflecting higher contributions rates. The replacement is a snapshot in the transition of the pension system, and since this primarily is improving occupational pensions for



groups with low- and medium-income levels¹⁰⁴, the average replacement rate is expected to increase in the future.

A replacement rate close to 100% for individual not working before retirement reflects the design of the social safety net in the Danish welfare state. The benefit to non-working is close to the public pensions (including supplements) reflecting distributional concerns, and by implication the replacement rate for this group there get close to 100%.

Today, the most important source of income for pensioners is Pillar I. Approximately 40% of all current pensioners have little or no other income. Pay-outs from the *folkepension* amounts to DKK 120 billion per year (€16.1 billion). The ATP pays out around DKK 17 billion per year (€2.3 billion). Total pay-outs from private pensions schemes to pensioners were around DKK 71 billion (€9.5 billion) in 2019.

For the 50% of today's pensioners with the lowest income, 90% of their income is *folkepension* (thus, from Pillar I). But this situation is changing with the growing importance of Pillar II. Today almost 60 percent of the newly retired people have made contributions to pillar II during their active years on the labour market. In 2040, private pensions are expected to exceed half of the total income for about 40% of the pensioners. Even for the lowest income groups of the retired population, about 20% of their income is expected to come from private pensions under the condition of an unchanged level for the *folkepension* (of Pillar I).¹⁰⁵ However, at older ages some pensioners become increasingly dependent on Pillar I pensions, since schemes with period instalment expire.

Pension Vehicles

Private pension schemes are administered by pension funds, insurance companies or in banks. This goes for Pillar II as well as for Pillar III.

In the present description, the emphasis is on Pillar II since it is the more important of the two. If Pillar III differs from Pillar II, it is mentioned in the text.

A Danish industry-wide *pensionskasse* – or pension fund – is a legal entity owned and governed by its members. A *pensionskasse* can provide the same kind of products as a life insurance company

¹⁰⁴ Pension schemes for lower educated people in the private sector were not established until 1990. The contribution rates grew gradually thereafter, therefore people who retired today were between 35-40 years old when they enrolled, thus their contributions were low in the first many years.

¹⁰⁵ See <http://www.atp.dk>



and it is subject to the same kind of regulation as a life insurance company – specifically, the Solvency II Directive.¹⁰⁶

The first occupational schemes for civil servants were established in *pensionskasser*, which provided pension schemes for a specific profession, e.g., nurses. Occupational pension schemes in the private sector originally covered employees with different professional backgrounds working in the same company. Such schemes used a life insurance company as a vehicle. Today, the differences between the legal forms have lost importance. Many occupational pension schemes for the private sector are industry-wide and are administered by life insurance companies.

But still, a distinction is often made between industry-wide schemes and company schemes. Industry-wide schemes are often more standardized and with little freedom of choice left to the single member. All decisions are made collectively. The pension provider is only indirectly exposed to competition since customer mobility is low. These characteristics make in general the schemes relatively cheap. Insurance companies administering company schemes are more exposed to competition. Company schemes more often change pension providers. In general, company schemes offer more individual possibilities, e.g., concerning insurance coverage, choosing between a guaranteed or none-guaranteed scheme etc. Therefore – as a general trend – the insurance companies have higher costs, especially related to acquisition and to individual counselling.

An occupational pension scheme normally provides coverage for old age, disability and early death. Critical illness and even health care are other insurance risks that have become typical to offer. Typically, 15%-25% of the contributions are spent on coverage for social risks other than old age.

The supply of pension products is regulated partly by tax law and partly by the general regulation for insurance and banking. The regulation is the same for Pillar II and Pillar III. This means that insurance companies and pension funds on the one hand and banks on the other hand provide competing products to the market. Products offered by life insurance companies and pension funds may accumulate savings but must also cover some kind of insurance risk – longevity, death, disability etc. – whereas banks can only act as an intermediary of insurance coverage supplementary to a saving product.

Tax regulation defines the products

Tax rules play a crucial role for pension products. The tax regulation defines the distinctions between the 3 groups of pension products:

¹⁰⁶ Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II) (recast) <http://data.europa.eu/eli/dir/2009/138/2014-05-23>.



- Annuities (*livrente*);
- Periodic instalments or fixed term annuities (*ratepension*);
- Lump sum pension (*kapitalpension/aldersopsparing*);

All kind of pension savings can be paid out in a window three to five years before reaching the statutory retirement age.

The general taxation principle is a so-called ETT-scheme, that is, contributions are tax-deductible in the current income, the return is taxed, and pension income is included in taxable income. More recently a specific scheme has been introduced which is of the TEE-type.

Annuities (*livrenter*) provide the beneficiary with a monthly pay out from retirement to death. Regular contributions to an annuity are deductible in the income tax base without any limit. Pay-outs are taxed as personal income. The annuity-contract may have contingencies for lump-sum payments to heir in case of death.

Periodic instalments or fixed term annuities (*ratepension*) provide monthly instalments of equal amounts for a period of minimum 10 years and maximum 25 years. A *ratepension* can be life-contingent or the capital value can be paid out to the heirs in the case of death¹⁰⁷. There is a cap on the contribution DKK 74,700 (€10.039) in 2021. Pay-outs are taxed as personal income.

Lump sum pensions (*kapitalpension/aldersopsparing*) provide you with a lump sum in old age. The lump sum is paid out five years before statutory retirement age at the earliest and 15 years after this age at the latest. The regulation of this product has changed a lot during the years. Today there are two products in the market: *kapitalpension* and *aldersopsparing*. For a *kapitalpension* the income tax is deferred. When paid out the accumulated savings are taxed at 40%. New contributions to a *kapitalpension* have not been allowed since 2013, and instead a new scheme, *aldersopsparing*, has been introduced. Contributions to an *aldersopsparing* are not deductible and the pay outs are not taxed and are not included in means testing for the public pension supplements. Hence, income tax is no longer deferred when saving in this type of product. The maximum contribution was DKK 29,600 (4,000 euros) in 2017, but the regulation has been changed, so the maximum contribution is for 2021 DKK 5,400 per year (€ 726) except for the last 5 years before retirement age, where the maximum contribution per year is DKK 52,400 (€ 7.042) (see section on taxation).

¹⁰⁷ <https://skat.dk/skat.aspx?oid=2559>



Table DK7 (A). Number of persons contributing to one or more private pension schemes, 1998-2020

Year	Individual schemes						One or more individual schemes
	Annuities	Periodic instalment, insurance	Lump sum insurance	Periodic instalment, bank	Lump sum, bank	TTE lump sum, insurance or bank	
1998	259,000	82,000	267,000	45,000	744,000	-	1,146,000
1999	257,000	96,000	236,000	91,000	631,000	-	1,078,000
2000	260,000	102,000	221,000	124,000	600,000	-	1,064,000
2001	256,186	105,372	208,361	126,776	566,013	-	1,029,736
2002	252,354	109,068	198,518	137,834	545,463	-	1,010,388
2003	249,901	112,817	189,861	151,401	540,339	-	1,005,919
2004	260,574	117,470	182,494	168,181	543,297	-	1,017,806
2005	262,298	119,131	174,437	198,445	553,162	-	1,033,467
2006	255,074	119,054	166,014	221,825	561,435	-	1,038,035
2007	238,632	123,642	156,234	290,036	646,566	-	1,132,179
2008	232,590	124,325	145,194	259,241	529,316	-	1,017,452
2009	226,275	122,904	137,893	277,580	505,959	-	998,868
2010	216,788	91,110	128,657	191,101	479,363	1,700	855,465
2011	225,108	90,557	121,585	192,034	467,943	7,098	856,640
2012	214,991	93,408	118,720	177,146	457,700	6,795	812,337
2013	221,418	144,571	5,791	206,323	14,711	5,997	571,360
2014	237,274	137,031	3,681	203,616	2,012	220,648	631,716
2015	242,256	130,106	2,953	194,441	1,302	265,193	656,600
2016	253,018	126,346	2,591	185,565	933	291,129	650,869
2017	262,908	124,312	2,289	203,182	953	386,673	740,165
2018	268,336	131,673	2,009	187,622	830	327,887	674,315
2019	268,733	133,086	1,794	180,448	514	302,547	630,576
2020	268,758	134,770	1,573	191,356	501	316,578	NA

Source: Forsikring & Pension Danmark



Table DK7 (B). Number of persons contributing to one or more private pension schemes, 1998-2017

	Occupational schemes						<i>One or more occupational schemes</i>
	Annuities	Periodic instalment, insurance	Periodic instalment, bank	Lump sum, insurance	Lump sum, bank	TTE lump sum, insurance or bank	
1998	1,513,000	130,000	26,000	742,000	269,000	-	1,721,000
1999	1,571,000	224,000	60,000	836,000	205,000	-	1,751,000
2000	1,676,000	537,000	69,000	1,115,000	196,000	-	1,855,000
2001	1,728,748	624,144	73,330	1,148,454	195,035	-	1,917,845
2002	1,755,775	678,454	67,771	1,114,154	150,613	-	1,944,128
2003	1,782,288	896,553	68,229	1,103,331	133,711	-	1,963,281
2004	1,818,140	962,244	75,532	1,126,380	118,735	-	1,995,636
2005	1,851,642	1,009,499	87,712	1,133,902	104,503	-	2,027,786
2006	1,897,567	1,099,180	106,666	1,150,081	100,874	-	2,088,547
2007	1,971,768	1,192,310	117,778	1,183,232	97,106	-	2,150,860
2008	2,081,505	1,259,956	123,282	1,184,460	93,221	-	2,270,862
2009	2,077,861	1,251,463	127,094	1,126,765	87,099	-	2,259,965
2010	2,061,011	1,240,876	100,526	1,046,102	80,423	-	2,102,855
2011	2,091,462	1,270,709	92,699	1,009,685	75,510	-	2,242,204
2012	2,123,697	1,310,147	85,834	965,023	72,376	-	2,259,603
2013	2,143,487	1,464,161	92,614	3,537	1,951	9,552	2,265,953
2014	2,174,825	1,506,361	87,255	1,989	142	10,069	2,290,884
2015	2,197,722	1,535,244	82,409	419	37	11,343	2,310,180
2016	2,242,792	1,572,731	78,058	208	12	13,363	2,344,391
2017	2,284,406	1,613,025	74,175	154	35	16,907	2,378,569
2018	2,302,287	1,605,300	72,176	123	253	559,030	2,398,171
2019	2,328,187	1,630,375	66,578	96	11	741,557	2,418,462
2020	2,335,426	1,618,870	59,043	72	12	751,526	NA

Source: Forsikring & Pension Danmark

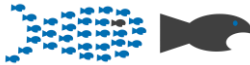


Table DK8. Total pension contributions to private pension schemes (1999-2019)

Year	Amount in DKK millions (€ millions)
1999	51,762 (6,948)
2000	57,148 (7,671)
2001	62,324 (8,366)
2002	67,596 (9,043)
2003	73,682 (9,890)
2004	82,090 (11,019)
2005	92,182 (12,373)
2006	101,626 (13,641)
2007	110,284 (14,803)
2008	112,919 (15,157)
2009	116,841 (15,683)
2010	104,872 (14,077)
2011	106,998 (14,362)
2012	107,745 (14,462)
2013	105,209 (14,122)
2014	109,821 (14,741)
2015	111,618 (14,982)
2016	116,447 (15,630)
2017	121,606 (16,323)
2018	123,548 (16,536)
2019*	127,150 (17,018)

Source: Forsikring & Pension Danmark

Very often a pension scheme combines the three groups into a mix, i.e., a lump sum, with periodic instalments up to the maximum allowed contribution and lifelong annuities for any payment above the maximum.

Pension savings in banks can have the form of a periodic instalment or a lump sum pay-out. There are three ways in which pension savings in banks can be invested:

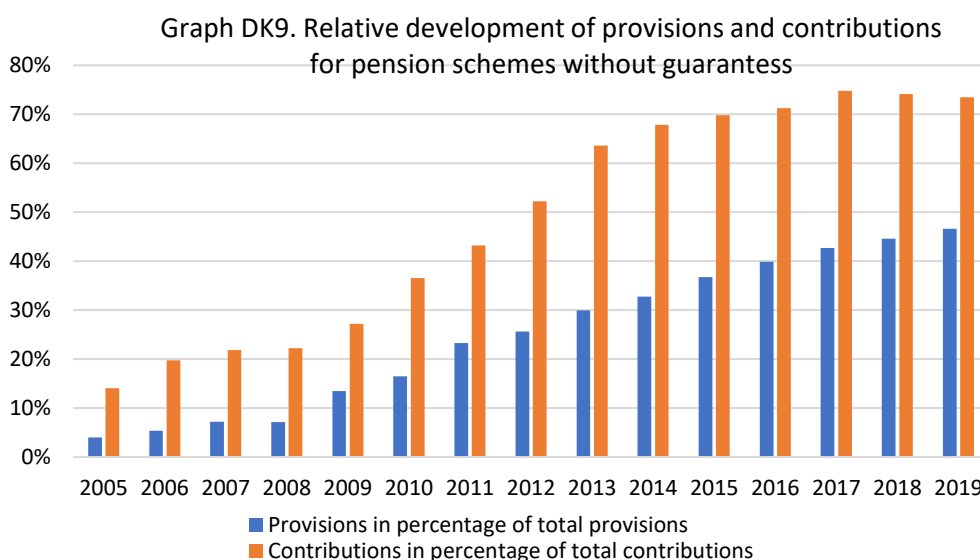
- as an ordinary deposit with the interest rate offered by the bank;
- in investment funds of the customers own choice; or
- in listed equities, bonds and other financial assets owned directly by the customer.

The Danish private pension schemes are DC schemes (with a very few Pillar II exceptions). The system has gradually changed from a guarantee-based insurance approach into a market rate-



based approach. Until 1994, the schemes followed a DC hybrid model. According to this model, the life insurance company or the pension fund guarantees a minimum nominal benefit, calculated on assumptions about a number of parameters such as interest rates, costs and insurance risks like longevity, death rates and disability. The guarantee is issued by the pension provider, not by the employer. The model was originally meant to have no or very little risk, since the regulatory assumptions were very cautious. Therefore, the realized result was always a surplus, and the customers were granted a bonus. But the interest rate and the longevity developments have made it increasingly difficult to meet these guarantees. Therefore, the Financial Supervisory Authority (FSA) gradually lowered the maximum allowed interest rate guarantee to 1% for new contracts and introduced new requirements for longevity. At the same time, the FSA gradually raised the required provisions for existing guarantees. The guarantees are often binding for the insurance company/pension fund. However, some occupational pension schemes have been able to decide collectively to cancel the guarantees and change to a market rate-based approach. Others have offered their customers compensation if they were willing to cancel the guarantee individually. Thus, these guaranteed schemes play a much less important role today than previously with the implication that the single deposit holder carries more risk than in the past.

In 2006 contributions to guaranteed schemes amounted to 83% of total contributions. In 2019, this share decreased to 27%. Hence, today around 70 % of all new savings are placed in DC schemes without guarantee or with a guarantee only against loss. Measured by the provisions, the guaranteed schemes have decreased from 95% in 2006 to 53% in 2019. In addition, the high-rate guarantees – above 4% in interest rate –decreased even more, from 58% in 2005 to 11% in 2019¹⁰⁸.

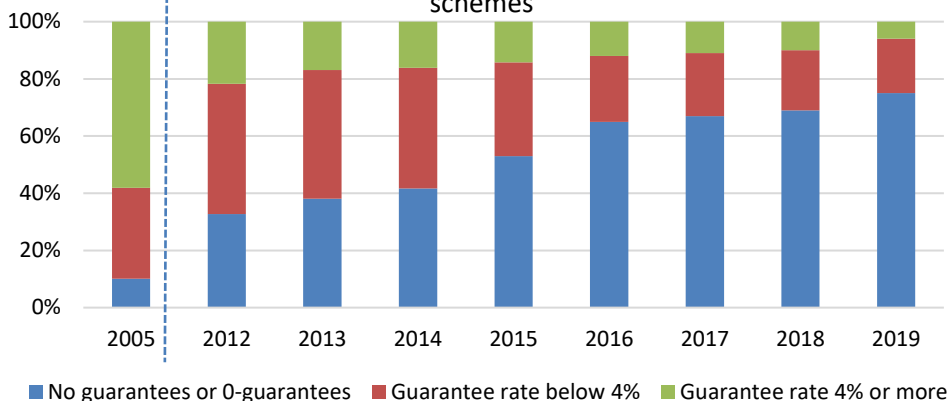


Source: Forsikring & Pension Danmark

¹⁰⁸ https://www.finanstilsynet.dk/~media/Tal-og-fakta/2019/MU/Markedsudviklingsartikel_LP_2018-pdf.pdf?la=da, table A2.



Graph 10. Provisions for guaranteed and non-guaranteed schemes



Source: Forsikring & Pension Danmark

Charges

The level of costs has received increasing attention in recent years. This is partly due to the low rate of interest in the market.

The Money and Pension Panel – a Council under the Ministry of Industry, Business and Financial Affairs – has calculated that, under realistic assumptions, an increase of costs of 50% of total savings/provisions reduces of life-time consumption by 1.2% for low-income groups and 2.3% for high-income groups. The same increase makes it necessary to postpone retirement by two years for life-time consumption to remain unchanged.

The Danish FSA has analysed the development of administration costs, including costs related to acquisitions and sales, but not including investment costs. The administration costs have declined over the last 10 years to 0,17% of total provisions in 2019. The FSA distinguishes between market-oriented insurance companies (running mainly company pension schemes) and non-market-oriented insurance companies/pension funds (running mainly industry-wide pension schemes). Since industry-wide pension schemes are typically governed by the customer representatives, and since their schemes are often very standardized, they are in general cheaper to run than company schemes. The FSA has calculated the administration costs for non-market-oriented insurance companies/pension funds to around 0.10% of total provisions in 2018.



Table DK11. Administration costs in DKK and in percentage of total provisions and contributions, 2007 -2019				
	Costs/customer		Costs in percentage of total provisions	Costs in percentage of total contributions
	in DKK	in euro		
2007	949	128	0.44	4.7
2008	895	120	0.43	4.48
2009	929	125	0.43	4.75
2010	813	109	0.34	3.99
2011	956	129	0.36	4.15
2012	882	119	0.33	3.89
2013	881	119	0.3	3.63
2014	826	111	0.28	3.34
2015	772	104	0.26	2.95
2016	769	103	0.22	n.a.
2017	755	102	0.19	n.a.
2018	762	102	0.18	n.a.
2019	786	106	0.17	n.a.

Source: Danish FSA

Transparency on costs has increased. Since 2011, life insurance companies and pension funds have agreed to inform all their customers of their total charges in DKK (ÅOK) and their total charges in percentage of the value of their pension (ÅOP) on a yearly basis. These key figures include direct and indirect administration costs, direct and indirect investment costs, charges to the company for any guarantees and other kinds of risks as well as any charges paid by the life insurance company to intermediaries. How total costs are distributed to the individual customers is decided by each insurance company or pension fund, but the key for distribution is controlled by the external auditor to ensure equivalence between the figures of the annual report and total distributed charges (ÅOK/ÅOP).

For market comparisons between life-insurance companies and pension funds, key figures for several standardized examples are published on the website www.faktaompension.dk (see below).

While higher administration costs always lead to lower pension benefits, it is difficult to evaluate investment costs. Investing in government bonds is very cheap – but it might not be the most profitable investment. Investing in foreign equities is more expensive – but might have a higher expected return. So, the relationship between investment costs, investments risks and expected investment return is not easy to estimate.



Furthermore, the pension companies' investment management must take their liabilities into consideration. Some investments are made to hedge the risk against, for example, changes in interest rates. When comparing investment costs, one must consider the existence of guarantees.

The website faktaompension.dk offers the opportunity to compare total charges of various pension companies and for various types of customers. All figures are calculated and reported by the pension companies and the website is run by the Danish Insurance Association.

The website www.pensionsinfo.dk gives the individual access to information on all pension entitlement – public and private – and thus essential information to assess the adequacy of pension savings. The website also includes facilities such that the consequences of the retirement age for pension benefits can be assessed. To increase transparency and facilitate comparison projection of future pension level are now also presented common return expectations determined by the Council for Return Expectations (<https://www.afkastforventninger.dk/en/>).

Table DK12 illustrates cost levels and costs structures for three typical different persons at different positions in the lifecycle, for three different pension companies.¹⁰⁹ Costs are relatively higher for young than older contributors, reflecting their lower level of accumulated assets. Administrative costs are relatively constant across types and hence matters relatively less, but investment costs are higher for older contributors with larger accumulated assets. Total charges are lowest in the industry-wide schemes with the highest degree of standardization and with no acquisition costs. Remaining schemes with guarantees have higher charges, as an example a person close to retirement (type III) would have costs of 1.4% and 1.1% in Danica and PFA, respectively, and payments for the guarantees constitute about half of total charges.

Table 12 Comparative examples of charges between different pension products and types										
		Pension Danmark			Danica Pension			PFA		
Type		I	II	III	I	II	III	I	II	III
Costs in %		1.5	0.5	0.4	4.3	1.3	1.1	2.1	0.9	0.7
Total costs	€	57	375	1190	162	994	3077	78	708	2151
	DKK	425	2790	8854	1205	7397	22895	580	5271	16009
Of which	Administration	297	297	297	852	852	1049	345	575	920
	Investment	128	2493	8557	353	6545	21846	235	4696	15089

Note: Type I: Age below 40, annual contribution DKK 30.000, assets= 0, Type II: Age 40-55, annual contribution DKK 30-80.000, assets DKK 500.000, Type III: Age above 55, annual contribution at least DKK 80.000, Assets DKK 2. mio.

Source: www.faktaompension.dk

¹⁰⁹ The companies compared are: PFA – Denmark's largest life insurance company with around 1,3 million customers in 2019 and total pension provisions of about DKK 587 billion (€79 billion); a non-profit company founded in 1918 by a number of private employer organizations which runs mostly pensions schemes for large or medium-sized Danish companies; Danica – the second-largest life-insurance company in Denmark with around 650,000 customers and pension provisions of about DKK 304 billion (€41 billion). Runs mostly pension schemes for large or medium-sized Danish companies; Pensiondanmark – founded in 1989 by the social partners to run an industry-wide pension scheme for unskilled workers, mostly in the private sector. 750,000 customers and pension provisions of about DKK 240 billion (32 billion euros).



Taxation

Numerous changes in taxation have affected pension savings. The general trend has been to decrease marginal income taxes and broaden tax bases. The ETT scheme implies that the tax value of the deduction of a marginal increase in the contribution depends on the marginal tax rate when contributions are made, while the taxation of the resulting pension depends on the marginal tax rate when retired. With a progressive tax system, the latter marginal tax tends to be lower than the former (especially for middle-income groups), which is an implicit tax subsidy to pension savings. The tax reforms reducing the progressivity of the tax system have thus reduced this subsidy.

Taxation of the return was introduced as early as 1984. From this year, all interest earnings in pension schemes were taxed at a variable tax rate aiming to tax all real interest above 3.5%. From 1998, this real interest rate taxation was replaced by a proportional tax rate on all yields from pension assets. The tax rate is at present 15.3% and lower than the general taxation of capital income.

A difficult design issue is how to match public and private pensions. The former are means tested to target the least well-off pensioners. This distributional consideration creates a disincentive effect for individuals affected by means testing. Increasing pension savings and thus private pension will via means testing lower public pensions. This is an implicit tax which increases the effective tax beyond the tax-rates applying in the ETT-scheme, especially for contributions made close to retirement. Hence, higher savings or later retirement (implying larger contributions via occupational scheme) may result in high effective tax rates – in some cases even exceeding 100%. This is counter-productive to the aim of strengthening savings incentives and providing incentives for later retirement, and this dilemma has prompted several reforms.

Numerous changes in the tax rules for contribution to lump-sum and periodic instalment schemes have been made, especially on the cap on contributions. For individuals – e.g., self-employed – with variable income and thus scope for making pension contributions there is an argument for allowing large contributions in a single year. However, it is also a way for high-income groups to lower effective taxation. These two concerns have influenced policies in this area. As discussed above, the lump-sum pension scheme is closed for contributions (since 2013) and has been replaced by the aldersopsparing. This scheme follows a TTE principle, and pension payments are not included in means testing of public pension. This scheme was introduced primarily to reduce high effective tax rates on pension savings made close to retirement. Therefore, there is a cap on contributions depending on age relative to the statutory retirement age (see above) with a low cap for contributions made between 15 and 10 years prior to reaching the statutory retirement age, and a higher cap for contribution made 5 years or less before reaching the statutory retirement age.



In addition, age-dependent tax premia for pension contributions have been introduced, also to reduce effective taxation of pension savings involving a two-step age dependent tax rebate for pension contributions. Specifically, the rebate equals 12% for contributions made in a window of 15 to 5 years before reaching the statutory pension age, and 32% for contributions made no more than 5 years before reaching the statutory retirement age.

All these changes have added extra layers of complications to an already complex system, and imply that the taxation principles have evolved into a hybrid combining both ETT and a TTE schemes

Table DK13. Taxation of contributions, investment returns, and pension pay outs			
	Contributions	Investment returns (4)	Pay outs
Annuities	E (1)	T	T
Periodic installments	E (1) (5)	T	T
Lump sum			
<i>Kapitalpension</i>	E (1) (2)	T	T (3)
<i>Aldersopsparing</i>	T	T	E

Source: BETTER FINANCE; Where: 1) Taxed with 8% wage tax; 2) New contributions have not been allowed since 2013; 3) Taxed at 40%; 4) All kind of returns are taxed at 15,3 %; 5) Exempted up to a maximum of DKK 53.500.

Pension Returns

In general, the investment policies are decided by the insurance company or the pension fund with the double aim to limit the risk and generate high returns. Savers can only influence the investments directly in unit-linked schemes and in bank saving schemes.

For DC schemes without guarantee, the major market-oriented insurance companies offer unit-linked products allowing the deposit holder a say on investment policies. Even customers in unit-linked schemes often let the insurance company choose investment funds based on the reported risk profile of the customer.

More common are so-called life-cycle products, especially for industry-wide schemes. The insurance company invests in two portfolios, one with high risk and one with low risk. For the young entering the scheme all contributions are invested in the high-risk portfolio. Gradually as the depositor ages, a larger and larger share of the asset holdings are invested in the low-risk portfolio to enhance predictability of the pension eventually received. In most companies the split between the two portfolios depends on age only. But some companies also offer their customers the opportunity to report their risk profile as an additional parameter. The words “high” and “low” risk should be understood bearing in mind the very high spread of these portfolios. Using the risk classification for investment funds (a scale from 1 to 7), the low as well as the high-risk portfolios are normally classified between 3.5 and 4.5.

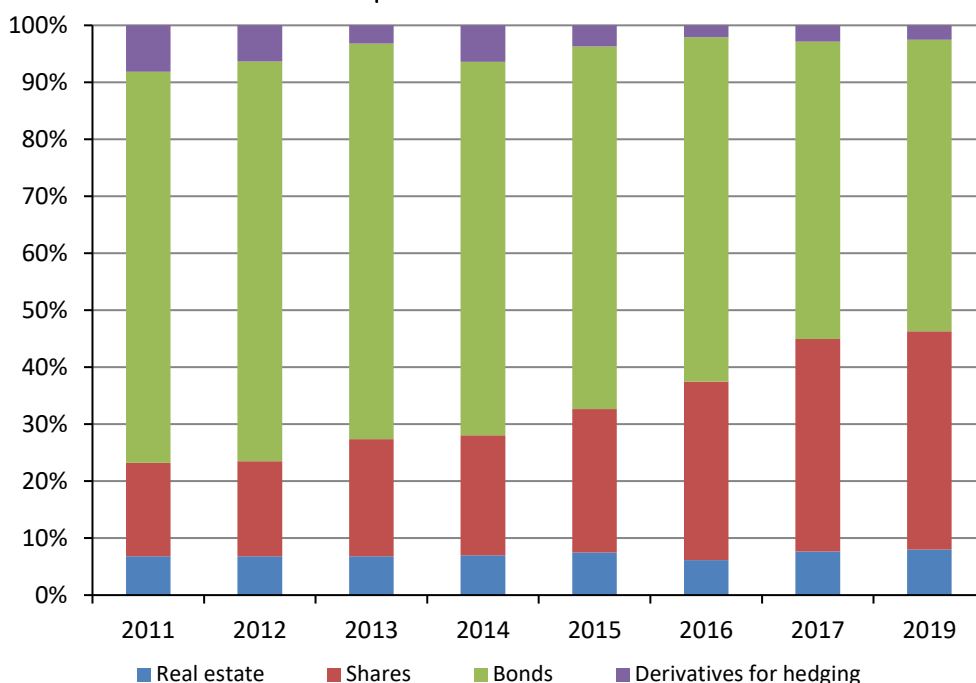


For hybrid DC schemes with guarantees, the investment policy depends on the guaranteed interest rate and the size of accumulated reserves. The higher the rate – up to 4.5% – and the smaller the reserves, the more focus on hedging and risk minimizing.

Pension savings in banks give the individual customer the opportunity to make his own investment decisions. Savings can be invested in investment funds of the customers own choice, or even in listed stocks and bonds. No statistic data are available for these kinds of investments.

Pension schemes seek an investment return that is stable in the long run, predictable and as high as possible. Traditionally, a large part of pension savings is invested in bonds. The low interest rate environment in recent years has, therefore, been a challenge. Danish pensions are still, for a large part invested in bonds, but less so in government bonds and more in mortgage bonds. The Danish market has a long tradition for financing real estate with mortgage bonds, the mortgage bond market is large compared to the size of the country, and the credit risk is rated almost as low as for government bonds.

Graph 14. Investment assets



Source: FSA

Investments in equities have grown, and so have investments in non-listed assets and indirect investments in emerging sectors.



Lately, many pension funds have turned to alternative investments such as infrastructure investments, e.g., in green energy. As an example, a significant number of windmill parks inside and outside Denmark are financed partly by pension funds. Also, investments in emerging geographic markets, investment in forestry and other alternatives to more traditional investments have become more common, but still constitute a minor part of total investment assets.

The difference in investment policies between schemes with and without guarantees has become more outspoken in recent years. The spread in risk and return has therefore grown.

Generally, the pension sector has delivered high returns, and weathered crises like the Financial Crisis and the Corona Crises. The long-run trend to lower returns poses challenges. For some years the decline interest rates have generated capital gains, contributing significantly to the reported returns. The after-tax return has on average been close to 5 % since 2007 – and a bit higher for schemes without guarantees, although with substantial year-to-year variations. Looking forward, a new normal with low real rates of return will be challenging and has brought focus on the issue whether more risk should be accepted in the quest for higher returns. In an environment where the individual to a larger extent directly carries the consequences of this risk, this is a particularly important discussion.

Table DK15. Nominal and real return of private pension schemes in Denmark 2007-2019 (in %)

	Nominal return before taxes and inflation		Nominal return after taxes		Real return after taxes and inflation	
2007	0.89		0.75		0.74	
2008	-3.09		-2.62		-2.65	
2009	7.57		6.41		6.4	
2010	10.13		8.58		8.56	
2011	9.12		7.72		7.7	
2012	10.47		8.87		8.84	
2013	1.88		1.59		1.59	
2014	12.95		10.97		10.96	
2015	1.8		1.52		1.52	
	Hybrid DC with guarantee	DC with no guarantee	Hybrid DC with guarantee	DC with no guarantee	Hybrid DC with guarantee	DC with no guarantee
2016	7.58	6.16	6.42	5.22	6.42	5.22
2017	5.45	8.54	4.62	7.23	4.6	7.22
2018	-0.63	-3.15	-0.53	-2.67	-1.2	-3.34
2019	11.9	13.9	10.1	11.8	9.2893	10.9833

The Danish FSA started reporting the returns on investments for private pension funds as a breakdown between *hybrid defined-contribution (DC) with guarantee* and *defined-contribution (DC) with no guarantee* pension schemes as of 2016. The key figures shown are the return-on-investment net of costs as a percentage of the market value of investment assets.



Conclusion

The Danish pension system comprises tax financed public pensions with funded occupational pensions to deliver pensions preventing poverty among pensioners and high replacement for the larger part of the population. Importantly the system is financially viable, and public finances meet requirements for fiscal sustainability even taking into account the ageing of the population.

The pension system is still maturing, and the private pensions will gain in importance relative to the public pensions, although the latter would still be significant and play an important role in preventing poverty among pensioners. Despite the attractive track record and the projected outcomes, the system faces a number of challenges.

Combining public and private pensions addresses distributional objectives but also leaves important incentive problems. Means testing serves to target the pensions and to minimize public pension expenditures, but it creates high effective tax rates detrimental to savings incentives and later retirement. Several reforms – especially tax reforms – reduces this problem but has also considerably complicated and already complex system.

It is a strength of the occupational pension scheme that it has the support of the social planners. A drawback is the “residual” groups of individuals who do not (or not to a significant extent) contribute to an occupational pension scheme. This group is heterogeneous, but it is important to address the problem. A recently introduced mandatory pension scheme for recipients of transfer income is a step in this direction, but it is not sufficient to solve the problem.

Higher retirement ages alongside increases longevity is important not only for public finances but also for sustaining high replacement rates. Formally statutory retirement ages are indexed to longevity. This is key to the financial viability of the system, but it also raises a problem of exit routes from the labour market, since not all are capable of prolonging work life alongside increases in longevity. Recently introduced schemes – “seniorpension” and “tidlig pension” – are addressing these issues, but it is too early to assess whether they adequately cope with the problem.

The pension system’s high degree of funding is an attractive part of the system, and in the past the returns on pension savings have been high, which has added to the support to the scheme. Looking forward to a new normal with low real rate of return, pension funds cannot deliver the same returns as seen historically, unless more risk is accepted. However, it is not clear that this is in the interest of pension savers, especially since they now more directly carry the risk.

In a system with mandatory pension contributions, governance structures are particular important to ensure that pension funds are administered in the interest of their members. This also applies in relation to charges. They have been decreasing for a long period of time and it is important to keep focus on this aspect.



Pension Savings: The Real Return

2021 Edition

Country Case: Estonia

Kokkuvõte

Eesti pensionisüsteem on tüüpiline Maailmapanga mitmesambaline süsteem, mis põhineb personaalsetel pensionikontodel. Aasta 2020 oli pensionifondide jaoks volatiilne, kuid kokkuvõttes lõppes nii teise kui kolmanda samba fondidele positiivse keskmise tootlusega. Teise samba fondide kaalutud keskmine tootlus oli 3,76% ja kolmanda samba sama näitaja oli 3,63%. Kuna 2020 aastal tarbijahinnad keskmiselt langesid, kujunes teise samba fondide inflatsiooniga korrigeeritud reaaltootluseks 4,64%. Kolmanda samba reaaltootlus oli 4,51%.

Teise samba fondide pikaajaline kaalutud keskmine reaaltootlus aastatel 2003-2020 oli 0,67% aastas. Kolmanda samba fondide puhul oli see näitaja samal perioodil 1,54% aastas.

Alates 2017 aastast on Eesti turule lisandunud mitmeid madalate tasudega passiivselt juhitud pensionifonde (nn. indeksfonde), mis on kiirelt võitnud kliente ja suurendanud turuosa. Madalate tasudega fondide lisandumine turule on sundinud fondivalitsejaid ka teiste fondide tasusid alandama. Ühtlasi pakkusid 2021 aasta keskspaigaks kõik turul olevad pensionifondide valitsejad oma valikus vähemalt üht indeksfondi.

Aastal 2020 jõustus ka pensionireform, mis sisuliselt muutis seni kohustuslikuks olnud teise samba vabatahtlikuks. Antud reform tekitas ühiskonnas suurt vastukaja. Küsimärgi all oli nii reformi kasulikkus, selle mõju vähemkindlustatud ühiskonnagruppidele ja isegi reformi vastavus põhiseadusele. Reformi põhiseaduslikkuse küsimuse lahendas alles Riigikohtu üldkogu, mis otsustas kaheteist poolt- ja seitsme vastuhäälega, et ei rahulda Vabariigi Presidendi taotlust pensionireformi seadus põhiseaduse vastaseks kuulutada.

Summary

The Estonian Pension system is a typical World Bank multi-pillar (three-pillar system) based on individual (personal) pension savings accounts. 2020 saw high volatility but ultimately positive returns for both the second and third pension pillars, with Pillar II recording average returns of 3.76% and Pillar III funds averaging returns of 3.63%. After adjusting for inflation, which was negative in 2020, the real returns were: 4.64% for Pillar II funds and 4.51% for Pillar III funds. This meant that the long-term (since 2003) real returns of Pillar II funds ultimately stayed positive, albeit



low, at asset-weighted average real return since inception of 0.67%, while Pillar III funds have achieved a more respectable average real return of 1.54% over the same period.

Low-cost passively managed pension funds introduced in 2017 have forced providers to further decrease the fees charged in Pillar II as well as Pillar III pension funds, with all pension fund providers offering at least one low-cost passive fund as part of their range by mid-2021.

The year 2020 also saw the implementation of further legal changes significantly restructuring the legal framework surrounding pension funds, especially the formerly mandatory II pillar, which in effect, became a voluntary pension fund with auto-enrolment. These changes generated a great deal of controversy, both regarding their usefulness and impact on vulnerable groups in society or even as to the constitutionality of the reforms.

Indeed, the question of constitutionality was only settled by the Supreme Court of Estonia, which ruled by 12 votes to 7 that the legal text of the reform did not infringe the constitution, after the President of the republic had initially refused twice to promulgate the law on constitutionality grounds and had referred it to the Supreme Court for final decision.

Introduction

The Estonian old-age pension system is also based on the World Bank multi-pillar approach, which consists of three main pillars:

- Pillar I – State pension organised as a mandatory Pay-As-You-Go (PAYG) scheme;
- Pillar II – Funded pension, which was previously organised as a mandatory funded defined contribution (DC) scheme, starting from January 1, 2021, it is possible to opt-out of the II pillar funded pensions scheme;
- Pillar III – Supplementary pension organised as a voluntary individual pension scheme.

The Estonian multi-pillar pension reform began in 1998 with the introduction of the third (voluntary) pension pillar in legislation. The formerly mandatory second pillar, which finances individual private retirement accounts with matching contributions from workers and the government, was introduced in 2001 and became operational on July 1, 2002. It became possible to opt-out of the second pillar pension and to liquidate any previous savings held under it, from January 1, 2021.



Table EE1. The multi-pillar pension system in Estonia

Pillar I	Pillar II	Pillar III
State Pension	Funded pension	Supplementary pension
Mandatory	Formerly mandatory, possible to opt-out from 2021 onwards	Voluntary
PAYG	Funded	Funded
Financed by social tax	Defined Contribution	Defined Contribution
Benefits paid via State Pension Insurance Fund	Basic benefit	Complementary benefit
Minimum pension + employment related	Individual pension accounts	Individual pension contracts
Publicly managed by Social Insurance Board (government entity)	Either privately managed pension funds or (starting from 2021) personally managed pensions savings through an individual pension savings account	Two vehicles: 1. Privately managed pension funds 2. Pension insurance

Source: BETTER FINANCE own elaboration, 2021

The basic pension system generated an average replacement ratio in 2019 of 53.10% (gross, 2018 data according to OECD bi-annual pension survey¹¹⁰), calculated by dividing the average old-age pension with the average salary in Estonia. The coverage ratio of Pillar I pensions comprises nearly 100% of the economically active population.

Table EE2. Summary returns table - Estonia

	Pillar II		Pillar III	
	Nominal	Real	Nominal	Real
1-year (2020)	3.76%	4.64%	3.63%	4.51%
3-years (2018-2020)	3.57%	2.10%	3.86%	2.37%
7-year (2014-2020)	3.63%	2.13%	4.69%	3.19%
10-years (2011-2020)	3.34%	1.31%	4.10%	2.04%
Since inception (2003-2020)	3.91%	0.67%	4.93%	1.54%

Source: BETTER FINANCE own composition based on Pnesionikeskus.ee data, 2021 (data as of 31.12.2020)

¹¹⁰ According to the OECD 2018 pension survey <https://data.oecd.org/pension/net-pension-replacement-rates.htm>



Pillar I – State Pension

The state pension (Pillar I) should guarantee the minimum income necessary for subsistence after retirement. It is based on the Pay-As-You-Go (PAYG) principle of redistribution, i.e. the social taxes paid by today's employees cover the pensions of today's pensioners.

Legislatively, the state pension is governed by the State Pension Insurance Act. The act is part of the pension system reform, which came into force on January 1, 2002. Since then, the act has been amended more than 30 times. Employers pay 33% of the salary of each employee as social tax, 13% of which is for health insurance, and 20% (16% in case of participation in Pillar II) is for the pensions of today's pensioners.

There are two kinds of state pension: the pensions that depend on work contributions (the old-age pension, the pension for work incapacity and the survivor's pension) and the national pension. Estonians are entitled to the state old-age pension if they have been employed for at least 15 years in Estonia. If the period of employment is shorter, they are not entitled to the old-age state pension and might fall under the national pension system.

The **national pension** (also called National Pension Rate – NPR) provides a minimum pension for those who are not entitled to a pension that depends on work contributions, provided that they have lived in Estonia for at least five years before applying for a pension. The amount of the national pension as of April 1, 2021 (Social Insurance Board, 2021) is €255.18 (up from €221,63 in 2020)¹¹¹. Generally, no additional benefits are provided via the state pension scheme.

The **old-age pension**, available for those who contributed for 15 years or longer, takes into account the solidarity part (national pension) plus the work and salary-related part. The old-age pension financed through Pillar I is calculated as a sum of two components:

1. Basic amount (equalling to €235.31)¹¹²;
2. Salary based amount calculated as a multiplication of two factors:
 - Pensionable service period;
 - Insurance contributions.

The basic amount, acting as a first component of the state pension, is aimed at achieving basic solidarity and a minimum pension. The solidarity state pension insurance is represented by the basic amount (base component) of a pension which is equal to all, irrespective of the person's salary.

The factor "pensionable service" period represents the part of state pension which depends on the length of employment (i.e., years of employment and years deemed equal to employment, e.g., raising of children, compulsory military service, full-time studies, etc.) of the pensioner, which entitles him or her to the pension. The period of pensionable service is taken into account up until

¹¹¹ Estonian Social Insurance Board:

www.sotsiaalkindlustusamet.ee/en/pension-benefits/pension-types-pensions-and-benefits

¹¹² Estonian Social Insurance Board: <https://www.sotsiaalkindlustusamet.ee/en/pension-benefits/pension-calculation>



December 31, 1998. The monetary value of one year of employment in a monthly pension is €7.206 since April 1, 2021 (Social Insurance Board of Estonia, 2021)³. This part of the state pension is deemed to diminish in future years (temporary component) as the third component (insurance contributions) will account for a larger portion of the total state pension amount.

The factor “insurance contributions” depends on how much social tax has been paid on the salary of the pensioner since January 1, 1999. The amount of the insurance component is calculated on the basis of the sum of annual factors of pension insurance. An annual factor shows the ratio of the social tax paid on the person’s salary during the calendar year to the social tax paid on the average salary of the state. If social tax is paid on the average salary, the annual factor is 1.0 and its monetary value in a monthly pension is €7,206 (since April 1, 2021), the same as the pensionable service period component.

Change in the formula from 2021.

As part of the overall reform of the pensions system, the insurance component has been replaced by a new “combined component” from January 1, 2021. The combined component is calculated based on the previously described insurance component (which will make up 50% of the new combined component), and 50% will be based on a “solidarity component”. The solidarity component is calculated based on an annual factor that is linked to the minimum wage. If a person earns at least the minimum annual salary in one year, this factor is 1.0. If they earn less than the annual minimum salary, the factor is reduced proportionally. After adding up the two factors, they are in turn divided by two so to obtain the final value. This change is intended to increase solidarity in the system.

The solidarity principle of public pension insurance involves a mechanism for redistributing income from high earners to low earners. However, the base component of a pension is equal for all, irrespective of the person’s salary, while the law also procures the minimum amount of the old-age pension regardless of the social tax paid.

The **statutory retirement age** in 2021 is 63 years and nine months for both men and women. On April 7, 2010, the Estonian Parliament adopted the Act to amend the State Pension Insurance Act¹¹³ and related acts, establishing that the general pensionable age of 65 years is to be reached in 2026. The transition period (starting from 2017) applies to people who were born from 1954 to 1960. For the latter, the retirement age will be gradually increased by 3 months for every year of birth and will reach the age of 65 in 2026. The amendment came into effect on January 1, 2017. Further increases in the retirement age after 2026 will be, by law,¹¹⁴ automatically linked to increases in life expectancy. From 2027 onwards, any increases to the average life expectancy at age 65 compared

¹¹³ Legal text of the State Pension Insurance Act: www.riigiteataja.ee/en/eli/ee/Riigikogu/act/530042020004/

¹¹⁴ Legal text (in Estonian): www.riigiteataja.ee/akt/103012019001



to the baseline period of 2018-2022¹¹⁵ will lead to an increase in retirement age. However, the increase in the statutory retirement age will be capped to a maximum of 3 months per year.

Indexation of state pensions is performed by the Social Insurance Board with the aim to adjust the level of state pensions, so they correspond to the development of the cost of living and receipt of social tax (growth of the salary fund). Once a year (April 1 of each year), pensions are multiplied by an index which is 20% dependent on the change in the consumer price index (cost of living) and 80% annual increase in the social tax collected (linked to labour market conditions). The indexation introduced in 2002 was up until 2008 equally weighted (50% / 50%) on increases in consumers' price index and social tax contributions. This was changed in 2007 to today's 20% and 80%, respectively. According to the Pension Insurance Act, the Government of Estonia has to analyse the impact of the increase in pensions on financial and social sustainability and suggest every five years to Parliament any need for indexation change.

In addition to the regular indexation, the "basic amount" component of pensions has been increased by an additional 7 EUR as of April 1, 2020, as a political initiative.¹¹⁶

The average monthly old-age pension paid from Pillar I in 2020 was €519.10 (€475.9 in 2019, in total, the average pension has increased 50.4% in the previous six years)¹¹⁷.

Pillar II – Funded pension

Both the funded pension and supplementary funded pension put a person in charge of their own future; the amount of their pension will depend on how much they put aside for retirement during their working life. The funded pension is legislated by the Funded Pensions Act, which came into force on May 1, 2004, and replaced the Funded Pension Act, effective October 1, 2001. The funded pension pillar (Pillar II) started its operation in July 2002.

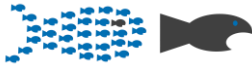
The funded pension is based on the accumulation of assets (savings) – a working person themselves saves for their pension, paying 2% of the gross salary to the selected pension fund. In addition to the 2% that is paid by the individual, the state adds 4% out of the current social tax that is paid by the employee and retains 29% (out of 33%). The insurance element of the state pension of a person who has subscribed to the funded pension is also lower respectively (for the years in which one receives 16% for the state pension instead of 20%).

Subscription to the funded pension was compulsory for those born in 1983 or later, but it has become voluntary starting as of January 1, 2021. The funded pension has always been voluntary for those born between 1942 and 1983. For these people, subscription was possible in seven years; from May 1, 2001, until October 31, 2010. From January 1, 2021, all persons born in 1970 or later,

¹¹⁵ Technically, the formula will compare the average life expectancy at 65 for the 5 year period that is 4-8 years before the year for which the pension age is being calculated with the life expectancy at 65 for the five years between 2018-2022.

¹¹⁶ Ministry of Social Affairs: <https://www.sm.ee/et/uudised/tanasest-touseb-vanaduspension-keskmiselt-45-eurot>

¹¹⁷ Own calculation based on data from Statistics Estonia: <https://www.stat.ee/en>



who are not already subscribed to the II pillar funded pensions, will be able to apply to subscribe to pillar II pensions. Persons who have previously unsubscribed may re-apply after a period of at least ten years from the date when they were unsubscribed.

All persons who have turned 18 years old will be auto enrolled into the II pillar on the year after they turn 18, unless they make an application for exemption. In the case of auto-enrolment, the person will be randomly drawn a pension fund from among the three pension funds with the lowest current fees at that time and which invest at least 75% of assets in shares, equity funds and other equity-like instruments.

Each Pillar II participant has his/her own individual pension account that records contributions and accumulated savings. A pension account is a special type of securities account in which there are only units of mandatory pension funds and data related to these units, as well as data about the unitholder.

In response to the impact of the 2008-2009 financial crisis on the Estonian economy, a temporary change of contributions' regime was adopted, which suspended contributions for the period from June 1, 2009, to December 31, 2010. Interested persons were able to continue to make contributions to their funded pension themselves upon request from 2010. From 2011, contributions continued in half-volume, i.e., the state contributed 2% and the savers themselves 1%. Customary contributions to Pillar II (2% - 4%) were restored in 2012. There was a special mechanism for Pillar II contributions between 2014 – 2017. To those who voluntarily continued their contributions in 2010 and 2011, the state shall pay an additional 6% during 2014 – 2017 in order to promote personal saving in Pillar II. However, if a saver did not contribute himself in 2010 and 2011 and submitted an application in 2013, they were required to pay voluntary contributions of 3% of their salary between 2014–2017. For those savers that did, the state contributed an additional 6% during those four years. In 2018, the contribution mechanism returned to 2% - 4% in all cases.

A similar temporary measure was introduced in April 2020 as a result of the COVID-19 crisis and its' effects on the state budget as well as the overall economy¹¹⁸. The state contribution of 4% was suspended for the period from July 1, 2020, until August 31, 2021, for all Pillar II savers born after 1960. For those who voluntarily choose to continue with the personal 2% part to their Pillar II fund, additional 4% state contributions will be made after January 1, 2023.

However, it is not immediately clear why the government chose to take such a radical step, which amounts to taking a forced, no-interest loan from future pensioners and that will have the effect of discouraging long-term savings and investment at a time when investment conditions are favourable, due to relatively low share prices. The arguments given by the ministers in charge that it was necessary to support the budget balance seem unconvincing, given that both prior to the

¹¹⁸ Overview from Pensionikeskus: www.pensionikeskus.ee/uudis/ii-samba-maksete-ajutine-katkestamine-2020-a/



Covid-19 crisis, as well as by the end of 2020, the State of Estonia had the smallest total government debt to GDP ratio in the European Union.¹¹⁹

Indeed, in the same period that this measure was debated and adopted, the Treasury of Estonia was able to take long-term loans at close to 0% nominal interest rates^{120,121} and repeatedly sell short term (12 months) credit notes at negative interest rates¹²².

The above underlines the short-sightedness of the (now former) government's actions and the lack of real justification for punishing future pensioners at a time when many of them were anyway suffering large losses to their pensions savings due to the market turmoil. The weighted average index of Estonian II pillar pension funds grew by 16% during the period when the government contributions were suspended¹²³.

The partial dismantling of pillar II in 2021

Although there have been many changes to the legal framework surrounding the Estonian second pension pillar, the most fundamental and controversial of these "reforms" was pushed through Parliament in 2020, tied to a vote of confidence of the then government. After a protracted legal battle between the parliamentary majority and the President of the Republic, regarding the constitutionality of the new law, the Supreme Court eventually ruled by 12 votes to 7 to hold that the reform didn't infringe the constitution on October 20, 2020¹²⁴. This meant that from 2021 onwards, the previously mandatory II pillar, in effect, became a voluntary pension fund with auto-enrolment. Pension savers who had been enrolled in the II pillar could now take out their savings before pension age, subject to a 20% income tax.

By the end of March 2021, 152675 pensions savers (about 20% of all II pillar participants) had applied for taking their saving out of the II pillar funds¹²⁵. The total amount withdrawn in this first round of applications was approximately 1.3 billion euros gross or about 24% of the total assets of Estonian II pillar funds. The first round of payments was executed in early September 2021.

¹¹⁹ 8.4% of GDP on 31/12/2019 and 18.2% of GDP on 31/12/2020:

https://ec.europa.eu/eurostat/databrowser/view/sdg_17_40/

¹²⁰ The Treasury took a 750 MEUR, 15-year loan from the Nordic Investment Bank (NIB) on the 30th of March, with an interest rate of 0.32% + the 6-month Euribor (the corresponding Euribor rate was -0.287% on 30 March 2020): see

https://www.rahandusministeerium.ee/sites/default/files/Riigikassa/voetud_laenud_30.04.2020.pdf;

<https://www.rahandusministeerium.ee/et/eesmargidtegevused/riigikassa/riigi-finantsvarad-ja-kohustused/riigi-volakohustused>; <https://www.euribor-rates.eu/en/current-euribor-rates/3/euribor-rate-6-months/>

¹²¹ News item from the Ministry of Finance website: <https://www.rahandusministeerium.ee/en/news/high-demand-international-investors-estonias-government-bond-issue>

¹²² The Treasury had issued several short-term government bonds (6-12 months) between March to early May 2020 for a total value of 475 MEUR with fixed interest rates ranging from -0.141% to -0.296%.

¹²⁴ Constitutional Court judgment 5-20-3: www.riigikohus.ee/en/constitutional-judgment-5-20-3

¹²⁵ Pensionikeskus statistics on II pillar withdrawals (Estonian): https://www.pensionikeskus.ee/wp-content/uploads/teisest_sambast_rahajalajavotmise_statistika_02.08.2021.pdf



BETTER FINANCE has previously opposed this change, since it increases risk of old-age poverty for those who liquidate their savings, since they not only lose the tax benefits accorded to the II pillar, but surveys conducted among people intending to withdraw their II pillar savings showed that the majority would use the money to cover running costs (such as home renovations or paying back loans), rather than investing for retirement.¹²⁶

The risk of increasing old-age poverty due to this reform is significant, given the already low-income replacement ratio of the first pillar (discussed earlier) and the fact that the largest proportion of savers who left the system were those on low or average incomes¹⁵

Pillar III – Supplementary pension

The supplementary funded pensions scheme, or Pillar III, is a part of the Estonian pension system and is governed by the same act that governs Pillar II, the Funded Pension Act (Chapter 3 and following).

This scheme has been introduced with the aim of helping to maintain the same standard of living and adding more flexibility in securing a higher and/or stable stream of income after one reaches the age of 55. Therefore, the supplementary pension has been designed to help achieve a recommended level of 65% gross replacement ratio of an individual's previous income in order to maintain the established standard of living.

The supplementary pension participation is voluntary for all persons, who can decide to save either by contributing to a voluntary pension fund or by entering into a respective supplementary pension insurance contract with a life insurance company. The amount of the contributions is determined solely by the free choice of an individual and can be changed during the duration of the accumulation phase. There is also a possibility to discontinue contributions (as well as to finish the contract).

The supplementary funded pension contracts can be made with life insurers as pension insurance or by acquiring pension fund units from fund managers. An individual can choose between three different pension products:

1. Pension insurance with guaranteed interest;
2. Pension insurance with investment risk (unit-linked); and
3. Pension fund.

¹²⁶ BETTER FINANCE Press release October 27, 2020: <https://betterfinance.eu/wp-content/uploads/PR-Dismantling-the-Estonian-Pension-System-is-not-the-Answer-27102020.pdf>



Pension Vehicles

Pillar II – Funded pension

From September 2019, there are two types of mandatory pension funds in Estonia – conservative funds and non-conservative funds.

For conservative funds, 80% of assets need to be invested into either bank deposits, investment-grade bonds, money-market instruments trading on regulated markets, other funds which invest the majority of their assets into the before-mentioned categories, as well as derivative instruments which are based on the categories of assets listed in this paragraph. In addition, conservative pension funds may not have an open net foreign exchange position worth more than 25% of total assets.

All other mandatory pension funds are free to set their investment strategies in their prospectus, with only the following global limits:

- Not more than 10% of assets can be provided as **direct loans**, with the additional requirement that the (legal) persons receiving the loans meet the same requirements as the issuers of bonds that the pension fund is allowed to buy (“investment grade”);
- Not more than 5% of assets can be invested in **precious metals** and securities whose underlying assets are precious metals or which price is dependent on precious metals;
- Not more than 30% of assets can be invested in **index funds**;
- Not more than 50% of assets can be invested into securities, money market instruments and funds that are **not traded on regulated markets**. Direct loans to non-listed entities also count toward this cap;
- The **total open risk position of derivative instruments** may not exceed 50% of the assets of the fund, although derivative instruments designed to mitigate certain types of risks are exempt from this cap;
- Not more than 40% of assets may be invested in **immovables**, either directly or through real estate investment funds or companies investing in real estate or securities directly tied to the price of immovables;
- Not more than 10% of asset may be invested into a **single immovable property**, based on acquisition price;
- Not more than 15% of assets may be invested in the securities and money market instruments issued by one (legal) person.

Any asset manager wishing to undertake the management of mandatory pension funds, must by law, manage at least one pension fund that conforms to the legal limits of a conservative pension fund, as described below.

Interestingly, the above rules make all non-conservative pensions funds significantly more flexible in their investment choices than any other UCITS which is subject to Estonian law.



In Estonia, more than 706 357 people save under the Pillar II funds, which is almost equal to the economically active population. Less than 5% of those have opted for conservative pension funds.¹²⁷

Wealthier individuals and those with higher earnings tend to prefer conservative funds with less equity exposure. Lower-income groups, on the other hand, tend to prefer riskier pension funds with more equity exposure and more market risk.¹²⁸

This is possibly due to the age distribution of pension fund strategies, with the large majority of investors in the most aggressive category of pension funds being under 40 years of age, whereas the proportion of pension savers investing in relatively conservative pension funds (those where equity exposure is capped at under 50% of assets) goes up dramatically with people over 50 years of age. Generally, younger people at the start of their careers would be expected to earn less on average and have accumulated fewer assets on average than those in the last decades of their working lives.¹⁸ Comparing the Pillar II market share development in 2019-2020, more contribution inflows could be seen in aggressive funds (especially of the index fund variety) and less in conservative and balanced funds.¹⁸

From April 1, 2021 it also became possible for pension savers to personally manage their pillar II investments through a Pension Investment Account. Any saver choosing this option will have their II pillar contributions (both personal and state contributions) flow into a special securities account at a bank of their choice¹²⁹, instead of the same contributions going into an investment fund.¹³⁰ The pension saver can then decide themselves which securities or funds to invest their II pillar savings in. It's worth noting that aside from direct investments in securities, this system also allows savers to choose investment funds other than the especially regulated Estonian pillar II funds.

Pillar III – Supplementary pension

According to the law, two types of pension vehicles for supplementary pension (Pillar III) are allowed:

1. Voluntary pension funds;
2. Supplementary pension insurance contracts.

For the supplementary pension insurance vehicle, two product options are available:

- Pension insurance at a guaranteed interest rate;
- Pension insurance with investment risk (unit-linked).

¹²⁷ Statistics from Pensionikeskus: <https://www.pensionikeskus.ee/statistika/ii-sammas/aktiivsed-investorid/>

¹²⁸ Estonian Ministry of Finance pension statistics for 2020 (in Estonian): <https://www.pensionikeskus.ee/wp-content/uploads/page/rahandusministeeriumi-statistika/012021.pdf>

¹²⁹ Currently, all of the 4 banks which offer II pillar investment funds in Estonia (LHV, SEB, Swedbank and Luminor) also offer the possibility to open a Pension Investment Account.

¹³⁰ Explanation from Pensionikeskus: <https://www.pensionikeskus.ee/ii-sammas/pensioni-investeerimiskonto-pik/>



Considering the size of Pillar III based on the coverage of the economically active population, the Estonian Pillar III amounts to only about 15% of the economically active population. The investment restrictions for supplementary pension funds are broadly the same as for non-conservative, mandatory pension funds, with the exception that supplementary funds are allowed to invest **up to 70% of assets into immovables** (as opposed to 40% for mandatory funds).

In addition, certain conflicts of interest provisions are laxer for voluntary pension funds. For example, by law, fees charged from a mandatory pension fund for investments made into UCITS managed by the same fund manager that manages the pension fund, or another fund manager belonging to the same consolidation group, need to be repaid into the pension fund. No such provision exists for voluntary pension funds, leaving them more open to conflicts of interest from the pension fund manager.

Table EE4. Supplementary Pension vehicles market share		
Supplementary pension vehicles	Assets under management (AuM) / Reserves (in €)	Market share based on AuM / Reserves (in %)
Voluntary pension funds	252.210.489	46.88%
Supplementary pension insurance	285.739.000	53.12%
TOTAL	537.949.489	100.00%

Source: Own calculations based on pensionikeskus.ee data, 2021 (data as of 31.12.2020)

Charges

Pillar II – Funded pension

Pension funds are offered by asset management companies, which are managed under the Investment Funds Act and, as such, the funds are considered typical UCITS funds with special regulation via the Funded Pension Act.

A saver contributing into the pension fund receives the fund units, which represent the unitholder's share in the fund's assets. Each pension fund can have only one class of units. The nominal value of a unit at the beginning of the fund operation is €1 (up from €0.64 prior to 2021). The rights and obligations attached to a unit with respect to a unitholder will enter into force upon issuing a unit and will terminate upon redeeming a unit. A unit is deemed issued upon registration and is considered redeemed upon cancellation with the register. Ownership of a unit is proved by an entry in the register.

As the pension funds are considered typical UCITS funds, fees and charges typical for UCITS funds are applied to the pension funds, but with some legislative restrictions.

According to the paragraphs 58 and 65 of the Investment Funds Act, the following charges can be applied to the expense of a mandatory pension fund:



- management fee,
- exit fee (unit redemption fee),
- transaction costs,
- success fee

Considering the individual saver, additional charges are paid from the individual value of pension savings:

- unit redemption fee,
- entry fee (unit issuance fee, resp. contribution fee).

As of September 2, 2019, the management fees of mandatory pension funds were legally capped at 1.2% for conservative pension funds and 2% for all other mandatory pension funds. Redemption fees were capped at 0.05% for conservative pension funds and 0.1% for all other mandatory pension funds. No subscription fee may be charged by a mandatory pension fund.

Redemption fees are types of charges that are applied on a one-off basis when a contribution to the fund is recorded respectively when the saver sells the pension units to the issuer. The effect of these charges is limited to the transaction, so there is only a cumulative effect that can be calculated as a simple summation. Redemption fees are also tied to the ability of savers to switch among the pension funds during the saving period. A fund can be replaced only with another fund of the mandatory funded pension. The choice of the pension fund can be changed in two ways:

1. Directing contributions to a new fund – the units of the current fund will be retained and will continue earning in the former fund. After choosing a new fund, your future contributions will be transferred to it, i.e., units of different funds will appear side by side in your pension account.
2. Changing the pension fund units – the units of one pension fund will be replaced with the units of a new pension fund selected.

From January 1, 2011, onwards, there is no minimum limit for units upon changing a fund (before January 1, 2011, the minimum requirement was 500 units). Since August 1, 2011, it has been possible to transfer to a new pension fund all or only a part (e.g., 25%, 50% or 75%) of the assets collected in the former pension fund.

The investment funds act provides an obligatory reduction in the management fees of investment funds, in line with the growth of assets under management of the fund. Namely, after a mandatory pension fund reaches 100 million euros of assets under management, the fund manager is obliged by law to reduce the base management fee for each additional 100 million euros of assets under management by at least 15 per cent compared to the rate of the base management fee applicable to the previous 100 million euros. Funds are no longer required to



enforce this reduction when the yearly base management fee for the mandatory pension fund in question reaches 0.4% of assets under management.

The idea of the maximum management fee caps and obligatory management fee reduction for mandatory pension funds was to ensure sufficient competition in the mandatory pension funds market at the time of its launch, despite the initial lack of economies of scale (given the initially low number of mandatory participants, the low level of salaries in Estonia at the time, as well as the small population of Estonia), while guaranteeing that the overall level of fees and charges would decrease when economies of scale are achieved.

The option of applying a success fee became possible as of January 1, 2019 and is unique to mandatory pension funds in Estonia. No other UCITS listed in Estonia have the right to apply a success fee.

According to paragraph 65² of the Investment Funds Act, the fund manager of a mandatory pension fund has the right to charge a success fee if the cumulative increase in the net asset value of a unit of the fund exceeds the cumulative increase in receipt of the pension insurance part of social tax as of December 31 of the year of registration of the pension fund (hereafter “reference index”). The success fee for a given year is limited by law to a maximum of 20% of the excess of the increase in net asset values over the reference index and to 2% of the asset value of this pension fund, whichever limit is lower.

Conservative mandatory pension funds do not have the right to apply a success fee.

The introduction of the success fee concept and other changes to the way pension fund fees need to be disclosed brought changes to the way Estonian pension funds disclose their fees and to how regulators and statistics agencies collect data on the fees. Given the backwards-looking nature of the success fee, mandatory pension funds are required to report on their “Total Expense Ratio” (hereafter referred to as TER) for the previous year.

The TER includes:

- 1) the fee paid to the fund manager for the management of the fund, or the fees, charges and expenses directly related to the management of a public limited fund (management fee);
- 2) the fee paid to the depositary for the services provided (depositary’s charge);
- 3) the transfer fees and service charges directly related to transactions performed for the account of the fund and other fees and charges and expenses related to the management of the fund and specified in the basic documents of the fund;
- 4) success fees.

The funded pension register (Pensionikeskus AS), which is the main provider of statistics for pension funds in Estonia, also stopped gathering statistics for separate classes of fees or charges and has moved to collecting statistics on the TER of mandatory pension funds. While this offers a complete overview of the costs of pension funds, it unfortunately also has the side-effect, from the point of



view of this report, of limiting long-term comparability of cost levels, since TER statistics are currently only provided going back to 2017.

The table below shows the TER for all mandatory pension funds registered in Estonia between 2017-2019, divided into different risk categories following the Synthetic Risk and Reward Indicator (hereafter SRRI) methodology. Low-Risk Funds are those with an SRRI of 1-2, Medium-Risk Funds have an SRRI of 3-4, and High-Risk Funds have an SRRI of 5-7. Mandatory pension funds designated as “conservative” are marked with an asterisk.

As can be seen from the table, the average fees have declined in the last four years. The competitive pressure associated with many new II pillar funds, most of these low-cost index funds, entering the Estonian mandatory pension funds market in the last five years may be one of the main drivers of this decrease in total fees.

Table EE5. Mandatory Pension Funds' Fees					
	Pension fund	2017	2018	2019	2020
High-risk Funds	Luminor A Pluss Pension Fund	1.57%	1.50%	1.62%	1.45%
	Pension Fund LHV XL	1.35%	1.62%	0.98%	1.13%
	LHV Pensionifond Green	n/a	n/a	0.85%	1.01%
	SEB Pension Fund 100	n/a	n/a	0.96%	0.99%
	Swedbank Pension Fund K100	1.13%	0.99%	0.70%	0.66%
	Pension Fund LHV Index	0.86%	0.69%	0.63%	0.39%
	Tuleva World Stocks Pension Fund	0.47%	0.47%	0.45%	0.39%
	SEB Pension Fund Index 100	0.49%	0.43%	0.40%	0.36%
	Swedbank Pension Fund K1990-1999 indeks	0.89%	0.72%	0.47%	0.33%
Medium-risk Funds	LHV Pensionifond Eesti	1.34%	1.61%	1.26%	n/a
	Luminor A Pension Fund	1.48%	1.40%	1.58%	1.39%
	Luminor B Pension Fund	1.38%	1.33%	1.55%	1.39%
	Pension Fund LHV L	1.34%	1.58%	1.01%	1.14%
	Luminor C Pension Fund*	0.78%	0.75%	0.97%	1.00%
	SEB Progressive Pension Fund	1.33%	1.27%	0.94%	1.00%
	SEB Energetic Pension Fund	1.41%	1.30%	0.92%	0.97%
	Pension Fund LHV M	1.08%	1.20%	0.84%	0.86%
	Swedbank Pension Fund K30	1.04%	0.92%	0.65%	0.66%
Low-risk Funds	Swedbank Pension Fund K60	1.10%	0.97%	0.67%	0.65%
	SEB Optimal Pension Fund	1.11%	1.07%	0.94%	0.99%
	Pension Fund LHV S	0.82%	0.70%	0.69%	0.62%
	Pension Fund LHV XS*	0.65%	0.60%	0.61%	0.53%
	SEB Conservative Pension Fund*	0.57%	0.57%	0.49%	0.50%
	Tuleva World Bonds Pension Fund*	0.50%	0.50%	0.47%	0.43%
Average (not weighted)		1.00%	0.98%	0.84%	0.80%

*Conservative pension funds

Source: Pensionikeskus.ee, 2021 (data as of 31.12.2020)



Pillar III – Supplementary pension

The supplementary pension is organised in two ways: as an insurance contract or as a supplementary pension fund. The way in which charges are disclosed to the client is significantly different for both.

For insurance contracts, no charges are publicly disclosed. The terms and conditions of an insurance contract cover the topic of charges; however, no charges are disclosed. Even if the charges are disclosed, the structure of fees is not transparent enough to allow the calculation of the total cost ratio. In most cases, the insurer is entitled to change contract fees and risk payments unilaterally during the insurance contract validity, with the obligation to inform the policyholder of the changes at least 30 days before such changes become effective. If the policyholder does not agree with the changes, he is entitled to terminate the contract.

The situation is different for a supplementary pension fund. All funds disclose most actual charges, which are presented in the table below.

Table EE 6. Supplementary Pension Funds' Fees				
Pension fund name	2017	2018	2019	2020
LHV Index Plus*	0.99%	0.85%	0.75%	0.42%
Luminor Aktsiad 100	1.64%	1.66%	2.12%	2.16%
Luminor Intress Pluss	1.41%	1.53%	1.84%	1.84%
SEB Active	1.97%	1.83%	1.78%	1.76%
LHV Supplementary	1.11%	1.08%	1.36%	1.40%
Swedbank V100	1.77%	1.75%	1.43%	1.39%
Swedbank V60	1.64%	1.60%	1.31%	1.31%
SEB Balanced	1.40%	1.31%	1.27%	1.30%
Swedbank V30	1.55%	1.48%	1.21%	1.23%
LHV Green Plus	-	-	-	1.03%
Tuleva III Pillar*	-	-	0.49%	0.43%
Swedbank V100 Index* (exit restricted)	-	-	0.90%	0.40%
Swedbank V60 Index* (exit restricted)	-	-	-	0.40%
Swedbank V30 Index* (exit restricted)	-	-	-	0.40%
AVERAGE	1.50%	1.45%	1.31%	1.11%

*Index funds

Source: Own research based on pensionikeskus.ee data (data as of 31.12.2020)

Compared to the previous years, the relative stagnation of charges can be observed for “traditional funds”, with charges actually increasing in many cases. However, the introduction of low-cost index funds helped to lower fees on average.



Taxation

Both funded pillars use the “EET” regime for taxation, which means that the contributions paid towards the pension schemes are tax-exempt. Returns achieved by respective pension funds are also tax-exempt and the benefits paid out during the retirement are subject to income tax.

Pillar II – Funded pension

Estonia is applying an EET taxation regime for Pillar II with some specifications (deductions) to the pay-out taxation regime, where generally the “T” regime is applied.

Taxation of the Fund

Income or profits of the Fund are not subject to taxes at the fund level.

Taxation of unitholders

Contributions to the Fund usually consist of two parts:

1. 2% withheld from the wages and other remuneration of a resident natural person participating in the mandatory funded pension system; in certain cases from the remuneration paid to a member of the management or supervisory body of a legal person; from the business income of sole proprietors after deductions relating to business and permitted in the Income Tax Act have been made, but annually from an amount not more than 15 times the sum of the minimum monthly wages for the taxable period; in certain cases from the remuneration or fees paid to a natural person on the basis of a contract for services, authorisation agreement or another contract under the law of obligations entered into for the provision of services, and
2. the amount added by the state, which equals 4% of the sum of the resident natural person's wages and other remuneration.

The above-mentioned 2% withheld from wages and other remuneration is tax-deductible, i.e., not subject to income tax. Specifications apply to the procedure of contributions in the years 2014 to 2017.

Exchange of a fund's unit for another unit of a mandatory pension fund and redemption of a unit to enter into an insurance contract for funded pension (pension contract) is not taxed. Insurance contracts for funded pension (pension contract) and pension fund units are not treated as financial assets for the purposes of income taxation, and taxation of income on these cannot be postponed.

During the pay-out phase, income tax is charged on payments made from the mandatory pension fund to the unit holder, the successor of the unitholder, as well as on payments made to the policyholder, an insured person or a beneficiary pursuant to a pension contract provided for in the



Funded Pensions Act. Thus, if a unitholder reaches retirement age, mandatory funded pension payments will be taxed together with the state (NDC PAYG pillar) pension. Estonian income tax rate since 2015 is 20%.

The taxation period for natural persons is the calendar year. In Estonia, the annual basic exemption (non-taxable amount) per year depends on the person's income, ranging from 6000 EUR for those earning up to 14 400 EUR per annum and none for those earning above 25 200 EUR per annum. The same rate applies also to pension payments.

Taxation of successors

Payments to a successor upon redemption of units are taxed with the income tax rate established by law. Transfer of units into a successor's pension account is not taxable.

Pillar III – Supplementary pension

The effective Income Tax Act stipulates EET regime (similar to Pillar II) where:

- I. Resident natural persons have the right to subtract the amounts paid to acquire supplementary fund units from their taxable income. The amount that is deducted may be up to 15% of the income earned in the taxation period, but no more than €6000.
- II. Income or profits of the fund are not subject to taxes at the fund level.
- III. Pay-outs from a supplementary pension fund are subject to income tax as follows:
 - a) 10% income tax if they are made under any of the following circumstances:
 - (i) after the unitholder reaches the age of 55, but not before five years have passed from the acquisition of the units;
 - (ii) in the event of the unit holder's full and permanent incapacity for work;
 - (iii) when the fund is liquidated.
 - b) In all other cases, pay-outs from the fund are subject to income tax valid at the time the pay-out is made.
- IV. Pay-outs made by an insurance company to the policyholder from the assets saved in the fund as lifelong pension payments after the policyholder turns 55 years of age are exempt from income tax.

Pension Returns

Pillar II – Funded pension

As was the case in much of the world, 2020 proved a very volatile year for Estonian pensions funds. With the global securities markets crashing sharply in February and March, amid the panic caused by the COVID-19 pandemic, but then recovering strongly in the following months. Overall, Estonian pillar II pensions funds finished the year with moderate positive returns, and the slightly negative



inflation pushed the average real returns for 2020 above 4%. A small error in the return computations, discovered for the previous edition, has been corrected.

In 2020, the Scandinavian Banks – Swedbank, SEB and Luminor – held close to 68% of the market between them, with Swedbank being the uncontested market leader, holding a 41% market share. The biggest local bank, LHV, has the second-largest pillar II market share, with 28%¹³¹. The only pension fund manager in Estonia that is not a wholly owned subsidiary of a bank is the relatively new mutual fund Tuleva, which entered the market in 2017, branding itself as a “social start-up” and advocating for passively managed low-fee funds. Although by the end of 2020, it held only about 4% of the second pillar market, its entry pushed all the other pension fund managers to offer passively managed funds as part of their range. This, in turn, has contributed significantly to the reduction of pension fund fees in the Estonian market.

Five asset managers offered 24 pension plans in Estonia in 2020, with the number set to increase to 25 in 2021, with Luminor launching a new pension fund called “Sustainable Future, Index”. This makes Luminor the last and final one of the II pillar pension fund providers in Estonia to launch a passively managed “index” fund, but only the second provider to explicitly market at least one of its II pillar funds as “sustainable” after the launch of “LHV Green” in March 2020. The pension plans (funds) can be divided into four groups in accordance with the investment strategy they use:

It should be noted that volatility and performance are closely tied to the structure of the portfolio and the degree of deviation from the benchmark. Active asset management, while being riskier, emphasises “stock-picking skills” to optimise returns and deliver overperformance to the market by the maturity (recommended holding period) of the product. To which extent this is happening in Estonian mandatory pension funds can be seen in the table below presenting the cumulative, inflation-adjusted returns. Returns are shown for funds for which at least two years of returns data is available, and the pension funds are ranked according to the annualised real return since the inception of the fund.

¹³¹ Finantsinspektsioon market overview 2020: https://www.fi.ee/sites/default/files/fi_eft_12_2020_eng.pdf



Table EE7. Annualised real (inflation adjusted) returns of Estonian II pillar pension funds

Pension fund name	1-year	3-years	10-years	Since inception
SEB Energetic pension fund index*	5.34%	6.97%	n/a	5.90%
Swedbank Pension fund K90-99 (Life-Cycle Strategy) *	6.90%	7.41%	n/a	5.77%
Tuleva World Stocks Pension Fund*	6.45%	6.18%	n/a	3.77%
Pension Fund LHV Index*	0.11%	4.19%	n/a	3.74%
Luminor Pension Fund A	3.71%	3.23%	2.02%	3.19%
SEB 100	3.35%	n/a	n/a	3.10%
Luminor Pension Fund A Plus	2.08%	3.42%	2.55%	3.03%
Swedbank Pension Fund K100	4.82%	3.13%	2.56%	2.97%
Pension Fund LHV L	5.83%	2.14%	1.24%	2.71%
SEB Energetic Pension Fund	4.14%	3.73%	1.41%	2.29%
Pension Fund LHV XL	8.44%	2.88%	1.72%	2.18%
Luminor Pension Fund B	3.00%	1.91%	1.04%	1.89%
Pension Fund LHV M	1.82%	0.40%	0.81%	1.00%
Swedbank Pension Fund K60	4.79%	1.85%	1.74%	0.99%
Luminor Pension Fund C	4.62%	1.52%	0.46%	0.78%
Pension Fund LHV S	1.03%	-0.92%	-0.13%	0.64%
SEB Optimal Pension Fund	2.56%	0.27%	-0.50%	0.46%
Pension Fund LHV XS†	1.31%	-0.69%	0.06%	0.28%
SEB Progressive Pension Fund	2.95%	0.81%	0.32%	0.06%
Tuleva World Bonds Pension Fund*†	3.55%	1.61%	n/a	-0.07%
Swedbank Pension Fund K30	4.40%	0.69%	0.50%	-0.52%
SEB Conservative Pension Fund†	1.59%	-0.94%	-1.20%	-1.20%
Swedbank Pension Fund K10†	3.09%	-0.49%	-0.46%	-1.64%

* Index funds

† Funds with a conservative strategy

Source: Own composition based on Pensionikeskus and Statistics Estonia data 2021 (data 31.12.2020)

As can be seen, four out of five of the passively managed (and low cost) index funds top the table in terms of returns since inception. While it must be noted that the return since inception is not fully comparable between the funds, given their very different start dates, then historical returns



in other markets support the likelihood that low-cost index funds may well continue to outperform higher-cost actively managed funds in the long term^{132,133}.

Unfortunately, as can be seen from the above table, there are several II pillar investment funds with significantly negative long-term returns. To put it plainly, these funds have eroded the real value of their clients' savings. While the percentages seem small, it is worth noting that, for example, a constant annual real return of -1.64% would decrease the purchasing power of a client's savings by more than half over 43 years (which corresponds to the number of years a 22-year-old would have to work until the current retirement age).

All the II pillar funds with negative real returns are funds in the legal category of "conservative" funds, discussed above in the "Pension Vehicles" chapter. This category of funds is subject to significant restrictions on investment strategy and is often recommended by providers to investors approaching retirement age as a way to prevent any significant negative effects of short-term shocks close to retirement age. However, even for funds pursuing such a strategy, negative real returns over the long term should be considered problematic. In particular, it cannot be expected that only people close to retirement age are to enrol into conservative pension funds. Indeed, until June 2019, people for whom it was mandatory to join the 2nd pension pillar, but did not themselves choose a pension fund, were randomly auto-enrolled into a fund with a conservative strategy. According to the Ministry of Finance¹³⁴, about 16 500 people who were auto-enrolled into a conservative pension fund between 2003 and 2019 had not changed fund as of 31st as of 31.12.2020.

As the types of underlying assets in which a fund invests are a key determinant of returns, the graph below demonstrates the overall portfolio structure of mandatory pension funds in Estonia. As asset classes such as money market instruments, direct loans, derivatives and other assets are either not invested at all or to a minimum degree, then the chart only shows such asset classes, which consistently make up at least 0.5% of the overall portfolio structure. However, it should be noted that, for example, a lack of direct investment of pension funds into real estate does not mean these funds do not have exposure to that asset class through investments in real estate funds (which in the underlying dataset would fall under the category "units of other investment funds").

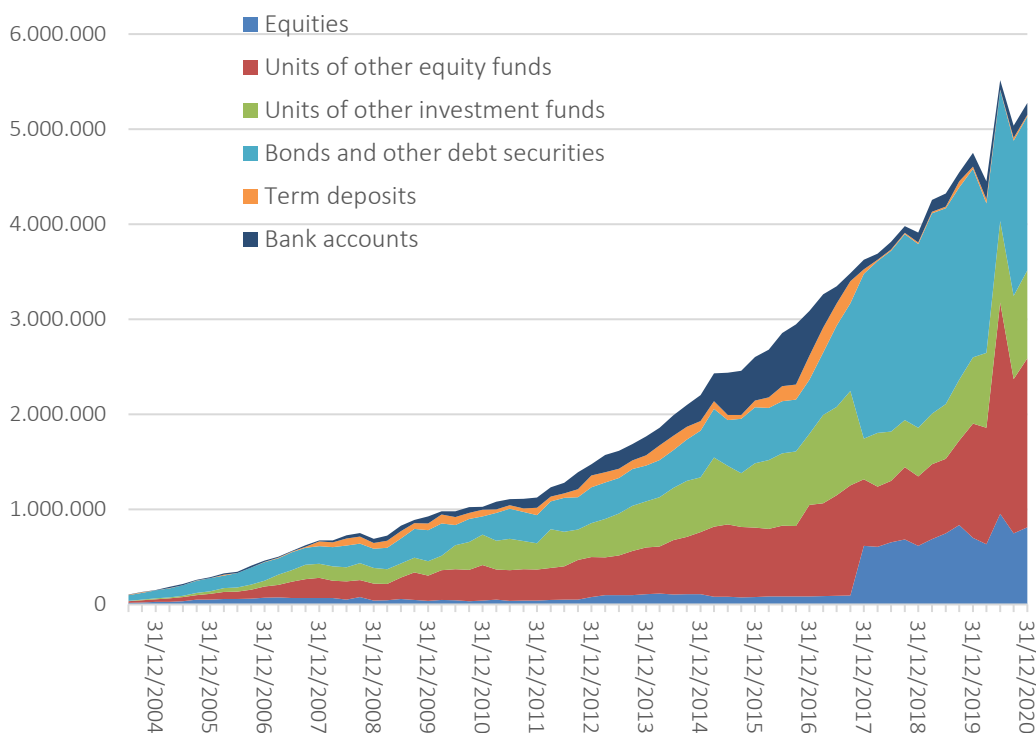
¹³² BF study on cost and performance of EU equity funds: betterfinance.eu/wp-content/uploads/BETTER1.pdf

¹³³ ESMA study on cost and performance of EU investment products: www.esma.europa.eu/sites/default/files/library/esma_50-165-1710_asr_performance_and_costs_of_eu_retail_investment_products.pdf

¹³⁴ Estonian Ministry of Finance pension statistics for 2020 (in Estonian): <https://www.pensionikeskus.ee/wp-content/uploads/page/rahandusministeeriumi-statistika/012021.pdf>



Graph EE8. Portfolio structure of mandatory pension funds (in thousands €)



Source: Own composition based on Finantsintspektsioon data (fi.ee), 2021 (data 31.12.2020)

The trend of growing investment into other UCITS was abruptly reversed in 2017 and direct bond (as well as equity investments) rapidly rose to dominate in the portfolio structure of mandatory pension funds. These sudden changes can be at least partially associated with regulatory changes. However, since mid-2018, investments into UCITS, especially equity funds, started to gradually grow again. This can be associated with the entry and increasing importance of passively managed index funds, since at the time of writing of this report, all index funds in Estonia invest exclusively into larger foreign index funds, rather than trying to replicate any index themselves. Money held by investment funds in banks, either in current accounts or savings deposits, has decreased significantly in the last five, likely due to negative interest rates.

Nominal, as well as real returns of mandatory pension funds in Estonia using a weighted average by assets under management (AuM) are presented in a summary table below.

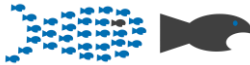


Table EE9. Nominal and Real Returns of Mandatory Pension Funds in Estonia

2003		6.84%		5.65%
2004		10.07%		5.27%
2005		13.43%		9.77%
2006		7.40%		2.30%
2007		6.25%		-3.48%
2008		-23.43%		-30.97%
2009		12.53%		14.40%
2010	Nominal return	9.42%	3.91%	4.00%
2011	after charges,	-4.44%		-8.53%
2012	before inflation	9.70%		6.06%
2013	and taxes	3.28%		1.23%
2014		5.10%		5.04%
2015		2.49%		2.66%
2016		3.35%		1.00%
2017		3.76%		0.00%
2018		-2.47%		-5.79%
2019		9.67%		7.88%
2020		3.76%		4.64%

Source: Own calculations based on Pensionikeskus data, 2021 (data 31.12.2020)

Considering the fact that the taxation in Estonia's mandatory (as well as supplementary) pension scheme is applied to the pay-out phase only and the income of each individual is tested, calculating the after-tax annual pension fund performance would lead to misleading results and only general assumptions of tax implications during the accumulation phase. Therefore, the after-income tax performance calculations have not been made in this study.

Additionally, we present the AuM weighted performance for periods of 1, 3, 5, 7 and 10 years and since the inception of the II pension pillar.

Table EE10. Performance of the Pillar II pension funds in Estonia

Holding Period	Net Nominal Annualised Performance	Real Net Annualised Performance
1-year	3.76%	4.64%
3-years	3.57%	2.10%
5-years	3.56%	1.46%
7-year	3.63%	2.13%
10-years	3.34%	1.31%
Since inception	3.91%	0.67%

Source: Own calculations based on Pensionikeskus data, 2021 (data 31.12.2020)



Pillar III – Supplementary pension

When analysing the performance of supplementary pension vehicles, only the funds should be considered. Insurance-based vehicles do not disclose this information on a periodical basis, as the market risk is shifted onto the insurer.

Supplementary pension funds do differ in their strategy, mostly based on the volatility of their portfolios. In most cases and compared to mandatory pension funds, the investment strategies of supplementary pension funds' portfolio managers are more aggressive. By large, the investment strategies do allow having up to 100% of assets allocated into equities and equity-based structured products. Some asset management companies have reacted to this and started to also offer supplementary pension funds with a conservative strategy.

Broadly, the recent tendencies are the same for the supplementary pension fund market as for the mandatory pension funds market, with more and more providers launching low costs, passively managed "index" funds, with the only difference being that most providers were considerably slower to launch supplementary index funds than mandatory ones. At the beginning of 2019, only LHV was offering a supplementary index fund. However, since then, Swedbank has launched three exit-restricted index funds, differing on the amount of equity exposure (named V100, V60 and V30, with the number in each name indicating the maximum equity exposure), and both Tuleva and Luminor launched supplementary index funds, named "Tuleva III Pillar fund" and "Luminor Sustainable Future, Index fund" respectively. This leaves SEB bank as the only supplementary pension fund provider in Estonia not to offer a III pillar index fund.

In addition, again much like in the mandatory funds market, investment funds marketing themselves as "sustainable" have entered the market, with LHV launching its Green Pluss fund in late 2020 and Luminor launching its own sustainable index fund (mentioned above) in early 2021.

In table EE11, the performance of supplementary pension funds is shown on a cumulative basis. Returns are shown for funds for which at least two years of returns data is available, and the pension funds are ranked according to the annualised real return since the inception of the fund.

The picture is relatively similar to that of mandatory pension fund returns. Those index funds included in the table, those for which there were at least two years of return data available by the end of 2020, occupy three out of the top-four slots in terms of average return since inception. Again, it should be noted that the time horizon of these funds is too short to draw definitive conclusions and that past performance does not guarantee future returns. However, the high fees for many of the best performing, actively managed III pillar funds, as shown earlier in table EE6, will make it difficult for these funds to keep up relatively high net returns in the long term, compared to funds with similar strategies and lower fees.



Table EE11. Supplementary pension funds' cumulative inflation-adjusted performance

Pension fund name	1-year	3-years	10-years	Since inception
Swedbank Pension Fund V100 Index (Exit Restricted) *	6.08%	n/a	n/a	10.74%
Luminor Aktsiad 100 Pension Fund	4.19%	4.57%	3.87%	5.01%
LHV Pension Fund Index Plus*	6.01%	5.73%	n/a	4.92%
Tuleva III Pillar Pension Fund*	6.46%	n/a	n/a	4.51%
LHV Supplementary Pension Fund	9.49%	3.50%	2.57%	3.49%
Swedbank Pension Fund V100	3.37%	2.40%	2.67%	1.73%
Luminor Intress Pluss Pension Fund	3.44%	1.51%	1.28%	1.28%
SEB Active Pension Fund	3.69%	4.12%	2.33%	0.99%
Swedbank Pension Fund V60	3.97%	0.75%	1.46%	0.13%
SEB Balanced Pension Fund	1.87%	-0.22%	-0.45%	-0.07%
Swedbank Pension Fund V30	3.85%	-0.46%	0.38%	-0.30%

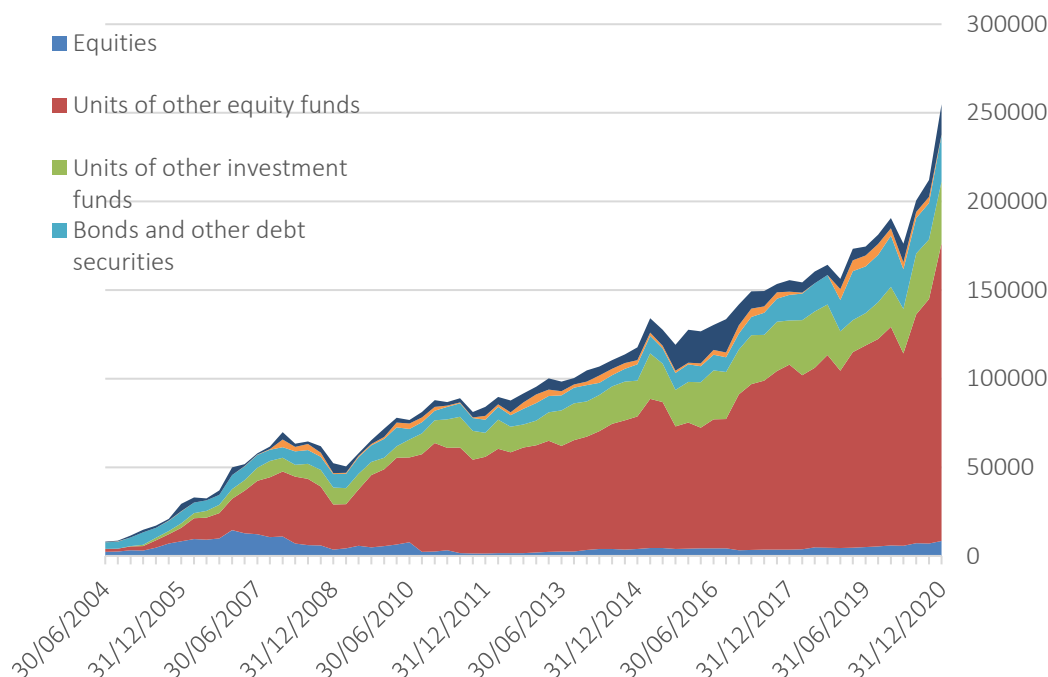
* Index funds

Source: Own composition based on Pensionikeskus data, 2021 (data 31.12.2020)

In terms of which assets supplementary pension funds invest in, the portfolios' structure differs significantly from that of mandatory pension funds, with a larger proportion is invested in equity-based structured financial products (mainly equity based UCITS funds), as can be seen from the graph on the following page.



Graph EE12. Supplementary pension funds' portfolio structure (in thousands €)



Source: Own composition based on Finantsintseptsioon data (fi.ee), 2021 (data 31.12.2021)

Similar to the mandatory pension funds, the portfolio structure of supplementary pension funds tends to change in favour of packaged products (UCITS funds, ETFs), confirming the trends of investing via financial intermediaries. Given that index funds appeared only in the last few years in the Estonian market and given the high fees traditionally charged by supplementary pension funds, this data points toward significant “closet indexing”. The case in the supplementary pension fund market appears even worse than in the mandatory pension fund market, given that the dominance of investments into other funds is even stronger, while management fees are even higher. The ratio of direct investments (equities and bonds) to investments in other UCITS has not been higher than 1 to 4 since at the end of any quarter since mid-2010, with the last quarter of 2020 closing with a ratio as low as 1 to 20.

While above this report looked at the returns of individual funds, the best picture of the functioning of the overall supplementary pension funds system is best understood from looking at the long-term returns of all funds, weighed by their assets under management.



Table EE13. Nominal and Real Returns of Supplementary Pension Funds in Estonia

2003		9.40%		8.21%	
2004		13.03%		8.23%	
2005		23.78%		20.12%	
2006		15.57%		10.47%	
2007		8.37%		-1.36%	
2008		-40.40%		-47.93%	
2009	Nominal	21.99%		23.87%	
2010	return	14.21%		8.79%	
2011	after	-8.00%		-12.08%	
2012	charges,	11.76%	4.93%	8.12%	1.54%
2013	before	5.41%		3.36%	
2014	inflation	7.69%		7.62%	
2015	and taxes	2.93%		3.10%	
2016		4.68%		2.33%	
2017		6.05%		2.29%	
2018		-6.51%		-9.83%	
2019		15.63%		13.84%	
2020		3.63%		4.51%	

Source: Own calculations based on Pensionikeskus.ee data, 2021 (data as of 31.12.2020)

Another view on the performance allowing the comparison across the EU countries and over time is presenting the nominal as well as real net performance according to the different periods.

Table EE14 Performance of Pillar III Pension funds in Estonia		
Holding Period	Net Nominal Annualised Performance	Real Net Annualised Performance
1-year	3.63%	4.51%
3-years	3.86%	2.37%
5-years	4.46%	2.34%
7-year	4.69%	3.19%
10-years	4.10%	2.04%
Since inception	4.93%	1.54%

Source: Own calculations based on Pensionikeskus.ee data, 2021 (data as of 31.12.2020)

As exemplified by the two above tables, despite higher fees, III pillar funds have, on average, provided higher returns than II pillar funds. One likely cause of this has likely been the much greater concentration of assets in more “aggressive”, equity-heavy funds and fewer restrictions (compared to mandatory pension funds) on investment strategies and the extent to which supplementary funds can invest into equities. This difference in regulation was particularly large at the beginning



of the multi-pillar pension system in Estonia but has been decreased gradually through subsequent reforms of the II pillar.

Conclusions

Estonia, as an early pension system reformer, introduced in 2003 a typical multi-pillar pension system that combines unfunded state schemes, as well as mandatory and voluntary fully funded pillars. Different types of pension vehicles in Pillar II (as well as Pillar III) allow savers to choose from a wide variety of investment strategies. Lower transparency in fee history contrasts with the high transparency of performance disclosed on a daily basis. The exception is Pillar III insurance contracts, where no information about performance or fees is publicly disclosed. This resulted in an inability to confront the nominal as well as real returns of insurance contracts with other options available to Estonian savers.

Performance volatility of most pension vehicles is relatively high. However, Estonian savers tend to accept higher risk with regard to their savings. Pillar III vehicles are a typical example of highly volatile pension vehicles. Yet after the financial crisis, pension asset management companies also started to offer more conservative funds for Pillar III savers.

Concerning the pension funds' portfolio structure, one trend is clear. Portfolio managers are steadily replacing direct investments into bonds and equities with structured financial products. Thus, the question of potential future returns when using financial intermediaries should be raised. Most of the pension funds can be seen as passively managed, which raises the question of high fees.

A new trend emerged in 2016 and continued into 2020 – the introduction of low-cost indexed pension funds for both pension pillars, which could deliver higher value to savers due to lower charges compared to peers. The competitive pressure from these new low-cost funds has led to an overall decrease in fees for II pillar funds, which should increase the ability of the funds to deliver above-benchmark performances to their clients in future years. Unfortunately, high fees still remain a problem for pillar III funds.

Overall, achieving an adequate gross salary replacement ratio in retirement remains a challenge in Estonia. Overcoming this challenge has perhaps been made more difficult by a recent reform that allows savers to withdraw from the previously mandatory second pillar and liquidate any savings they had accumulated in it.



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Pension Savings: The Real Return

2021 Edition

Country Case: France

Résumé

Le système français de retraite continue à reposer majoritairement sur les régimes d'assurance vieillesse de base et complémentaire par répartition (Piliers I et II), avec un taux moyen de remplacement du revenu d'activité de 65% en 2019,¹³⁵ et une valeur totale des actifs représentant 11% du PIB en 2020.¹³⁶ Malgré une allocation d'actifs plutôt dynamique, les plans d'épargne-retraite entreprise ont eu un rendement annualisé réel de +1.3% en 2020 et +0.81% en 21 ans entre 2000-2020 (+18.5 en cumulé). L'assurance vie – le produit individuel de loin le plus utilisé pour l'épargne retraite par les Français – a eu une performance très contrastée : +40,5% (+1,6% en moyenne annuelle) pour les fonds en euros (à capital garanti) encore dominants, mais -13,9% (-0,7%) pour les contrats en unités de compte qui sont davantage promus et se développent plus rapidement. Les produits individuels dédiés spécifiquement à l'épargne retraite (PERP, Préfon, Corem, etc.) sont beaucoup moins développés, et ont des performances plus opaques et le plus souvent plus mauvaises.

Summary

The French pension system continues to rely heavily on the “pay as you go” mandatory Pillar I and Pillar II income streams, with an aggregate replacement ratio for pensions of 65%,¹³⁷ and a total value of retirement assets of 11% of the French GDP in 2020.¹³⁸ Despite a rather dynamic asset allocation, corporate pension plans have a 20-year average annual real net return of +1.3% in 2020 and +0.81% annually in the 21 years between 2000-2020 (+18.5% cumulative). Life insurance products - by far the most widely used personal product for pension purposes by French savers - had very contrasted long term pre-tax real returns: +40.5% (+1.6% annual average) for the still dominant capital guaranteed ones, but -13.9% (-0.7%) for the more promoted and faster growing unit-linked ones, despite very positive listed stocks and bonds returns. The personal products

¹³⁵ Voir Tableau GR9(B) du General Report, dans la section concernant la France - *aggregate replacement ratio for pensions*, selon les données d'Eurostat.

¹³⁶ Voir Tableau GR10 du General Report, selon les données d'OECD *Preliminary Data 2020 (2021)*.

¹³⁷ See Table GR9(B) in the General Report, in the section concerning France – *aggregate replacement ratio for pensions*, according to Eurostat data.

¹³⁸ See Table GR10 of the General Report, based on OECD *Preliminary Data for 2020 (2021)*.



specifically dedicated to pensions (PER, PERP, Préfon, Corem, etc.) are much smaller, and their performances are less transparent and most often poorer.

Introduction

Using the World Bank multi-pillar structure, the French pension system mainly relies on:

- **Pillar I** – the public pension, a defined benefit (DB) Pay-As-You-Go (PAYG) scheme, which is managed by the State and comprises the basic pension insurance;
- **Pillar II** – the occupational retirement provision (complementary component), also DB and privately managed and funded by both employer and employee contributions, to which participation and contribution rates are mandatory;
- **Pillar III** – composed of the voluntary retirement savings plan, also privately managed, to which participation is optional, and which can be set up by the employer (voluntary occupational plans) or by providers for the pension saver on his own (voluntary personal plans).

Introductory table: French Pension System Overview		
Pillar I	Pillar II	Pillar III
Mandatory State Pension	Mandatory Private Pension	Voluntary Personal Pension
Basic pension insurance	Supplement of the 50% pre-retirement income target of Pillar I	Divided into different retirement savings financial products
Divided into multiple sub-categories of pensions regimes for private sector, private service and special professions.	The complementary component contributions are collected by different designated paritarian institutions, depending on the sector.	Voluntary pension products are tax-incentivised in order to support participation in the third pillar and are mostly defined contribution
DB PAYG	DB PAYG	DC
Quick facts		
A relatively high old-age dependency ratio of 33.7%		
An average pre-retirement income replacement ratio of 65% (2019)		

Sources: DREES, Table GR9(B) in the General Report

Summary return table - Average real net returns of French pension savings (before tax)					
	1 year	3 years	7 years	10 years	whole reporting
Average real net returns	2020	2018-2020	2014-2020	2011-2020	period
Life insurance - CG	1.11%	0.37%	1.89%	1.65%	1.63%
Life-insurance - UL	1.96%	0.24%	0.97%	1.04%	-0.71%
Corporate plans	1.35%	0.61%	1.71%	1.61%	0.81%
Public employee PS**	0.69%	-1.14%	-0.97%	-1.33%	-1.41%

Sources: Tables FR3, FR5, FR7; CG = capital guaranteed; UL = unit-linked; PS = pension schemes;

** return proxy measure*



Pillar I

The French state pension system (Pillar I) is divided into several sub-categories of pension regimes for:

- Private sector employees;
- Public service; and
- Special professions (such as the army or hospital workers).

Each pension regime is further organised into two sub-components: (1) *The base pension insurance*, which incorporates both the non-contributory pillar 0 and the defined benefit Pillar I to which all employees and self-employed individuals must contribute; and (2) *The complementary pension insurance*, which supplements the basic state pension allowance (Pillar II).

To benefit from the basic pension allowance (*assurance vieillesse*) of the French social insurance system, a person must reach the standard retirement age, which is currently not the same for all cohorts, thus birth-date dependent.¹³⁹

The full pension entitlement from Pillar I is calculated by multiplying the mean annual gross income,¹⁴⁰ by the correction coefficient,¹⁴¹ and by the insurance coefficient, the latter being calculated by dividing the total insured period (limited by a set ceiling in the form of a maximum insurable period) by the maximum insurable period (thus, it cannot be higher than 1).¹⁴²

Pillar II – occupational pensions

The French Pillar II is a mandatory defined benefit, PAYG and privately managed pension scheme, designed to supplement the 50% pre-retirement income target of Pillar I.¹⁴³

The complementary component contributions are collected by different designated paritarian institutions, depending on the sector. The largest part of complementary mandatory contributions, those for private sector employees, are collected and redistributed by AGIRC-ARRCO (employees' pension regimes association). Employer and employee participation in Pillar II is mandatory and usually set up through collective agreements.

¹³⁹ The standard retirement age for the basic allowance and for the full pension entitlement starts at 60 and 65 years, respectively (for those born before 1951) and grows by 5-months for each later year of birth until 1954. This is to say, all persons born after 1 January 1954 have a standard retirement age of 62 years (for the minimum allowance) and 67 years old (for full entitlement) – see

<https://droit-finances.commentcamarche.com/contents/1163-age-de-depart-a-la-retraite-en-2018>.

¹⁴⁰ Which is the average of the highest 25 annual gross salaries.

¹⁴¹ The correction coefficient, in fact, referred to as a *rate* which can represent a maximum of 50% of the social security income limit.

¹⁴² CNAV, "Elements de calcul de la pension" <https://www.statistiques-recherches.cnnav.fr/les-elements-de-calcul-de-la-pension.html>.

¹⁴³ This is because, as indicated above, the full Pillar I pension entitlement at retirement is calculated by multiplying the average annual gross income and the insurance coefficient (which should be 1 in normal conditions) with a correction coefficient, which in normal conditions is set at 50%.



In France, Pillar I and Pillar II should cover 100 % of employees receiving a salary.

Pillar III – voluntary occupational and personal plans

The third pillar of the French pension system is composed of the voluntary pension plans. It was reformed in 2019, with the “PACTE” Law creating the “PER” (“Plan d’Epargne Retraite” or Pension Savings Plan) divided into:

- A. occupational PERs are:
 - Collective corporate PERs (Corporate plans, for private sector employees at large, which are set up by employers either through DC pension funds, which are progressively replacing the existing “PERCOs”; employee participation is voluntary;
 - “Mandatory” collective corporate PERs are insurance regulated PERs which are mandatory for employees or a category of employees, once the employer has set it up. They are replacing the existing PERE.
 - Existing professional or sector-specific personal plans, such as the *Contrats Madelin* (for self-employed), *Madelin Agricole* (for the agricultural sector) or the *CRH* (for Public Health sector,) and *Préfon* (mainly accessible to public employees) have or will be converted into individual PERs.¹⁴⁴
- B. Personal pension products unrelated to occupation
 - Individual PER (People’s Retirement Saving Plans), sub-divided into insurance - regulated contracts with capital guarantee (including Préfon and Corem, see below) or linked to units in collective investment schemes (UCITS or AIFs), and into securities accounts. The insurance regulated individual PERs are progressively replacing the “PERPs” (“Plan d’Epargne Retraite Populaire” or “People pension savings plan”) and “Contrats Madelin” (for self-employed workers): the existing balances can be transferred to PERs, and no new such plans can be opened since 1st October 2020.

The PER can be offered both by insurers and by banks / asset management companies, and pay-out option will be free to choose between annuities and capital withdrawals. All PERs are freely transferable to other PERs. However, the new law lifted the 15-year ban on inducements for unit-linked personal pensions in order to try to boost their promotion. French savers organization FAIDER estimates that this will cost pension savers at the very least €20 billion over the average life of the PER contract¹⁴⁵.

¹⁴⁴ *Fonpel, Carel-Mudel* and *RMC* are special pension vehicles and not covered by this report.

¹⁴⁵ *Faider.org*, 6 June 2019



The new French Pension savings Plan (PER) default option

Interesting innovation: the one and only default option for the accumulation phase is one simple “life cycle” one:

The share of low investment risk assets is at a minimum:

- 20% of total assets of the plan starting 10 years from the liquidation date envisaged by the Plan participant;
- 50% starting 5 years from then;
- 70% starting 2 years from then.

Voluntary pension products are tax-incentivised in order to support participation in the third pillar and are mostly defined contribution.

Life insurance contracts and bank accounts still represent the two largest blocks of financial savings products in portfolios held by French households. Total outstanding insurance-regulated savings reached €2,132 billion in 2020, i.e., 38% of total financial savings. Direct bond holdings continued to shrink to 0.7% of total.

Table FR 1. Financial assets of French households at the end of 2020

	% of total financial savings	2020/2019
Currency and bank deposits	32.2%	4.9%
Investment funds*	4.5%	7.6%
Life insurance & pension funds	38.0%	-2.3%
Direct investments (direct holdings of bonds & shares)	25.3%	-3.6%
Total	100.0%	

* 11.9% when including "units" of insurance-regulated products

Source: Banque de France

Pension Saving Vehicles

Life insurance contracts

Ordinary life insurance contracts are not specifically designed for pension purposes. However, retirement is the main objective of French savers who subscribe to these insurance contracts, and they are by far the main long-term financial savings products used in France.

From 2013 to 2020, contributions to unit-linked contracts rose more than those to “*contrats en euros*” (capital guaranteed contracts – or misleadingly called “with profit policies” in the UK) and their share in total mathematical reserves increased from 17% to 23%¹⁴⁶. This increase is due

¹⁴⁶ BETTER FINANCE estimate, as of August 2, 2021, neither the French regulator nor the French Insurance Trade Association had released their key figures for the year 2020.



partially to capital gains, but more from net inflows (contributions minus benefits). Unit-linked contracts accounted for 30% of inflows to life insurance in France in 2013 and 34% in 2020.

Table FR 2. Life insurance mathematical provisions (in € billion)			
	Capital-guaranteed contracts	Unit-linked contracts	All contracts
2013	1,195	239	1,433
2014	1,235	259	1,494
2015	1,269	282	1,549
2016	1,282	309	1,591
2017	1,28	352	1,632
2018	1,298	341	1,639
2019	1,389	394	1,783
2020	1,376	413	1,789
'19/'20	-0.9%	4.8%	0.3%

Source: FFA, Banque de France for 2020 UL contracts

In 2014 a new life insurance contract, the *Eurocroissance*, was created. The contract does not guarantee the invested capital in case of withdrawal until eight years following subscription. This new type of contract aims to incite savers to accept a higher level of risk in the short-term for potential better long-term return, for example by investing more on equity markets. By the end of 2019, those contracts amounted to only €3.1 billion of mathematical provisions,¹⁴⁷ probably at least partly due to the ultra-low interest rates, making it challenging to generate a decent return. Since 2016, insurers are allowed to transfer unrealized capital gains from their general assets covering capital guaranteed contracts to the *Eurocroissance* contracts to boost returns.

Personal pension plans

Individual “PERs”

Launched since October 2019, reached € 31.7 billion in assets and 2.8 million participants by the end of that year (but respectively 84% and 74% of which from transfers from older pension plans).

“People pension savings plan” (PERP¹⁴⁸)

PERPs were launched in 2004 as insurance-regulated personal pension plans. Thanks to higher contributions and paid benefits remaining low, mathematical provisions in PERP personal pension plans increased from €7.5 billion in 2011 to € 20.9 billion in 2020. However, the share of the PERP as part of the overall savings of French households remains very small.

The number of subscribers increased slowly from 2011 to 2019 from 2.1 to 2.5 million, (+18%), and flat in 2018 and 2019 due to an exceptional ban on tax deductibility and to the launch of the PER that year.

¹⁴⁷ Source: FFA

¹⁴⁸ “Plan d’épargne retraite populaire”. Figures source: FFA, French Federation of Insurance.



“Contrats Madelin” (for self-employed individuals)

Mathematical provisions related to “*contrats retraite Madelin*” decreased by 3.8% to 39 billion in 2020.¹⁴⁹ There were 1.363 million outstanding contracts at the end of 2019 (+2.0%). The “*contrats Madelin*” are widely used by self-employed individuals because the PAYG system is less generous (and contributions lower) than for employees.

“Contrats Madelin agricole”

Mathematical provisions of “*contrats Madelin agricole*” (plan for persons working in the agricultural sector) decreased by 1.6% in 2020 to € 6billion. 326,000 farmers had an open contract at the end of 2018.

Personal pension products exempted from governance rules

All personal pension products in France have to be subscribed by savers associations in which the participating pension savers are members of the General assembly, have the right to vote at the general assembly, have the right to propose resolutions to the general assembly. However French Law exempts the three biggest ones (Préfon, Corem and CRH) from all these governance rules protecting pension savers’ rights. They could also transform themselves into PERs as soon as 2019 without requiring the approval of their participants as for any other pension savings product.

Préfon

Préfon is a deferred annuity plan open to all current and former public employees and their spouses, had 399,500 participants at the end of 2019 (flat from 2018). Its assets under management reached € 18.2 billion (market value) at the end of 2020, up from €17.3 billion at the end of 2019.

Corem

Corem is also a deferred annuity plan open to everyone but so far mainly subscribed to by civil servants, had 380,674 participants at the end of 2020 (down from 397,515 in 2016). Its assets under management grew from € 7.6 billion at the end of 2012 to € 11.3 billion (market value) at the end of 2020¹⁵⁰.

CRH

CRH (“*Complémentaire Retraite des Hospitaliers*”), a deferred annuity plan¹⁵¹ open to all public employees from the public health sector and their spouses, had 353,000 participants in 2019. Its technical reserves amount to €3.3 billion in 2018.¹⁵² We could not find more precise publicly available information.

¹⁴⁹ Source: Federation Francaise de l’Assurance (FFA)

¹⁵⁰ Combined participants and assets of Corem and other smaller pension plans managed by the same provider (UMR).

¹⁵¹ Rights acquired before mid-2008 do not provide annuities guaranteed for life, but only for 10 to 15 years.

¹⁵² Règlement intérieur CRH 2020 article 18.



Collective deferred annuities

In total, mathematical reserves grew a little, from €118.8 billion to 130.4 billion from the end of 2017 to the end of 2020.

For insurance-regulated corporate defined contribution plans under “Article 83” of the French tax code (“PER Entreprises” or PERE), mathematical reserves stood at € 69 billion at the end of 2020.

For insurance-regulated defined benefit plans (“Article 39” of the French tax code), mathematical reserves stood at € 40 billion at the end of 2020.

Corporate long-term savings plans

The total assets of French defined contribution corporate savings plans (PEE¹⁵³ + PERCO + collective PER) increased by 1.5% in 2020 to € 147.0 billion. The number of members in those plans increased to 11.2 million people in 2020.

The “*Plan d’Épargne Retraite Collectif*” (PERCO), exclusively dedicated to pension investments, is still less “mature” than other pension plans as it started in 2004 but continues to grow quite rapidly. Since October 2019, PERCOs have begun to be converted into the new “collective “PERs”. Assets under management amounted to € 22.5 billion at the end of 2020 (+12.5% over 2019). 3.2 million employees had a PERCO or collective PER at the end of 2020 and 172,000 companies propose this type of plan to their employees.

PERCO and collective corporate PER are quite similar to the US Corporate pension plans (“401k”) in their design. However, it is generally not invested in general purpose investment funds like UCITS, but mostly in specifically dedicated French-domiciled alternative investment funds (AIFs) called *Fonds Communs de Placement d’Entreprise* (FCPEs).

Charges: often opaque, high and rising

Available data on average annual charges for savings products are scarce in France.

- **Investment funds** – According to AMF¹⁵⁴, Overall annual fees for equity funds were 1.55% on assets, and 1.26% overall in 2019, and they would have gone down slightly from previous years. However, these averages are not asset-weighted, and include both “retail” and “institutional” funds. But the majority of investment funds offered to French retail investors are via insurance contracts’ “units”. For equity funds offered via those, annual total charges reached 2,03% on average in 2020 and even 2,28% for flexible funds¹⁵⁵: much

¹⁵³ PEE: « *Plan d’épargne entreprise* » is a corporate savings plan where savings are typically blocked for a minimum of five years.

¹⁵⁴ La lettre de l’Observatoire de l’épargne de l’AMF - n° 42 – mars 2021

¹⁵⁵ Good Value for Money, newsletter nr. 40, May 2020



more expensive than the overall French fund market estimated by AMF. But the full “units” cost for the majority of retail investors was even higher: respectively 2,93% and 3,18%, when including the annual wrapper charge. These charges are very high: the average ongoing fund charge for all UK domiciled active funds (both equity funds and all other funds) was only 0.92 % in 2015 (1.38% for retail funds and 0.69% for institutional ones).¹⁵⁶

- **Insurance capital-guaranteed contracts (“fonds en euros”)** - Since 2018, the Supervisor ACPR publishes their annual average charge, based on a sample of 92 insurers: 0.62% of assets for 2020¹⁵⁷, but that does not include:
 - profit sharing taken by insurers (0.31% in 2019¹⁵⁸),
 - underlying fund fees
 - and the impact of any entry and exit fees.
- **Unit-linked insurance contracts** - Neither ACPR nor the industry trade body disclose any information on their total charges, which cumulate at least two annual fees: the units’ (investment funds) charges plus those of the wrapper contract itself. Contract fees alone account for 0,90% to 0.95% in fees on average per annum on assets according to private surveys¹⁵⁹. Overall, for unit-linked insurance contracts invested in equity funds, the total average fees are estimated at 2.93% per annum, 2.08% when invested in bond funds, and 3,18% when invested in flexible multi asset funds¹⁶⁰. Multi asset funds and equity funds combined account for about 70% of all funds in French unit-linked contracts¹⁶¹. The majority of investment funds held by French households are through these unit-linked insurance contracts. These actual total annual charges are never disclosed to prospects and retail clients either.

And these fees do not include the “delegated management” fees which are growing as more and more savers are directed by insurers and distributors to this “delegated management” in unit-linked contracts. There are not aggregate data on the amount of this additional asset-based fees, but it is often and additional 0,30% or more every year on assets.

¹⁵⁶ UK Financial Conduct Authority – Asset Management Market Study, November 2016
<https://www.fca.org.uk/publication/market-studies/ms15-2-2-interim-report.pdf>

¹⁵⁷ ACPR, 2021

¹⁵⁸ Source: ACPR, 2020 (did not publish the data for 2020)

¹⁵⁹ Dossiers de l’épargne n°152, 2014. A more recent evaluation from Goodvalueformoney.eu (2020) mentions 0,90% but on the rise as newer contracts tend to charge 1,00% or more.

¹⁶⁰ Good Value for Money, newsletter nr. 40, May 2020

¹⁶¹ AMF, cartographie des risques, 2021



The total average fees of around 3% per year or more also seem to be rising further. For example, the biggest life insurance subscribing association announced in 2019 an increase of its units-linked contract annual fees by 35 basis points¹⁶².

- **Personal and occupational pension plans** - There are very few data available on their charges as well as for corporate DC plans. When available, the data tell us that they are on average rather high. For example, Préfon charged 0.54% on assets for asset management plus 3.90% entry fee in 2012. For unit-linked personal pension products, the French government has lifted the 15-year ban on commissions in 2019, when deciding to end “PERPs” for “PERs” (see above, previous sections). This massively increases their charges. FAIDER estimates the cost impact for French pension savers to be a minimum of € 20 billion over the life of these personal pension plans¹⁶³. A recent study of the National Public Advisory Committee CCSF¹⁶⁴ estimates that the annual ongoing costs of the new equity “units” are alone close to 3%, of which close to 0,90 % are coming from commissions (“inducements”). This represents an increase of more than 40% in annual charges for the new PER compared to its PERP predecessor, for which commissions on “units” if any have to be credited back to the PERP itself, i.e., to its participants.

This average annual fees of around 3% compares very unfavourably with the annual 1% fee cap of the basic option of the future PEPP (“Pan-European Personal Pension”) created by the EU, and with the annual total charges of US IRAs (Individual Retirement Accounts, which are very often well below 1%.

The CCSF report also points to the opacity on these total annual charges and recommends the public disclosure of total annual charges of pension unit-linked PERs, i.e., the sum of the underlying “units’ costs and the wrapper fee. This had been obtained by FAIDER back in 2005 but this disclosure rule was repealed two years later by the French Authorities.

Since 2018, the French Supervisor ACPR publishes the average annual charges for the capital guaranteed funds in the personal and occupational insurance regulated pension products: 0.47% for 2020. But, like for life insurance, this does not include the profit sharing for the provider (0.24% on average in 2018), the underlying fund fees and the impact of entry and exit fees. Exit fees can be very heavy on annuities, typically 1 to 3% of their amounts.

Taxation

For PERs, PERPs and Public Employee schemes (*Préfon*, *Corem*, *CRH*), contributions are deductible from taxable income up to 10% of total professional income with a tax deduction ceiling (€41,136

¹⁶² Afer.fr, 2019

¹⁶³ Faider.org, June 2019

¹⁶⁴ CCSF – Rapport sur les nouveaux plans d’épargne retraite, July 2021



in 2021). For *Madelin* contracts, the ceiling is higher. Annuities are taxable like pensions with a 10% fixed haircut (with a ceiling of € 3,850 in 2021). They are also subject to a social contribution, currently limited to 9,10% (7.4% in 2017). In some cases, capital withdrawals from PERPs are allowed up to a 20% maximum of total pension rights. In those cases, the current taxation is 7.5% income tax plus social contributions of 17.2%.

Since August 2012, the taxation of employers' contributions to corporate savings plans (PEE and PERCO) and defined contribution plans ("Article 83") increased from 8% to 20% (with some exceptions).

The general rise in taxation of savings also impacted life insurance. In 2012 the rate of "social contributions" increased from 13.5% to 15.5%¹⁶⁵, and again in 2018 to 17.2%.

The taxation of all long-term financial savings has again been globally increased from 2018 on, with the creation of the "PFU" or "flat tax". It amounts to 30% for most investment income except for life insurance contracts after eight years (24.7%, or 17.2% for annual divestments below € 4,600 for an individual, and below € 9,200 for a couple). And direct long-term investments in equities are no longer taxed at a lower rate than short term ones: the negative impact of inflation on long term investment values is no longer taken into account except for real estate investments.

On the other hand, the wealth tax has been abrogated on all financial assets from 2018 on (but not on real estate).

Pension Returns¹⁶⁶

Shares and bonds (direct investment in securities)

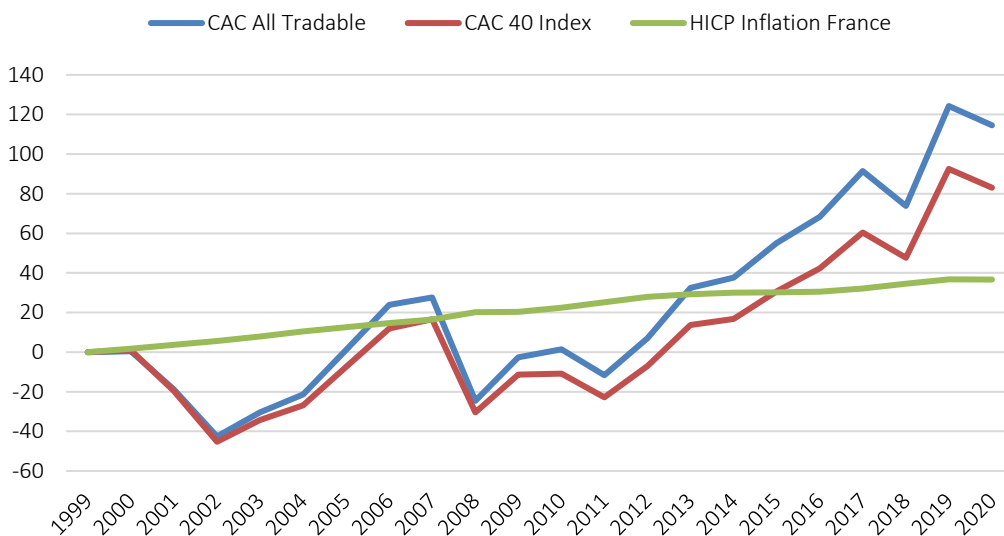
In 2020, the French equity market (dividends reinvested) suffered the impact of the covid crisis: - 4% (CAC all tradable GR index). Over the last 21 years (end 1999 to end 2020), it returned a total of +115% (+3,7% annual average), while large capitalisations (CAC 40 index, dividends reinvested as well) returned notably less, +83% (2.9% annual average), demonstrating the very strong over-performance of small and mid-cap equities. Inflation over the same period was 37% (1.5% annual average). So, despite two sharp downturns (2000-2002 and 2007-2008) plus other drops in 2011, 2018 and 2020, French equities delivered positive nominal and real returns over the whole period. However, the real (after inflation) performance of the most liquid stocks (CAC40) started to be positive only since 2015.

¹⁶⁵ Loi de Finance rectificative du 29 Février 2012: LOI n° 2012-354 du 14 mars 2012 de finances rectificative pour 2012

¹⁶⁶ Real Returns in the French case are calculated using Eurostat French HICP monthly index annual rate of change (December to December)

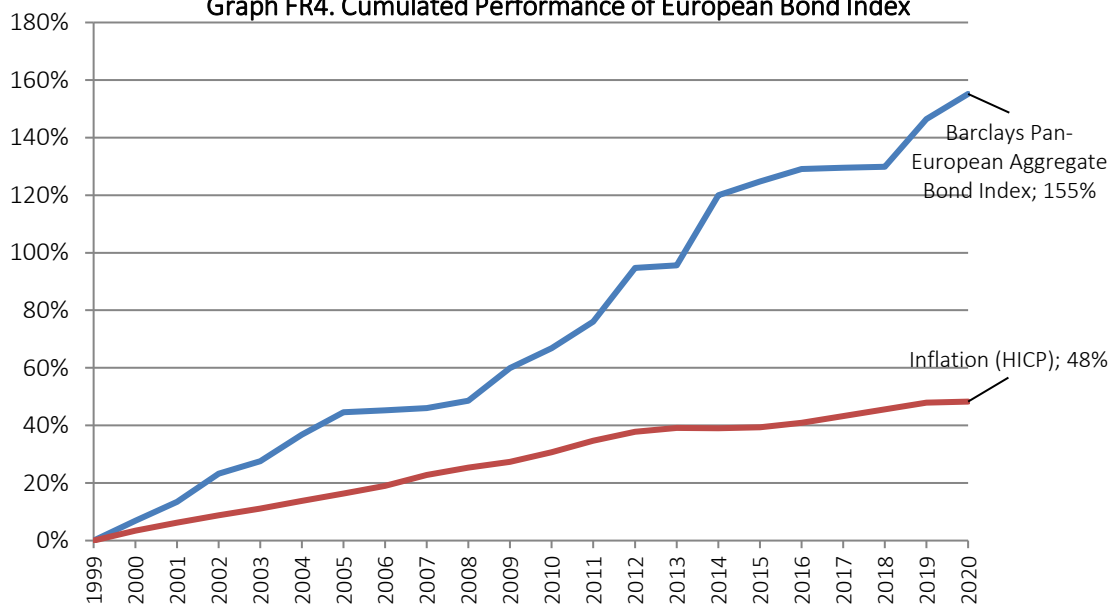


FR3. French Equity market performance: broad market vs. big caps market 21 years (1999-2020)



Sources: Euronext and Eurostat

Graph FR4. Cumulated Performance of European Bond Index



Sources: Barclays Pan-European Total Returns & Eurostat HICP EU28 (midx)

The performance of European Bond markets increased sharply again in 2020, thanks to the quantitative easing policy of the European Central Bank. Overall, capital markets delivered



significant positive returns¹⁶⁷ over the last twenty-one years despite two major downturns in equity markets, in large part thanks to the continuous decline of interest rates and its positive impact on the value of bonds.

Life insurance contracts – capital guaranteed

The after-tax real returns of guaranteed life insurance contracts rebounded to +0.8% in 2020 after two years of negative returns, due to a sharper drop of inflation (to zero) than of nominal returns. Such returns should be assessed from a long-term perspective: the last data available from the industry trade body indicate that outstanding life insurance contracts were open for 11 years on average. These contracts – although of a long-term nature – are invested only 8% in equities¹⁶⁸. The perspective for 2021 is not favourable with a further decline in nominal returns and a resurgence of inflation.

Over a 21-year period, cumulated after-tax real returns of guaranteed life-insurance contracts totalled 24%, and varied from a maximum annual performance of +3.1% in 2001 to a negative performance of -0.6% in 2019.

In the most favourable case, where savers do not redeem more than €4,600 per annum and at least eight years after the first subscription (see Taxation section above), real returns after tax are slightly better (+1.1% in 2020 and 31% cumulated over the last 21 years).

These returns do not take into account the changes in the insurers' reserves for profits sharing ("Provisions de participation aux bénéfices"), which are legally required and are credited with the capital gains on sales of non-fixed income assets. They have to be returned to the life insured within 8 years of their inception. They are then included in the annual return. French regulators allowed insurers to book most of these profit-sharing reserves into their shareholders' funds for prudential purposes from 2019 fiscal year. This is not an incentive for insurers to use these large and growing profit-sharing reserves to offset the poor current returns, quite the contrary. Indeed, the outstanding amounts of these reserves stood at 4.3% of total mathematical reserves end of 2018 and have increased again since then to reach 5.1% in 2020.¹⁶⁹

¹⁶⁷ Of course, these market returns are without charges and without taxes. The closest retail investment products would be low-cost index funds using the same indices over the same period. As a reference, total annual charges on the Lyxor CAC40 ETF index fund are 0.25%, and 0.25 % as well on the Vanguard Euro Government Bond Index Fund.

¹⁶⁸ Source: goodvalueformoney.eu, 2019

¹⁶⁹ Source: ACPR, Analyses et synthèses n° 126, 2021



Table FR 5. The returns of French life insurance contracts – capital guaranteed (%)

	Disclosed return	Real return before tax	Real return after tax	Real return after tax*
2000	5.3	3.5	2.7	3.1
2001	5.3	3.8	3.1	3.5
2002	4.8	2.6	2.0	2.3
2003	4.5	2.1	1.4	1.8
2004	4.4	2.1	1.5	1.8
2005	4.2	2.4	1.6	1.9
2006	4.1	2.4	1.6	1.9
2007	4.1	1.3	0.5	0.8
2008	4	2.8	2.0	2.3
2009	3.6	2.6	1.8	2.1
2010	3.4	1.4	0.7	1.0
2011	3	0.3	-0.3	-0.1
2012	2.9	1.3	0.7	0.9
2013	2.8	1.9	1.3	1.5
2014	2.5	2.4	1.8	2.0
2015	2.3	2.0	1.5	1.6
2016	1.9	1.1	0.7	0.8
2017	1.8	0.5	0.1	0.3
2018	1.8	-0.1	-0.5	-0.4
2019	1.3	-0.3	-0.6	-0.5
2020	1.1	1.1	0.8	1.1

Source: FFA up to 2018, Good Value for Money since 2019, Eurostat (HICP inflation index)

* for redemptions below € 4,600 per annum

Following capital guaranteed life insurance reporting rules, capital gains or losses are not accounted for in the disclosed returns above.

In 2012, taxation increased by 200 basis points, as a result of the rise in social contributions from 13.5% to 15.5%. In 2018, social contributions rose again to 17.2%. As taxation is applied to nominal returns, any rise in inflation increases the real tax rate which reached 76% in 2017, as shown in the table below. For 2018 and 2019, as the real income before tax was negative, taxing nominal income had the effect of mushrooming the real loss for life insurance savers.



Table FR 6. French nominal and effective tax rates on capital guaranteed life insurance returns (%)

	Inflation	Nominal tax rate	Effective* tax rate
2000	1.8	13.4	21
2001	1.5	13.4	19
2002	2.2	13.4	25
2003	2.4	13.4	29
2004	2.2	13.7	29
2005	1.8	18.5	32
2006	1.7	18.5	32
2007	2.8	18.5	60
2008	1.2	18.5	27
2009	1.0	19.6	28
2010	2.0	19.6	49
2011	2.7	21.0	194
2012	1.5	23.0	49
2013	0.8	23.0	33
2014	0.1	23.0	24
2015	0.3	23.0	26
2016	0.8	23.0	40
2017	1.2	23.0	76
2018	1.9	24.7	-458
2019	1.6	24.7	-118
2020	-0.03	24.7	24

Sources: Eurostat (HICP index 2015 base), BETTER FINANCE computation

* Effective tax rate = tax / real (net of inflation) income

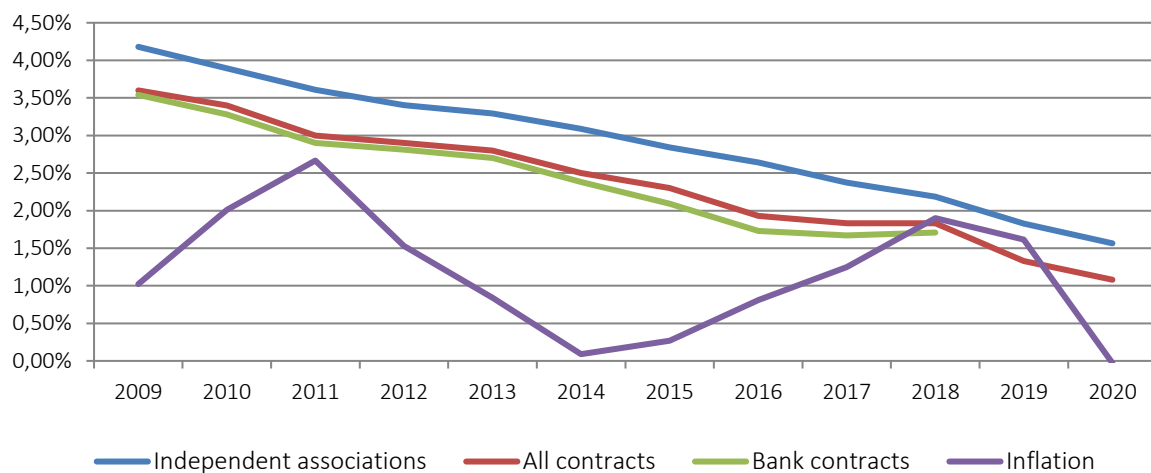
These average returns mask important differences depending on distribution networks and governance: for standard contracts distributed by banks, the 2020 average nominal return was less than 1.08%¹⁷⁰, whereas the return of contracts subscribed by independent associations was 1.56%¹⁷¹. Higher annual average fees for bank insurers (0.65% versus 0.58% for traditional insurers in 2020) and higher profit-sharing reserves are part of the explanation. Considering that contracts distributed by banks represent 60% of the French capital guaranteed life insurance market, this returns gap constitutes an opportunity cost of about €6 billion for 2020 alone for savers getting their capital-guaranteed life insurance contracts from their bank instead of from independent savers' associations.

¹⁷⁰ FAIDER estimates that it may have fallen below 1%, as, according to ACPR, the 2020 return of all types of types of capital guaranteed contracts run by bancassureurs was 10 bps below the market average, and the average return for standard contracts was 1,08% according to GoodValueforMoney.eu.

¹⁷¹ *Source:* FAIDER. Independent associations representing life insurance contracts holders included AGIPI, AMIREP, ANCRE, ASAC-FAPES and GAIPARE in 2019. FAIDER is a member organisation of BETTER FINANCE.



Graph FR7. Nominal returns - all contracts versus independent life insurance associations



Sources: Own composition based on FAIDER, ACPR, FFA and GVfM data

Life insurance contracts – unit-linked

Nominal returns were pushed upwards by the rise in stock prices from 2012 to 2017 and 2019, against the background of declining inflation. Despite this current long period of positive equity returns, unit-linked contracts still have a very negative cumulative return net of inflation since the end of 1999 (see next section and table FR9).

Over a 21-year period, real returns after tax of unit-linked life-insurance contracts were very volatile. The worst performance was recorded in 2008 (-23.9%) and the best one in the following year (+12.2% in 2009).



Table FR 8. The returns of French life insurance contracts – unit-linked (%)

	Disclosed Return	Real return before tax	Real return after tax
2000	-2	-4.6	-4.6
2001	-9.5	-11.7	-11.7
2002	-15.2	-17.8	-17.8
2003	8.4	4.9	4.9
2004	6.4	3.1	3.1
2005	14.4	11.4	11.4
2006	8.8	6.0	5.8
2007	1.5	-2.2	-2.2
2008	-22.3	-23.9	-23.9
2009	14.4	12.2	12.2
2010	5.2	2.1	2.1
2011	-7	-10.3	-10.3
2012	11	8.3	8.3
2013	8.2	6.3	4.6
2014	5.9	4.8	3.7
2015	4.1	2.8	2.1
2016	2.9	1.1	0.7
2017	5.8	3.5	2.4
2018	-8.1	-10.7	-10.7
2019	13.9	11.0	7.9
2020	2.8	2.0	1.5

Sources: FFA up to 2019, GoodValueforMoney.eu for 2020, Eurostat (HICP index), own calculations (deduction of the non-deducted fees, and of HICP price index variation from disclosed returns)

All life insurance contracts – 21 years returns (1999-2020)

In order to compute the real return achieved by an investor who would have subscribed to a life insurance contract at the end of 1999 and who would have withdrawn his funds 21 years later, one has to subtract the entry costs paid the year of subscription, as these fees are not taken into account in the disclosed returns. We estimate that entry costs in 2000 represented 2.76% on average¹⁷² of the investment, to be deducted from real returns that year. Also, annual contract fees on assets are already taken into account for capital guaranteed contracts by the insurance industry body (FFA), but not for unit-linked ones.

¹⁷² Source: OEE



Table FR 9. Real returns of all life contracts 1999-2020

	21-year return	Average yearly return
Before tax returns		
Capital guaranteed contracts	40.5%	1.6%
Unit-linked contracts	-13.9%	-0.7%
All contracts (avg.)	29.9%	1.3%
After tax returns		
Capital guaranteed contracts	24.0%	1.0%
Unit-linked contracts	-20.8%	-1.1%
All contracts (avg.)	15.4%	0.7%

Sources: FFA, GVfM, own computations (based on the relative weight of both categories in the overall mathematical reserves)

An average saver has thus gotten a cumulated net real after tax return of 24%¹⁷³ for this 21-year period of investment on guaranteed contracts, and a negative one of -21% on unit-linked contracts. On a yearly basis, the rates of returns would be +1.0% and -1.2% respectively. It is worth noting that, although unit-linked contracts are riskier for subscribers, they also provided returns that were much lower than those of the guaranteed contracts. Such a lower – and negative – real performance over 21 years is primarily due to:

- much higher fees (see the fees and charges section above): about five time higher for the dominant equity and flexible “units”,
- and to the fact that mostly expensive funds are offered and promoted and very few if any low-cost funds such as index ETFs. Independent research determined that over the mid and long term, high charges hurt net performance on average¹⁷⁴. This in turn is due to the higher sales commissions (“inducements”) for highly charged funds.

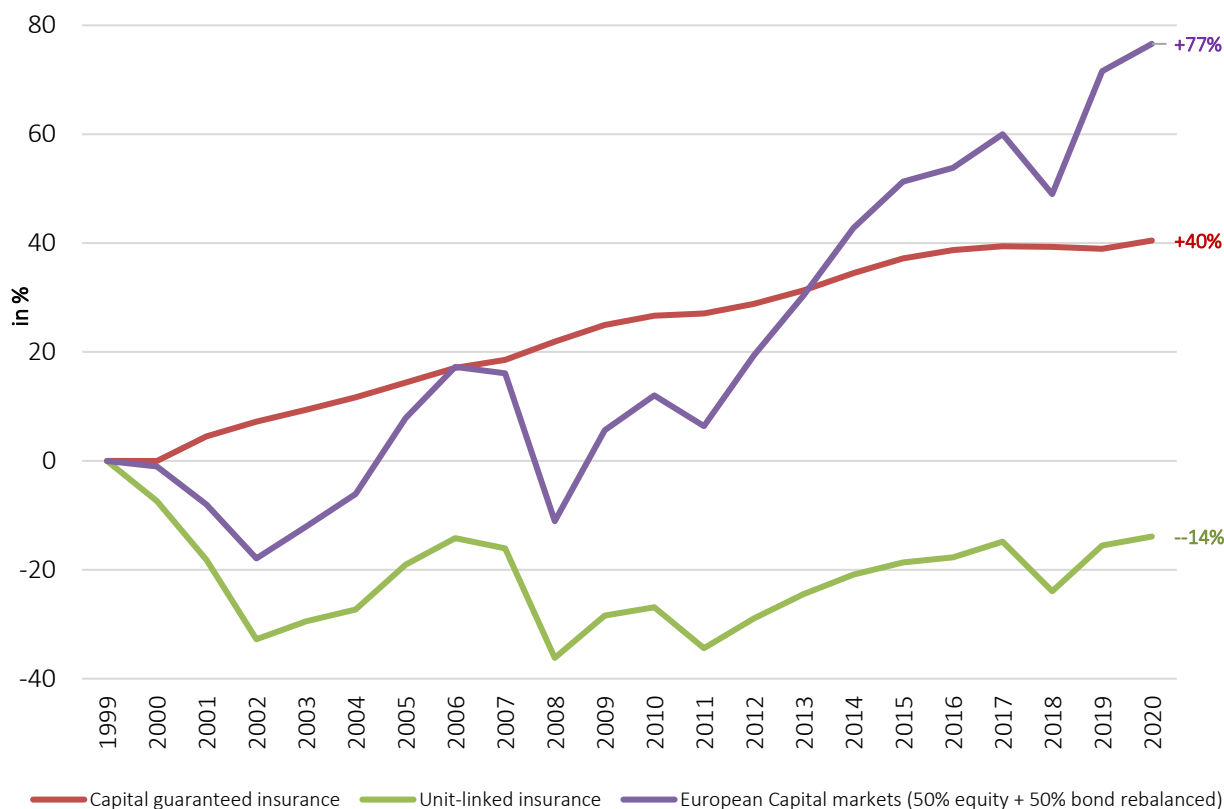
Capital markets as a whole (bonds and equities) provided a positive real performance over the same period (see graphs FR3 and FR4). Graph FR10 below shows that the pre-tax real performance of unit-linked contracts is well correlated to that of capital markets, but massively underperforming those over time (minus 91 percentage points over the last 21 years), making unit-linked a high-risk and low return offer.

¹⁷³ + 31% with the most favourable tax treatment and minimum 8-year-old contracts, see table FR 5 above

¹⁷⁴ See for example BETTER FINANCE research on-the-correlation-between-cost-and-performances-in-eu-equity-retail-funds, 2019



Graph FR10. Long-term life insurance real returns



Sources: Own composition based on STOXX, Bloomberg, Eurostat, Tables FR6 and FR7.

Personal and collective deferred annuities

PER

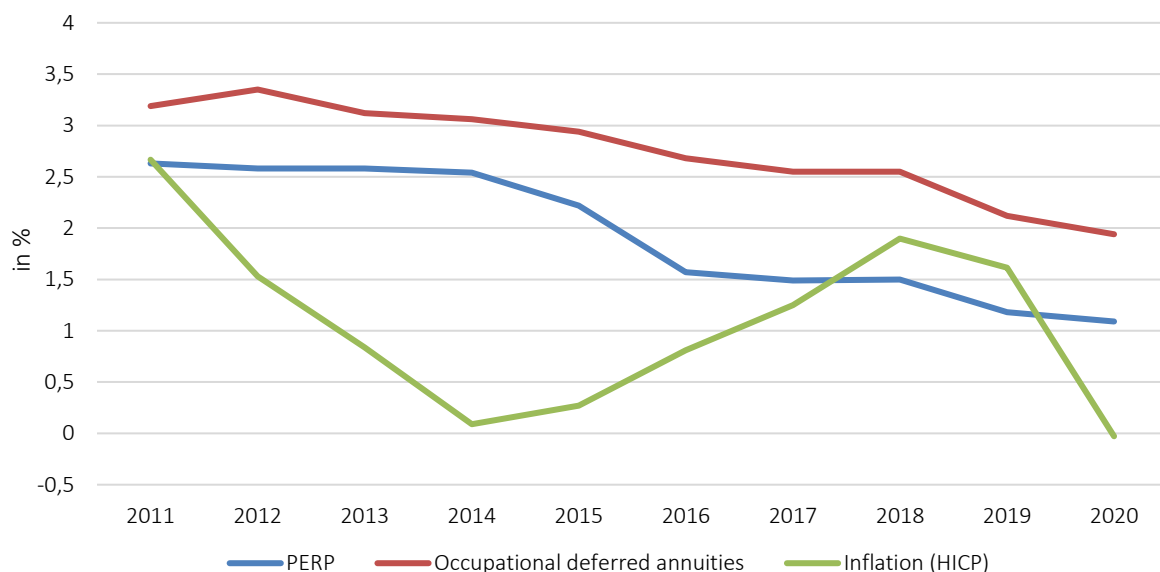
According to GoodValueforMoney.eu, aggregate performance data for the new PERs' "fonds en euros" (capital guaranteed investment option) launched end of 2019 has been even lower than for ordinary life insurance contracts: +1,23% nominal in 2019 (versus 1.33%) and 1.04% in 2020 (versus 1.08%).

PERP

A majority of PERPs are structured like ordinary life insurance contracts in the accumulation phase: a combination of capital guaranteed funds ("fonds en euros") and "units" representing investment funds. A minority of PERPs are structured like deferred annuities, similar to the main pension savings products for public employees (see next section below).



Graph FR11 - Nominal returns of PERP* and occupational deferred annuities**
2011 -2020 in %



* Capital guaranteed funds ("fonds en euros") only

** Those include PERE, Madelin and Article 39 contracts

Source: ACPR, 2021

It was again impossible to find global long-term return data on PERPs before 2011. The insurance industry body (FFA) publishes the average return of ordinary capital guaranteed ("*fonds en euros*") and unit-linked life insurance contracts (see previous sections), but not that of insurance-regulated personal pension products such as PERPs. Based on the disclosed nominal returns of a majority of PERPs collected by the French Supervisor ACPR only from 2011, the weighted average nominal return of the capital guaranteed PERPs ("*fonds en euros*") was 1.09% in 2020, similar to the average return of ordinary capital guaranteed life insurance contracts.

This can be surprising as PERPs enjoy a much longer duration of their liabilities, which should allow for a higher allocation to equities which have performed much better than bonds since 2011. The returns of PERPs should also be boosted by the rule unique to PERPs according to which the commissions (inducements) on units (funds) must be credited to the PERP, and, in practice they are credited to the capital guaranteed fund. On the other hand, PERPs are on average more recent than ordinary life insurance contracts and therefore so is their bond portfolio, which generates lower returns than older bond portfolios.

In addition, these returns do not take entry fees into account, which are probably comparable to those of ordinary life insurance (2.76% on average in 2000).

In 2020, pre-tax real returns of French personal pensions (PERP) are positive on average, after two negative years thanks to zero inflation.



Madelin, PERE and Article 39

The nominal returns of occupational deferred annuities were much higher (1.94% in 2020) and did not decline as much as for PERPs. This could be explained by older fixed income portfolios yielding higher rates, and by higher discount rates (“taux techniques”) forcing insurers to deliver higher returns. Charges may also be lower than for PERPs, but cost data are missing specifically for these pension products. Since 2018, the French supervisor ACPR publishes the average annual cost 0.47% (in 2020) but that is for all personal and collective deferred annuity products combined.

Unfortunately, it does not currently identify separately the historical returns and costs of the pensions products for self-employed individuals (“Madelin” - most of which are subscribed and supervised by independent pension saver associations), from the employer-sponsored DC plans (“PERE”) and DB plans (“article 39”). Following the European Commission’s request for the European financial Supervisory Authorities to improve the transparency of past performances and fees, it is urgent to collect, analyse and disclose these data.

Deferred annuity plans with less governance rules (Préfon, Corem, CRH)

One difficulty in assessing real returns of deferred annuity plans is that up to 2010, it was not mandatory for those plans to disclose investment returns. Following action by BETTER FINANCE’s French member organisations, a 2010 Law¹⁷⁵ made this a legal requirement from 2011 onward. Préfon has also started to give an indication of its economic returns (taking into account the annual evolution of the market value of all assets in the portfolio) in its annual report.

Préfon

Préfon published an accounting return (net of fees) on its investment portfolio for 2020 of 2.97% versus 2.88% in 2019. However, as mentioned above, the accounting return does not take into account the changes in the market value of assets (unrealized capital gains stood at € 4.4 billion end of 2020 (24 % of the total market value). In 2020 Préfon indicated that this portfolio performance reached +6.82%, excluding real estate and private equity, with the fixed income portfolio generating +8% thanks to the continued drop in interest rates. Préfon’s investment portfolio is still heavily tilted towards fixed income (79% of total, and equity weighing only 12% - in accounting, not market value terms). This seems an inadequate asset allocation for the long-time horizon of the pension plan.

Part of the investment return has been set aside in the past in order to replenish reserves. In 2010, the French Supervisor (ACPR) decided that Préfon reserves were not sufficient and forced Préfon’s insurers to contribute €290 million of their own funds (as of 31 December 2013) to help Préfon balance its assets and liabilities¹⁷⁶. At the end of 2016, this contribution from the insurers amounted

¹⁷⁵ Law n° 2010-737 of 1 July 2010 - art. 35 (V), which modified Article L441-3 of the French Insurance Code.

¹⁷⁶ “Les Echos” 27 December 2010. This information was not disclosed by Préfon to the participants.



to €333 million¹⁷⁷ despite the massive cuts in pension rights for those who retire after age 60 decided in 2014 and 2017 (see below Graph FR12).

In 2017, in relation to the entry into force of the Solvency II Directive, French Law was modified to move to use the market value of assets instead of their historical cost (accounting value). This enabled Préfon to show at last sufficient reserves and solvency ratio, but – up to now – not enough to allow for reducing or even capping the loss of purchasing power of its pensions since 2002. Thanks to this change in solvency rules, the ratio of assets to liabilities of Préfon increased from 97.5% in 2016 to 119.6% in 2020, allowing it for the first times in many years to increase the nominal value of its annuities from 2017 on. In 2020, also thanks to the zero inflation, it even for the first time since 2002 slightly improved the real value (purchasing power) of its participants pension rights (+0,21% nominal increase for a -0.03% inflation).

In addition, the value of the participants' accumulated savings is communicated individually to them only since 2012, and unfortunately with more than a one-year delay (this essential information should be released sooner), and just as an "estimate". It was therefore impossible to compute a real rate of return individually and for all participants with the data made available by the Plan up to 2019 (see below the new approach).

Another difficulty for deferred annuity products is to translate the impact of portfolio returns (and other factors such as the capital conversion rate into annuities, the discount rate and the evolution of annuities paid) on the actual long-term return for the pension saver. One proxy return indicator is the one computed by the French association of pension fund participants ARCAF. It has been collecting the annual rate of pension rights' and annuities' increases before tax for several years¹⁷⁸ (see graphs FR12 and FR13). Préfon participants who contributed in 2002 and who will retire at the age of 60 have lost 20% of the real value of their pensions (before tax¹⁷⁹). The advertised objective of Préfon to maintain the purchasing power of pensions has not been fulfilled since 2002 (except in 2020 as mentioned above) and Préfon remains silent on the perspectives to reduce this loss of the real value of pensions in the future. This key performance information is not publicly disclosed¹⁸⁰.

¹⁷⁷ Source: Rapport de gestion Préfon Retraite 2016.

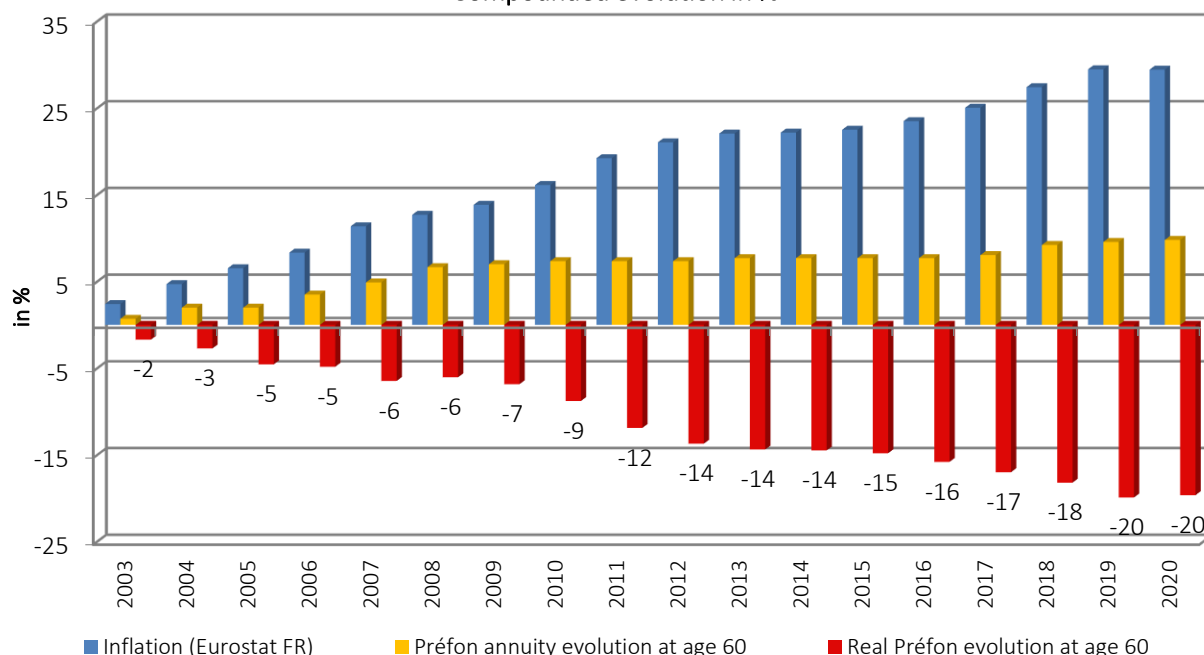
¹⁷⁸ This key data is very difficult to find, but recently Préfon has been making significant efforts to improve its transparency and disclosures.

¹⁷⁹ Savings into Préfon (like into PERPs and into Corem) are income tax deductible, but the annuities are fully taxable. Both savings and annuities bear social levies ("prélèvements sociaux").

¹⁸⁰ ARCAF, 2019



Graph FR12- Préfon annuities real value : retirement at age 60
Compounded evolution in %



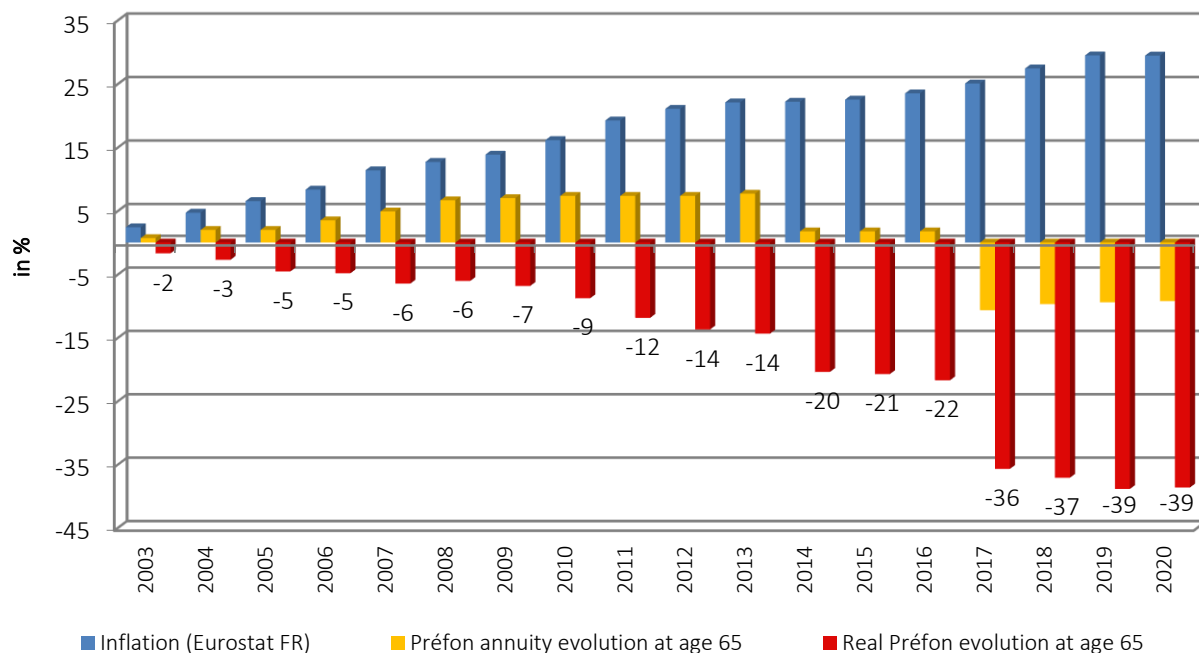
Source: ARCAF, 2021

This return indicator, however, does not include the discount rate embedded in the conversion ratio of accumulated savings to annuities. But this discount rate varies from one year to another, and also varies according to the actual retirement age - which is not disclosed.

Also, this indicator is only valid if one exercises his liquidation rights at age 60. But very few people can now retire at age 60 due to the postponement of the legal age to retire with full Pillar I pension rights to between 62 and 67. For example, if one exercises these rights at the age of 65, starting from the year 2026 on, the initial annuities have been reduced by 17.3% in nominal terms from 2013 to 2017, although Préfon has always guaranteed to its participants at subscription that its pension annuities could never be reduced in nominal terms. In real terms it is much worse (-39%), as shown by the graph below.



Graph FR13. Préfon annuities real value : retirement at age 65 from 2026 -
Compounded evolution in %



Source: ARCAF 2020

It is difficult to compute the evolution of the Préfon annuities paid after tax, since they are taxed at the marginal income tax rate on pensions and salaries (plus social levies) and since contributions have been deducted from the taxable income for income tax purposes (but not for social levies).

An alternative approach mentioned by Préfon in its latest annual report (for 2020), could be to use the new valuation of transfers or redemptions of accumulated pension rights in capital (which are allowed in certain cases since 2010). For valuations done since 2019, those are based on annual revaluation coefficients computed on contributions. Préfon claims that they beat inflation on average by nearly 1% since 2004. But they are computed on contributions net of the 3.9% commissions charged. And (based on a published graph that does not disclose the quantified data for two out of every 3 years), they are on average below the historical returns of other capital guaranteed long term products such as capital guaranteed life insurance (see table FR5), and much below the returns achieved by Préfon itself on contributions invested (e.g., for 2020 + 1.15% revaluation versus + 6.82% for the portfolio return: five times higher).

Corem

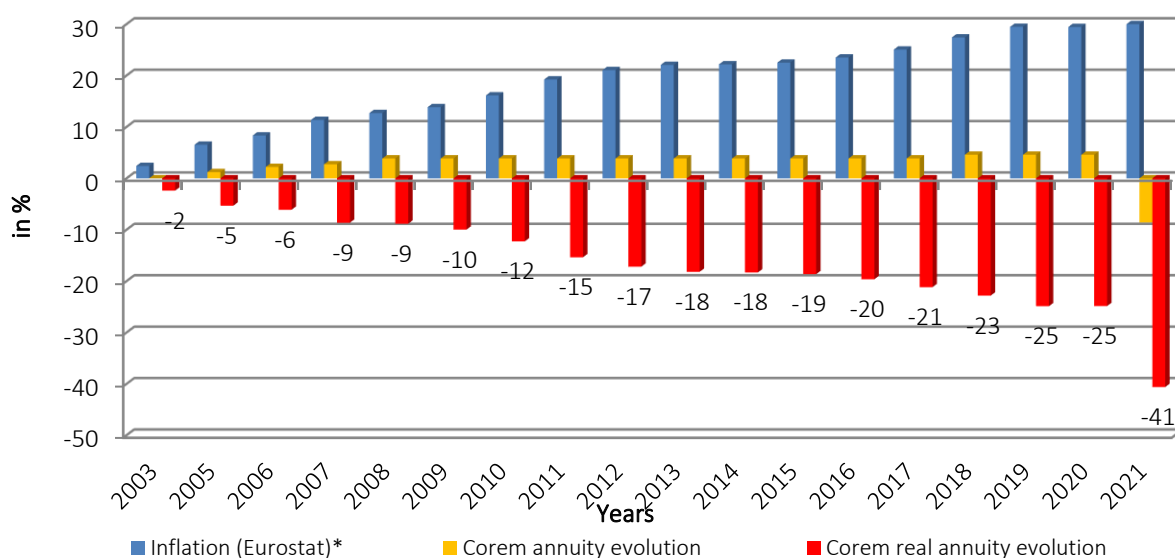
Corem publishes the annual accounting return on its investments but does not specify if these are gross or net of fees. The accounting return for 2020 was +2.86%, down from +3.74 % in 2019. Its



asset allocation is slightly less inadequate than Préfon's for a long duration pension plan: 18% in equities. However, this accounting return does not take into account the changes in the market value of assets. In addition, and more importantly, all the investment return of the Corem assets is set aside in order to replenish reserves. It is therefore impossible to compute a collective real rate of return.

The deferred annuity mechanisms of Corem are similar to those of Préfon, with the same difficulties in estimating the real return for the pension saver. Therefore, we also use the evolution of the annuities' values as a proxy return indicator here, as computed by ARCAF (Graph FR14 below). Corem has been in deficit for a very long time; the main – undisclosed – tool of its recovery plan in place since 2002 is not to increase the nominal value of annuities served. As a result, the annuities served by Corem will have lost a whopping 41% of their real value before tax (purchasing power) over the last 18 years (see graph FR14), as Corem has not increased them for many years, pocketing the return on its portfolio for other purposes, and has announced last April to its participants that the nominal value of their pension rights as of 1/1/2022 will be reduced by 12.6%. These figures are before tax. This key performance information is not disclosed to the public and to new participants.

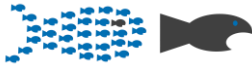
Graph FR14. Corem annuities real value, compounded evolution in %



* ECB estimate for 2021

Source: ARCAF, 2021

The reality is even worse as, in November 2014, Corem announced new measures to reduce its reserve gap by further reducing the returns for participants (they now need to be 62 years of age to get the full pension rights instead of 60 years of age, and the minimum guaranteed return on pension contributions was lowered from 2.3% to 1.5% from 2015 on).



The financial situation has been very difficult as its reserve gap (difference between its assets and the present value of its pension liabilities) reached €2.9 billion at the end of 2014, as measured using French common prudential rules at that time¹⁸¹. At the end of 2015, Corem obtained permission from the French Government to use a minimum discount rate of 1.50% (instead of 0.59 % according to the previous rule) to compute the present value of its liabilities, helping it to reduce its reserve gap to €1.3 billion at the end of 2016.

In 2017, the French Government allowed deferred annuity schemes such as Corem to use the market value of assets instead of the accounting (acquisition cost mostly) one, to compute its assets/liabilities coverage ratio. This new rule improved its coverage ratio to 98.2 % at the end of 2018, but it went down again in 2019 and in 2020 to 91.8%. Otherwise, Corem would have been in breach of its Recovery Plan which required it to cover at least 90% of its liabilities.

Since 2016, the Corem rules also allow it to reduce the nominal value of annuities under certain conditions, contrary to the commitment that was provided to participants when they joined.

The distribution of new Corem contracts has resumed in 2019, despite the continuously escalating losses borne by its participants. In 2021, despite complaints to the French supervising Authority ACPR, the product is still actively distributed and without any visible and intelligible warning about its catastrophic performances and about its upcoming (1/1/2021) sharp drop in its pension rights.

CRH

CRH does not disclose an annual report or financial data publicly. Even its pre-contractual publications do not disclose past performance. Because of an on-going restructuring that started in 2008, the real returns of this plan are probably low and below inflation. For the last five years (2014-2019), CRH annuities value has increased by 2.1%, against an inflation of 6.0%.

Overall, BETTER FINANCE estimates the loss of purchasing power over the last teen years (2002-2020) of participants to the French Public Employee Pension Schemes (Préfon + Corem) to be at - 21.4% (-1.4% per annum), based on the relative asset portfolio size of Préfon and Corem, and assuming that Préfon participants retire as early as age 60 and not later. As mentioned above, 2021 will be catastrophic for Corem participants.

Defined contribution corporate plans

With the most appreciated help of AFG, the French asset management industry association, we combine information provided by “Europerformance” on the performance of each category of

¹⁸¹ Until 2017, *Corem's* recovery plan allowed it to exceptionally use a discount rate of 3% and an older mortality table to compute the present value of its pension liabilities instead of the regulatory 0.78% at the end of 2014 and 1.5% end of 2015. Using the 3% discount rate, *Corem* assets cover 107.5 % of its liabilities at the end of 2015.



funds with data on their total outstanding relative weight¹⁸² to estimate the overall returns of corporate savings (PEEs, PERCOs and the new collective PERs).

Table FR15. French corporate savings plans - 21 years returns before tax 1999-2020

Fund ("FCPE") category	Equity	Bond	Money market	Diversified	All funds
21Y Nominal return	54.6%	76.2%	30.2%	64.0%	61.9%
Yearly average	2.1%	2.7%	1.3%	2.4%	2.3%
21Y Real return	12.1%	29.2%	-4.8%	19.8%	18.5%
Yearly average	0.5%	1.2%	-0.2%	0.9%	0.8%

Source: AFG/Europperformance

Real returns of corporate DC-based (Defined Contribution) plans before tax over a 21-year period, from the end of 1999 to the end of 2020, were overall positive: the yearly average real performance before tax of the aggregate of all funds was + 0.8%, which makes French DC plans the second-best performing pension savings product after life insurance capital-guaranteed contracts. This regards PEEs (€ 124.5 billion of assets). PERCOs and collective PERs (€ 22.5 billion) had a slightly higher return (+0.9% per annum) due to a slightly lower allocation to money market funds.

The overall real returns before tax are negatively influenced predominantly by the surprisingly heavy weight and negative return of money market funds (23% of assets; -4.8%), and by the real return of DC equity funds (with a positive real return in 2020 of +2.7%). Equity funds, which account for about 20% of total outstanding assets (excluding company stock), greatly underperformed equity markets over the last 21 years: +55% in nominal terms versus +110% for European equities or +152% for world equities¹⁸³. Also, DC Bond funds (around 21% of total assets) returned +76% in nominal terms over the period versus +155% for the European bond market (see graph FR4).

Like for unit-linked insurance contracts, a primary factor for this underperformance of DC equity and bond funds could be the level of fees charged. Unlike the US corporate DC pension plans ("401k"), the French ones do not invest in general purpose mutual funds, but in special purpose alternative investment funds (AIFs) called FCPEs, specifically dedicated to these plans. Consequently, French savers are faced with an additional offering of investment funds (about 1900 FCPEs in addition to the about 3,500 UCITs funds already domiciled in France), the average size of these AIFs is quite small, and many FCPEs are merely wrappers of other – general purpose – funds, adding a layer of fees. Another factor is that equity FCPEs are not 100% invested in equities.

However, the French supervisor AMF recently found that the ongoing annual charges of multi-sponsor FCPEs are on average lower than those of general-purpose funds: 1.31% in 2019 for the

¹⁸² Data published by AFG relate to "FCPE L214-39". These funds are diversified funds which do not invest in the own shares of the concerned company ("company stock"). There is another category of corporate savings' funds, the "FCPE L214-40" dedicated funds which can invest without limit in the own shares of the concerned company but there are no data available on the returns of these "FCPE L214-40" funds. The "FCPE L214-39" assets represented 65% of all FCPE assets at the end of 2020.

¹⁸³ MSCI ACWI NR index in euros



178 diversified (multi-asset) FCPEs analysed versus 1.53% for the general-purpose diversified funds; and 1.46% for the 145 European equity FCPEs analysed versus 1.53% for the general-purpose European equity funds¹⁸⁴. That is about half the cost of the comparable funds held via unit-linked insurance contracts. In addition, a part of the FCPE fees can be sometimes paid by the employers, not by the employees. Therefore (see above the costs and charges section) the differences are even bigger with investment funds held via insurance contracts. This seems due to the distribution modes - more “wholesale” for corporate plans, and more “retail” for life insurance (implying commissions paid out of fund charges to distributors) - and to the double layer of fees in the latter case.

A limitation of such computations is that performance indices provided by “Europerformance” only relate to diversified funds inside the corporate savings plans. They do not take into account the part of corporate long-term savings which is invested in shares of the concerned company (“company stock”), accounting for 35% (€ 50.8 billion end of 2020) of all corporate savings plans.

Return of regular identical investments over 21 years

Also – same rule whenever possible for the whole research report – the computed returns relate to a one-time investment at the end of 1999 and kept up to the end of 2019. Many pension savers will tend to invest regularly every year or every month. With the help of AFG, we computed the annualized returns from 2000 to 2020 for the same amount invested every year over the last 21 years. This generated a similar before tax real return of 17.8% instead of 18.5%. This return is less volatile with time, as it is spread over many years instead of only one.

After-tax returns are often higher

Finally, after-tax returns of French corporate long-term savings plans are difficult to compute globally, but they can often be very close to - or higher than before-tax ones since their taxation is the most favourable of all long-term and pension savings products in France (redemptions are exempt from income tax and are only subject to “social” levies of 17.2% of net gains). Also, most of these savings come from non-taxable profit-sharing income contributed by employees (“*intéressement*” and “*participation*”) and employers’ matching contributions.

Conclusions

After a year of negative real returns before tax in 2011, for the main long-term and pension savings product in France, subsequent years were more favourable to pension savers. Against the backdrop of bullish stock markets and lower inflation, unit-linked life insurance contracts showed a positive real performance every year from 2012 to 2017. However, their 21-year performance is still quite negative. The real performance of capital-guaranteed life insurance contracts (“*contrats en euros*”)

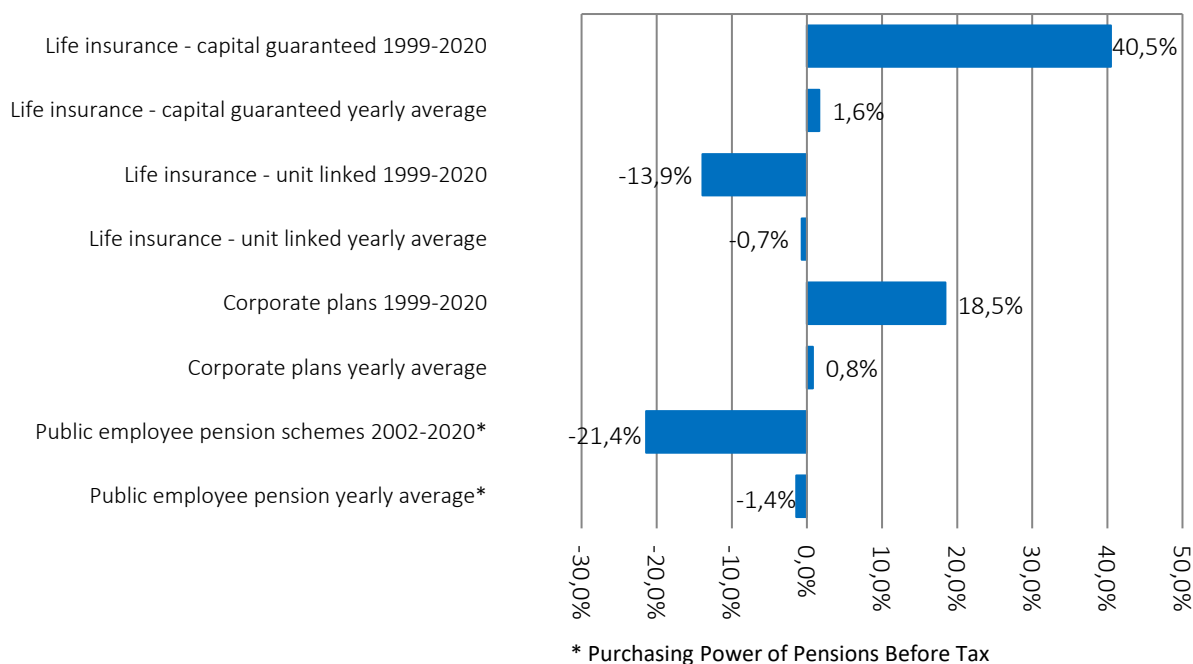
¹⁸⁴ La lettre de l’Observatoire de l’Epargne de l’AMF n 042 – mars 2021



has been positive for every year since 2011, but the continued decrease of interest rates, and increases of taxation, have turned it negative in 2018 and 2019.

Over a 21-year period, from the end of 1999 to the end of 2020, capital-guaranteed life-insurance contracts show on average a positive yearly pre-tax performance of +1.6% in real terms, while the unit-linked contracts show a negative yearly return of -0.7%. Corporate DC plans delivered +0.8% on an annual basis before tax. After-tax returns would typically be close for the latter due to a favourable tax treatment.

Graph FR16. French Pension Savings Real Returns before tax, 1999-2020



Summary return table - Average annual real net returns of French pension savings (before tax)					
Average real net returns	1 year 2020	3 years 2018-2020	7 years 2014-2020	10 years 2011-2020	whole reporting period
Life insurance - CG	1.11%	0.37%	1.89%	1.65%	1.63%
Life-insurance - UL	1.96%	0.24%	0.97%	1.04%	-0.71%
Corporate plans	1.35%	0.61%	1.71%	1.61%	0.81%
Public employee PS**	0.69%	-1.14%	-0.97%	-1.33%	-1.41%

Sources: Tables FR3, FR5, FR7; CG = capital guaranteed; UL = unit-linked; PS = pension schemes;

* return proxy measure



Pension Savings: The Real Return

2021 Edition

Country Case: Germany

Zusammenfassung

Das deutsche Rentensystem gehört zu jenen, in denen das System der gesetzlichen Rentenversicherung (Säule I) eine relativ wichtige Rolle für das Alterseinkommen der deutschen Rentner spielt. Die Bruttorentenersatzrate aus dem obligatorischen öffentlichen System beträgt 38,7% des individuellen Einkommens (gegenüber durchschnittlich 36,6% im Durchschnitt der OCED-Länder), während die Ersatzrate aus freiwilligen Systemen (Säule II und Säule III zusammen) 13,5% beträgt. Die Riester- und Rürup-Reformen von 2002 und 2005 zielten auf eine stärkere Beteiligung deutscher Arbeitnehmer an betrieblichen und individuellen Altersversorgungssystemen ab, da die akkumulierten Ansprüche relativ gering waren.

Summary

The German pension system is one of those in which the statutory pension system (Pillar I) plays a relatively important role in the retirement income of German pensioners. The gross pension replacement rate from the mandatory public system is 38.7% of individual income (compared to an average of 36.6% in the OCED countries), while the replacement rate from voluntary schemes (Pillar II and Pillar III together) is 13.5%. The Riester and Rürup reforms of 2002 and 2005 aimed at increasing the participation of German workers in occupational and individual pension schemes, as accumulated entitlements were relatively low.

Introduction

In 2007, the German government raised the statutory retirement age from 65 to 67. A transitional phase to attain the retirement age of 67 for individuals with less than 45 years of contributions was started in 2012, including a gradual increase of the working life of one month per year until 2029. For individuals with 45 years of contributions, the pension age had been lowered to 63 years in July 2014 but started to increase again in 2016 until it will reach 65 in 2028. The average effective age of labour market exit was about 64.6 years for men in 2017 and 64 for women¹⁸⁵.

¹⁸⁵ BMAS (Federal Ministry of Labour and Social Affairs) - Pension Projections Exercise 2018 - For the attention of the Economic Policy Committees' Working Group on Ageing Populations and Sustainability, November 2017
https://ec.europa.eu/info/publications/economy-finance/2018-ageing-report-economic-and-budgetary-projections-eu-member-states-2016-2070_en



The contribution rate¹⁸⁶ in mandatory public schemes is the same for employees and employers and is equal to 9.3%. The total contribution rate (salary share + employer share, i.e., 18.6%) is lower than what can be observed in Italy (33%), France (27.5%), the Netherlands (25.6%) and Sweden (21.7%) but higher than in Belgium (16.4%).

The German pension system can be divided into three pillars:

- Pillar I: Mandatory Public Pension Scheme
- Pillar II: Voluntary Occupational Pensions
- Pillar III: Voluntary Personal Pensions

The first pillar with the statutory and the civil servant pension system is mandatory for all employees and civil servants. Currently, the general pay-as-you-go (PAYG) earnings-related first pillar statutory pension scheme covers about 85% of the employed German population whereas the public civil servants scheme protects 5%.

In 2018, the gross pension replacement rate¹⁸⁷ for average-wage workers from the mandatory public scheme (38.7%) was below the OECD average (39.6%). Increasing life expectancy and fewer children being born represents a challenging demographic shift in Europe, forcing younger generations to assure an adequate retirement income through private savings.

In the early 2000s, the German government executed an important pension reform to promote private pension savings through subsidies and tax incentives, as well as social security contribution savings in the case of occupational pension plans. In 2002, company pension plans (Pillar II) traditionally provided on a voluntary basis by employers, were transformed into an employee's right to have a part of its earnings paid into a company pension plan under a deferred compensation arrangement. That same year, *The Riester Reform* was introduced to boost personal pension savings, followed by *The Rürup* pension in 2005 to further complement personal pension plans.

¹⁸⁶ Source: OCDE 2020, including disability Insurance in Germany.

¹⁸⁷ OECD (2019), *Pensions at a Glance 2019: OECD and G20 Indicators*, OECD Publishing, Paris, <https://doi.org/10.1787/b6d3dcfc-en>



Table DE1. Introductory Table - Pension System Overview

Pillar I	Pillar II	Pillar III
Mandatory State Pension Insurance:	Voluntary Occupational Pensions:	Voluntary Personal Pensions:
all persons subject to social security charges contributed 18.7% of their gross income to the scheme	employees have the right to a deferred compensation arrangement - employers the right to choose the scheme Occupational retirement schemes that can be divided into two sub-pillars: 1) direct pension promise - 2) external occupational pension schemes	supplement to the statutory pension insurance Riester pension or Rürup pension or life insurance
Mandatory for all employees who are subject to social insurance contributions	Voluntary or by tariff agreement	Voluntary
PAYG	DB and hybrid	DC
Quick facts		
Coverage (active population): 90%	About half of today's retirees receive income from a private pension	
Gross replacement rate: 38.7%	Gross replacement rate: 13.5%	
	16.38 million contracts recorded by the German Insurance Association	16.3 million <i>Riester</i> contracts

Source: BETTER FINANCE own composition

In the table below we present the annualized real net rates of return for retirement provision vehicles in Germany.

Aggregate summary annualised return table - After charges, inflation and before tax				
		Pillar II	Pillar III (1)	Pillar III (2)
1 year	2020	n.a.	2.68	2.79
	2019	3.02	0.67	0.72
3 years	2018 - 2020	n.a.	1.30	1.37
	2017 - 2019	1.77	0.68	0.74
7 years	2014 - 2020	n.a.	1.62	1.69
	2013 - 2019	2.54	1.53	1.59
10 years	2011 - 2020	n.a.	1.64	1.70
	2010 - 2019	2.40	1.58	1.62
Whole reporting period*		2.28	1.51	2.10

*maximum available in this report

(1) Riester pension insurances contracts. Acquisition charges are included and spread over 5 years.

(2) Classic pension insurance products or life insurance products. Acquisition charges are included and spread over 5 years.



Pension Vehicles

Private pensions are divided into Voluntary Occupational Pensions and Voluntary Personal Pensions. About half of today's retirees receive income from a private pension, however the proportion, currently at 16% (8% from occupational pension and 8% from personal pension) of a retiree's gross income, is currently rather low¹⁸⁸. However, the coverage rate provided by the OECD (OECD Pension Markets in Focus 2020) for Voluntary Occupational Pension Schemes is much higher: 57%. Nevertheless, the *"coverage rates are provided with respect to the total working-age population (i.e., individuals aged 15 to 64 years old), **except for Germany** (employees aged 25 to 64 subject to social insurance contributions)"*. In general, there are no taxes on dividends, income or capital gains to take into account during the accumulation phase of the real return calculations. However, the calculations are considerably complicated by the fact that EET and TEE taxation formulas (or intermixtures) can still be found depending on the effective date of the pension promise and the type of vehicle. Consequently, the after-tax calculations are simplified and exclusively simulated as deferred taxation for the occupational *Pensionskassen* and pension funds, as well as personal *Riester* and *Rürup* insurance contracts. For that reason, the average retiree income tax rate is estimated from customised data provided by the German Federal Ministry of Finance for the year of 2012 - the most recent information available¹⁸⁹ - and set at 18%.

The classic pension insurance is not subject to deferred taxation but is (partially) taxed during the capital accumulation phase (see Taxation chapter). Furthermore, performance data is available for a longer time span, so the results cannot be directly compared to *Riester* and *Rürup* insurance contracts.

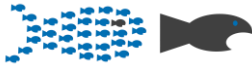
Voluntary Occupational Pensions

For a long time, occupational pension plans have typically been provided by employers on a voluntary basis. Since January 2002, however, employees have the right to occupational pensions through deferred compensation. This means that future salary or special payments, such as vocational benefits or salary increases for up to 4% of a variable contribution cap¹⁹⁰, can be converted to entitlements to a pension - if not regulated differently by a labour agreement. While employers have to comply with the demand for occupational pensions and execute them, they can choose when it comes to structuring the retirement provision, leaving little to no choice to

¹⁸⁸ Bundesministerium für Arbeit und Soziales (2016).

¹⁸⁹ Data on income tax for a given year can only be completed three years later and is subsequently reprocessed by State Statistical Offices. The data also includes joint tax assessments.

¹⁹⁰ *"Beitragsbemessungsgrenze"*; there are differences between "West" and "Ost" due to the difference of the general level of salaries, but the variable contribution cap is always 4%. The *"Beitragsbemessungsgrenze Ost"* will gradually be aligned from 2018 until 2025.



beneficiaries. There are five types¹⁹¹ of occupational retirement schemes that can be divided into two sub-pillars:

- one direct pension promise (book reserves); and
- four external types of occupational pension schemes (support funds, direct insurance, *Pensionskassen* and pension funds).

To some extent, the five different financing methods compete with each other, but it is also possible to combine two or more types. Both employers' and employee's contributions to occupational pensions are voluntary, however employers have to at least offer a direct insurance pension scheme so that employees may benefit from tax advantages (deferred taxation) and social security contribution savings if they choose to contribute. When there is a binding labour agreement, occupational pensions are generally organised for whole industrial sectors and there is no employee's right to demand divergent occupational pension provisions. Many collective agreements also oblige employers to participate financially in occupational pensions and withdraw the employer's right to choose the retirement scheme. Indeed, employer-funded pensions represent the largest share of occupational schemes, though an increasing number of deferred compensation arrangements can be found. If the occupational pension is structured as a deferred compensation and contributions are subsequently exempt from taxation and social security contributions, this will in turn lower claims from the statutory pension insurance.

Occupational pensions in Germany are managed as defined benefit (DB) plans, either as traditional or hybrid ones that can take the form of contribution-oriented DB plans with an annual minimum return guarantee, or as contribution-oriented DB plans with a minimum guarantee of the sum of nominal contributions at the retirement. The German labour law requires employers to guarantee employee's given pension promises. All occupational pensions also have to cover at least one biometric risk, such as longevity, disability or death¹⁹².

Book reserves ("Direktzusage")

Book reserves are direct pension provisions that the employer realises on the company's balance sheet in order to pay an occupational pension once the employee reaches the retirement age. In recent years, an increasing number of employers' resorts to external funding of the provisions through Contractual Trust Arrangements (CTAs). The legislator obliges to protect claims from book reserves through the "*Pensions-Sicherungs-Verein*" (PSVaG) in the case of an employer's insolvency. Reserves via CTAs are protected from creditors in the case of insolvency through legal independency. Book reserves are usually designed as pure benefits given by employers, though

¹⁹¹ The aba (Arbeitsgemeinschaft für betriebliche Altersversorgung e.V., German Association for Occupational Pensions) - Occupational Pension Landscape in Germany – January 2015

<https://www.aba-online.de/en/docs/attachments/42616471-6d26-4abc-a4de-5aa328b5fc8c/20150121-Occupational-Pension-Landscape-in-Germany.pdf>

¹⁹² <http://www.aba-online.de/glossar.html> (Accessed on 14 June 2017).



deferred compensation arrangements are generally also possible. If an employee leaves the company, there is no possibility to continue the retirement provision through private funding, though deferred benefits are maintained. Book reserves are the most widely used type of occupational pension plans in terms of assets under management.

Support funds (“Unterstützungskasse”)

Support funds, one of the oldest forms of occupational pension schemes, are institutions funded by one or several companies to provide retirement provisions for employees. The latter have no direct legal claim to benefits from support funds, only from their employers. Support funds invest the deposited funds to pay a company pension at a later date. If there is not enough money in the support fund to meet retirement commitments, employers have to compensate for the difference. The “*Pensions-Sicherungs-Verein*” (PSVaG) protects employee’s benefits in the case of an employer’s insolvency.

Direct insurance (“Direktversicherung”)

These types of occupational pensions are life insurance contracts that an employer enters into with an insurance company for its employees. Only last-mentioned or surviving dependents have claims to benefits from direct insurances. The insurance contracts can be continued with personal contributions if the employee leaves the company or, under specific conditions, be transferred to a new employer. If an employee solely contributes to a direct insurance, exemptions from taxation and social security contributions can be granted¹⁹³ or, alternatively, the employee can make use of the *Riester* support if the contributions are made from individually taxed income.

Regulated by the German occupational pension law, both the individual transfer of occupational pension claims and the application of the *Riester* support under above-mentioned prerequisite also apply to *Pensionskassen* and pension funds.

“Pensionskassen”

Pensionskassen are institutions, formed by one or several companies, which take the form of special life insurance companies. They are legal entities that continue to pay benefits even in the case of an employer’s insolvency and are supervised by the German Federal Financial Supervisory Authority (“*Bundesanstalt für Finanzdienstleistungsaufsicht*”; BaFin). In contrast with direct insurances, employees become direct insurees and often even members of the *Pensionskasse*. The traditional form (“*regulierte*”) of *Pensionskassen* offers classic life annuity contracts that may invest a maximum of 35% of the capital in equity. They are allowed to implement divergent actuarial interest rates and even to change the applicable mortality table. The new (“*deregulierte*”) *Pensionskassen*,

¹⁹³ For direct insurance, *Pensionskassen* and pension funds: 4% of the contribution cap “*Beitragsbemessungsgrenze West*” (BBVG-RV West) + €1,800 are tax exempt; 4% of the BBVG-RV West are exempt from social security contributions.



in place since 2006, must act as life insurers with guaranteed interest rates and specific calculation standards.

Pension funds (“Pensionsfonds”)

Pension funds were introduced on 1 January 2002 as a new type of occupational retirement scheme. They are legal entities that grant employees a legal right to pension benefits. In contrast to *Pensionskassen* and direct insurances, pension funds are not subject to quantitative investment rules, hence their risk is generally higher. Pension funds are supervised by the BaFin, and entitlements of members and beneficiaries are protected by the PSVaG in case of insolvency of the sponsoring employer. Retirement payments can be fulfilled as lifelong annuities but there is also the possibility to have a lump-sum pay-out at the beginning of the retirement phase.

According to the statistics of the German Insurance Association (see table DE2), the number of contracts managed by pension funds (0.6 million) remains much lower than the number of contracts managed by Pensionskassen (3.63 million). Nevertheless, the former increased by 89% over the past ten years, while the latter only increased by 7.4%.

Table DE2. Number of contracts for occupational pension schemes recorded by the German Insurance Association GDV (in millions)

	Direct insurance and reinsurance	Pension funds	Pensionskassen	Total
2010	9.51	0.32	3.38	13.21
2011	9.97	0.34	3.50	13.81
2012	10.40	0.46	3.61	14.47
2013	10.59	0.49	3.66	14.74
2014	10.81	0.51	3.72	15.04
2015	11.02	0.53	3.75	15.30
2016	11.23	0.47	3.74	15.43
2017	11.58	0.49	3.71	15.78
2018	11.89	0.52	3.69	16.10
2019	12.01	0.56	3.68	16.25
2020	12.15	0.60	3.63	16.38

Source: Gesamtverband der Deutschen Versicherungswirtschaft e. V. (GDV) - Die deutsche Lebensversicherung in Zahlen 2021

The *Riester* support is rarely used within the framework of occupational pension schemes. It is registered in only 1-2% of cases¹⁹⁴.

While pure defined contribution (DC) plans cannot be found in Germany to date, a law introducing DC pension plans without guarantees, set up by collective bargaining agreements, passed

¹⁹⁴ Bundesministerium für Arbeit und Soziales (2012).



legislation in the summer of 2017. This so-called “*Betriebsrentenstärkungsgesetz*” likewise allows for auto-enrolment of employees in a pension plan with voluntary opting-out within a specified time frame and incorporates measures to strengthen occupational pensions for low-income workers through e.g., allowances and tax incentives.¹⁹⁵

According to a proposal submitted to the Bundesrat by the ministers of the Land of Hesse in April 2018, employees not covered by a professional scheme would automatically be affiliated to an individual pension scheme created by the government.

Voluntary Personal Pensions

Over the last few years, the German government has undertaken significant communication efforts to advertise personal provisions for old age to supplement the statutory pension insurance. Since 2002, *Riester* pension savings are being promoted by the government through two different channels: subsidies and taxation reliefs. In 2005, the *Rürup* pension was introduced to specifically support the self-employed through tax exemptions.

Riester pensions

*Riester*¹⁹⁶ products are formally certified personal pension plans with the objective of building up a funded retirement pension supplement. They are subject to deferred taxation, and subscribers receive subsidies from the German state. The amount received depends on personally invested contributions. Subsidies are at their maximum if the total contributions to a *Riester* product (that is, personally invested contributions plus subsidies) reach at least 4% of the individual’s previous year’s income, up to a maximum of €2,100. The subsidies add up to €175 per adult (according to the pension law of summer 2017), plus €300 for each child born since 2008 and €185 for those born before 2008. Subscribers that are younger than 25 receive a bonus of up to €200 at the moment of subscription to a *Riester* product. The minimum contribution to receive the full subsidies is €60 per year. If the calculated minimum contribution for a low-income earner is less than €60, this minimum contribution of 60 euros must always be paid in order to receive full support. If an individual pays less than his or her minimum contribution (4% of the individual’s previous year’s income - maximum €2,100 -, less any subsidies due, but at least €60 per year), his or her subsidies are reduced proportionately.

Though rarely used in this context, the *Riester* support is also applicable to occupational pension plans for the following three types: direct insurances, *Pensionskassen* and pension funds. *Riester* subsidies and tax allowances are personal and can only be passed on to a spouse’s *Riester* contract in the case of death.

¹⁹⁵ <http://dip21.bundestag.de/dip21/btd/18/112/1811286.pdf> (Accessed on 14 June 2017).

¹⁹⁶ Named after former Federal Minister for Labour and Social Affairs: Walter Riester.



Riester pension benefits can be paid out starting at the age of 62, or at the age of 60 for contracts concluded before 2012. The subscriber obtains the right to convert the invested capital into a life annuity, or a programmed withdrawal where up to 30% of the accumulated savings can be paid out as a lump-sum. Furthermore, one fifth of the accumulated savings is reserved for life annuities starting at the age of 85.¹⁹⁷

The following types of investments are eligible as *Riester* products:

- Bank savings plan ("*Bankspargplan*"): These contracts are typical long-term bank savings plans with fixed or variable interest rates.
- Pension insurance contract ("*Rentenversicherung*"): These *Riester* plans, offered by insurance companies, exist in two forms. There are typical pension insurance contracts consisting of guaranteed returns and a participation in profits. Additionally, there are also hybrid contracts where a fraction of the retirement savings is invested in investment funds. They consist of both a guaranteed part and a unit-linked part that depends on the performance of the investment funds.
- Investment fund savings plan ("*Fondssparplan*"): Savings are unit-linked, invested into investment funds chosen by the subscriber from a pool of funds proposed by a financial intermediary. The intermediary has to at least guarantee that the invested money plus the state's subsidies are available at the moment of retirement. In the case of premature withdrawals, a loss of capital is possible.
- Home loan and savings contract ("*Wohn-Riester/Eigenheimrente*"): These contracts take the form of real estate savings agreements. This most recent type of *Riester* scheme is based on the notion that rent-free housing at old age is a sort of individual retirement provision comparable to regular monetary payments.

At the end of March 2021, 16.3 million *Riester* contracts had been subscribed. After steady increases in the early periods following its establishment, considerably fewer pension insurance contracts have been subscribed since 2012. The number of open contracts remained stable since 2015 and even decreased slightly every year since 2018. Suggested explanations include the current environment of low interest rates along with less favourable media coverage of *Riester* products - reinforcing a general mistrust and doubt¹⁹⁸ concerning funded retirement savings. It should be noted that an individual can subscribe to several *Riester* contracts at the same time, so a direct inference of the number of individuals possessing a *Riester* contract is not possible. However, State subsidies (allocations and income tax reliefs) are only possible for up to 4% of the individual gross income (maximum €2,100 per year). In fact, a small number of non-subsidised *Riester* contracts exist. This is independent from the fact that many *Riester* policy holders "forget" to ask for state subsidies, and that others do not get the complete allocations. About two-thirds of *Riester* contracts take the form of pension insurance contracts, making it by far the most important

¹⁹⁷ Bundesministerium für Arbeit und Soziales (2014).

¹⁹⁸ Evidence of this can be found in Hagen, Kleinlein (2012).



type of *Riester* investment despite a decrease of subscriptions observed since 2015. According to Federal Ministry of Labour and Social Affairs, more than one fifth of the *Riester* contracts are currently put on hold - meaning that savers are suspending their contributions.¹⁹⁹

Table DE3. Number of *Riester* contracts (in thousands)

	Pension insurance contracts	Bank savings plan	Investment fund savings plan	Home loan and savings contract	Total
2001	1 400	NA	NA	0	1 400
2002	2 998	150	174	0	3 322
2003	3 451	197	241	0	3 889
2004	3 557	213	316	0	4 086
2005	4 524	260	574	0	5 358
2006	6 388	351	1 231	0	7 970
2007	8 194	480	1 922	0	10 596
2008	9 285	554	2 386	22	12 247
2009	9 995	634	2 629	197	13 455
2010	10 484	703	2 815	460	14 462
2011	10 998	750	2 953	724	15 425
2012	11 023	781	2 989	953	15 746
2013	11 013	805	3 027	1 154	15 999
2014	11 030	814	3 071	1 377	16 292
2015	10 996	804	3 125	1 564	16 489
2016	10 931	774	3 174	1 691	16 570
2017	10 881	726	3 233	1 767	16 607
2018	10 827	676	3 288	1 810	16 601
2019	10 772	627	3 313	1 818	16 530
2020	10 688	592	3 297	1 793	16 370
2021 Q1	10 661	584	3 292	1 776	16 313

Source: Federal Ministry of Labour and Social Affairs

Rürup Pensions

Introduced in 2005, the *Rürup*²⁰⁰ pension (or “*Basisrente*”) is the most recent form of pension provision and, next to occupational pension plans and *Riester* pension plans, the third type of private pension that is supported by the German state through tax exemptions. The *Rürup* pension actually has similar characteristics to the statutory pension insurance. Contributions are utilised for

¹⁹⁹ <http://www.bmas.de/DE/Themen/Rente/Zusaetzliche-Altersvorsorge/statistik-zusaetzliche-altersvorsorge.html>. (data extracted on 12 July 2020)

²⁰⁰ Named after German economist Bert Rürup.



monthly life annuities, starting with the retirement phase at the age of 62 (or at the age of 60 for contracts concluded before 2012), and there is no possibility of lump-sum payments. The benefits are personal, thus non-transferable, and cannot be disposed or capitalised either. Contributions are exempt from taxation up to a high deduction cap. *Rürup* pensions, specifically designed for self-employed persons and freelancers who could not benefit from state supported pension savings before its establishment, are beneficial for those with higher revenues because of the high tax-exempt savings amount. They take the form of pension insurance contracts that are, in contrast with *Riester*, irredeemable, for which invested funds cannot be regained before the retirement phase. It is also possible to subscribe to *Rürup* insurance contracts that invest in investment funds through savings plans. Such contracts can be designed with or without capital guarantees²⁰¹.

Table DE4. Number of *Rürup* pension (or “Basisrente”) contracts recorded by the German Insurance Association GDV (in millions)

2005	0.15
2006	0.30
2007	0.61
2008	0.86
2009	1.08
2010	1.28
2011	1.49
2012	1.66
2013	1.76
2014	1.88
2015	1.98
2016	2.06
2017	2.14
2018	2.25
2019	2.32

Source: Gesamtverband der Deutschen Versicherungswirtschaft e. V. (GDV)

Life insurance and pension insurance contracts

Retirement provision in Germany is also carried out through classic pension insurance products or life insurance products, possibly the ones that are unit-linked. However, if not certified within the framework of the *Riester* pension, the *Rürup* pension or as an occupational pension plan, these contracts do not benefit from initial tax deductions or allowances. Nonetheless, they do play an important role in personal retirement provisions with about 63.7 million contracts concluded at the

²⁰¹http://www.bundesfinanzministerium.de/Content/DE/Standardartikel/Themen/Steuern/Weitere_Steuerthemen/Produktinformationsblatt/2016-12-12-Produktinformationsblatt-Basisrente.html



end of 2020²⁰². These contracts are of a diverse nature. They usually start paying out at the moment of retirement, though there are also contracts that pay immediately after conclusion (“*Sofortrente*”). It is possible to redeem both via lump-sums and annuities.

While the pension law of summer 2017 mainly aimed at strengthening occupational pensions, personal pensions are likewise impacted as the basic allowances for *Riester* contracts increased from €154 to €175 from early 2018.

Charges

Information on the multifaceted types of charges for private pension products are rather hard to obtain and often non-transparent for individuals, which complicates the decision-making process.

Within Pillar II, due to the DB character of pension schemes, employers have an interest in cost-efficient pension provision, and the competition among different financing methods creates pressure on costs. In the case of book reserves and support funds, an employer has to meet the specified retirement commitments agreed upon, thus charges will not be discussed within the scope of these two types of occupational pension.

One of the main advantages of occupational pension schemes is that charges are usually lower than for personal pension plans because they are spread over larger groups. Employers often receive quantity discounts or customised rates with lower administrative charges. This is especially the case if rates are defined for whole industry sectors.

The following operating expenses data for autonomous occupational pension funds (*Pensionskassen* and pension funds) are available in the OECD Pension indicators database²⁰³ and are provided by the Federal Financial Supervisory Authority (BaFin). Charges are expressed as a percentage of the funds’ total assets. We did not find any charges data shown separately for occupational direct insurances. We did not find any data on acquisition costs which are opaque in the case of occupational schemes and even prohibited by law for traditional *Pensionskassen*.

Operating expenses comprise all costs arising from the general administration of the plan/fund that are treated as plan/fund expenses (i.e., investment management costs and administrative costs):

- Investment expenses shall comprise all costs arising from investment management, such as: internal investment personnel costs; investment management fees (paid to external asset managers); trading expenses; legal fees (investment management related); custodian, accounting and performance measurement fees; property maintenance costs; asset consultant fees; other investment expenses.

²⁰² <https://www.gdv.de/de/zahlen-und-fakten/versicherungsbereiche/renten--und-kapitalversicherungen-24038>

²⁰³ <http://www.oecd.org/daf/fin/private-pensions/globalpensionstatistics.htm> (data extracted on 9 July 2021)



- Administrative costs shall comprise all administrative costs, such as: interest expense; actuary fees; directors/trustees fees and expenses; personnel costs (excluding investment managers); external sales agents; total fees paid to audit firm; IT expenditures; rental costs; other legal fees (excluding those related to investment management); other administrative costs.

Table DE5. Operating expenses as a % of total assets for autonomous occupational pension funds

	Investment expenses	Administrative costs	Total
2002	0.132	0.122	0.254
2003	0.393	0.363	0.756
2004	0.509	0.471	0.980
2005	0.304	0.281	0.585
2006	0.222	0.205	0.427
2007	0.163	0.151	0.314
2008	0.144	0.133	0.277
2009	0.139	0.119	0.258
2010	0.128	0.110	0.238
2011	0.118	0.101	0.219
2012	0.118	0.093	0.211
2013	0.114	0.094	0.208
2014	0.111	0.086	0.197
2015	0.122	0.088	0.210
2016	0.111	0.083	0.194
2017	0.108	0.077	0.185
2018	0.113	0.096	0.209
2019	0.104	0.091	0.195

Source: OECD - Pension Markets in Focus 2020 – Data extracted on 9 July 2021



Table DE6. Life insurance expense ratios

	Acquisition charges (as % of total premiums for new policies)	Administrative charges (as % of investments)
2000	5.6	0.40
2001	5.5	0.39
2002	5.4	0.38
2003	5	0.37
2004	4.5	0.35
2005	5.6	0.35
2006	4.9	0.33
2007	5.2	0.31
2008	4.9	0.30
2009	5.2	0.29
2010	5.1	0.27
2011	5	0.25
2012	5	0.25
2013	5.1	0.24
2014	5	0.23
2015	4.9	0.22
2016	4.8	0.21
2017	4.7	0.20
2018	4.6	0.20
2019	4.4	0.19
2020	4.4	0.18

Source: Gesamtverband der Deutschen Versicherungswirtschaft e. V. (GDV)

Charges for *Riester* products are often the topic of negative media coverage. It is frequently stated that the charges consume almost all of the state's subsidies. Especially challenging for individuals is the complicated cost structure and the lack of transparency of *Riester* contracts. For instance, there are internal costs, like acquisition costs, distribution costs and administrative costs, that are derived from differing and sometimes ambiguous determination bases, as well as external costs if parts are invested into investment funds. Recently, charges on capital withdrawals in the retirement phase have been at the centre of criticism. This opacity has created a curious situation where even providers with favourable charges are unable to properly set themselves apart from those more expensive ones. From a legal standpoint, until 2016, the German legislator only dictated that acquisition costs of *Riester* products had to be spread over at least 5 years to alleviate the initial cost burden.



Calculations by the German government in the early 2000s estimated the total charges to be 10% of the yearly savings premium, and this has become the standard for *Riester* charges calculations ever since²⁰⁴. Our own research shows that estimations of total charges of, on average, 10% to 12% of the yearly savings premium can be assumed. However, one can observe an enormous cost span from 2.5% to 20% for insurance contracts²⁰⁵.

With regard to the less-used *Rürup* contracts and their shorter history, information is even harder to obtain. For a long time, there has been very little transparency regarding the cost structure, as there was no obligation by law for detailed disclosures. In contrast to *Riester* products, there is no obligation to spread the initial acquisition and distribution charges over a defined period²⁰⁶, but application of the same conditions as for *Riester* products is common. The total charges for *Rürup* pensions expressed as percentages of the yearly savings premium are estimated by practitioners to be a little lower than for *Riester* pensions. Other personal retirement provisions, such as classic pension insurance and life insurance contracts, are likewise often stated to have slightly lower total charges than *Riester* products.

Since 1 January 2017, in order to increase transparency and comparability, every consumer receives corresponding product information sheets before the subscription to a *Riester* or *Rürup* contract. These information sheets are standardised and contain, along with details of individual charges, actual costs illustrating a reduction in yield ratio which should allow for a better comparison among products of the same risk type. Also enforced from this date are charges arising from changes by *Riester* or *Rürup* providers for contracts after 1 January 2017, now subject to hard caps such as distribution cost application to only 50% of the transferred subsidised capital²⁰⁷.

Average effective costs are not available for the periods under review within this study, hence for our calculations we only consider two types of charges at our disposal: acquisition and administrative charges. For the years 2016 and 2017, *Assekurata*²⁰⁸ calculated average effective costs of about 0.8%²⁰⁹ per year, which would lead to a heavier charge burden than what our calculations can capture.

²⁰⁴ Rürup-Kommission (2003).

²⁰⁵ Gasche, Bucher-Koenen, Haupt, Angstmann (2013).

²⁰⁶ ZEW (2010).

²⁰⁷ <http://www.bundesfinanzministerium.de/Content/DE/Monatsberichte/2013/07/Inhalte/Kapitel-3-Analysen/3-4-die-gefoerderte-private-altersvorsorge.html> (Accessed on 17 July 2018).

²⁰⁸ "ASSEKURATA Assekuranz Rating-Agentur GmbH" (www.assekurata.de) is a private company specialized in the quality assessment of insurance companies from a customer's perspective providing rating and analysis services. For instance, ASSEKURATA is the only rating agency incorporating policy holder's opinions on their insurers gathered from customer surveys directly into their verdicts. ASSEKURATA, as a licensed European rating agency, is supervised by the European Securities and Markets Authority (ESMA). Calculations by Assekurata are renowned and utilised by governmental, corporate and consumer structures.

²⁰⁹ Assekurata (2017).



Taxation

A reorganisation of retirement savings taxation has been instructed by a Federal Constitutional Court decision from 2002. This revision came into effect in 2005 whereupon taxation is based on a model that divides the different forms of retirement savings according to three groups.

The statutory pension insurance and the *Rürup* pension belong to the first group. Funded pension schemes like occupational pensions and the *Riester* pension belong to the second group. The third group covers the standard pension insurance or life insurance products due to their likewise existent function as investment products.

Contributions to products from the third group always have to be paid from taxed income. The products from the first two groups are subject to deferred taxation. Contributions up to a deduction cap are exempt from taxation and generally subject to tax in its entirety during the pay-out phase.

While products from the second group have already been partially subject to deferred taxation before 2005, this has not been the case for products from the first group. A transitional phase towards complete deferred taxation started in 2005 and since then, every year, higher amounts of contributions can be deducted from taxation and consequently the amount of retirement pay-outs subject to taxation rises. In 2025, pension savings for up to €20,000 for individual insurees and €40,000 for spouses will be exempt from initial taxation. 60% of the maximal amount was tax deductible in 2005 which means the percentage rises 2% each year until the maximum is attained in 2025. The 50% contribution by employers is already tax exempt, so in 2016, 32% of an employee's total contributions to retirement savings were tax exempt.

The percentage of retirement pay-outs subject to taxation was 50% in 2005. Since then, for each year following, the percentage of retirement pay-outs subject to taxation for new retirees rises at a rate of 2%. This means that in 2020, new retirees will pay taxes on 80% of their retirement pay-outs. From 2020 onwards, the rate will rise at 1% annually and consequently retirees from 2040 onwards will have to pay full taxes on their retirement pay-outs²¹⁰.

Voluntary Occupational Pensions

For occupational pension plans in 2013, and for commitments starting from 2005 on, the following taxation rules apply for the individual types of occupational pension schemes:

Book reserves and support funds

Book reserve and support fund contributions through deferred compensation are fully tax exempt while up to 4% of a variable contribution cap is exempt from social security contributions. Benefits are taxed as income at the personal rate.

²¹⁰ Deutsche Rentenversicherung (2017).



Direct insurances, Pensionskassen and pension funds

Direct insurances, *Pensionskassen* and pension funds are treated identically according to taxation legislation. In 2017, contributions through deferred compensation were tax exempt for up to €4,848 (4% of the 2017 contribution cap, €1,800) and exempt from social security contributions for up to €3,048 (4% of the 2017 contribution cap)²¹¹. Investment income is tax exempt while benefits are subject to taxation.

Voluntary Personal Pensions

Riester pensions

Since 2008, total contributions to a *Riester* product of at most €2,100 are exempt from initial taxation even if this amount is more than 4% of the previous year's income. An automatic review by fiscal authorities within the framework of the income tax statement assures further fiscal relief on the difference originating if the tax deductions exceed the state's subsidies. During the savings accumulation period, investment income is likewise tax exempt, while benefits are taxed in the retirement phase but exempt from social security contributions.

Rürup pensions

Contributions to *Rürup* pensions will be exempt from taxation for up to €20,000 per adult in the year of 2025. In the year of 2005, 60% of this ceiling was exempt from taxation and during a transitional phase, the percentage rises at a rate of 2% each year.

Table DE7. Tax exemptions for *Rürup* contributions

Year of contribution	2005	...	2016	...	2020	...	2025
Tax deductible	60%	...	82%	...	90%	...	100%

Source: Bundesministerium der Finanzen (2016)

Table DE8. Taxation of *Rürup* benefits

Year of benefit	2005	...	2016	...	2020	...	2040
Tax deductible	50%	...	72%	...	80%	...	100%

Source: Bundesministerium der Finanzen (2016)

Benefits from *Rürup* pensions are taxed in the retirement phase at the personal income tax rate. In 2005, 50% of the benefits were subject to deferred taxation. Until the year 2020, the taxable part of each year increases at 2%. From then on, the proportion will increase by 1% each year until finally, from the year 2040 on, benefits will be fully taxed²¹².

²¹¹ If the limits have not already been reached by employers' contributions.

²¹² Bundesministerium der Finanzen (2016).



Life insurance and pension insurance contracts

Other retirement savings products that are not particularly promoted by the German state are taxed as follows for all contracts subscribed to since 1 January 2005:

Contributions are no longer tax deductible as special expenses and have to be made from taxed income. Benefits are taxed at the personal income tax rate on corresponding earnings (the difference between contributions and total pay-outs) in the retirement phase. Furthermore, one has to differentiate whether the insurance benefit is carried out as a one-time lump-sum payment or if a lifetime annuity payment is chosen. In the case of lump-sum pay-outs, if the contract runs for at least 12 years and the insured is older than 60 years, or 62 years (for contracts subscribed to after 31 December 2011), only 50% of the earnings are subject to taxation. If these conditions are not met, the full earnings are taxed. In the case of life annuities, even further tax reliefs are possible depending on the age of the first retirement pay-out, as defined in the tax table. For instance, if the retiree is 60 years old, 22% of the earnings are subject to taxation and at the age of 65 only 18%.

Pension Returns

Pension return calculations are not performed for book reserves and support funds. These are individual commitments to employees that will not increase or decrease depending on asset performances. The commitments are protected by the PSVaG, hence employees can estimate the exact amount they can expect in the retirement phase. Furthermore, we do not have data on performance or charges available for the 2nd pillar direct insurances – thus we cannot perform real return calculations for this occupational financing vehicle either.

These drawbacks should be kept in mind when interpreting real returns, as well as the impact of subsidies, such as allowances.

Voluntary Occupational Pensions

Pensionskassen and pension funds

The following table shows real return calculations for Pillar II aggregate *Pensionskassen* as well as pension funds supervised by BaFin.



Table DE9. Average annual rate of investment returns for autonomous occupational pension plans (in %)

	Nominal return* before administrative costs, inflation and tax	Nominal return after charges and before tax, inflation	Real return after charges and inflation and before taxes	Real return after charges and inflation and after taxes
2002	2.81	2.68	1.56	1.22
2003	4.58	4.20	3.07	2.54
2004	4.94	4.45	2.11	1.55
2005	4.89	4.60	2.42	1.84
2006	4.60	4.39	2.96	2.41
2007	4.16	4.01	0.90	0.40
2008	1.62	1.49	0.38	0.19
2009	4.76	4.64	3.73	3.15
2010	4.94	4.82	2.93	2.32
2011	3.01	2.91	0.66	0.29
2012	4.82	4.73	2.59	2.00
2013	4.29	4.20	2.94	2.41
2014	4.61	4.52	4.42	3.85
2015	3.37	3.27	3.07	2.65
2016	3.81	3.72	2.08	1.61
2017	3.76	3.68	2.16	1.70
2018	1.91	1.81	0.16	-0.07
2019	4.69	4.60	3.02	2.44
Avg / Year	3.97	3.81	2.28	1.80

* Nominal return after investment management costs

Source: OECD Pension Markets in Focus (2020) for Nominal Returns; OECD Pension Indicators database (Accessed on 9 July 2021) for charges; Eurostat; OEE calculation.

To simulate the impact of taxation on the real return of *Pensionskassen* and pension funds, the average income tax rate for retirees (18%) has been applied to the 70% of the pay-outs that were subject to deferred taxation in the year of 2015.

Since German pension funds and *Pensionskassen* are currently exclusively offered as DB or hybrid plans (see Pension Vehicles), employees bear minor risks when investments perform poorly²¹³.

Voluntary Personal Pensions

Information on the performance of personal pension plans is hard to obtain and there are considerable controversies surrounding the proper estimation method, notably for *Riester* insurance contracts.

Calculations of real returns for Voluntary Personal Pensions are only executed for insurance contract types since information on returns and charges is not consistently available for other types

²¹³ OECD (2016)



of personal pension plans. Nonetheless, this provides an important insight into the most important part of promoted personal pension plans since about two-thirds of all *Riester* pensions are designed as pension insurance contracts, as are all *Rürup* pensions.

The following real return estimations are based on average return rates calculated by *Assekurata*. One has to keep in mind that the calculations made by *Assekurata* are based on voluntary participations. For instance, in 2021, 78 insurance companies were asked to participate in the survey representing more than 99% of the market. 47 providers responded, corresponding to 79% of the market share. This may lead to a bias based on voluntariness. The return rates provided by *Assekurata* are composed of a guaranteed interest part ("*Höchstrechnungszins*" or "*Garantiezins*"), set and capped by the German Federal Ministry of Finance, and a surplus sharing part ("*Überschussbeteiligung*")²¹⁴. Furthermore, the return figures provided are related to the investment part of the gross premium which is only about 60% to 90% of the total premium depending on not only deductions of distribution and administrative charges, but also risk premium²¹⁵.

Though already introduced in 2002, data on investment return rates has only been available since 2005 for *Riester* pensions, just like for *Rürup* pensions which were introduced that year. Return rates for classic pension insurances are available for a 21-year period. For our real return estimations, we assumed that acquisition charges are spread over five years for all insurance contract types. Consequently, the charge burden in the first five years is more severe.

²¹⁴ Terminal bonuses and participation in valuation reserves are not included in these calculations as they are difficult to compare and not equally applied. Terminal bonuses are usually paid on the maturity of the policy or on death. Similarly, valuation reserves only apply to about 5% of policy holders. One has to keep in mind that they account for, on average, 20% of the total return.

²¹⁵ In life insurers' advertisements, the return percentage figures that are published are always linked to the investment part of the premiums and, very often, the insurers do not differentiate between the gross premium and the investment part of the premium which is misleading from a consumer's perspective.



Riester pension

**Table DE10. Riester pension insurances' average annual rate of investment returns (in %)
Including acquisition charges**

	Nominal return before charges, inflation, tax	Nominal return after charges and before tax, inflation	Real return after charges, inflation and before tax	Real return after charges and inflation and after taxes
2005	4.24	2.84	0.70	0.33
2006	4.18	2.80	1.39	1.03
2007	4.18	2.82	-0.25	-0.61
2008	4.36	3.01	1.88	1.49
2009	4.27	2.93	2.04	1.66
2010	4.19	3.91	2.03	1.52
2011	4.05	3.79	1.52	1.03
2012	3.92	3.66	1.55	1.07
2013	3.56	3.31	2.06	1.63
2014	3.35	3.11	3.01	2.61
2015	3.11	2.88	2.68	2.30
2016	2.78	2.56	0.94	0.61
2017	2.50	2.29	0.80	0.50
2018	2.43	2.23	0.56	0.27
2019	2.41	2.22	0.67	0.39
2020	2.19	2.01	2.68	2.42
Avg / Year	3.48	2.90	1.51	1.14

Source: Assekurata; Eurostat; GDV; OEE calculation

It is important to note though that for *Riester* products, subsidies which are not included in these calculations can play an important role in determining their performance. This is especially the case for low earners or for families with many children. Average and high earners benefit significantly from tax exemptions.



Rürup pension

Table DE11. Rürup pension's average annual rate of investment returns (in %)
Including acquisition charges

	Nominal return before charges, inflation, tax	Nominal return after charges and before tax, inflation	Real return after charges, inflation and before tax	Real return after charges and inflation and after taxes
2005	4.31	2.91	0.77	0.39
2006	4.20	2.82	1.41	1.05
2007	4.21	2.85	-0.22	-0.59
2008	4.37	3.02	1.89	1.50
2009	4.27	2.93	2.04	1.66
2010	4.21	3.93	2.05	1.54
2011	4.07	3.81	1.54	1.05
2012	3.90	3.64	1.53	1.06
2013	3.57	3.32	2.07	1.64
2014	3.36	3.12	3.02	2.61
2015	3.13	2.90	2.70	2.32
2016	2.81	2.59	0.97	0.64
2017	2.52	2.31	0.82	0.52
2018	2.45	2.25	0.58	0.29
2019	2.41	2.22	0.67	0.39
2020	2.19	2.01	2.68	2.42
Avg / Year	3.50	2.91	1.53	1.15

Source: Assekurata; Eurostat; GDV; OEE calculation

As discussed in the Pension Vehicles chapter, the contributions to *Rürup* pensions are, in contrast to *Riester* pensions²¹⁶, not guaranteed and cannot be recalled or capitalised, which can lead to the following difficulty: *Rürup* pensions were especially introduced for self-employed people and freelancers whose income may vary considerably from year to year, in particular in times of crisis. If contributions can no longer be maintained, and with contracts that are concluded lifelong, ongoing administrative charges can gradually diminish invested retirement savings. Hence, consumer advice centres²¹⁷ usually only advice *Rürup* pensions if consumers are professionally established and if the payments of contributions are secured in the long run²¹⁸.

In order to simulate after-tax real returns, the average income tax rate estimation for retirees has been applied to the 72% of the pay-outs that were subject to deferred taxation in the year of 2016.

²¹⁶ Contributions (gross premiums) and state subsidies for all kinds of *Riester* contracts are guaranteed.

²¹⁷ Such as Verbraucherzentrale Hamburg e. V.

²¹⁸ Gasche, Bucher-Koenen, Haupt, Angstmann (2013).



Personal pension insurance

The classic pension insurance is not subject to deferred taxation and data is available for a longer time span so one has to be careful with the comparison of investment returns within the Pillar III. Since contributions have to be paid from taxed income, classic pension insurances are generally less favourable than *Riester* or *Rürup* pensions with regard to the tax burden. However, the complexity of taxation in all three stages (contribution phase, accumulation phase²¹⁹ and pay-out phase) could not be taken into account within this study and consequently after-tax simulations are only executed for pension products with deferred taxation schemes. The following table shows real return calculations for Pillar III pension insurance contracts.

Table DE12. Pension insurances' average annual rate of investment returns (in %) - Including acquisition charges

	Nominal return before charges, inflation, tax	Nominal return after charges and before tax, inflation	Real return after charges, inflation and before tax
2000	7.15	5.66	3.41
2001	7.10	5.62	4.18
2002	6.12	4.66	3.51
2003	4.84	3.41	2.29
2004	4.43	3.03	0.72
2005	4.31	3.94	1.78
2006	4.24	3.90	2.48
2007	4.25	3.93	0.83
2008	4.39	4.08	2.94
2009	4.28	3.98	3.08
2010	4.20	3.92	2.04
2011	4.07	3.81	1.54
2012	3.91	3.65	1.54
2013	3.61	3.36	2.11
2014	3.40	3.16	3.06
2015	3.16	2.93	2.73
2016	2.86	2.64	1.02
2017	2.61	2.40	0.91
2018	2.47	2.27	0.60
2019	2.46	2.27	0.72
2020	2.30	2.12	2.79
Avg. / Year	4.09	3.55	2.10

Source: Assekurata; Eurostat; GDV; OEE calculation

²¹⁹ It can be considered that the contribution and the accumulation phases in reality are the same since the beneficiary is contributing normally for the whole duration of his professional career, but for the purpose of our study we are considering money-weighted returns and therefore we distinguish between the moment when the contribution is made, the period of the investment and finally the moment when the investment is redeemed.



The very favourable nominal returns in the early 2000s raise the annual average of classic pension insurances. Return figures from 2005 on resemble those of *Riester* and *Rürup* pensions.

Conclusions

The performance of *Pensionskassen* and pension funds in real terms has been positive over the whole period from 2002-2019, with an annualised average return of 2.28% before taxation. Even the difficult years of 2007, 2008 and 2011 still recorded modest positive real returns. In 2019, they experienced the strongest performance (3.02%) since 2015, following the good performance of stock markets that year. That performance will probably, at least partly, be offset in 2020 with the stock market crash, often referred as the *Corona Crash*, caused by the start of the Covid crisis in March 2020. German Voluntary Occupational Pensions are currently exclusively offered as DB or hybrid plans but pension reforms, including the introduction of DC pension vehicles as early as January 2018, are under way. It remains to be seen if the abandonment of traditional guarantees which has already created much debate and uncertainty among employees and providers can boost participation in occupational pensions, in particular for SMEs.

The real annualised average returns of Voluntary Personal Pensions have also delivered positive results, 1.51% for *Riester*, 1.53% for *Rürup* over a 16-year span and 2.10% for classic pension insurances over a 21-year span. Voluntary Personal Pensions have somewhat stalled over recent years and a considerable share of subscribed *Riester* pensions is put on hold for the time being. Persistent low interest rates, as reflected in the steadily falling guaranteed interest rate (from 2.75% in 2005 to 0.9% in 2017), contribute to render new contracts of these pensions less profitable. While more and more providers already undercut these minimum return guarantees, a definite abolishment of this regulated interest fraction is still under discussion. The other important return part of pension insurances, surplus sharing, has likewise been plummeting over the last years, if nothing else to fulfil commitments of former contracts with higher guarantees. Voluntary Personal Pensions, especially the bureaucratic and expensive *Riester* pensions, continue to be at the centre of controversial debates. In 2020, despite the underperformance of stock markets following the *Corona Crash*, the annualised average returns of Voluntary Personal Pensions increased in real terms, due to the decrease of inflation.



Policy Recommendations

Instead of trying to introduce new forms of old-age provisions, efforts should be focused on improving the existing products. The “Riester” product, with its licensing process, its strict legal framework, its exclusive number of categories and its comparability, is already an existing standardised private product. Nevertheless, the contracts are often criticised for their high costs.

There is a lot of potential for reform within all three systems of old-age provision. Whereas the public pension system should be focused on its core purpose, both company and private pension schemes could be revamped by reducing excess bureaucracy, abandoning contradictory legislation and further enhancing transparency.

Proposals have been made by different stakeholders. It is up to the legislator to take them into consideration and to propel legislation to increase penetration and to make old age provision more sustainable.

The discussion on “Riester” should take into account the fact that more than 16 million people have concluded Riester contracts and trust in this form of private old-age provision. Statutory reforms should therefore retain the current Riester scheme. The aim should be to maintain the current Riester-product diversity, to open it up to all citizens and at the same time to simplify the Riester support and make it more transparent, easier to understand and more attractive for citizens.

An education effort should also be made to encourage people (notably young people) to save for retirement and to promote existing products. A recent survey among young people highlighted that a decreasing number of young adults save for their old age, but an increasing number supports a stronger role of government in additional pension schemes. This obvious contradiction reveals a lack of knowledge regarding the pension system, options already available and the necessity to take responsibility for oneself.



Pension Savings: The Real Return

2021 Edition

Country Case: Italy

Sommario

Il sistema pensionistico italiano ha avuto una spesa pubblica del 17% del PIL nel 2020, 0,2 p.p. aumento rispetto al 2019 (16,8% del PIL). La riforma del sistema pensionistico italiano nel 2011 ha creato un solido regime di primo pilastro, con un tasso di sostituzione aggregato delle pensioni del 73% nel 2019, uno dei più alti tra i casi nazionali presi in esame in questo Rapporto. Considerando anche il tasso di partecipazione relativamente basso delle famiglie italiane ai mercati dei capitali, l'incentivo a indirizzare il reddito disponibile verso il risparmio previdenziale privato o i prodotti di investimento è basso. Complessivamente il 67,3% dei pensionati italiani percepisce una sola pensione e il 24,7% percepisce due pensioni (quindi pensioni pubbliche e private). Ciò risulta evidente se si considera la percentuale del patrimonio dei fondi pensione italiani, pari al 10% del PIL, nonché il tasso di copertura del secondo pilastro del 20% e del terzo pilastro del 14,2% della forza lavoro.

Per quanto riguarda le performance, i fondi pensione contrattuali hanno restituito x% annuo in media negli ultimi 21 anni (2000-2020). I fondi pensione aperti hanno restituito in media x% annuo nello stesso periodo., PIP (Piani Individuali Pensionistici) con utili realizzati in media x% annuo negli ultimi 13 anni, mentre i PIP unit-linked hanno registrato % annua in media nello stesso periodo. Tutti i rendimenti sono espressi al netto di oneri e inflazione.

Summary

The Italian Pension System had a public expenditure of 17% of GDP in 2020, a 0.2 p.p. increase from 2019 (16.8% of GDP). The Italian pension system reform in 2011 created a strong Pillar I scheme, with an aggregate replacement ratio for pensions of 73% in 2019, one of the highest among the country cases under review in this Report. Considering also the relatively low participation rate of Italian households in capital markets, the incentive to direct available income to the private retirement savings or investment products is low. A total of 67.3% of Italian pensioners receive just one pension, and 24.7% received two pensions (meaning public and private pension income). This becomes apparent when looking at the percentage of Italian pension funds' assets, of 10% of GDP, as well as the coverage ratio for Pillar II of 20% and Pillar III of 14.2% of the labour force.

With regards to performances, contractual pension funds returned x% annually on average over the past 21 years (2000-2020). Open pension funds returned -% annually on average over the same



period., PIP (*Piani Individuali Pensionistici*) with-profits experienced % annually on average over the past 13 years, while PIP unit-linked experienced % annually on average over the same period. All returns are expressed net of charges and inflation.

Introduction

The Italian Pension System is divided into three pillars:

- Pillar I – the public (state) pension scheme;
- Pillar II – the occupational (mandatory) pension arrangements;
- Pillar III – the individual (voluntary) pension schemes.

Pillar I – State Pension

The first pillar (state and mandatory) is the main pension vehicle in Italy and is made up of two tiers: the zero and first tiers. The zero tier consists of a social pension ensuring a minimum level of income for the elderly. The first tier covers employed individuals and it constitutes a notional defined contribution system for all future generations.²²⁰

The Italian pension system used to be a Defined Benefit system. Since 1995, it is based on a Notional Defined Contribution system. The Italian state pension system went through intensive reforms. The year 1995 can be seen as a turning point, moving from a defined benefits system towards a defined contribution system. The Dini reform (law 335/1995) is one of the most important law towards the restructuring of the Italian pension system. As a result, all workers entering the job market after 1995 have been accruing their pension entitlement according to a defined contributions method, while before 1995, pension entitlements were computed according to an earnings-related system.

The next pension reform came on the background of an ageing population and a massive pension expenditure (relative to the GDP). In 2011, the minister of Welfare and Social Policy under the Monti Government, Elsa Fornero, implemented a state pension reform (law n.214) to bring the system closer to equilibrium. Under the new system, pension eligibility is based on working years rather than age. Earlier retirement is possible, but subject to penalties. The public pension system was thus sustainable. Nevertheless, the Italian Constitutional Court stated in April 2015 that the suppression of indexation of pensions on inflation included in the “Fornero law” was unconstitutional. The indexation of pensions on inflation will add unforeseen costs to the first pillar, estimated at €500 million.

Further followed the “Quota 100” measure. Since January 1st, 2019, the new measure offers the opportunity for workers aged at least 62 with 38 years of contributions to retire earlier than the normal retirement age of 67 years. This possibly will remain available for 3 years, until 2021, in order to see the economic impact, notably on the public expenditures. For the moment, the overall

²²⁰ Since the structural reform implemented by Minister Dini in 1995, the Italian pension system has been re-designed according to the Notional Defined Contribution system, in order to guarantee the stability of public finances.



impact of this measure is less than predicted. From January to July 2019, only 154,095 individuals claim an early retirement (full-2019 data not available).

Pillar II – Occupational pensions

The second pillar is made up of collective complementary pension plans. These can be contractual occupational pension funds (managed by social partners with CBAs) or open pension funds linked to collective affiliations (managed by financial institutions).²²¹

The *Trattamento di Fine Rapporto* (TFR) is also part of the second pillar. The TFR is a deferred indemnity. Each year the employer has to put aside (by law) part of the worker's salary which will be returned to the employee upon termination of the employment contract.

Pillar III – Voluntary (individual) pension

The third pillar is made up of voluntary contributions to individual complementary pension schemes, *Individual Pension Plans* (PIP). Individuals can also make contributions to open funds in the case of individual affiliations. Given the strong component of mandatory contributions within the state pension system, both collective and individual complementary pension funds play a small role in the financing of future retirees' income. While the savings in collective complementary pension funds are rather small, private savings are still consistent. If all pension contributions and home ownership were transformed into an annuity, the corresponding stream of generated income at retirement would be very high.

To summarise the information of the pension system set-up and to obtain a basic overview of the pension system in Italy, the table below presents key data on the multi-pillar pension system.

Introductory table. Multi-pillar pension system in Italy		
PILLAR I	PILLAR II	PILLAR III
State Pension	Private, voluntary and collective funded system	Private, voluntary and individual savings
National Social Security Body (INPS)	Legislative Decree 124/93 on complementary pension plans implemented in 1993 Reform on complementary pension (Legislative Decree 252/2005)	
Mandatory	Pension accumulation companies	Insurance companies
Publicly managed	Voluntary	Voluntary
PAYG	Privately managed pension funds	Privately managed pension funds
Notional Defined Contribution system (NDC)	Partially or fully funded	Fully Funded
	DC (Defined Contribution scheme)	

²²¹ Igor Guardiancich, 'Current Pension System: First Assessment of Reform Outcomes and Output' (2009) European Social Observatory Country Report on Italy, 2009
http://www.ose.be/files/publication/2010/country_reports_pension/OSE_2010_CRpension_Italy.pdf



Quick facts		
Number of old-age pensioners: 9,778,664	Funds: 311	Funds (new PIP): 71
Average old-age pension (2020): €1,315	AuM: €1,142.5 bn.	Old et new PIP, AuM: €42.5 bn.
Monthly household average income (net, 2018): €2,673	Participants in 2020: 5.4 million	Participants in 2020: 3.7 million
Aggregate pension replacement rate (2019): 73%	Coverage ratio: 21.4%	Coverage ratio: 14.6%

Source: BETTER FINANCE composition based on COVIP Annual Report 2021 and INPS data for 2020

The real net returns (before taxes) of the main retirement provision vehicles in Italy are presented below based on 6 recommended holding periods: 1 year (2020), 3 years (2018-2020), 7 years (2014-2020), 10 years (2011-2020), and since the earliest data available (21 years for pension funds, 2000-2020, and 13 years for PIP, 2008-2020).

Summary Table – Real net returns of Italian pension vehicles				
	Contractual pension funds	Open pension funds	PIP with profits	PIP unit-linked
2020	3.40%	3.20%	1.69%	0.09%
2018-2020	2.06%	1.64%	1.16%	1.71%
2014-2020	2.82%	2.79%	1.59%	3.77%
2011-2020	2.63%	2.69%	1.39%	3.69%
2008-2020	1.95%	1.61%	1.36%	2.23%
2000-2020	1.31%	0.33%	n.a.	n.a.

Source: Tables IT5 and IT6

Pensions Vehicles

Collective and individual complementary pension funds

Complementary pension funds were introduced in 1993 and are composed of contractual funds, open funds and individual pension plans provided by life insurance companies. The main features of complementary pension plans are:

- i. voluntary membership;
- ii. funded;
- iii. managed by banks, financial institutions and insurance companies;
- iv. supervised by Commissione di Vigilanza sui Fondi Pensione (Individual Pension Funds Supervisory Commission - COVIP).

Following the signature of an agreement, all complementary pension funds are managed by an external financial institution that can only be an insurance company, a bank or a registered asset management company (Legislative Decree 252/2005). All complementary pension funds now operate on a defined contribution (DC) basis, as this is the only permitted type of pension plan. Defined benefit (DB) plans are restricted to pre-existing funds.



At the end of 2020, the total workers enrolled into collective and individual pension plans (Pillar II and III) amounted to 8.45 million²²². The number of individuals covered by a pension plan represents 33% of the labour force, compared to 31.4% in 2019. The increase in membership was driven by an increase in the number of affiliates to all categories of schemes except pre-existing closed pension funds whose membership remained quite stable in 2020.

Table IT1. Number of subscribers in Complementary Pension Funds (in thousands)								
	2013	2014	2015	2016	2017	2018	2019	2020
Pillar II: Collective complementary pension plans								
Contractual Pension Funds	1,951	1,944	2,419	2,561	2,763	2,949	3,095	3,184
Open Pension funds	985	1,057	1,150	1,230	1,343	1,429	1,516	1,590
Pre-existing Closed Pension Funds	655	645	646	620	611	613	618	616.6
Pillar III: Private and individual complementary pension plans								
New PIP	2,134	2,357	2,601	2,759	2,969	3,130	3,264	3,349
Old PIP	505	467	434	411	390	370	354	338.8
Total	6,204	6,585	7,235	7,786	7,585	7,953	8,264	8,445

Source: COVIP Annual Report 2020

The budget law of 11 December 2016 allows members of complementary defined contribution pension funds, who are close to retirement age, to receive early retirement income from their accumulated savings in a whole or in part (*Rendita integrativa temporanea anticipata* or RITA). Eligible employees are those who benefit from a similar provision in the first pillar (*Anticipo finanziario a garanzia pensionistica* or APE).

To be eligible to RITA, an individual must:

- cease his / her professional activity;
- reach the requirements necessary to receive the old-age pension in their mandatory regime within the next five years or to be unemployed for more than 24 months;
- have contributed at least 20 complete years to the mandatory regime; or / and have completed five years in the pension scheme.

The individual determines the amount of the accrued capital to use until his / her official retirement. In 2019, 8,200 individuals benefitted from RITA: 6,900 individuals drawn out their entire accrued position. In 2018, the first year of application of this package 2,200 individuals benefitted from RITA and 400 individuals drawn out their entire accrued position.

Pillar II

Contractual funds or Closed funds (*Net assets at the end of 2020: €60.37 billion*)

Contractual funds are also called closed funds as only certain groups of people can join. These are professional occupational funds. Amongst employees, subscription is reserved only to those whose

²²² Covip, 2019 Annual Report.



contracts are regulated by a collective bargaining agreement (CBA). For the self-employed, contractual agreements are usually provided by professional associations. Thus, only their members can subscribe to dedicated contractual pension funds.

Contractual pension funds are defined contribution schemes, and the contribution amount is established by the fund's bylaws.²²³ These funds are independent legal entities, with their own capital. Their governance is based on the principle of equal representation among employers and employees.

The Board of Directors is responsible for the investment strategies and chooses the investment manager, as well as the depositary bank and the designated entity dealing with administration. The fund must report on an annual basis, at least. Given the long-term characteristic of funds, managers' mandates are usually five years, or even longer for certain types of assets.

Open funds (*Net assets at the end of 2020: €25.38 billion*)

In contrast to closed funds, membership is not restricted to certain groups. An open fund is not a legal entity. They can be established for collective or individual members, or both.

Like contractual funds, open funds are defined contribution funds. Alike closed funds, a depositary bank is required, and administration costs can be outsourced.

The number of subscribers to open funds were 1,590,313. It increased by 4.9% over a year with 111,497 new subscribers.

At the end of 2020, assets managed by open funds amounted €25.38 billion with €2.343 billion of contributions.

The TFR, Severance Payment (*€27.150 billion in 2020*)

During his/her whole career, an employee perceives severance payments, which are paid upon work termination. The severance payments are collected in a specific vehicle for pension asset accumulation, also known as *Trattamento di Fine Rapporto* (TFR). The TFR is computed on an annual basis and is equal to 6.91% of employee's annual remuneration. The TFR rate of return was 1.5% in 2019. It is mandatorily saved and returned upon termination of employment (such as retirement, the most common form).

The TFR can also be partially drawn on (70%) before the employee ends his / her professional activity, but only under very special circumstances, including health problems, first-house purchases and parental leave. Moreover, the stability law of 2015 enabled employees in the private sector to receive their severance payments in advance with a state guarantee on bank loans to companies.

²²³ Paci S., P. Contaldo, C. Fiorentino, G. Nocera, L. Spotorno, F. Vallacqua, 'Carefin Report: Pension Funds in Italy' (2010) Bocconi University.



The TFR represents a huge savings pot and its management underwent heavy changes from January 2007. Each worker can opt to accumulate their TFR by joining a complementary pension fund. If a worker does not make such a decision, tacit consent applies for the TFR to be transferred to a collective contractual pension fund when it exists for specific sectors.

This change represented a small cultural revolution in the Italian pension structure, where pensions had previously been provided by the public sector, with no active role by workers in choosing how much to invest. Workers have mandatorily contributed a conspicuous amount of their income, through the first pillar State system, with no involvement in where to invest their savings. With the TFR law, workers are now offered the possibility to choose to join any complementary pension fund²²⁴ among contractual pension funds, open pension funds or even PIPs (Individual Pension Plans). When opting for PIPs, workers can decide the amount they contribute, a new element in the Italian framework, with no discretion in terms of pension contributions.

If an employee decides to opt-out from complementary pension funds and belongs to a company with more than 50 employees, his / her accumulated amount of severance payments is transferred to INPS (National Institute for Social Security), which manages the severance payment according to the law. For an employee who works in firms with less than 50 employees and who does not opt for complementary pension funds, his / her TFR remains in the firms he / she works in and represents a debt for the company.

In 2019 the overall TFR flow generated was estimated at around 27.4 billion euros. €15.2 billion remained in the books of companies, €6.3 billion were transferred to complementary pension schemes and 5.9 billion were transferred to INPS.

Third Pillar

PIP, individual pension funds (*Net assets at the end of 2020: €39.01 billion*)

They are subscribed on an individual basis only, as insurance contracts in the legal framework of complementary pension funds. Within PIPs policies, two types of insurance contracts are offered: with-profits or unit-linked. A combination of the two types of contracts is possible with a more flexible risk-profile.

The with-profits policies guarantee a minimum rate of return (guaranteed and consolidated in the company's accounts) which is added to a quota related to the financial performance. The unit-linked policies do not have a guarantee. Their performance depends on the value of the units in which contributions are invested.

Public employees

The coverage of public employees by specific retirement products is very limited, as the law introducing pension funds excluded them. Contractual pension funds are only possible for

²²⁴ Cannata and Settimo, 2007



individuals working in National Education (Espero), in the National Health and in a regional or local authority (Perseo and Sirio). These contractual pension funds were implemented in 1993.

There are pension funds implemented before 1993 that are semi-autonomous in their management and can collect money directly from subscribers without intermediaries. These pension funds are more numerous than those implemented in 1993.

Asset allocation of complementary pension plans

Law no.703, that regulates complementary pension funds' asset allocation, has been approved at the end of 2014. It allows more flexibility, moving from a quantitative approach to a principle-based one. Short selling remains prohibited, and funds should allocate a minimum of 70% to listed products.

Looking at the portfolio composition of the complementary pension system as a whole (both pillar II and III), low-risk assets constituted the majority of holdings. In 2019, Sovereign bonds were still the main investment and their share in total portfolio, however, it decreased slightly at 40.3% (against 41.7% in 2018). The weight of Italian government bonds continued to decrease in 2019 (from 21.2% in 2018 to 20.6%). The share of direct holdings of equities increased from 17.7% in 2018 to 18.9% in 2019.

According to COVIP calculations, considering equities held through investment funds and derivative instruments, the equity exposure increased to 26.7% in 2019 (against 23.4% in 2018).

Table IT2. Asset allocation of pension funds (in %)					
	2016	2017	2018	2019	2020
Treasury bonds	41.5%	41.5%	41.7%	40.3%	37.2%
Corporate bonds	16.6%	16.6%	17.1%	17.7%	18.9%
Equities	17.7%	17.7%	16.5%	18.9%	19.6%
Mutual funds	14.4%	12.6%	13.8%	14.8%	15.5%
Real estate	1.6%	1.4%	1.2%	1.0%	0.7%
Other	0.9%	3.0%	2.6%	0.8%	1.5%
Cash	7.2%	7.2%	7.1%	6.5%	6.6%

Source: COVIP Annual Reports

Charges

COVIP calculates a synthetic indicator of cost for a member who contributes €2,500 every year with a theoretical annual return of 4%. The calculation methodology of the indicator was revised by COVIP in order to eliminate distortions between the categories of funds. Since 2014, the tax rates on investment revenues depend on the underlying assets of the funds. Since March 2015, the cost indicator is no longer calculated net but gross of the tax paid by pension funds on their revenues.

In 2019, the average cost indicator remains stable over time and thus is quite similar to that of 2018. It decreases with the membership period, with initial fix costs being progressively amortised.



However, there is a great variation in complementary pension funds costs. In closed pension funds, the indicator cost is 1% for two years of participation, while it drops to 0.3% after 35 years of participation. With respect to PIP, it drops from 3.9% to 1.8%.

There are significant differences between each category of funds, depending on the distribution channels of the products and the fees paid to distributors. Economies of scale lead lower costs for closed funds while no such impact can be observed on new PIP and open funds, according to a review of individual figures by COVIP.

Table IT3. Average costs at the end of 2020 (in %) *				
	2 years	5 years	10 years	35 years
Closed Funds				
Mean	1.11	0.61	0.43	0.29
<i>Min</i>	<i>0.21</i>	<i>0.26</i>	<i>0.13</i>	<i>0.08</i>
<i>Max</i>	<i>3.03</i>	<i>1.34</i>	<i>0.99</i>	<i>0.89</i>
Open Funds				
Mean	2.35	1.57	1.36	1.24
<i>Min</i>	<i>0.55</i>	<i>0.55</i>	<i>0.55</i>	<i>0.55</i>
<i>Max</i>	<i>4.73</i>	<i>3.20</i>	<i>2.58</i>	<i>2.31</i>
New PIP				
Mean	3.79	2.63	2.18	1.81
<i>Min</i>	<i>1.04</i>	<i>0.85</i>	<i>0.58</i>	<i>0.38</i>
<i>Max</i>	<i>6.44</i>	<i>4.82</i>	<i>4.07</i>	<i>3.44</i>

Source: COVIP Annual Report 2020

Taxation

The taxation regime of pension savings in Italy is essentially an ETT regime (exempt, taxed, taxed), corresponding to the following three stages over time: contribution, accumulation and payment.

In the first phase, employee contributions to private pension funds benefit from a favourable tax treatment. An employee can deduct his / her contributions from his / her taxable income up to a ceiling of €5,164.57 per year. Employer contributions are considered as employment income and are thus subject to tax and social security contributions.

Until 2014, in the second phase a tax rate of 11.5% was applied on the accrued capital gains paid by complementary pension funds. From 1 January 2015, this tax rate increased to 20%, except for accrued capital gains generated by investments in Government Bonds which are taxed at a rate of 12.5%. The difference in taxation rates of bonds and equities is an incentive to change the asset allocation towards the former, a trend that is likely to lower the returns of pension products in the future. The budget law of 31 December 2016 foresaw that assets invested in European equities or European investment funds (up to 5% of the fund's total assets) were exempted from income tax.

In order to avoid double taxation, benefits are taxed only on the corresponding shares that were not taxed during the accumulation phase. Contributions that were not deducted, and thus already taxed, won't be taxed again.



In the third phase the corresponding benefits are taxed at a rate varying from 9% to 15% depending on the length of membership in the private pension funds. Income received before retirement age in the framework of the RITA scheme is taxed at 15%, reduced by 0.3% for each year over the fifteenth year of participation in supplementary pension schemes, with a maximum reduction limit of six percentage points. If years of enrolment in the supplementary pension scheme are prior to 2007, those years can be considered up to a maximum of 15 years.

The tax rate of pension benefits that come from TFR varies between 9% and 15%, depending on the length of enrolment in the complementary pension funds.

Pensions Returns

The following tables (IT4 A and B) provide the returns broken down by type of complementary private pension funds. Returns are calculated net of taxes paid by the pension funds on investment revenues.

After the drops in returns since 2015, as a consequence of historically low interest rates paid on bonds, the aggregate returns, net of management costs and taxes, were on average positive for all complementary pension forms and for all types of sectors in 2020.

In 2020, complementary pension schemes achieved largely positive results thanks also to the sustained rise in equity prices and the rise in bond yields. For each type of pension form, the best results were observed in the schemes with a greater exposure to equities.

Table IT4(A). Nominal returns net of charges and taxes on investment revenues by type of funds

	Contractual PFs	Guar.	Bonds Only	Bonds Mixed	Bal.	Equity	Open PFs	Guar.	Pure Bonds	Mixed	Bal.	Equity
2005	7.5	-	2.1	6.9	7.9	14.9	11.5	2.9	3.3	6.4	11.4	16.2
2006	3.8	-	2.6	2.7	5.6	8.2	2.4	1.0	-0.2	1.0	2.4	3.7
2007	2.1		2.2	2.1	2.4	1.3	-0.4	1.9	1.6	0.3	-0.3	-1.6
2008	-6.3	3.1	1.6	-3.9	-9.4	-25.0	-14.0	1.9	4.9	-2.2	-14.2	-28.0
2009	8.5	4.6	2.9	8.1	10.4	16.1	11.3	4.8	4.0	6.7	12.6	17.7
2010	3.0	0.2	0.4	3.6	3.6	6.2	4.2	0.7	1.0	2.6	4.7	7.2
2011	0.1	-0.5	1.7	1.1	-0.6	-3.0	-2.4	-0.3	1.0	0.4	-2.3	-5.3
2012	8.2	7.7	3.0	8.1	9.2	11.4	9.1	6.6	6.4	8.0	10.0	10.8
2013	5.4	3.1	1.2	5.0	6.6	12.8	8.1	2.0	0.8	3.6	8.3	16.0
2014	7.3	4.6	1.2	8.1	8.5	9.8	7.5	4.3	6.9	8.0	8.7	8.7
2015	2.7	1.9	0.5	2.7	3.2	5.0	3.0	0.9	0.9	2.2	3.7	4.2
2016	2.7	0.8	0.2	3.2	3.2	4.4	2.2	0.7	1.3	1.4	2.7	3.2
2017	2.6	0.8	-0.2	2.6	3.1	5.9	3.3	0.6	-0.3	0.4	3.7	7.2
2018	-2.5	-1.1	-0.6	-2.4	-2.8	-5.3	-4.5	-1.8	-0.8	-1.8	-4.8	-8.0
2019	7.2	2.0	0.7	7.6	8.6	12.2	8.3	3.0	3.7	4.2	9.2	14.9
2020	3.1	1.0	0.7	3.5	3.3	5.6	2.9	1.1	2.2	1.3	3.6	3.9

Source: COVIP Annual Report 2020; PFs = pension funds; Guar. = guaranteed; Bal. = balanced



Table IT4(B). Nominal returns net of charges and taxes on investment revenues by type of funds

	New PIP with profits - Separate management	Unit-linked	<i>Bonds</i>	<i>Balanced</i>	<i>Stocks</i>
2008	3.1	-22	2.4	-8.3	-32
2009	3.1	14.5	3.7	7.8	20.6
2010	3.2	4.7	0.6	2.5	6.7
2011	3.2	-5.2	0.8	-3.5	-7.9
2012	3.3	7.9	4.9	6.4	9.6
2013	3.2	10.9	-0.3	5.8	17.2
2014	2.9	6.8	3.3	8.2	7.1
2015	2.5	3.2	0.6	1.9	4.5
2016	2.1	3.6	0.4	1.5	6
2017	1.9	2.2	-0.7	2.3	3.2
2018	1.7	-6.5	-1.4	-5.9	-8.9
2019	1.6	12.2	2.2	9.2	18.8
2020	1.4	-0.2	0.7	1	-1.3

Source: COVIP Annual Report 2020

Contractual pension funds

The Italian pensions supervisor reports the annual returns of supplementary pension products net of charges and taxes on returns (capital gains tax). As explained in the section above, and in the third table of the Executive Summary, the Italian private pension system is among the very few analysed in this report that has an E-T-T regime, meaning that both investment returns, and pension pay-outs are taxed. Although unclear from the COVIP Report – that forms the main source of data for this country case – whether the returns “net of costs and substitute tax” means that the investment performance is calculated after deducting tax on benefits, our analysis points to the fact that it is net of tax on returns, after charges, but gross of tax on benefits. Therefore, to obtain the real net returns after tax on benefits, the research team applies the lowest tax rate by product (9% and 12.5%) on the average annual nominal net return obtained by 2020.

Table IT5(1) reports the gross nominal, net nominal and real net returns, before tax on benefits, for closed pension funds. The calculation starts from the nominal net returns, as reported by COVIP. To obtain the gross returns, we re-inflate the nominal net returns with the annual management cost reported by COVIP – which is only available for contractual pension funds. To obtain the real net returns, before tax on benefits, we adjust the nominal net returns reported by COVIP with the annual inflation rate (HICP) for Italy. The averages of each type of returns represent a geometric mean of individual returns.



IT5.1 Gross, Nominal and Real Returns of contractual pension funds in Italy (%)					
2000	4.18		3.50		0.74
2001	0.07		-0.50		-2.70
2002	-2.87		-3.40		-6.21
2003	5.47		5.00		2.41
2004	5.06		4.60		2.21
2005	7.97		7.50		5.34
2006	4.24		3.80		1.64
2007	2.55		2.10	Real return	-0.66
2008	-5.87		-6.30	after	-8.46
2009	8.90	3.38	8.50	charges	7.32
2010	3.36		3.00	and	0.92
2011	0.41		0.10	inflation	-3.50
2012	8.49		8.20	and before	5.49
2013	5.68		5.40	taxes	4.77
2014	7.55		7.30		7.30
2015	2.94		2.70		2.60
2016	2.94		2.70		2.19
2017	2.85		2.60		1.60
2018	-2.27		-2.50		-3.63
2019	7.44		7.20		6.68
2020	3.38		3.10		3.40

Source: Own calculations based on Table IT4, COVIP, Eurostat data

Italian contractual pension funds have quite low fees – as many other occupational pension plans – which makes the difference between the gross and net returns small. However, taking into account inflation, more than half of the net returns is eroded, leaving savers with less than half of the nominal net return after 21 years. However, the deflation recorded in Italy in 2020 (-0.3%) slightly improved the real net returns of all products.

We further calculate the average annual rate of investment returns on different holding periods to enable comparison with other products. Then, we provide a hypothetical average nominal and real return after taxation on benefits as well. Normally, the tax rate on benefits is 15%, but it can be reduced by 0.3% for each year after 15 years of contributions until 35 years of contribution, thus reaching a potential tax reduction of 6%.



IT5.2 Annualised performances of contractual pension funds			
Holding Period	Gross returns	Net Nominal Annualized Performance	Real Net Annualized Performance
1-year	3.38%	3.10%	3.40%
3-years	2.77%	2.52%	2.06%
5-years	2.82%	2.57%	1.99%
7-year	3.50%	3.25%	2.82%
10-years	3.89%	3.63%	2.63%
2000-2020	3.38%	3.00%	1.31%

Source: Table IT5.1

Assuming a worker started saving at the end of 1999 and reaches retirement age at the end of 2020, his average nominal returns after tax on benefits would equal 2.61% (equivalent of 13.2% tax), which in real terms would be equal to 0.92%. Otherwise, after deducting a tax of 15% from the net returns, the return would be 2.55% and the real net return would be 0.87%.

Open pension funds

The same methodology as for contractual pension funds is used to calculate the returns of open funds, with the difference that for open pension funds there is no annual cost data available, but instead we have the *synthetic cost indicator* for 35 years calculated by COVIP. Although, on long-terms, this cost indicator dilutes cost, it is the only proxy we can use to obtain the gross returns. For 21-year holding period (2000-2020), the annual average real return of open funds after deduction of charge and inflation was positive at 0.33%. The return is higher and reached 2.69% for 10-year holding period (2010-2020).



IT6.1 Gross, Nominal and Real Returns of open pension funds (%)

2000	4.20		3.00		0.16
2001	-4.70		-5.60		-7.69
2002	-12.30		-13.10		-15.63
2003	6.90		5.70		3.09
2004	5.46		4.30		1.91
2005	12.74		11.50		9.26
2006	3.54		2.40		0.27
2007	0.71		-0.40		-3.09
2008	-13.04		-14.00		-15.98
2009	12.54	3.25	11.30	2.01	10.09
2010	5.36		4.20		2.09
2011	-1.31		-2.40		-5.91
2012	10.31		9.10		6.37
2013	9.30		8.10		7.45
2014	8.70		7.50		7.50
2015	4.25		3.00		2.90
2016	3.44		2.20		1.69
2017	4.55		3.30		2.68
2018	-1.28		-2.50		-5.61
2019	9.65		8.30		7.78
2020	4.14		2.90		3.20

Source: COVIP Annual Report 2019

IT6.2 Annualized performance of open pension funds

Holding Period	Gross returns	Net Nominal Annualized Performance	Real Net Annualized Performance
1-year	4.14%	2.90%	3.20%
3-years	3.34%	2.10%	1.64%
5-years	3.68%	2.44%	1.86%
7-year	4.47%	3.23%	2.79%
10-years	4.94%	3.70%	2.69%
2000-2020	3.25%	2.01%	0.33%

Source: Table IT6.1

The real net return, after taxation, for open pension funds between 2000-2020 stood negative at 0.33%. Taking into account the tax on benefits (same as for contractual funds), we obtain a nominal return, net of charges and tax, of 1.74% and 0.07% in real terms.



Individual Pension Plans

Individual Pension Plans (PIP) have the highest costs on the pension product market in Italy. The synthetic cost indicator calculated for PIPs was 1.83% for long-term subscribers in 2019 and it slightly decreased to 1.81% in 2020.

The performance of the PIPs depends on the type of contracts. With-profits contracts have a comparable performance to contractual pension funds, while unit-linked PIPs have a lower average return on the market comparable to open pension funds.

However, performances are highly volatile, potentially associated with the relatively short timeframe considered, in fact corresponding to the financial crisis years. Moreover, given the shorter timeframe, the high variability could lead to misleading conclusions. In 2018, the returns of unit-linked PIPs decreased once again and was even negative at -7.6%.

IT7.1 Gross, Nominal and Real Returns of PIP with profits (%)					
2000	-		-		-
2001	-		-		-
2002	-		-		-
2003	-		-		-
2004	-		-		-
2005	-		-		-
2006	-		-		-
2007	-		-		-
2008	4.91		3.10		0.72
2009	4.91	4.36	3.10	2.55	1.98
2010	5.01		3.20		1.11
2011	5.01		3.20		-0.51
2012	5.11		3.30		0.71
2013	5.01		3.20		2.58
2014	4.71		2.90		2.90
2015	4.31		2.50		2.40
2016	3.91		2.10		1.60
2017	3.71		1.90		0.90
2018	3.51		1.70		0.52
2019	3.41		1.60		1.11
2020	3.21		1.40		1.69

Source: COVIP Annual Report 2019



IT7.2 Annualized performance of PIP with profits			
Holding Period	Gross returns	Net Nominal Annualized Performance	Real Net Annualized Performance
1-year	3.21%	1.40%	1.69%
3-years	3.38%	1.57%	1.11%
5-years	3.55%	1.74%	1.16%
7-year	3.82%	2.01%	1.59%
10-years	4.19%	2.38%	1.39%
2008-2020	4.36%	2.55%	1.36%

Source: Table IT7.1

The average real net return, after taxes, of PIP with profits stood at 1.39% in the last 10 years and 1.36% for the last 13 years. Deducting the tax rate on benefits for PIPs (12.5%), we obtain a return on the longest period available of 2.32% and 1.13%, in nominal and real terms.

The return computations for individual pension plans (unit-linked) are presented in the following Table IT8.1.

IT8.1 Gross, Nominal and Real Returns of PIP unit linked (%)					
2000	-		-		-
2001	-		-		-
2002	-		-		-
2003	-		-		-
2004	-		-		-
2005	-		-		-
2006	-		-		-
2007	-		-		-
2008	-18.90		-20.71		-22.54
2009	18.05		16.24		14.98
2010	8.10		6.29		4.14
2011	-1.95		-3.76		-7.21
2012	11.35		9.54		6.80
2013	14.40		12.59		11.92
2014	10.24		8.43		8.43
2015	6.90		5.09		4.99
2016	7.31		5.50		4.98
2017	5.88		4.07		3.05
2018	-2.95		-4.76		-5.86
2019	14.01		12.20		11.66
2020	1.61		-0.20		0.09

Source: COVIP Annual Report 2019



Table IT8.2. Annualized performance of PIP unit-linked			
Holding Period	Gross returns	Net Nominal Annualized Performance	Real Net Annualized Performance
1-year	1.61%	-0.20%	0.09%
3-years	3.98%	2.17%	1.71%
5-years	5.02%	3.21%	2.62%
7-year	6.02%	4.21%	3.77%
10-years	6.52%	4.71%	3.69%
2008-2020	5.26%	3.44%	2.23%

Source: Table IT8.1

The average real net return, after taxes, of PIP unit-linked pension products in the last 13 years (2008-2020) stood at 2.23%. After deducting taxes on benefits, the nominal net return stood at 3% and the real net return at 1.81%.

Conclusion

The Italian Pension System has a strong State component, which is likely to displace complementary pension funds. The mandatory contribution rate amounts to 33%. As the system is pre-funded, contributions to the pension system will translate one to one to future pension incomes. In this scenario the second and third pillar are likely to only develop slowly. Moreover, Italy has the second highest level of retirement expenses in percentage of the GDP among OECD countries (16,2% in 2019). Moreover, the implementation of pre-retirement system as APE and Quota 100 represents an important additional cost and do not provide incentives for employees to save into complementary pension funds for their retirement.

Even if the number of employees enrolled in private pension funds increased, it remained quite low. 8.8 million individuals are enrolled in private pension funds, representing 34.7% of the labour force. Experiences from the automatic enrolment implemented by labour agreements in 2015 and 2016 did not fundamentally change the framework, as employers' contributions were still low, and few employees voluntarily contributed to the new schemes. In addition, women and young people are under-represented in pension funds. The government has to play a role in encouraging all profile among employees to save for the retirement in pension funds.

The complementary pension funds can be of three types: contractual occupational pension funds (managed by Social Partners), open funds managed by financial institutions and Individual Pension Plans (PIP), split into with-profits and unit-linked policies.



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Pension Savings: The Real Return

2021 Edition

Country Case: Latvia

Summary

Funded pension schemes have experienced negative average returns during their existence even the portfolio of pension funds in mandatory pension pillar is conservatively oriented. Pillar II pension funds recorded on average small annual nominal return of 1.4% in year 2020, while Pillar III funds delivered also on average positive nominal return of 1.64%. A positive development could have been seen on the Pillar II market, where the introduction of passively managed funds contributed to further decrease of fees in year 2020. The fees have decreased also in the Pillar III, however, complex fee structure and still higher fees of Pillar III pension funds play a significant role on the expected accumulated benefits.

Kopsavilkums

Fondēto pensiju shēmas savas pastāvēšanas laikā ir piedzīvojušas negatīvu vidējo ienesīgumu, pat ja pensiju fondu portfelis obligāto pensiju pīlārā ir konservatīvi orientēts. II pīlāra pensiju fondi 2020. gadā uzrādīja vidēji nelielu gada nominālo ienesīgumu 1,4 % apmērā, savukārt III pīlāra fondi uzrādīja arī vidēji pozitīvu nominālo ienesīgumu 1,64 % apmērā. Pozitīva attīstība bija vērojama II pīlāra tirgū, kur pasīvi pārvaldīto fondu ieviešana veicināja turpmāku komisijas maksu samazināšanos 2020. gadā. Maksa ir samazinājusies arī III pīlārā, tomēr III pīlāra pensiju fondu sarežģītā maksu struktūra un joprojām augstākas maksas būtiski ietekmē gaidāmos uzkrātos ieguvumus.

Introduction

Latvia is currently operating a multi-pillar pension system based on three pension pillars. The reform followed World Bank recommendations on creating a pension system with unfunded PAYG and funded pension pillars. Since 2001, the Latvian multi-pillar pension system includes:

- Pillar I (state compulsory PAYG pension scheme);
- Pillar II (mandatory state funded pension scheme) which is financed by a part of the social insurance contributions diverted from Pillar I;
- Pillar III (voluntary private pension scheme).



The introduction of the multi-pillar pension system has aimed its overall functionality on a different approach to each pension pillar operation, but with the overall objective of ensuring an adequate pension for individuals under the demographic risks of an aging society, as well as the pension system's overall future financial stability.

The reform of the Latvian pensions system started in 1995, when it was decided to implement the three-pillar pension system. Firstly, the shift from the old Soviet-styled PAYG pension system to the notional defined contribution pension scheme (NDC PAYG Pillar I) was carried out. The new law on state pensions was adopted by the Parliament in November 1995 and came into force on 1 January 1996. The state mandatory-funded pension scheme (Pillar II) started operating in July 2001. The private pension funds (Pillar III) have been operating since 1998.²²⁵

From the point of view of individual savers, the Latvian pension system combines two aspects: personal interest in building wealth (based on a level of contributions and the length of the saving period) and intergenerational solidarity.

The Latvian NDC PAYG-based pension Pillar I has been effectively introduced by a partial reform in January 1996 and represents a mandatory scheme for all economically active persons who make social insurance contributions calculated from a monthly gross salary (income). Paid contributions are used for the payment of old age pensions to the existing generation of pensioners. Pillar I is organized as a NDC scheme, where the notional value of career contributions is recorded on each contributor's personal account. Prior to claiming pension benefits, the pension capital recorded on individual NDC account is recalculated in accordance with the laws and regulations at the time when the individual accesses his/her pension.

Pension Pillar II is in fact a state-organized 1bis pillar, meaning that part of the individually paid social contributions are channeled to Pillar II and recorded on individual pension accounts. Monthly contributions are invested into individually chosen investment plans (pension funds) managed by private pension fund management companies. Pillar II was launched in July 2001 and completed the multi-pillar-based pension reform in Latvia.

Pillar III was launched in July 1998 and is organized as a private voluntary pension scheme. It accumulates individual contributions, as well as employer contributions made on the behalf of individual employees, to the selected voluntary pension fund.

²²⁵ Groduma, M. 2002. Social insurance in Latvia: Seeking balance between financial stability and equity. In: European regional meeting "New and revised approaches to social protection in Europe". Budapest, 13 - 15 November 2002. [Online] Available: <http://www.issa.int/html/pdf/budapest02/2groduma.pdf>



Table LV 1: Multi-pillar pension system in Latvia

Pillar I	Pillar II	Pillar III
State Pensions	State Funded pensions	Voluntary private pensions
Mandatory	Mandatory	Voluntary
NDC PAYG	Funded	Funded
Financed by social insurance contributions	DC	DC
Benefits paid via State Social Insurance Agency	Financed by social insurance contributions	Privately managed two types of pension plans:
Publicly managed	Individual pension accounts	1. open (individual),
	Privately (and publicly) managed pension funds	2. closed (quasi occupational)
Coverage: generally all population	Coverage: generally entire working population	Coverage: Cannot be calculated due to missing information about number of participants

Gross replacement ratio: 32% (1,143 Eur average wage; 367 Eur average old-age pension)

Source: Own elaboration, 2021

Pillar I – State Pension Insurance

State old-age pension (Pillar I) should guarantee the minimum income necessary for subsistence. It is based on an NDC PAYG principle of redistribution, i.e., the social tax paid by today's employees covers the pensions of today's pensioners. However, the amount of the paid contributions for each saver are recorded on individual accounts.

The state old-age pension is paid out of the social insurance contributions. Total level of social insurance contributions is 34.09% of gross salary for employees (employers contributes 23.59% and employees 10.5%; self-employed persons pay 27.52%). Of the total contribution in 2020, 14% funded the Pillar I NDC pension and 6% was redirected to the individual's account under Pillar II. The remaining portion of contributions financed social security elements such as disability pension, sickness and maternity benefits, work injury benefits, parent's benefits, and unemployment benefits.

The **statutory retirement age** in Latvia in 2020 is 63 years and 9 months for both men and women. However, the law stipulates a gradual increase of the retirement age by three months every year until the general retirement age of 65 years is reached in 2025. Early pension is possible in Latvia if two conditions are met: 1) an individual in 2020 reaches the age of at least 61 years and 9 months (gradually rising by three months a year until 2025) and 2) an individual contributed for a period of at least 30 years.



Old-age pension is based on the insured's contributions, annual capital growth adjusted according to changes in the earnings index, and average life expectancy. Old age pension is calculated by considering two parameters:

1. K - accumulated life-time notional pension capital, which is an accrued amount from paid contributions since the introduction of NDC system (1 January 1996) until the pension granting month. However, during the transition period to a full the NDC system, these two aspects are also taken into account:
 - a. average insurance contribution wage from 1996 until 1999 (inclusive);
 - b. insurance period until 1 January 1996;
2. G – cohort unisex life-expectancy at the time of retirement.

Annual old-age pension (P) is calculated as follows:

$$P = \frac{K}{G}$$

It can be said that the Latvian NDC PAYG Pillar I has shifted in a direction where the average gross replacement ratio is lower than 35%. The average income replacement ratios for old-age pension in Latvia are shown in the table below.



Table LV 2. Latvian NDC PAYG pillar statistics

Indicator / Year	Average Old-age pensions	Average Gross Monthly Wages and Salaries	Gross Replacement Ratio	Average Net Monthly Wages and Salaries	Net Replacement Ratio
2003	92	274	34%	196	47%
2004	101	300	34%	214	47%
2005	115	350	33%	250	46%
2006	137	430	32%	308	44%
2007	158	566	28%	407	39%
2008	200	682	29%	498	40%
2009	233	655	36%	486	48%
2010	250	633	39%	450	56%
2011	254	660	38%	470	54%
2012	257	685	38%	488	53%
2013	259	716	36%	516	50%
2014	266	765	35%	560	48%
2015	273	818	33%	603	45%
2016	280	859	33%	631	44%
2017	289	926	31%	676	43%
2018	314	1004	31%	742	42%
2019	340	1076	32%	793	43%
2020	367	1143	32%	841	44%

Source: Own calculations based on Central Statistical Bureau of Latvia (<http://data.csb.gov.lv>), 2021
<https://stat.gov.lv/lv/statistikas-temas/darbs/alga/tabulas/dsv030c-stradajoso-menesa-videja-darba-samaksa-pa-darbibas>

Average monthly earnings of employees by type of activity (euro) (gross & net)

<https://stat.gov.lv/lv/statistikas-temas/darbs/alga/tabulas/dsv040-stradajoso-menesa-videja-darba-samaksa-regionos-eiro>

Average monthly earnings of employees in regions (euro)

A **Minimum old-age pension** mechanism is effective in Latvia. The minimum amount of the monthly old-age pension cannot be less than the state social security benefits (€80 monthly since January 2020) with an applied coefficient tied to the years of service (insurance period):

1. persons with insurance period up to 20 years - 1.1;
2. persons with insurance period from 21 to 30 years - 1.3;
3. persons with insurance period from 31 to 40 years - 1.5;
4. persons with insurance period starting from 41 years - 1.7.



The minimum old-age pension is calculated using the basic state social security benefit multiplied by the respective coefficient that is tied to the number of service (working) years (see table below).

Table LV 3: The amount of the minimum old-age pension according to the year of each insurance period in Latvia	
Years of service (Insurance period)	Minimum old-age pension since January 2021 (in €)
Insurance length 15 years	149.60
Insurance length 30 years	190.40
Insurance length 40 years	217.60
Insurance length 50 years	244.80

Source: Own elaboration based on Ministry of Welfare data, 2021 (www.lm.gov.lv/iv/vecuma-pensija)

Starting from 1 January 2021, the amount of the minimum old-age pension shall be determined by applying a coefficient of 1.1 to the minimum old-age pension calculation base of 136 euros (for persons with disabilities from childhood - 163 euros) and for each subsequent year exceeding the established old-age pension. the required length of insurance (currently at least 15 years), increasing the amount by two percent of the minimum old-age pension calculation base.

The amount of the minimum old-age pension is determined on the day of granting (recalculation) the pension, as well as by reviewing the calculation basis of the minimum old-age pension.

Pillar II –State Funded Pensions

Pillar II of the pension scheme was launched on 1 July 2001. As of that date, a portion of all individuals' social contributions are invested into the financial market and accumulated on their Pillar II personal account. Everyone who is socially insured is entitled to be a participant of the Pillar II scheme as long as the person was not older than 50 years of age on 1 July 2001. Participation in the 2nd tier is compulsory for those who had not reached the age of 30 on 1 July 2001 (born after 1 July 1971).

Gradually all employees will participate in Pillar II. Persons who were between the ages of 30 and 49 (born between 2 July 1951 and 1 July 1971) at the time when the scheme was launched could and still can join the system voluntarily. Administration of Pillar II contributions are made by the State Social Insurance Agency, which collects and redirects 20% old-age pension insurance contributions between the NDC and FDC pillar pension scheme individual accounts. According to the Law on State Funded Pension, the State Social Insurance Agency also performs additional tasks connected to the Pillar II administration.

The Ministry of Welfare, according to the Law on State Funded Pension, performs the supervision of the funded pension scheme and has the right to request and receive an annual account from the State Social Insurance Agency regarding the operation of the funded pension scheme.



Total redistribution of old-age pension contributions between Pillar I and Pillar II of the pension scheme are shown in the table below.

Table LV 4. Redistribution of the old-age pension contributions between pillar I and pillar II

Years	Pillar I (NDC)	Pillar II (FDC)
2001-2006	18%	2%
2007	16%	4%
2008	12%	8%
2009-2012	18%	2%
2013-2014	16%	4%
2015	15%	5%
2016 and ongoing	14%	6%

Source: <https://www.manapensija.lv/en/pension-system/qa/>, 2021

Source: <https://www.vsaa.gov.lv/en/services/for-employees/2-nd-tier-mandatory-state-funded-pension-scheme/>, 2021

Contributions into Pillar II were raised continuously with the adopted reforms. However, during the financial crisis, the contributions into Pillar II were reduced to 2% with gradual growth since 2012. It should be mentioned that the largest part of contributions (8% of salary) had flown into the pension fund in 2008, right at the top and before the crash of financial markets. This has significantly influenced the performance of funds, which is analyzed in the sub-section dedicated to Pension Returns. Investing is performed by a third party: licensed fund managers.

Upon retiring, Pillar II participants will be able to make a choice: either add the accumulated pension capital to Pillar I and receive both pensions together or to entrust the capital accumulated in Pillar II to the insurance company of their choice and buy a single annuity.

Several changes have been made in the management of accumulated savings on personal accounts of Pillar II participants. Until 1 January 2003, there was only one public fund manager for the funds of Pillar II, the State Treasury. They invested the funds exclusively into the Latvian state bonds and into the deposits of the largest and safest Latvian banks. As of 1 January 2003, the private fund managers were involved, but today participants of Pillar II are in the position to choose their fund manager themselves. The private fund managers offer to invest the pension capital and into corporate bonds, shares and foreign securities. Participants of the system are entitled to change their fund manager once a year and, in addition, investment plans within the frame of one fund manager can be changed twice a year. Operation of private fund managers is supervised by the Finance and Capital Market Commission.

In 2019, the Parliament has adopted changes in Pillar II, where since January 2020, a saver could define any person, to which the accumulated capital on personal account can be inherited directly.



Pillar III – Voluntary private pensions

Voluntary private pension scheme, or pension Pillar III, was launched in July 1998, and it gives the opportunity to create additional voluntary savings in addition to the state organized Pillar I and II. Contributions that individuals and/or the employer regularly pay into the pension fund are invested in different securities, depending on the chosen investment strategy.

The Law on Private Pension Funds foresees that Latvian commercial banks, insurance companies and legal persons have the right to establish a private fund. Assets are invested by private pension funds with the aim not only to maintain the value of savings, but to increase it over a long-time period. There are generally two types of voluntary private pension funds in Latvia:

1. open pension funds (15 operational in Latvia in 2020)
2. closed pension funds (only one operating in Latvia in 2020).

Pension scheme participants can subscribe to a pension scheme by entering directly into a contract with an open pension fund or via their employer. Pension scheme participants can participate in a pension scheme through the intermediation of their employer if the employer has entered into a collective contract with an open or closed pension fund. A collective contract with a closed pension fund may be entered into only in such cases when the relevant employer is also one of the founders (stockholders) of the same closed pension fund. Acknowledging the fact that employers might enter into collective agreement with employees and establish the pension scheme, voluntary private pension funds might be recognized as a collective pension scheme.

According to the Law on Private Pension Funds, accumulated pension capital in private pension funds can be accessed by individuals when they reach the age of 55. In order to receive the Pillar III accrued pension, an individual must submit an application to the respective pension fund. The supervisory authority for all voluntary private pension funds in Latvia is the Financial and Capital Markets Commission.

Pension Vehicles

Pillar II – State Funded Pensions

Pension funds are the only pension vehicles allowed by the Law of State Funded Pensions for state-funded pension scheme. The law states that a funded pension scheme is a state-organized set of measures for making contributions, administration of funds contributed and payments of pensions which (without increasing the total amount of contributions for old age pensions) - provides an opportunity to acquire additional pension capital by investing part of the pensions' contributions in financial instruments and other assets in accordance with the procedures specified in the Law.

Currently (as of 31 December 2020), 31 state-funded pension schemes have been operational on the Pillar II market. Three new equity-based funds emerged during 2019, most of them designed as



target-date funds for savers at certain age. There is no specific legal recognition of types of pension funds based on their investment strategy, nor any legal requirement to provide a specific investment strategy for pension funds. It is up to a pension fund manager to provide an in-demand type of pension fund in order to succeed on the market. However, every fund manager is required to develop a systematic set of provisions, according to which funds are managed. They are presented in a prospectus of the relevant pension fund and in a key investor information document (KIID, specific for UCITS funds, but with particular features) for participants of the scheme. The prospectus of a pension fund and the key information document for participants are an integral part of the contract entered into between the Agency and the manager of pension funds. Pension fund prospectus must clearly define the risk-reward profile and indicate proposed investment strategy of the respective expected portfolio structure.

Although there is no legal recognition of types of pension funds, they can be divided into three types based on their risk/return profiles:

1. Conservative funds, with no equity exposure and a 100% share of bonds and money market instruments;
2. Balanced funds with bonds and money market instrument share of at least 50%; in addition, a maximum of 15% of the funds' balances can be invested in equities;
3. Active funds with an equity share (resp. investments in capital securities, alternative investment funds or such investment funds that may make investments in capital securities or other financial instruments of equivalent risk) of up to 75% (since 2018) and no limits on investments in bonds and money market instruments.

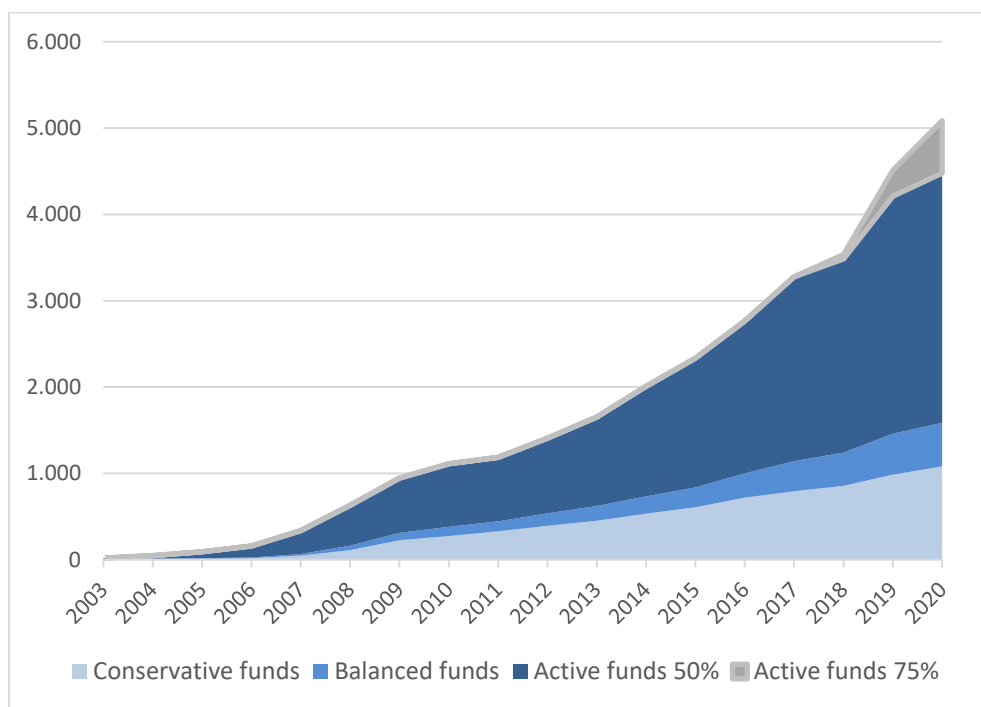
The legislation sets relatively strict quantitative investment limits for pension funds, trying to supplement the prudent principle.

Overall asset allocation in Latvia is fairly conservative despite the possibility of choosing a plan according to risk preference. The chart below presents the amount of Assets under Management for types of pension funds according to their investment strategy.

Contrary to many other CEE countries running mandatory pension systems, there is no requirement for pension funds to guarantee a certain minimum return. On the contrary, doing so is explicitly forbidden.



Graph LV I. Assets under Management in State Funded Pension Scheme pension vehicles (in mln. €)

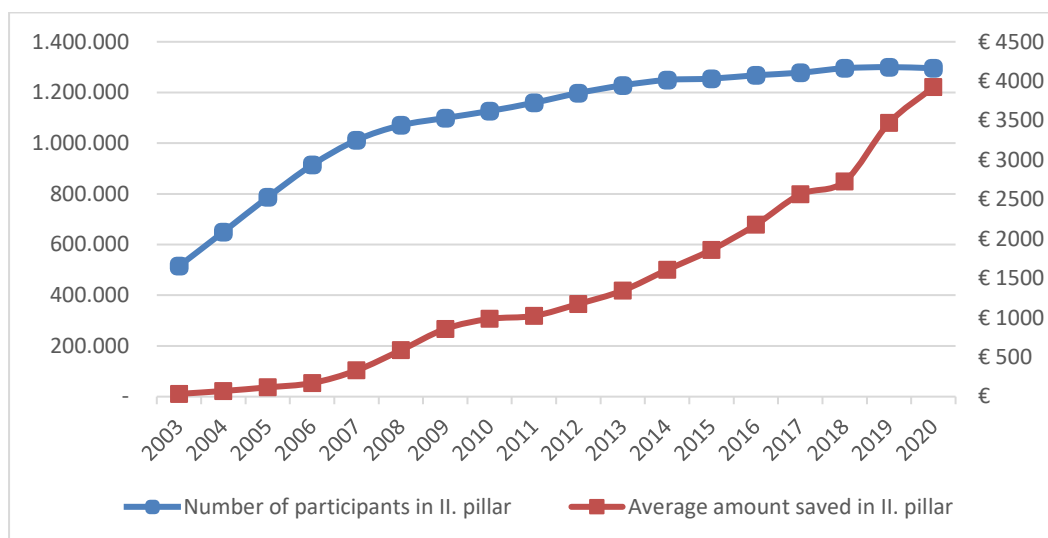


Source: Own calculations (<http://www.manapensija.lv/en/2nd-pensionpillar/statistics/data>), 2021

As the State Funded Pension scheme is mandatory for all economically active individuals in Latvia, the number of savers (as well as the average amount of accumulated assets on individual accounts) is rising. The chart below indicates that the Pillar II market is starting to be saturated in terms of the number of participants.



Graph LV II. Number of participants and average size of individual accounts in Latvian II pillar



Source: Own calculations (<http://www.manapensija.lv/en/2nd-pension-pillar/statistics/data>), 2021

The number of Pillar II participants has almost encompassed the entire working population. Further growth of Pillar II savings will therefore be driven by the amount from contributions and pension funds' performance.

There are 31 pension funds operating by 9 providers (table below).

Table LV 5. List of State Funded Pension Funds

Pension Fund Name	Investment style of the pension plan	Inception day
CBL Aktīvais ieguldījumu plāns	Active 50	7.1.2003
CBL Universālais ieguldījumu plāns	Conservative	7.1.2003
Luminor Sabalansētais ieguldījumu plāns	Balance	21.2.2005
Ieguldījumu plāns „INVL Ekstra 47+”	Active 50	8.8.2006
Ieguldījumu plāns „INVL Komforts 53+”	Balance	8.8.2006
Ieguldījumu plāns „INVL Konservatīvais 58+”	Conservative	7.1.2003
Luminor aktīvais ieguldījumu plāns	Active 50	2.2.2009
Luminor konservatīvais ieguldījumu plāns	Conservative	2.2.2009
Ieguldījumu plāns "DAUGAVA"	Conservative	7.1.2003
Ieguldījumu plāns "GAUJA"	Active 50	14.10.2003
Ieguldījumu plāns "VENTA"	Balance	14.10.2003
SEB aktīvais plāns	Active 50	7.1.2003
SEB Eiropas plāns	Active 50	7.1.2003
SEB konservatīvais plāns	Conservative	26.5.2003
SEB Latvijas plāns	Conservative	7.1.2003

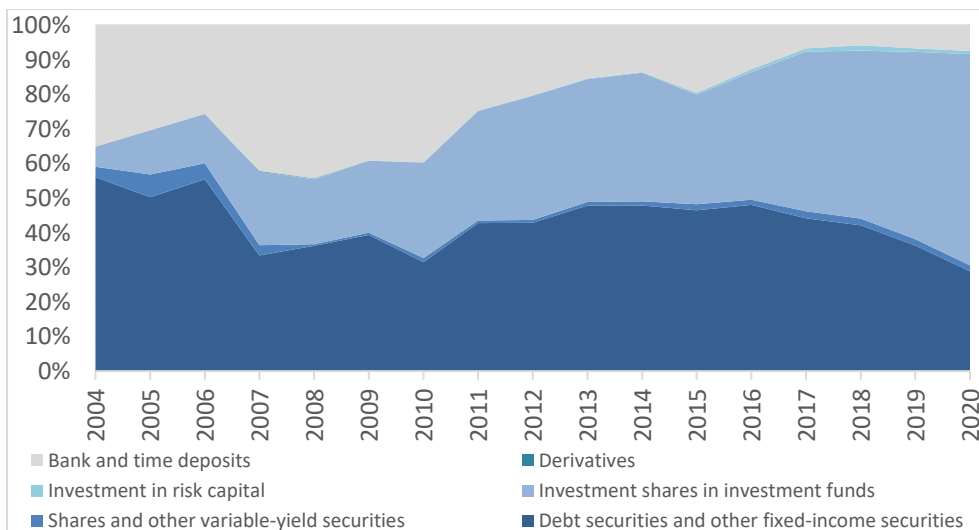


SEB sabalansētais plāns	Balance	7.1.2003
Swedbank pensiju ieguldījumu plāns "Dinamika"	Active 50	7.1.2003
Swedbank pensiju ieguldījumu plāns "Stabilitāte"	Conservative	7.1.2003
Ieguldījumu plāns "INDEXO Izaugsme 47-57"	Active 50	21.6.2017
ABLV ACTIVE INVESTMENT PLAN	Active 50	2.8.2017
CBL dzīves cikla plāns Millennials	Active 75	24.4.2018
Ieguldījumu plāns "INDEXO Jauda 16-50"	Active 75	18.1.2018
Ieguldījumu plāns "INVL MAKSIMĀLAIS 16+"	Active 75	5.11.2018
Luminor Progresīvais ieguldījumu plāns	Active 75	6.4.2018
SEB dinamiskais plāns	Active 75	5.3.2018
SEB indeksu plāns	Active 75	5.3.2018
Swedbank ieguldījumu plāns 1990+	Active 75	9.2.2018
Ieguldījumu plāns "INDEXO Konservatīvais 55+"	Conservative	4.4.2018
Swedbank ieguldījumu plāns 1970+	Active 75	8.1.2019
Swedbank ieguldījumu plāns 1980+	Active 75	8.1.2019
CBL Ilgtspējīgu iespēju ieguldījumu plāns	Active 75	13.5.2019

Source: <http://www.manapensija.lv/en/2nd-pension-pillar/statistics/>, 2021

The portfolio structure of Pillar II pension funds (figure below) shows that debt and other fixed income securities as well as investment funds (UCITS funds) remain the dominant investments. There is only limited direct investment into equities.

Graph LV III. Pillar II pension funds' portfolio structure



Source: Own elaboration based on Financial and Capital Market Commission data, 2021 (available at: <https://www.fktk.lv/en/statistics/pension-funds/quarterly-reports/>).



Pillar III – Voluntary private pensions

There are two types of private pension funds in the Latvian voluntary private pension pillar:

1. closed, for fund founders' (corporate) staff;
2. open, of which any individual may become a participant, either directly or through an employer.

This distinction between private pension funds is rather significant, as closed private pension funds (only one operating in Latvia in 2020) could be recognized as a typical occupational pension fund. However, open private pension funds are more personal ones.

The law on Private Pension Funds provides a wide range of possibilities to organize and manage private pension funds. The law prescribes the accumulation of pension benefits (both in the specified contribution scheme and in the specified pay-out scheme), the types of private pension funds, the basis for activities thereof, the types of pension schemes, the rights and duties of pension scheme participants, the management of funds, the competence of holders of funds, and state supervision of such activities.

Pension vehicles (pension funds) can be created only by limited types of entities in Latvia, namely:

1. employers entering into a collective agreement with a pension fund, technically become founders of a closed pension fund;
2. for an open pension fund, two types of institutions can establish a fund:
 - 1) bank (licensed credit institution);
 - 2) life insurance company.

These founders usually hire a management company, who creates a different pension plan managed under one pension fund and manages the investment activities. Pension scheme assets can be managed only by the following commercial companies:

- a credit institution, which is entitled to provide investment services and non-core investment services in Latvia;
- an insurance company, which is entitled to engage in life insurance in Latvia;
- an investment brokerage company, which is entitled to provide investment services in Latvia;
- an investment management company, which is entitled to provide management services in Latvia.

The level of transparency in providing publicly available data for private pension funds before the year 2011 is rather low. Therefore, the analysis of the market and main pension vehicles has been performed with publicly available data starting from 31 December 2011. Currently (as of 31 December 2020), 15 open private pension funds and one closed private pension fund exist on the market.



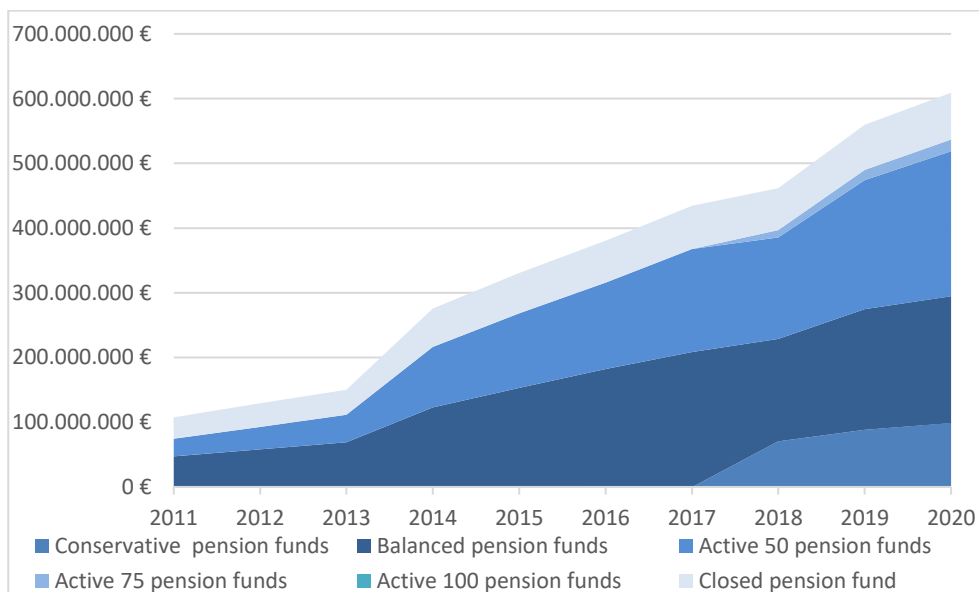
Table LV 6. List of Pillar III Supplementary pension funds

Pension Fund Name	Investment style of the pension plan	Inception day
Swedbank pensiju plāns Stabilitāte+25	Conservative opened pension funds	14.7.2003
INVL KOMFORTS 53+	Conservative opened pension funds	23.10.1998
CBL Sabalansētais	Balanced opened pension funds	30.9.1999
Luminor sabalansētais pensiju plāns	Balanced opened pension funds	18.10.2011
"SEB - Sabalansētais" pensiju plāns	Balanced opened pension funds	31.7.2000
INVL Klasika	Balanced opened pension funds	7.3.2008
INVL EKSTRA 47+	Balanced opened pension funds	8.10.2015
CBL Aktīvais	Active 50 opened pension funds	21.3.2000
"SEB Aktīvais" pensiju plāns	Active 50 opened pension funds	15.9.2004
Swedbank pensiju plāns Dinamika+60	Active 50 opened pension funds	1.8.2003
Swedbank pensiju plāns Dinamika+100	Active 50 opened pension funds	27.12.2006
CBL Aktīvais USD	Active 50 opened pension funds	1.4.2006
Swedbank pensiju plāns Dinamika+(USD)	Active 50 opened pension funds	14.7.2003
Luminor progresīvais pensiju plāns	Active 75 opened pension funds	18.10.2011
INVL MAKSIMĀLAIS 16+	Active 100 opened pension funds	8.10.2015
"Pirmais Pensiju Plāns"	Closed pension fund	1.12.1999

Source: Own elaboration based on www.manapensija.lv, 2021

The structure of the pension vehicles according to the type of the fund and investment strategy offered is presented in the figure below.

Graph LV IV. Type of pillar III pension funds based on assets under management



Source: Own calculation based on Manapensija data (<http://www.manapensija.lv/en/3rd-pension-pillar/history-and-statistics/>), 2021

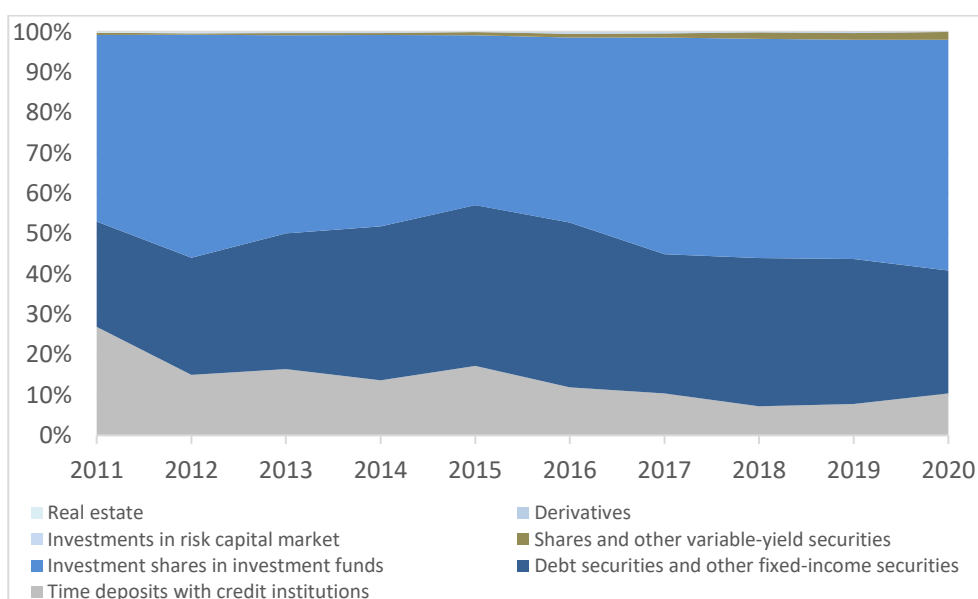


It should be noted that balanced pension funds (5 funds) accounted for about 33% of market share based on AuM in 2020. Active funds – for which the investment strategy allows more equity investments - are gaining market share (from 25% in 2011 to 39.75% in 2020). Conservative funds due to the reclassification of one fund from balanced to conservative have market share of around 16% in 2020.

On the other hand, the only closed pension fund, (which has only 5% of market share based on the number of participants) accounts for almost 12% of market share based on assets under management (data as of 2020), meaning that the closed pension fund has the highest level of accumulated assets per participant. However, considering the decreasing trend in market share during the last years, the number of participants is not increasing, and the closed pension fund serves a relatively matured market.

The portfolio structure of Pillar III pension funds is presented in the figure below. Generally, Pillar III pension funds invest predominantly into debt securities, bank deposits and UCITS funds. Direct investment into equities, real estate or other long-term riskier investment constitute for less than 1% of total portfolio.

Graph LV VI. Pillar III pension funds' portfolio structure



Source: Own elaboration based on Financial and Capital Market Commission data, 2021 (available at: <https://www.fktk.lv/en/statistics/pension-funds/quarterly-reports/>)



Charges

Pillar II – State Funded Pensions

Latvia has adopted the cap on fees within Pillar II, which forces that the maximum amount of payment for the management of investment plan (including the fixed and variable parts of payment, calculating for the last 12-month period) to not exceed:

- 1) 1.50% of the average value of investment plan assets to the investment plans, where the investment plan prospectuses do not provide for any investments in the shares of commercial companies, other capital securities and other equivalent securities;
- 2) 2.00% of the average value of investment plan assets of all other investment plans.

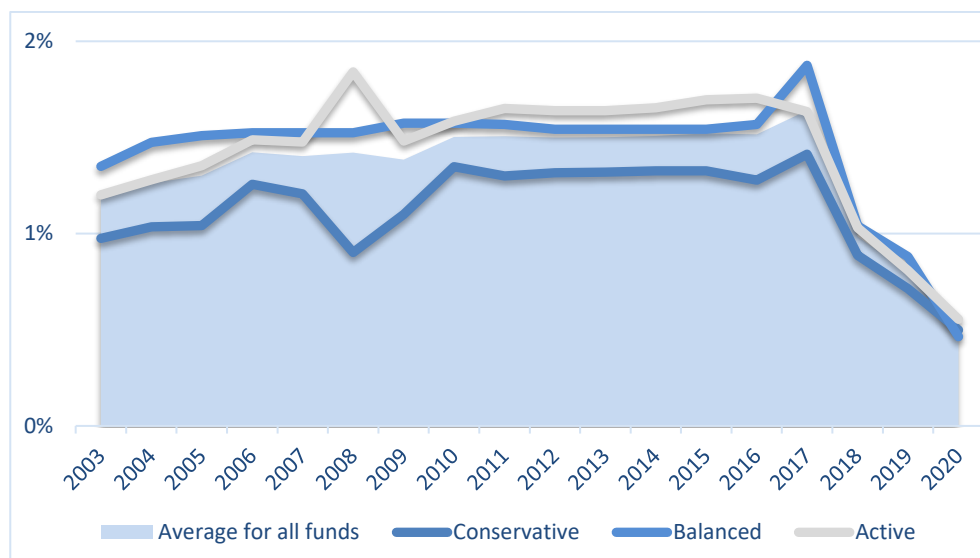
Fees that can be charged to pension funds by fund managers are recognized by law as having a fixed and variable part. The law stipulates that payment for the management of an investment plan shall include:

- a) fixed component of payment, which is 1% of the average value of investment plan assets per year and includes payments to the manager of the funds, custodian, as well as payments to third persons, which are performed from the funds of the investment plans (except expenses which have arisen upon performing transactions by selling the assets of the investment plan with repurchase);
- b) variable component of payment, which is remuneration to the manager of funds of the funded pension scheme for performance of investment plan, with its amount depends on the return of the pension plan.

Year 2020 brought further significant decrease in the fees. Introduction of low-cost passively managed pension funds has spurred price battle and the charges dropped further in 2020 to an average of 0.55% p.a.



Graph LV VII. Pillar II Pension Funds' Charges



Source: Own elaboration based on the funds' documentations, 2021

Pillar III – Voluntary private pensions

It cannot be said that such a positive trend seen in Pillar II charges is observed in Pillar III. Complex fee structure and high fees preserve in Latvian Pillar III even if slight decrease in custodian fees can be observed in Pillar III.

Voluntary private pension funds have typically lower level of transparency when it comes to fee policy. In most cases, only current fees and charges are disclosed. Historical data is almost impossible to track via publicly accessible sources. Charges of voluntary private pension funds for the last 5 years are presented in the table below. Administration cost, Fund Manager's Commission, and Custodian bank's commission are based on the assets under management. Funds managed by Nordea and Swedbank use mixed Administration costs, which are a combination of entry fees (fees on contributions paid) and ongoing charges (AuM based). CBL funds also use a performance fee if the fund returns outperform the benchmark (12-month RIGIBID).



Table LV 7. Voluntary Private Pension Funds' Fees and Charges

Voluntary Private Pension Funds	Type of the Charges	Year 2020
CBL Aktīvais	Administration Cost	0.20% - 1.50%
	Fund Manager's Commission	0,008
	Custodian bank's commission	0.15%
	Performance fee	10.00%
CBL Aktīvais USD	Administration Cost	0.20% - 1.50%
	Fund Manager's Commission	0,008
	Custodian bank's commission	0.15%
	Performance fee	10.00%
CBL Sabalansētais	Administration Cost	0.20% - 1.50%
	Fund Manager's commission	0.70%
	Custodian bank's commission	-
	Performance fee	10.00%
INVL KOMFORTS 53+	Administration Cost	0.99%
	Fund Manager's commission	0.50%
	Custodian bank's commission	0.00%
INVL Klasika	Administration Cost	0.99%
	Fund Manager's commission	0.50%
	Custodian bank's commission	0.00%
INVL EKSTRA 47+	Administration Cost	0.00%
	Fund Manager's commission	0.00%
	Custodian bank's commission	0.00%
	Fee from contributions during the first year of participation	30.00%
INVL MAKSIMĀLAIS 16+	Administration Cost	0.00%
	Fund Manager's commission	0.00%
	Custodian bank's commission	0.00%
	Fee from contributions during the first year of participation	0,3
Luminor progresīvais pensiju plāns	Administration Cost	0.45% per year from average assets.
	Fund Manager's commission	0.43%
	Custodian bank's commission	0.07%
Luminor sabalansētais pensiju plāns	Administration Cost	0.45% per year from average assets.
	Fund Manager's commission	0.43%
	Custodian bank's commission	0.07%
"Pirmais Pensiju Plāns"	Administration Cost	1.50%
	Fund Manager's commission	1.30%
	Custodian bank's commission	0.20%



"SEB Aktīvais" pensiju plāns	Administration Cost	0.35% - 0.40%
	Fund Manager's commission	0.35% - 0.40%
	Custodian bank's commission	0.08%
"SEB - Sabalansētais" pensiju plāns	Administration Cost	0.12% - 0.85%
	Fund Manager's commission	0.35%-0.40%
	Custodian bank's commission	0.08%
Swedbank pensiju plāns Dinamika+(USD)	Administration Cost	0.26%
	Fund Manager's commission	0.34%
	Custodian bank's commission	0.09%
Swedbank pensiju plāns Dinamika+100	Administration Cost	0.26%
	Fund Manager's commission	0.34%
	Custodian bank's commission	0.09%
Swedbank pensiju plāns Dinamika+60	Administration Cost	0.26%
	Fund Manager's commission	0.34%
	Custodian bank's commission	0.09%
Swedbank pensiju plāns Stabilitāte+25	Administration Cost	0.26%
	Fund Manager's commission	0.34%
	Custodian bank's commission	0.09%
<i>Source: Own research based on http://www.manapensija.lv/en/3rd-pension-pillar/funds/ data and supplementary pension funds' Prospectuses and Terms, 2021</i>		

When comparing the charges applied to the voluntary private pension funds and to state-funded pension funds, the level of charges in Pillar III pension funds are significantly higher and the structure of fees is more complex. This limits the overall understanding of the impact of fees on the pension savings for an average saver. The total cost ratio of Pillar III funds starts at 0.8% p.a. and can reach as high as 3% p.a. on managed assets.

There are neither limitations nor caps on fees in the law. The legislative provisions only indicate that at least the following should be disclosed: general information on maximum fees and charges applied, procedures for covering the expenses of the scheme, information regarding maximum payments to the management of the pension scheme and to the manager of funds, and the amount of remuneration to be paid out to the holder of funds, as well as the procedures by which pension scheme participants shall be informed regarding such pay-outs of the scheme.

Taxation

Pillar II – State Funded Pensions

Latvia is applying an "EET" taxation regime for Pillar II with some specifications (deductions) to the payout regime taxation, where generally the "T" regime is applied for the pay-out phase in retirement.



Taxation of contributions

Contributions paid to the state funded pension scheme are made via social insurance contributions redirection. As such, these contributions are personal income tax deductible items, so the contributions are not subject to additional personal taxation.

Taxation of the Fund

The Corporate Income tax rate in Latvia is 15%. However, income or profits of the fund (investment fund as a legal entity) are not subject to Latvian corporate income tax at the fund level. Latvia applies a general principle for all investment and savings-based schemes to levy the income taxation on the final beneficiaries and not on the investment vehicles.

Taxation of pension benefits

Latvia has one of the lowest levels of income redistribution among EU countries. Personal income tax rate is 23% and the pension benefits paid from the NDC PAYG scheme (Pillar I) and state-funded pension scheme (Pillar II) are considered taxable income. As such, pension benefits are subject to personal income tax. Latvia applies a non-taxable minimum, which is recalculated and announced every year by Cabinet regulation.

Pillar III – Voluntary private pensions

Latvian tax legislation stipulates the use of the “EET” regime (like Pillar II) for voluntary private pension schemes as well, where the contribution by individuals is treated in a slightly different way. Payments made to private pension funds established in accordance with the Republic of Latvia Law on Private Pension Funds or to pension funds registered in another Member State of the European Union or the European Economic Area State shall be deducted from the amount of annual taxable income, provided that such payments do not exceed 10 % of the person’s annual taxable income. However, there is a limit on total income tax base deductible payments. The total of donations and gifts, payments into private pension funds, insurance premium payments and purchase costs of investment certificates of investment funds may not exceed 20% of the amount of the payer’s taxable income.

Pension Returns

Pillar II – State Funded Pensions

Pension funds’ performance is closely tied to the portfolio structure defined by an investment strategy (as well as investment restrictions and regulations) applied by a fund manager. Investment regulations differ, depending on whether pension plans are managed by the State Treasury or by private companies. The State Treasury is only allowed to invest in Latvian government securities, bank deposits, mortgage bonds and deposit certificates. Moreover, it can only invest in financial



instruments denominated in the national currency. In contrast, private managers are allowed to invest in a much broader range of financial instruments. The main investment limits include the following:

- 35% for securities guaranteed by a state or international financial institution;
- 5% for securities issued or guaranteed by a local government;
- 10% for securities of a single issuer, except government securities; for deposits at one credit institution (investments in debt and capital securities of the same credit institution and derivative financial instruments may not exceed 15%); and for securities issued by one commercial company (or group of commercial companies);
- 20% for investments in non-listed securities;
- 5% for investments in a single fund (10% of the net assets of the investment fund).

There is no maximum limit for international investments so long as pension funds invest in securities listed on stock exchanges in the Baltics, other EU member states, or the European Free Trade Area. However, the law stipulates a 70% currency matching rule. There is also a 10% limit for each non-matching currency. Investments in real estate, loans, and self-investment are not permitted.

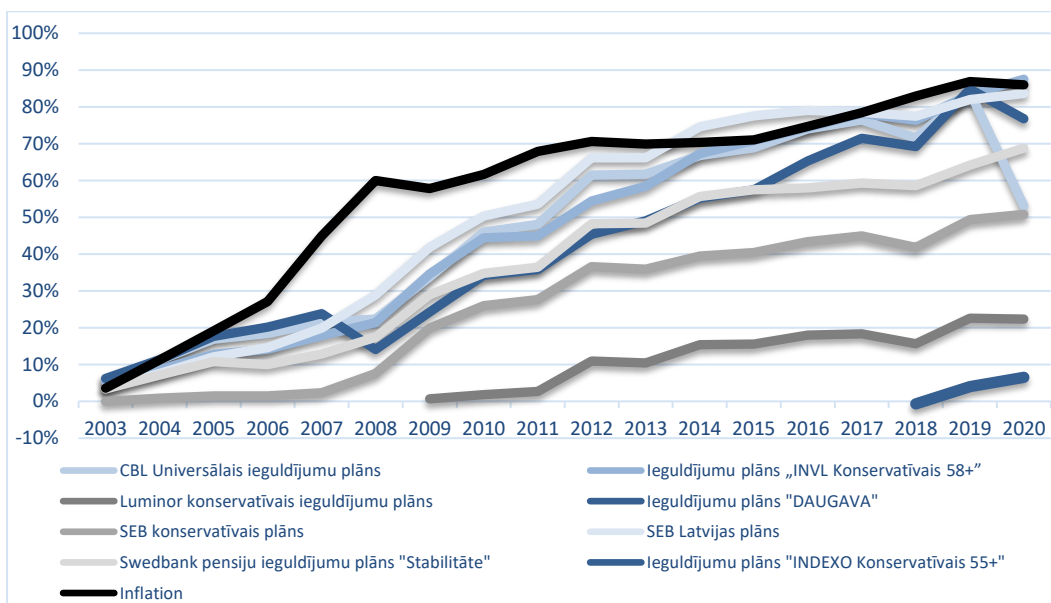
All data presented on the pension funds' returns are presented in net values, i.e., after all fees charged to the fund portfolio. The graphs contain also inflation on an annual and cumulative basis.

Pension reform introduced Pillar II in July 2001. However, pension funds started their effective operation from January 2003, so only data for the period from 2003 to 2019 is presented.

Conservative mandatory pension funds' performance on a cumulative basis compared to the inflation is presented below.



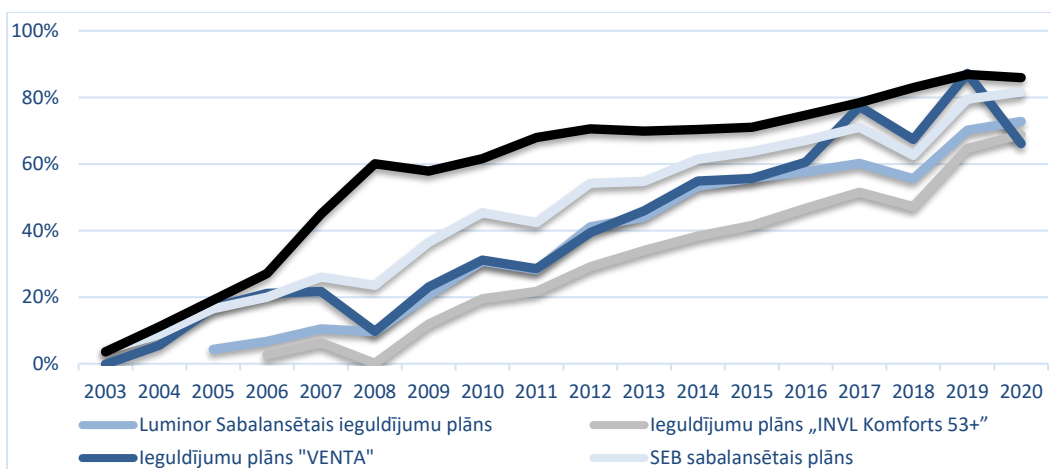
Graph LV VIII. Conservative Pension Funds' Cumulative Performance



Source: Own calculation based on <http://www.manapensija.lv/en/2nd-pension-pillar/statistics/> and supplementary pension funds' Prospectuses and Terms, 2021

Balanced mandatory pension funds' performance on a cumulative basis compared to the inflation is presented below.

Graph LV IX. Balanced Pension Funds' Cumulative Performance

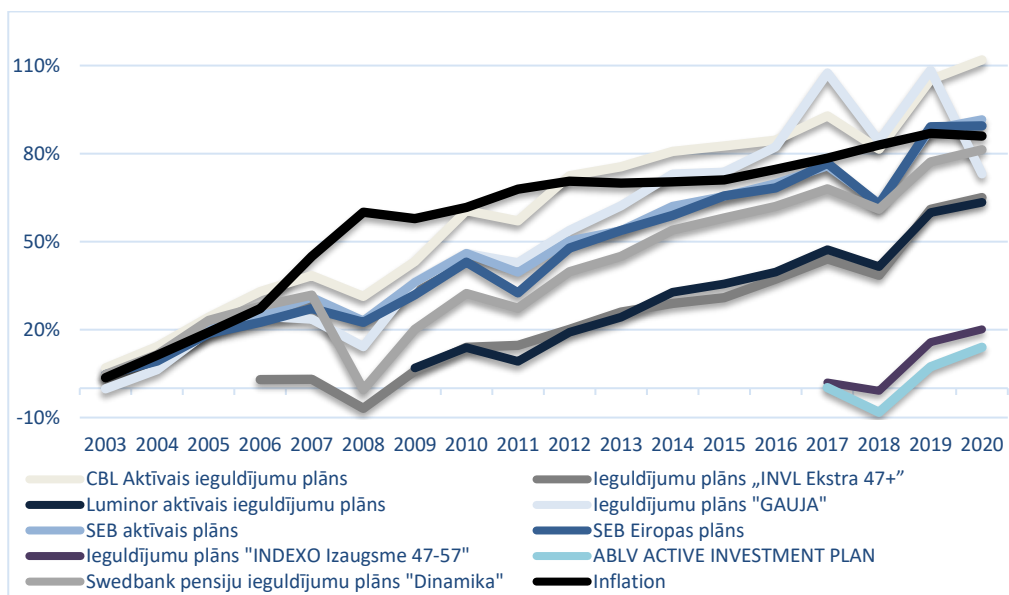


Source: Own calculation based on <http://www.manapensija.lv/en/2nd-pension-pillar/statistics/> and supplementary pension funds' Prospectuses and Terms, 2021



Active pension funds' performance on a cumulative basis compared to the inflation is presented in the graphs below.

Graph LV X. Active 50 Pension Funds' Cumulative Performance



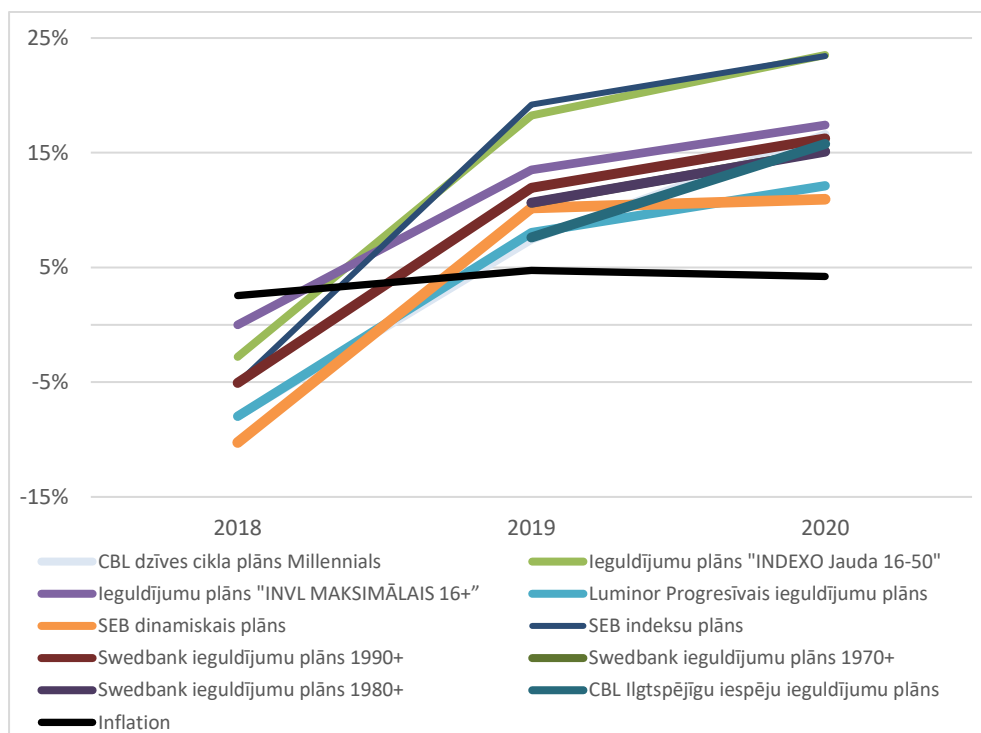
Source: Own calculation based on <http://www.manapensija.lv/en/2nd-pension-pillar/statistics/> and supplementary pension funds' Prospectuses and Terms, 2021

It should be noted that only few of the actively managed pensions were able to "beat" the inflation, and thus able to deliver the positive real returns to the savers.

In 2018, the Active 75 pension funds started operating on the market that invests major proportion of assets into the equities. Their cumulative performance is presented below.



Graph LV XI. Active 75 Pension Funds' Cumulative Performance



Source: Own calculation based on <http://www.manapensija.lv/en/2nd-pension-pillar/statistics/> and supplementary pension funds' Prospectuses and Terms, 2021

Nominal as well as real returns of state funded pension funds in Latvia weighted by AuM are presented in a summary table below.



Table LV 8. Nominal and Real Returns of State Funded Pension Funds in Latvia

2003	4.86%		1.28%	
2004	5.69%		-1.65%	
2005	8.93%		1.80%	
2006	3.91%		-2.83%	
2007	3.51%		-10.52%	
2008	-10.04%		-20.44%	
2009	13.51%		14.88%	
2010	8.45%		6.05%	
2011	-2.10%	3.67%	-5.98%	-0.07%
2012	9.06%		7.47%	
2013	2.32%		2.72%	
2014	5.25%		4.97%	
2015	1.93%		1.53%	
2016	2.02%		-0.08%	
2017	3.23%		1.07%	
2018	-4.09%		-6.64%	
2019	10.79%		8.65%	
2020	1.44%		1.94%	

Source: Own calculation based on Manapensija data (<http://www.manapensija.lv/en/2nd-pension-pillar/statistics/>), 2021

Another view on the performance of the Pillar II pension funds allowing the comparison across EU pension schemes is using the holding period approach.

Holding Period	Net Nominal Annualized Performance	Real Net Annualized Performance
1-year	1.44%	1.94%
3-years	2.53%	1.12%
5-years	2.57%	0.87%
7-year	2.86%	1.54%
10-years	2.90%	1.45%
Since inception	3.67%	-0.07%

Source: Own calculation based on Manapensija data (<http://www.manapensija.lv/en/2nd-pension-pillar/statistics/>), 2021

Pillar III – Voluntary private pensions

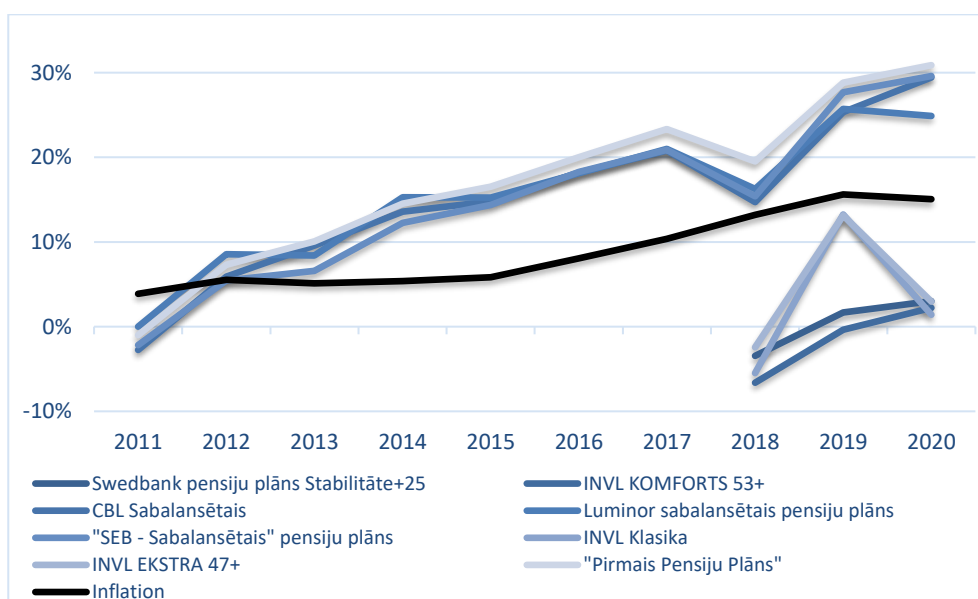
The analysis of voluntary pension funds' performance uses annual approaches as well as cumulative approaches, peer comparison and inflation.



Investment rules for private pension funds are similar to those for state-funded schemes but are more flexible. For example, investment in real estate is permitted (with a limit of 15%), the currency matching rule is only 30%, and limits for some asset classes are higher. Considering the structure of voluntary pension funds' portfolios in Latvia, a larger proportion is invested in structured financial products (mainly equity based UCITS funds) and direct investment in equities and bonds is decreasing.

Due to the lack of publicly available data before 2011, the performance of voluntary pension funds on an annual and cumulative basis starting from the year 2011 is presented in the charts below.

Graph LV XII. Balanced and conservative voluntary open and closed pension funds' cumulative performance



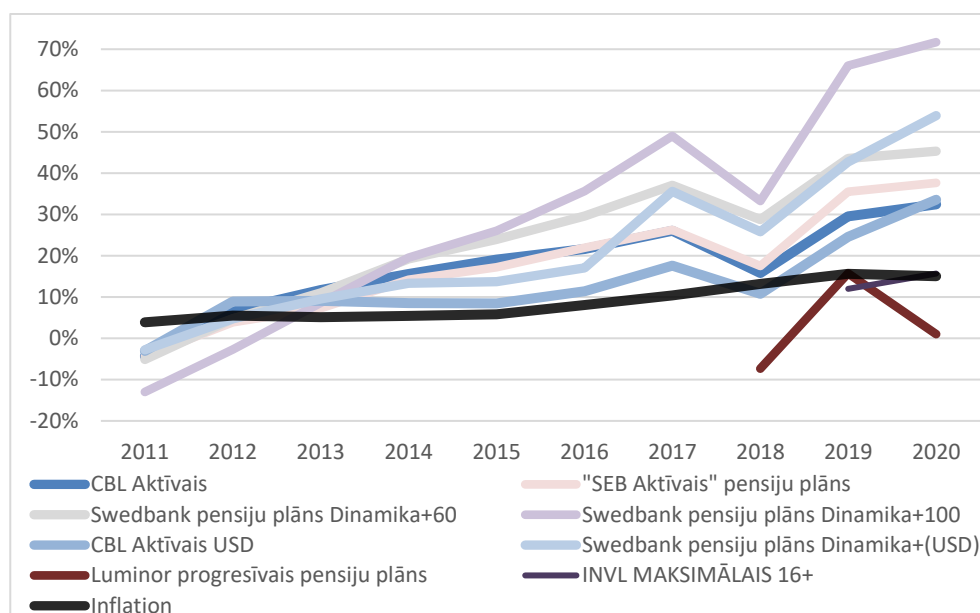
Source: Own calculation based on Manapensija data (<http://www.manapensija.lv/en/3rd-pension-pillar/history-and-statistics/>), 2021

Contrary to balanced Pillar II funds, balanced Pillar III funds all provide positive real returns (outperform inflation). Balanced Pillar III funds have a more aggressive portfolio structure. However, short historical data does not allow for a comprehensive conclusion to be drawn. There is a backward pressure of charges which might reverse the trend in future.

The performance of Latvian active voluntary private pension funds differs significantly, and the dispersion of annual returns and cumulative returns is higher. Performance of analyzed voluntary private pension funds on a cumulative basis is presented on the chart below.



Graph LV XIII. Active 50 & Active 75 voluntary pension funds' cumulative performance



Source: Own calculation based on Manapensija data (<http://www.manapensija.lv/en/3rd-pension-pillar/history-and-statistics/>), 2021

Nominal as well as real returns of voluntary pension funds in Latvia weighted by AuM are presented in a summary table below.

Table LV 9. Nominal and Real Returns of Voluntary pension funds in Latvia

2011	-2.70%		-6.58%	
2012	8.77%		7.18%	
2013	3.08%		3.48%	
2014	5.56%		5.29%	
2015	2.28%	3.03%	1.87%	
2016	3.35%		1.24%	1.58%
2017	3.62%		1.46%	
2018	-5.12%		-7.67%	
2019	10.80%		8.66%	
2020	1.64%		2.14%	

Source: Own calculation based on Manapensija data (<http://www.manapensija.lv/en/3rd-pension-pillar/history-and-statistics/>), 2021



Additionally, we provide data on Pillar III (Voluntary) pension funds' performance according to various holding periods.

Holding Period	Net Nominal Annualized Performance	Real Net Annualized Performance
1-year	1.64%	2.14%
3-years	2.23%	0.82%
5-years	2.73%	1.03%
7-year	3.06%	1.75%
10-years	3.03%	1.58%
Since inception	3.03%	1.58%

Source: Own calculation based on Manapensija data, 2021

Conclusions

Latvia has managed to build a sustainable pension system over the last decade with impressive growth in Pillar II funds. Acceptance of voluntary pension savings in Pillar III is still weak, but this trend has changed after the financial crisis. Pillar III pension funds have enjoyed high inflow of new contributions despite rather weak performance and high fees.

Latvian Pillar II experienced further drop in charges in 2019 as well as 2020 driven by a competition from low-cost passively managed funds. Pillar III funds managers enjoy smaller decrease in charges, but Pillar III charges remain relatively high. Delivered real returns on the other hand are negative. Most of the Pillar II pension funds were not able to beat the inflation. One of the reasons is also the relatively conservative risk/return profile of most funds. Pillar III vehicles in Latvia suffer not only from significantly high fees charged by fund managers, but also from low transparency.

Pension fund managers of both pillars have started to prefer packaged investment products (investment funds) and limit their engagement in direct investments. Thus, the question of potential future returns (when using financial intermediaries multiplied by high fee policy) in both schemes should be raised.

Policy Recommendations

Latvia has improved significantly its mandatory part of funded pension system. Together with its NDC scheme for pay-as-you-go pillar, mandatory funded part as well as NDC part form a well-designed pension system that motivates individuals to contribute as there is a clear connection between paid contributions and expected pension benefits. However, voluntary part of the pension system still suffers from very complicated fee structure, high fees and low transparency.

These limits, despite a generous fiscal stimulus, larger participation in voluntary pension scheme. Regulators should seek for modern fee policies that would on one hand decrease the fee structure



and on the other hand introduce success fee tied to the market benchmark. Applying high-water mark principle could limit the risk appetite of asset managers as they will start to prefer low-risk investments where constant fee revenue could be expected. If the benchmarking principle is applied, where the asset manager is rewarded by higher fee when the market benchmark has been outperformed and penalized by lower fees if the fund performance is lower than the market benchmark, savers could benefit more and start trusting the voluntary pension providers on a larger scale.

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- Law on State Social Insurance



Pension Savings: The Real Return

2021 Edition

Country Case: Lithuania

Santrauka

Lietuva priėmė tipišką Pasaulio banko daugiapakopę sistemą, kurioje PAYG pakopa (valstybinė pensija, I pakopa) vis dar atlieka dominuojantį vaidmenį užtikrinant senatvės pensininkų pajamas. Nuo 2019 m. II pakopos santaupų kaupimas vyksta gyvenimo ciklo pensijų fonduose, kurie patys keičia investavimo riziką pagal dalyvių amžių. Nuo 2019 m. palaipsniui mažinamas valdymo mokestis už kaupimą II pakopos gyvenimo ciklo fonduose. 2019 m. jis sudarė 0,8 proc. ir 2020 m. tapo 0,65 proc. Nuo 2021 m. metinis turto valdymo mokestis dar labiau sumažintas iki 0,5 proc. Turto išsaugojimo fondui turto valdymo mokestis sudarys tik 0,2 proc.

Apskritai 2020 m. abiejų pakopų pensijų fondų veiklos rezultatai visose turto klasėse buvo gražiai teigiami, tačiau pensijų fondų, kurių rizikos ir grąžos profiliai buvo skirtingi, grąža gerokai skyrėsi.

Summary

Lithuania adopted the typical World-Bank multi-pillar system, where the PAYG pillar (state pension, Pillar I) still plays the dominant role in ensuring the income for old-age pensioners. As of 2019, accumulating savings in Pillar II takes place in life-cycle pension funds, which change investment risk themselves on the basis of participants' age. Since 2019, management fee for accumulating in Pillar II life-cycle funds is being gradually reduced. In 2019 it was 0.8 per cent and in became 0.65 per cent in 2020. From the year 2021 the annual asset management fee was further decreased to 0.5 per cent. For the asset preservation fund, the management fee will be just 0.2 per cent.

Overall, pension funds' performance in both pillars were nicely positive in 2020 across all asset classes, however there were significant differences among the pension funds' returns with different risk-return profiles.



Introduction

Lithuania has undertaken a pension reform in 2004, which was renewed in 2013. This was the reason to establish private pension funds. Currently, the Lithuanian pension system provides three distinct sources of accumulation for retirement funds – so-called pension pillars:²²⁶

- **1st pillar (Pillar I)** – State social insurance funds organized as a PAYG pension scheme. State social pension is financed from social insurance contributions paid by people who are currently working.
- **2nd pension pillar (Pillar II)** – funded pension scheme mandatory for all economically active citizens under the age 40 with opt-out operated by the private pension accumulation companies offering life-cycle pension funds in form of personal savings scheme. The part of State social insurance fund is redirected from PAYG scheme (until 2019). On top of social insurance contributions, savers are obliged to co-finance the individual retirement accounts with additional contributions tied to their salary.
- **3rd pension pillar (Pillar III)** – voluntary private funded pension scheme. Accumulation can be managed by private funds or life-insurance companies.

Lithuania's statutory social insurance pension system is financed at a general rate of 39.5% (without social insurance for accidents at work and occupational diseases insurance), while 25.3 percentage points (22.3 p.p. + 3 p.p. employee) is paid towards the social insurance for pensions (Pillar I).

The State social insurance pension system was reformed in 1995 introducing the insurance principle, extending the requirement for contributory years, abolishing early retirement provisions and increasing the retirement age. However, Pillar II was introduced by law in 2002 and started functioning effectively in 2004 when the first contributions of participating individuals started to flow into the pension funds.

Supplementary voluntary pension provision (Pillar III) is possible through either pension insurance or special voluntary pension funds (these started operating in 2004, although the law was adopted in 1999). The voluntary pillar can take two different forms: defined-contribution (DC), if supplemental contributions are invested into pension funds or unit-linked life insurance or defined-benefit (DB) when purchasing a classic life insurance product. Contributions to the system may be made by the individual or his employer.

Basic data on the pension system set-up in Lithuania is presented in the table below.

²²⁶ BITINAS, A. (2011). Modern pension system reforms in Lithuania: Impact of crisis and ageing. *Jurisprudence*, 18(3), 1055–1080.



Table LT 1: Multi-pillar pension system in Lithuania

PILLAR I	PILLAR II	PILLAR III
State Pension	Funded pension	Voluntary pension
Law on State Social Insurance Pensions	Law on the Reform of the Pension System; Law on Pension Accumulation	Law on the Supplementary Voluntary Pension Accumulation
State Social Insurance Fund institutions	Pension accumulation companies	Pension accumulation companies
Mandatory	Quasi/Mandatory	Voluntary
Publicly-managed	Privately managed pension funds	Privately managed pension funds
PAYG	Funded	Funded
PS (Pointing System - Defined benefit scheme based on salary)	DC (Defined Contribution scheme)	
	Individual personal pension accounts	
Quick facts		
Number of old-age pensioners: 615,900	Administrators: 5	Administrators: 4
Average old-age pension: € 376.20	Funds: 40	Funds: 15
Average income (gross): € 1,216.80	AuM: € 3,887.86 mil.	AuM: € 135.56 mil.
Average replacement ratio: 30.92%	Participants: 1,372,603	Participants: 75,528
Number of insured persons: 1,422,200	Coverage ratio: 96.51%	Coverage ratio: 5.31%

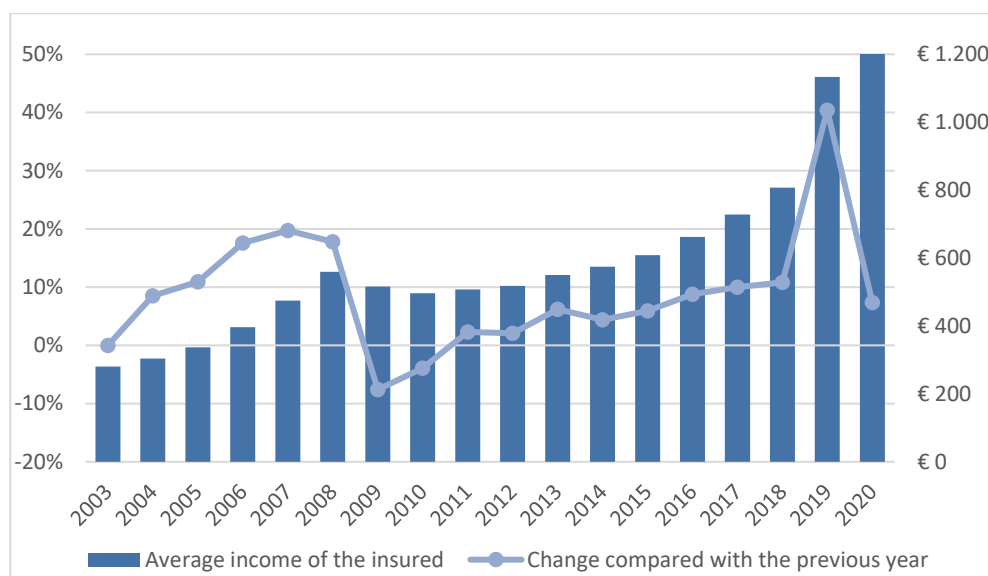
Source: Own calculation (<http://atvira.sodra.lt/en-eur/>), 2021.

The overall coverage of Pillar II, measured as a ratio between the number of participants and the economically active population (number of insured persons in Pillar I), was almost 94% in 2019, while Pillar III covered merely 5% of the economically active population. Thus, we can expect that future pension income stream will be influenced mostly by Pillar II pensions, while Pillar III will generate an insignificant part of individuals' income during retirement.

Regarding the income level, Lithuania's citizens have experienced relatively high rates of income increase during the last 15 years (9.62% annually).



Graph LT1. Average income and annual changes in income of insured persons



Source: Own calculation (<http://atvira.sodra.lt/en-eur/>), 2020.

Pillar I – State Pensions

The first pillar of the Lithuanian pension system is organized on the pay-as-you-go (PAYG) principle of redistribution, being funded on an ongoing basis, functioning on the pointing system, and taking into account the duration of the vesting period and the level of salary (insurable income) from which the contributions are paid.

The old-age pension is the main type of state social security in old age. Individuals who meet the requirements for age and for the pension social insurance record are entitled to the old-age pension, i.e.:

- 1) the person has reached the established old-age pension age (64 years and 2 months for men and 63 years and 4 months for women in 2020). Since 2012, the retirement age has been rising gradually by 2 months a year for men and 4 months a year for women until reaching the statutory retirement age of 65 for both men and women by 2026;
- 2) has the minimum record of pension social insurance established for old-age pension (has paid the pension social insurance contributions for at least 15 years).

The pension social insurance record is the period in which the obligatory pension social insurance payments are made or must be made either by the person themselves or on his/her behalf. Starting from 2018, the obligatory pension social insurance record requirement increased. In 2020, the



mandatory record is at least 31 years and 6 months and will be increased by 6 months every subsequent year until it reaches 35 years in 2027.

A new version of the Law on Social Insurance Pensions came into force on 1 January 2018. The pension system was reformed by changing the pension calculation structure, introducing pension points and setting the indexation rules. A social insurance pension will consist of the general (GP) and individual parts (IP). The old-age pension is equal to the sum of the general and the individual parts of pension.

The general part (GP) of the old-age pension takes into account only the duration of insured period. The general part (GP) of pension is calculated according to the formula:

$$GP = \beta \times B$$

where:

β represents the ratio of the insurance record of the person and the obligatory insurance record effective in the year of the pension entitlement (for example, if the obligatory insurance record at year of retirement is 30 years and the person's insurance record is 40 years, then the value of β is $40/30 = 1.33333$); and

B represents the basic pension (in euros).

The individual part of pension is based on pension point system. Pension points system for the determination of the individual part of pension was introduced on 1 January 2018. Each insured person will receive a certain number of pension points for the amount of pension social insurance contributions paid during the year. If the amount of pension social insurance contributions deducted from the person's income during the year for the individual part of pension is equal to the amount of the annual pension contribution determined on the basis of the average pay (salary) during the year, the person will acquire one pension point. A larger or a smaller amount paid will result, accordingly, in a larger or smaller number of pension points. However, the total number of pension points acquired during one year may not exceed 5. The pension points acquired will be summed up and multiplied by the pension point value. The individual part of pension is calculated according to the formula:

$$IP = V \times p$$

where:

V is the number of pension points accumulated by the person during the entire working career;

p is the pension point value (in euros).

For example, if a person's salary during the whole career (40 years) was equal to the average salary in the economy (1 point), then the person can acquire $40 \times 1 \text{ point} = 40 \text{ points}$. If the value of one



pension point at moment of retirement is, for example, €10, then the individual part of old-age pension is: $40 \times 10 = 400$ Eur.

Old-age pensions are indexed every year. Starting from 1 January every year, the values of the basic pension, the value of pension points and the basic amount of widows'/widowers' pensions, used for the granting and determining social insurance pensions, will be indexed based on the average 7-year wage fund growth rate.

The indexing coefficient (*IC*) is calculated on the basis of the change in the wage fund during the past three years, the year for which the *IC* is being calculated, and three prospective years. The *IC* is applied provided that, upon its application, the pension social insurance costs in the year of indexation do not exceed social insurance revenues and the projected pension social insurance costs for the next year do not start exceeding the social insurance revenues projected. If, without indexation, the pension social insurance revenues in the year of indexation exceed the pension social insurance costs, the *IC* is calculated in such a way that the pension social insurance expenses for pension indexing would not exceed 75% of the pension social insurance contribution surplus planned for the year of indexation in case if no indexation is performed.

Indexation of pensions will not be performed if the determined *IC* is smaller than 1.01 and/or if the change in the gross domestic product at comparative prices and/or in the wage funds, expressed in percentage terms, is negative in the year for which the *IC* is being calculated and/or for next calendar year. If no indexation is performed, the values of December of previous year are applied.

In general, we can say that the Pillar I pensions will be subject to the automatic adjustment mechanism ensuring the balance of the State Social Insurance fund over the longer period.

SoDra has launched the indicative retirement calculator, where an individual can assess his projected old-age pension including the expected (projected) Pillar II savings. The calculator web site (in Lithuanian language):

http://www.sodra.lt/lt/skaiciuokles/prognozuojamos_pensijos_skaiciuokle

Pillar II – Funded pensions

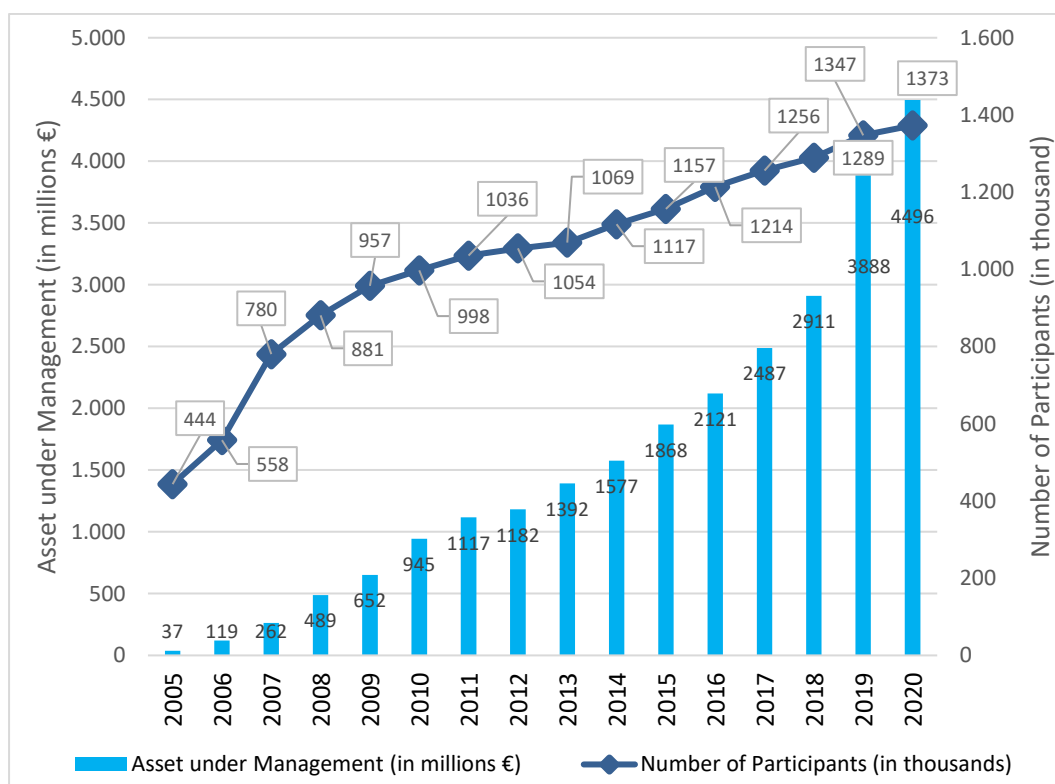
Lithuania's private pensions system (Pillar II) is based on the World Bank's multi-pillar model. Pillar II pension scheme can be characterized as an accumulation of a redirected part of social insurance contributions towards individual retirement accounts managed by private pension accumulation companies offering and managing private pension funds. All persons with income, from which state social insurance contributions are calculated on a mandatory basis to receive pension, and yet to reach retirement age may become fund participants. The contribution to Pillar II pension funds consists of three parts: a social-security contribution (currently paid to SoDra), salary contribution and an additional pension contribution from the State Budget.



Pillar II can be characterized as a fully funded scheme, with quasi-mandatory participation, distinct and private management of funds, based on personal accounts and on the defined contribution (DC) philosophy with no minimum return guarantees.

Since 2004, when the Pillar II was effectively launched, the number of participants as well as AuM has grown rapidly and currently, more almost 94% of working population is covered by the scheme and almost 4 billion € are managed by 5 PACs (see graph below).

Graph LT2. Pillar II – Number of participants and Assets under Management



Source: Own calculation (<https://www.lb.lt/en/fs-pension-funds>), 2021.

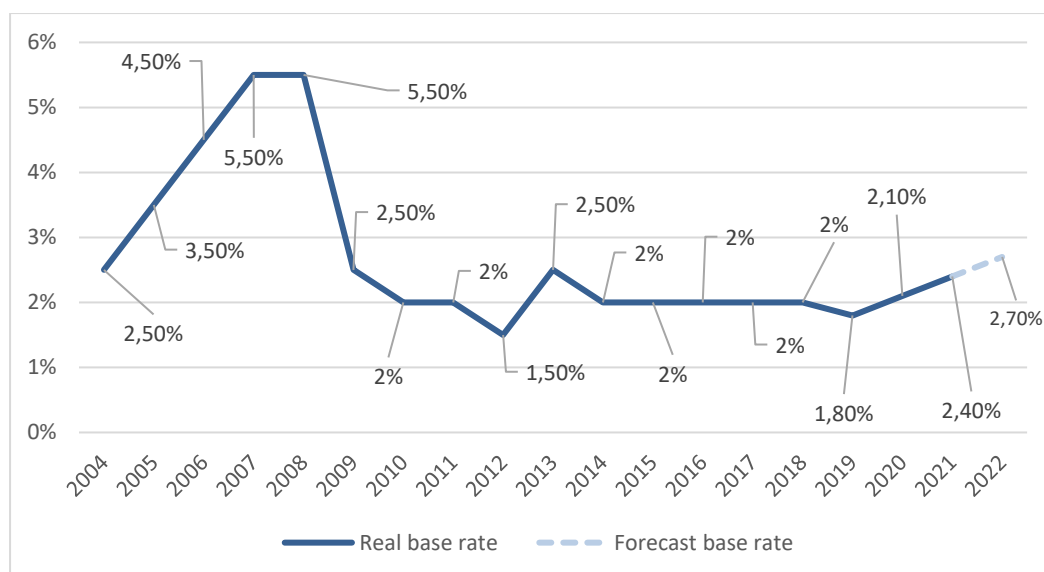
The pension contributions towards the Pillar II are part of the participant's state social insurance contribution rate. Originally, the level of contributions ("base rate") was set at final level of 5.5% of insurable income. This level should have been reached in 2007. The base rate in 2004 was 2.5%, in 2005 - 3.5%, in 2006 it was 4.5%, and since 2007 - 5.5% of the participants' income, from which the state social insurance contributions are calculated. However, it should be noted that there have been significant changes to the Pillar II set-up because of the financial crisis and the following public finance deficits. As a result, the mechanism and level of paid contributions have changed. Since 2014, the level of contributions has remained stable, while participants have been required to



match redirected contributions from the social insurance with additional individual contributions and the state must match the individual contributions of savers from the state budget. Under the new system, the “base rate” for Pillar II contributions is 2%, and existing savers can make a further 1% in contributions, matched by a state subsidy of 1% of gross average wages. These both additional contribution rates rose to 2% a piece since 2016. Under Lithuania’s current “maximum accumulation” scenario, Pillar II savings during the years of 2016 till 2019 are funded by the so-called “2+2+2” system: 2% of social security system contributions, with an additional 2% of additional payment from a salary of a saver, matched by a state contribution based on the previous year’s average state wages.

Since 2019 reform, the new contribution system has been established. The formula for Pillar II pension accumulation in pension funds has changed. As of 2023, all Pillar II participants will accumulate according to the formula “3+1.5%” (a contribution by the participant of 3 per cent of their gross wage plus a contribution by the state of 1.5 per cent of the average wage in the country the year before last). In 2020, the state’s incentive contribution for maximal accumulation was 18.25 euros per month. Those who accumulated maximally will move to the new formula as of 2019 automatically, while those who accumulated minimally will in 2020 accumulate according to the formula “1.8+0.3%” (a participant contribution of 1.8 per cent of one’s gross wage plus a state contribution of 0.3% of the average wage in the country the year before last) and then their contributions will increase gradually, by 0.3 percentage points each year, until their accumulation formula reaches “3+1.5 per cent”.

Graph LT3. Pillar II – Level of “base rate” contributions



Source: Own elaboration based on the Law on Reform of the Pension System, 2020.



The contributions to Pillar II are recorded on individual personal pension account at selected providers (Pension Accumulation Companies). Contributions and accumulated savings are invested by the companies into managed pension funds. Pension Accumulation Companies (PACs) can manage multiple pension fund based on a “life-cycle” approach. PAC must obtain licenses from market regulator and supervisory body, which is the Bank of Lithuania.

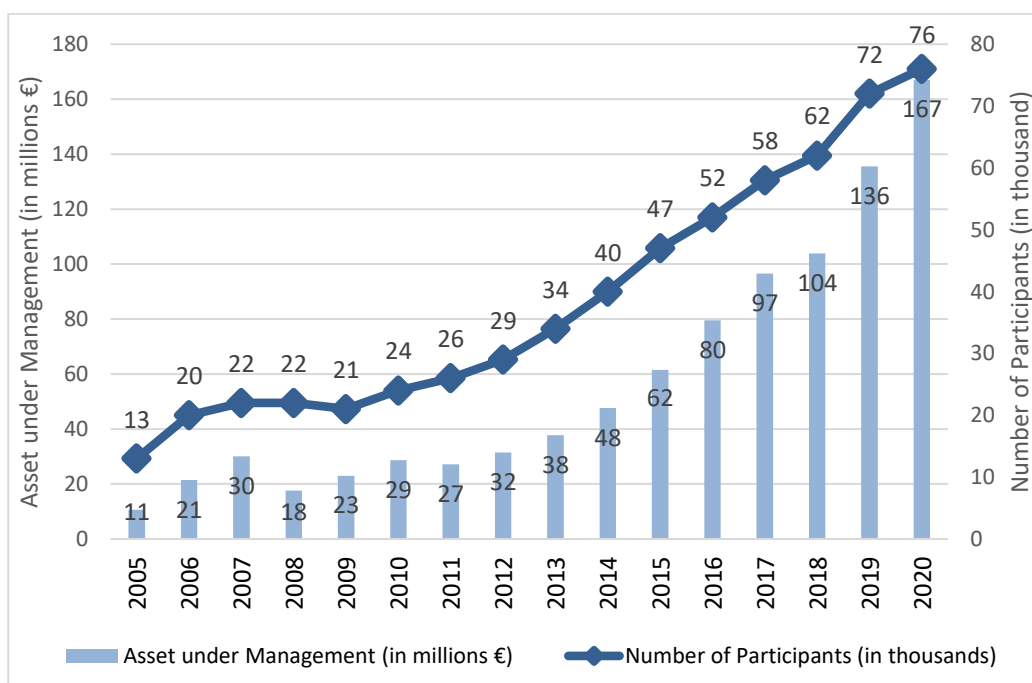
Pillar III – Voluntary private pension

Lithuania’s voluntary supplementary private pensions system (Pillar III) is also based on the World Bank’s multi-pillar model and effectively started in 2005. It is also a fully funded system, based on personal accounts and on the defined contribution (DC) philosophy. Pillar III pension funds refer to supplementary voluntary pension accumulation. Funds are transferred by participants themselves or by their employers.

Even if the set-up of the pillar is very similar to the Pillar II set-up, the attractiveness of the financial products offered by supplementary pension asset managers is very low.

Number of participants (savers) and assets under management in Pillar III providers are presented in the graph below.

Graph LT4. Pillar III – Number of participants and Assets under Management



Source: Own calculation (<https://www.lb.lt/en/fs-pension-funds>), 2021.



Pillar III is organized in a way that pension providers (Voluntary Supplementary Pension Accumulation Management Companies) offer pension funds on a basis of typical mutual funds. At the end of 2020, 16 supplementary voluntary pension accumulation funds operated in Lithuania were managed by 4 managing companies as Swedbank has entered the market in 2019 by offering 3 new supplementary voluntary pension funds (2 mixed and 1 equity based) and SEB introduced one mixed fund (SEB pensija 50+) in 2020. In 2020, assets managed by funds grew by 23% and amounted to €167 million driven by positive market returns. Number of participants accumulating their pension in Pillar III pension funds increased by 16% and amounted to close to 76,000. The average value of savings per member was almost €2,200 in 2020.

Pension Vehicles

Pillar II – Funded pensions

As indicated above, each provider (PAC) has to offer 7 life-cycle funds and 1 capital preservation fund. Currently, 40 pension funds are offered by 5 management companies.

Table LT2. List of Pillar II pension Funds after reform in 2020

Investment style of the pension plan since 2019	Pension Fund Name	Inception day
Life-cycle pension funds, 1996-2002	Luminor 1996–2002 tikslinės grupės pensijų fondas	2.1.2019
	INVL pensija 1996–2002	2.1.2019
	SEB 1996–2002 metų tikslinės grupės pensijų kaupimo fondas	28.12.2018
	Swedbank pensija 1996–2002	1.3.2018
	Aviva Y3 1996–2002 tikslinės grupės pensijų fondas	2.1.2019
Life-cycle pension funds, 1989-1995	Luminor 1989–1995 tikslinės grupės pensijų fondas	2.1.2019
	INVL pensija 1989–1995	2.1.2019
	SEB 1989–1995 metų tikslinės grupės pensijų kaupimo fondas	28.12.2018
	Swedbank pensija 1989–1995	1.3.2018
	Aviva Y2 1989–1995 tikslinės grupės pensijų fondas	2.1.2019
Life-cycle pension funds, 1982-1988	Luminor 1982–1988 tikslinės grupės pensijų fondas	2.1.2019
	INVL pensija 1982–1988	2.1.2019
	SEB 1982–1988 metų tikslinės grupės pensijų kaupimo fondas	28.12.2018
	Swedbank pensija 1982–1988	1.3.2018
	Aviva Y1 1982–1988 tikslinės grupės pensijų fondas	2.1.2019
Life-cycle pension funds, 1975-1981	Luminor 1975–1981 tikslinės grupės pensijų fondas	2.1.2019
	INVL pensija 1975–1981	2.1.2019
	SEB 1975–1981 metų tikslinės grupės pensijų kaupimo fondas	28.12.2018
	Swedbank pensija 1975–1981	1.3.2018
	Aviva X3 1975–1981 tikslinės grupės pensijų fondas	2.1.2019
Life-cycle pension funds, 1968-1974	Luminor 1968–1974 tikslinės grupės pensijų fondas	2.1.2019
	INVL pensija 1968–1974	2.1.2019
	SEB 1968–1974 metų tikslinės grupės pensijų kaupimo fondas	28.12.2018
	Swedbank pensija 1968–1974	1.3.2018
	Aviva X2 1968–1974 tikslinės grupės pensijų fondas	2.1.2019
	Luminor 1961–1967 tikslinės grupės pensijų fondas	2.1.2019



Life-cycle pension funds, 1961-1967	INVL pensija 1961–1967	2.1.2019
	SEB 1961–1967 metų tikslinės grupės pensijų kaupimo fondas	28.12.2018
	Swedbank pensija 1961–1967	1.3.2018
	Aviva X1 1961–1967 tikslinės grupės pensijų fondas	2.1.2019
Life-cycle pension funds, 1954-1960	Luminor 1954–1960 tikslinės grupės pensijų fondas	2.1.2019
	INVL pensija 1954–1960	2.1.2019
	SEB 1954–1960 metų tikslinės grupės pensijų kaupimo fondas	28.12.2018
	Swedbank pensija 1954–1960	1.3.2018
	Aviva B 1954–1960 tikslinės grupės pensijų fondas	2.1.2019
Asset preservation pension funds	Luminor turto išsaugojimo fondas	2.1.2019
	INVL pensijų turto išsaugojimo fondas	2.1.2019
	SEB turto išsaugojimo pensijų kaupimo fondas	28.12.2018
	Swedbank turto išsaugojimo pensijų fondas	1.3.2018
	Aviva S turto išsaugojimo pensijų fondas	2.1.2019

Source: Own calculation (<https://www.lb.lt/en/fs-pension-funds>), 2020.

The structure of savers, assets under management and market share of four group of pension funds according to their investment strategy is presented in a table below.

Table LT3. Pillar II Market share based on AuM and Number of participants				
Investment strategy	AuM	Market share	Number of Participants	Market share
Life-cycle pension funds, 1996-2002	57,897,207.88 €	1.29%	85,819	6.25%
Life-cycle pension funds, 1989-1995	366,662,130.62 €	8.15%	212,997	15.52%
Life-cycle pension funds, 1982-1988	755,241,341.74 €	16.80%	290,363	21.15%
Life-cycle pension funds, 1975-1981	1,008,446,988.91 €	22.43%	247,599	18.04%
Life-cycle pension funds, 1968-1974	1,027,765,822.11 €	22.86%	232,173	16.91%
Life-cycle pension funds, 1961-1967	885,091,787.60 €	19.68%	208,141	15.16%
Life-cycle pension funds, 1954-1960	347,838,458.51 €	7.74%	82,883	6.04%
Asset preservation pension funds	47,467,937.71 €	1.06%	12,628	0.92%
TOTAL	4,496,411,675.07 €	100.00%	1,372,603	100.00%

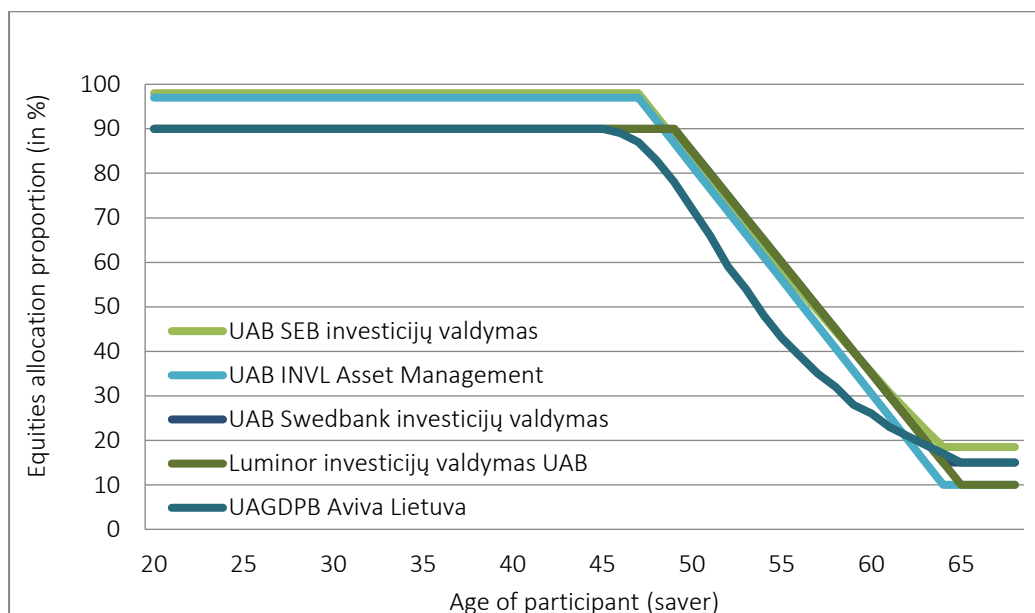
Source: Own elaboration based on Bank of Lithuania data, 2021.

There are no strict quantitative limitations on financial instruments. However, the management company has to ensure risk management principles and avoid concentration risk.

Introduction of life-cycle pension funds since 2019 was accompanied by the presentation of asset allocation that follows the age of participants. Almost all pension asset management companies have introduced the same life-cycle investment strategy (see the graph below).



Graph LT5. Life-cycle investment strategy of Pillar II pension funds

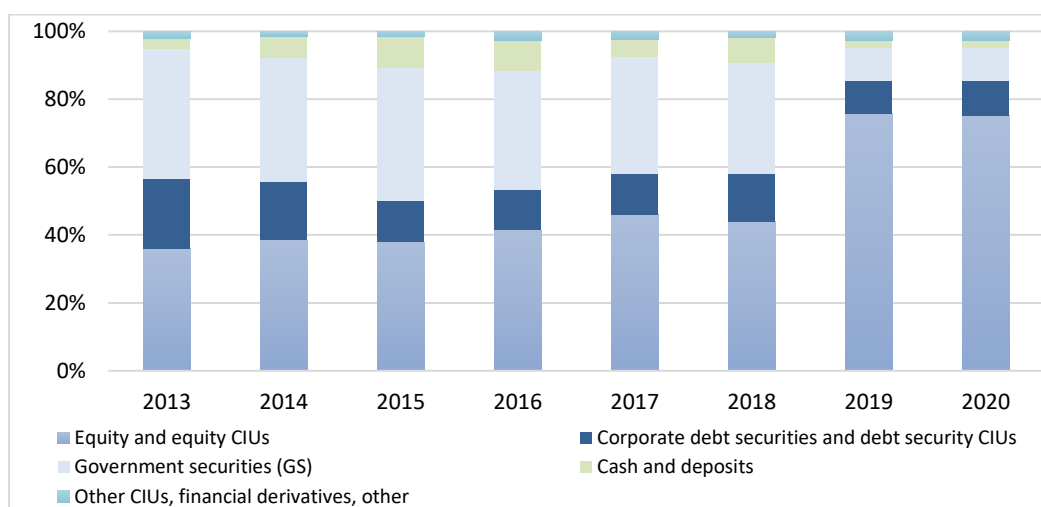


Source: Own elaboration based on the pension asset management companies web-sites,

https://www.lb.lt/uploads/publications/docs/24337_fcb82409719d4aed2df40e10e314c3ce.pdf

The portfolio structure (data available since 2013) of Pillar II pension funds is presented in the graph below.

Graph LT6. Pillar II Portfolio structure



Source: Own calculation (<https://www.lb.lt/en/fs-pension-funds>), 2021.



It can be seen that dominant financial instruments in Pillar II pension funds' portfolios are the equity UCITS funds (CIUs) and government bonds. However, 2019 reform aimed at balancing the remaining saving horizon with the asset allocation has brought significant rise in equity-based allocations (from 44% to 77% of all assets).

Pillar III – Voluntary private pensions

The Lithuanian Pillar III allows licensed asset management companies (licensing process similar to typical UCITS funds providers) to offer as many voluntary pension funds as they prefer. At its inception, there were only 5 pension funds offered by 3 providers. Currently (at the end of 2019), there are 5 providers offering 15 voluntary pension funds. The list of Pillar III pension funds is presented below.

Table LT4. List of Pillar III pension Funds		
Investment style of the pension plan	Pension Fund Name	Inception day
BOND PENSION FUND	INVL STABILO III 58+ / INVL Stabilus	20.12.2004
	Luminor pensija 1 plius	7.10.2013
	SEB pensija 58+	27.10.2004
	Luminor pensija 2 plius	26.10.2004
	INVL Medio III 47+	24.9.2007
MIXED INVESTMENT PENSION FUNDS	INVL Apdairus	13.5.2013
	Luminor pensija darbuotojui 1 plius	20.11.2014
	Luminor pensija darbuotojui 2 plius	20.11.2014
	Swedbank pensijų fondas 30	2.12.2019
	Swedbank pensijų fondas 60	2.12.2019
	SEB pensija 50+	10.4.2020
EQUITY PENSION FUNDS	Luminor pensija 3 plius	1.10.2007
	INVL Drąsus	20.12.2004
	INVL Extremo III 16+	24.9.2007
	SEB pensija 18+	27.10.2004
	Swedbank pensijų fondas 100	2.12.2019

Source: Own calculation (<https://www.lb.lt/en/fs-pension-funds>), 2021

The market share according to the AuM and number of participants is presented in the table below.

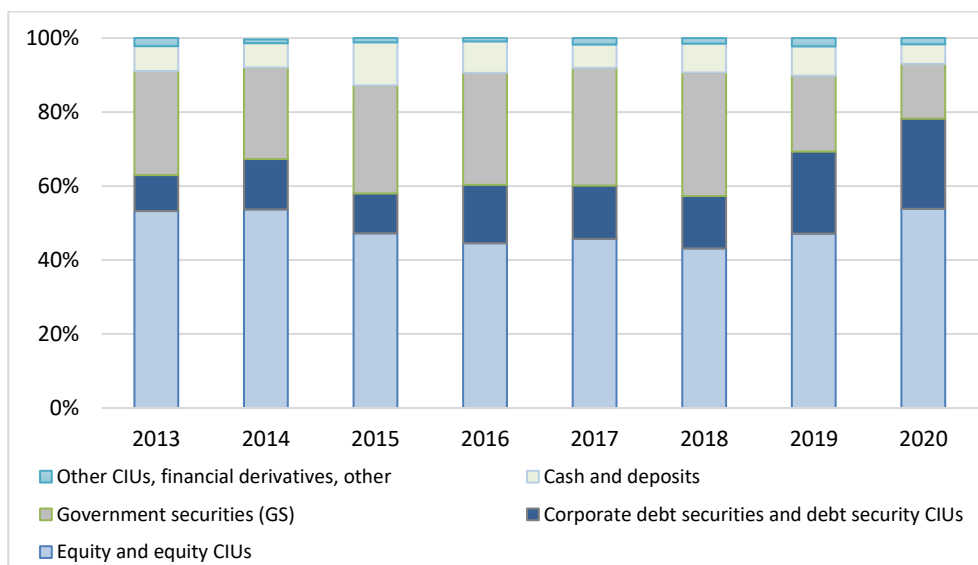
Table LT5. Pillar III Market share based on AuM and Number of participants				
Investment strategy	AuM	Market share	Number of Participants	Market share
Bond Pension Fund	36,308,154.00 €	21.74%	10,732	14.21%
Mixed Investment Pension Fund	60,548,782.00 €	36.25%	34,258	45.36%
Equity Pension Fund	70,173,102.00 €	42.01%	30,538	40.43%
TOTAL	167,030,038.00 €	100.00%	75,528	100.00%

Source: Own elaboration based on Bank of Lithuania data, 2021



There are no specific quantitative limitations on financial classes or instruments. However, the investment strategy of the pension fund must include the procedure and areas for investment of pension assets, risk assessment methods, risk management principles, risk management procedures and methods used, and the strategic distribution of pension assets according to the duration and origin of the obligations relating to pension accumulation contracts. The management company must review the investment strategy of the pension fund at least every 3 years. Pillar III pension funds' portfolio structure is presented below (data available since 2013).

Graph LT6. Pillar III Portfolio structure



Source: Own calculation (<https://www.lb.lt/en/fs-pension-funds>), 2021.

Equities and equity based UCITS account for 47% of the Pillar III pension funds' portfolios, while the government bonds account for almost 21%. Pillar III pension funds can be therefore characterized as a fund-of-funds.

Charges

Pillar II – Funded pensions

Major reform introduced in 2018 brought significant drop in Pillar II charges. The reform introduced instant cut in fees and gradual decrease from 1% in 2018 to 0.5% in 2020. The next table compares effective charges of Pillar II pension funds in Lithuania in 2019.



Table LT6. Pillar II Pension Funds' Categories Average Fees and Charges

Pension Fund Category	Type of fee	Year 2020
Life-cycle pension funds, 1996-2002	Total Expense Ratio (TER)	0.65%
Life-cycle pension funds, 1989-1995	Total Expense Ratio (TER)	0.65%
Life-cycle pension funds, 1982-1988	Total Expense Ratio (TER)	0.65%
Life-cycle pension funds, 1975-1981	Total Expense Ratio (TER)	0.65%
Life-cycle pension funds, 1968-1974	Total Expense Ratio (TER)	0.65%
Life-cycle pension funds, 1961-1967	Total Expense Ratio (TER)	0.65%
Life-cycle pension funds, 1954-1960	Total Expense Ratio (TER)	0.65%
Asset preservation pension funds	Total Expense Ratio (TER)	0.20%

Source: Own calculation (<https://www.lb.lt/en/fs-pension-funds>), 2021

Considering the asset management fee, it can be seen that pension funds charge the same level of asset management fee (0.65% in 2020) regardless of the investment strategy. The only difference is for the asset preservation funds, where the asset management fee is significantly lower (0.2% in 2020).

Pillar III – Voluntary private pensions

The fee structure of the Pillar III pension funds is more complex. Management companies charge various entry fees, in which case the calculation of the overall impact of fees on accumulated assets is harder to obtain. The table below compares fees of Pillar III pension funds in Lithuania.

Table LT7. Pillar III Pension Funds' Fees and Charges

Pension Fund	Type of fee	Year 2020
SEB pensija 58+	Total Expense Ratio (TER)	0.71%
SEB pensija 50+	Total Expense Ratio (TER)	0.60%
SEB pensija 18+	Total Expense Ratio (TER)	0.94%
INVL Drąsus	Total Expense Ratio (TER)	1.73%
INVL Apdairius	Total Expense Ratio (TER)	1.80%
INVL STABILO III 58+	Total Expense Ratio (TER)	1.11%
INVL Medio III 47+ Pension fund	Total Expense Ratio (TER)	1.01%
INVL Extremo III 16+ Pension Fund	Total Expense Ratio (TER)	1.01%
Luminor pensija 1 plius	Total Expense Ratio (TER)	0.74%
Luminor pensija 2 plius	Total Expense Ratio (TER)	1.07%
Luminor pensija 3 plius	Total Expense Ratio (TER)	1.10%
Luminor pensija darbuotojui 1 plius	Total Expense Ratio (TER)	1.15%
Luminor pensija darbuotojui 2 plius	Total Expense Ratio (TER)	0.99%
Swedbank pensijų fondas 30	Total Expense Ratio (TER)	1.32%
Swedbank pensijų fondas 60	Total Expense Ratio (TER)	1.04%
Swedbank pensijų fondas 100	Total Expense Ratio (TER)	0.89%

Source: Own calculation (<https://www.lb.lt/en/fs-pension-funds>), 2021



** During the first 12 months after becoming a Participant, a 30% entry fee applies to pension contributions, with the total fee not to exceed € 200 during the period. This fee applies only to new Participants whose agreements took effect after the fee's introduction was announced on the website www.invl.com, and to Participants who have switched from a pension fund managed by another management company. The entry fee does not apply to Participants who have switched from one of the Management Company's other pension funds*

In most cases, additional costs, that are charged on the pension fund's account and not directly visible to the savers are the audit fees and custodian (depository) fees. On average, they account for 0.25%, and 0.055% respectively.

Comparing the Pillar II and Pillar III pension funds' fees, it is obvious, that even if the management and investment strategies are very similar, the fee structure and overall level of fees in Pillar III is more than double the fees in Pillar II.

Taxation

Pillar II – Funded pensions

Lithuania applies an “EEE” regime for the taxation of Pillar II pension accounts. Employee contributions are tax-deductible even if they are higher than required (3+1.5%). Investment income on the level of the pension fund is tax-exempt. Pension benefits paid out during retirement are tax-exempt from a personal income tax as the old-age income is considered as a part of social system.

Pillar III – Voluntary private pensions

A similar tax regime is applied on the Pillar III savings, but there are some ceilings on contributions and withdrawals.

Regarding the contribution phase, there is a tax-refund policy, which means that the contributions of up to 25% of gross earnings, the income tax (15%) is returned. Therefore, we can conclude that the contribution phase is a “E” regime.

Positive returns on accumulated savings are tax-exempt, so the investment phase is a “E” regime.

Regarding the withdrawal (pay-out) phase, pension benefits paid from Pillar III voluntary funds can be received at any age and are levied with 15% income tax, but become tax-free if a person:

- 1) holds savings in a pillar III pension fund for at least 5 years and reaches the age of 55 at the time of payment of the benefit (and the pension savings agreement was concluded before 31 December 2012); or



- 2) holds savings in a pillar III pension fund for at least 5 years and reaches the age which is five years earlier than the threshold for the old-age pension at the time of payment of the benefit (if the pension savings agreement was concluded after 1 January 2013).

Under the optimum set-up, the “EEE” tax regime can be achieved on Pillar III savings.

Pension Returns

Pillar II – Funded pensions

Pension returns of Pillar II pension funds differ according to the life-cycle investment strategy applied. As the major changes in Pillar II do not allow for direct historical comparison of returns, we present the returns for the year 2019 only where the returns of offered life-cycle funds are compared.

Table LT8. Pillar II Pension Funds’ Categories Nominal returns		
Pension Fund Category	Year 2019	Year 2020
Life-cycle pension funds, 1996-2002	22.68%	6.16%
Life-cycle pension funds, 1989-1995	22.39%	6.24%
Life-cycle pension funds, 1982-1988	22.31%	6.27%
Life-cycle pension funds, 1975-1981	22.86%	6.20%
Life-cycle pension funds, 1968-1974	21.77%	5.69%
Life-cycle pension funds, 1961-1967	14.97%	4.72%
Life-cycle pension funds, 1954-1960	7.99%	2.65%
Asset preservation pension funds	6.19%	2.78%

Source: Own calculation (<https://www.lb.lt/en/fs-pension-funds>), 2021

When inspecting particular pension funds within each group, only minor changes in performance were observed in 2019 as well as 2020. Nominal as well as real returns of Pillar II pension funds in Lithuania are presented in a summary table below.



Table LT9. Nominal and Real Returns of II. Pillar in Lithuania

2004	4.71%		1.86%	
2005	5.49%		2.50%	
2006	4.76%		0.20%	
2007	3.72%		-4.48%	
2008	-9.16%		-17.63%	
2009	8.89%		7.72%	
2010	10.19%		6.57%	
2011	Nominal return		Real return after	
2012	after charges,	4.67%	charges and	1.72%
2013	before inflation		inflation and	
2014	and taxes		before taxes	
2015	6.67%		6.78%	
2016	4.92%		5.17%	
2017	4.25%		2.29%	
2018	4.01%		0.20%	
2019	-3.24%		-5.00%	
2020	17.65%		14.92%	
2021	5.09%		5.19%	

Source: Own calculation (<https://www.lb.lt/en/fs-pension-funds>), 2021.

Another view on the performance is according to the holding period.

Table LT10. Performance of Pillar II Pension Funds according the holding period

Holding Period	Net Nominal Annualized Performance	Real Net Annualized Performance
1-year	5.09%	5.19%
3-years	6.15%	4.72%
5-years	5.34%	3.31%
7-year	5.47%	4.07%
10-years	5.20%	3.52%
Since inception	4.67%	1.72%

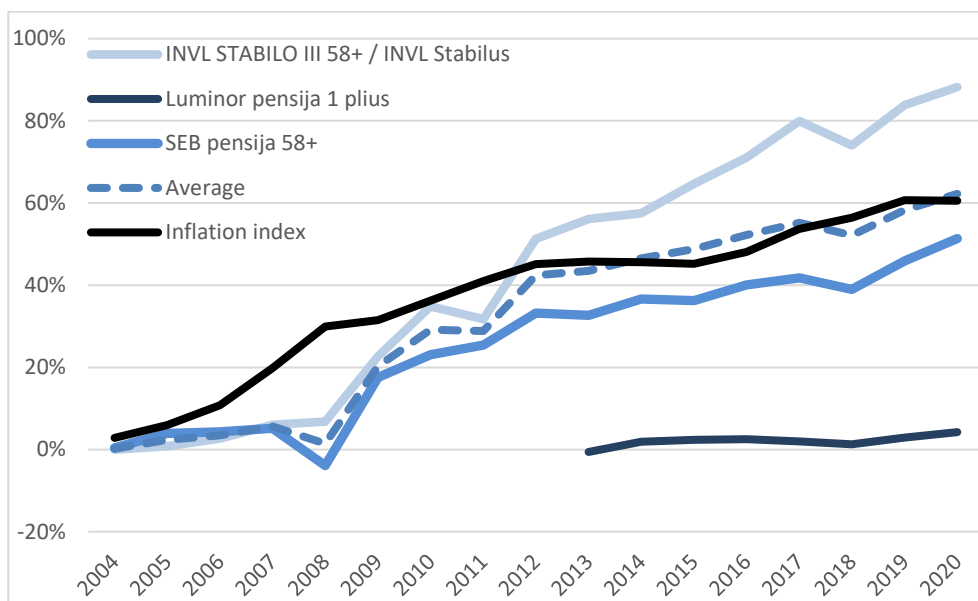
Source: Own calculation (<https://www.lb.lt/en/fs-pension-funds>), 2021.



Pillar III – Voluntary private pensions

Pillar III pension funds' performance is presented according to their investment strategy, where 3 groups are formed. The graphs below present the pension funds' performance on a nominal cumulative basis compared to inflation.

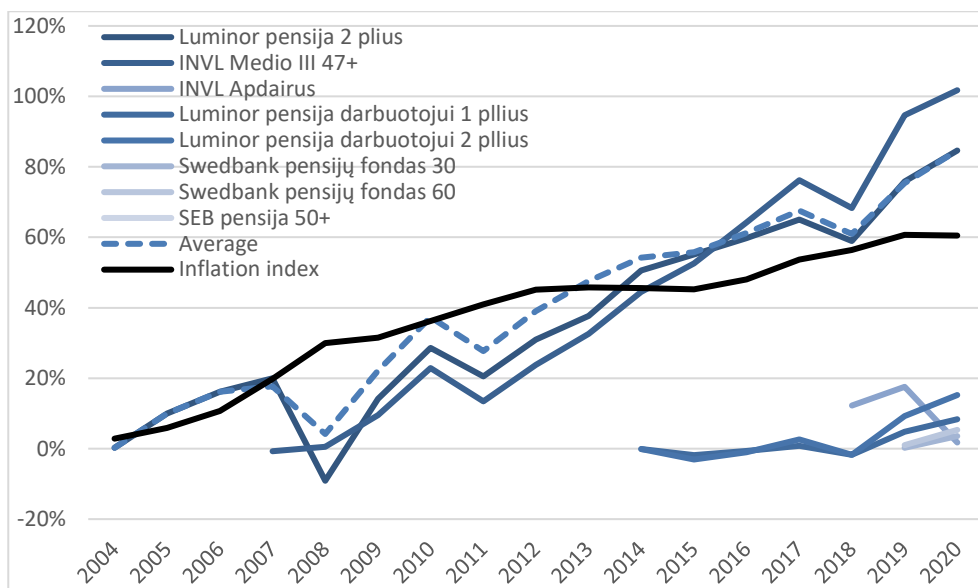
Graph LT8. Pillar III Cumulative Nominal Performance of Bond Pension Funds



Source: Own elaboration based on Bank of Lithuania data, 2021 (<https://www.lb.lt/en/pf-performance-indicators>)

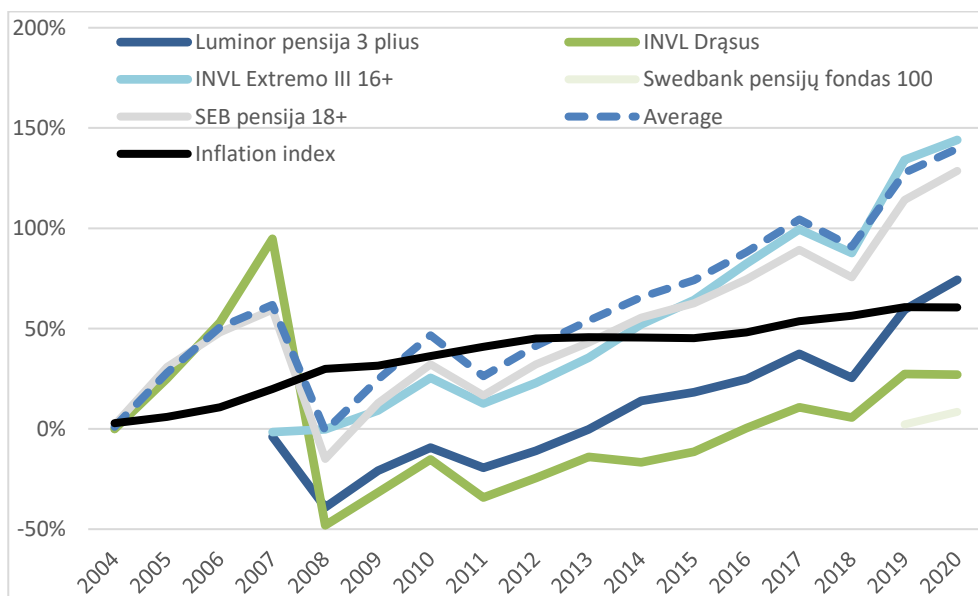


Graph LT9. Pillar III Cumulative Nominal Performance of Mixed Pension Funds



Source: Own elaboration based on Bank of Lithuania data, 2021 (<https://www.lb.lt/en/pf-performance-indicators>)

Graph LT10. Pillar III Cumulative Nominal Performance of Equity Pension Funds



Source: Own elaboration based on Bank of Lithuania data, 2021 (<https://www.lb.lt/en/pf-performance-indicators>)



Average annual nominal as well as real returns of Pillar III pension funds since 2011 is presented in the table below.

Table LT11. Nominal and Real Returns of III. Pillar in Lithuania					
2004		0.53%		-2.31%	
2005		13.52%		10.53%	
2006		8.64%		4.08%	
2007		4.51%		-3.68%	
2008		-23.27%		-31.73%	
2009		21.94%		20.77%	
2010		13.74%		10.12%	
2011	Nominal return after charges, before inflation and taxes	-8.73%	4.09%	Real return after charges and inflation and before taxes	-12.21%
2012		10.86%		7.95%	1.05%
2013		5.88%		5.43%	
2014		5.19%		5.30%	
2015		2.86%		3.11%	
2016		5.09%		3.13%	
2017		5.40%		1.59%	
2018		-4.35%		-6.10%	
2019		11.45%		8.72%	
2020		4.73%		4.83%	

Source: Own calculation (<https://www.lb.lt/en/fs-pension-funds>), 2021

Again, we present the performance of Pillar III funds according to various holding period.

Table LT12. Performance of Pillar III Pension Funds according the holding period		
Holding Period	Net Nominal Annualized Performance	Real Net Annualized Performance
1-year	4.73%	4.83%
3-years	3.74%	2.29%
5-years	4.34%	2.31%
7-year	4.25%	2.85%
10-years	3.67%	1.98%
Since inception	4.09%	1.05%

Source: Own calculation (<https://www.lb.lt/en/fs-pension-funds>), 2021.



Conclusions

Considering the wider factors, it is safe to say that the decreasing labor force and the implementation of the automatic balancing mechanism within the PAYG pillar will lead to a lower replacement ratio generated from Pillar I pensions. Therefore, Lithuania can be seen as a strong advocate of private pension savings where the pillars will grow on importance.

Reforms in the area of PAYG scheme supported with the funded pension schemes that have been adopted in 2018 and effective since 2019 are started shifting the preferences of the Lithuanian savers to rely more on their private funded pension schemes.

Performance of the Pillar II as well as Pillar III pension funds can be seen as satisfactory. However, the dominance of Pillar II funds opens the question on the further changes in the Pillar III, which cannot compete to the similar and cheaper peers in Pillar II.

The latest changes in the contributory mechanism, where additional individual contributions towards Pillar II are promoted and tax deductible, puts more pressure on Pillar III fund managers due to the growing crowding-out effect.

Introduction of life-cycle investment style into the Pillar II since 2019 created significant differences between the portfolio structure of pension funds within both pillars, which leads to the conclusion that Pillar III with more conservative approach will need to find its competitiveness against promoted Pillar II funds.

Lithuania has a favourable tax treatment of private pension savings, where in both cases an “EEE” tax regime is applied.

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Pension Savings: The Real Return

2021 Edition

Country Case: Poland

Streszczenie

Dodatkowy system emerytalny w Polsce, który został wprowadzony w 1999 roku, a następnie był kilkakrotnie reformowany (główne zmiany w 2004, 2012 oraz 2018 roku), jest nadal w początkowej fazie rozwoju. Obecnie składa się z czterech elementów:

- pracowniczych programów emerytalnych (PPE),
- indywidualnych kont emerytalnych (IKE),
- indywidualnych kont zabezpieczenia emerytalnego (IKZE) oraz
- pracowniczych planów kapitałowych (PPK funkcjonujących od 1 lipca 2019 r.).

Poziom uczestnictwa w wymienionych grupowych i indywidualnych planach oszczędzania na starość (odpowiednio 3,7%, 4,34%, 2,39% i 8,68%) wskazuje, że bardzo nieliczna część Polaków zdecydowała się na oszczędzanie w oferowanych zinstytucjonalizowanych formach gromadzenia kapitału na starość.

PPE mogą być prowadzone w czterech formach: umowy z funduszem inwestycyjnym; umowy z zakładem ubezpieczeń na życie (grupowe ubezpieczenie na życie z ubezpieczeniowym funduszem kapitałowym); pracowniczego funduszu emerytalnego (PFE) lub zarządzania zewnętrznego. Na koniec 2020 roku w PPE zgromadzono 17,02 mld zł (3,73 mld €).

PPK mogą być oferowane w formie funduszu inwestycyjnego, funduszu emerytalnego i ubezpieczeniowego funduszu kapitałowego (U FK). Ta forma dodatkowych planów emerytalnych została dopiero wprowadzona, tj. funkcjonuje od 1 lipca 2019 r. Aktywa PPK miały wartość 2,82 mld zł (0,62 mld €) na koniec 2020 roku.

IKE i IKZE mogą być oferowane w formie: ubezpieczenia na życie z ubezpieczeniowym funduszem kapitałowym; funduszu inwestycyjnego; rachunku papierów wartościowych w domu maklerskim; rachunku bankowego lub dobrowolnego funduszu emerytalnego (DFE). Aktywa zgromadzone na IKE i IKZE na koniec 2020 roku wyniosły odpowiednio 11,92 mld zł (2,62 mld €) oraz 4,58 mld zł (1 mld €).

Pracownicze programy emerytalne (PPE), pracownicze plany kapitałowe (PPK) i indywidualne konta emerytalne (IKE) funkcjonują w reżimie podatkowym TEE (podatek pobierany jest na etapie



opłacania składki), podczas gdy w IKZE podatek pobierany jest na etapie wypłaty środków (reżim EET).

W analizowanym okresie (2002-2020) pracownicze fundusze emerytalne (PFE) wypracowały dość wysokie stopy zwrotu sięgające 17,41% w skali roku. Straty pojawiły się jednak w latach 2008, 2011, 2015 i 2018 w czasie załamania na rynkach finansowych. Realne stopy zwrotu uwzględniające opłaty osiągnięte w 15 z 19 lat są pozytywne. Średnia realna stopa zwrotu za cały analizowany okres wyniosła 3,74%.

Dobrowolne fundusze emerytalne (DFE) osiągnęły natomiast nadzwyczajne wyniki inwestycyjne w początkowym okresie funkcjonowania, głównie z uwagi na hossę na rynku akcji w pierwszym roku ich działalności. W 2013 roku najlepsze DFE wygenerowały nominalny zysk przekraczający 50%. Wyniki te nie zostały jednak powtórzone w kolejnych latach. W 2014 roku część DFE wykazała straty, które jednak zostały pokryte przez zyski w kolejnych latach. Średnia realna stopa zwrotu z uwzględnieniem opłat za lata 2013-2020 wyniosła 4,11%.

Summary

Starting in 1999, with significant changes introduced in 2004, 2012 and 2018, the Polish supplementary pension market is still in its early stage of operation. Pillar III, which supplements the basic, mandatory pension system, consists of four different elements:

- employee (occupational) pension programmes (*pracownicze programy emerytalne*, PPE),
- individual retirement accounts (*indywidualne konta emerytalne*, IKE);
- individual retirement savings accounts (*indywidualne konta zabezpieczenia emerytalnego*, IKZE) and
- employee capital plans (*pracownicze plany kapitałowe*, PPK).

The coverage ratios (3.7%, 4.34%, 2.39% and 8.68% respectively), show that only a small part of Poles decided to secure their future in old age by joining the occupational pension plan or purchasing individual pension products.

PPE can be offered in four forms: a contract with an asset management company (investment fund); a contract with a life insurance company (group unit-linked life insurance); an employee pension fund run by the employer (*pracowniczy fundusz emerytalny*, PFE) or external management. PPE assets amounted to PLN 17.02 bln (€3.73 bln) at the end of 2020.

PPK can operate as investment funds, pension funds or a unit-linked life insurance. These plans have just started to collect money (introduced in July 2019). PPK assets amounted to PLN 2.82 bln (€0.62 mln) at the end of 2020.

IKE and IKZE can operate in the form of either: a unit-linked life insurance contract; an investment fund; an account in a brokerage house; a bank account (savings account) or a voluntary pension



fund (*dobrowolny fundusz emerytalny*, DFE). The total amount of IKE assets amounted to PLN 11.92 bln (€2.62 bln) and IKZE assets amounted to PLN 4.58 bln (€1 bln) at the end of 2020.

PPE, PPK and IKE operate in TEE tax regime while IKZE is run in EET one.

During the period of 2002-2020 employee pension funds (PFE) showed rather positive returns up to 17.41% annually. Negative results appeared only in the years 2008, 2011, 2015 and 2018 when equity markets dropped significantly. Positive after-charges real returns were observed in 15 of 19 years and the average return over the 19-year period is highly positive as well (3.74%).

Voluntary pensions funds (DFE) have obtained extraordinary investment results from their start in 2012. The first years of their operation coincided with the Polish financial market recovery and allowed funds to maximise rates of return from the equity portfolios. The best DFEs reported more than 50% nominal return in 2013. But such returns were impossible to achieve in next years. In 2014, some of DFE even experienced slightly negative returns that were covered by returns in the following years. The average real rate of return after charges in years 2013-2020 amounted to 4.11%.

Introduction

The old-age pension system in Poland was introduced in 1999 as a multi-tier structure consisting with three main elements:

- Pillar I - a mandatory, Pay-as-You-Go (PAYG) system;
- Pillar II - a mandatory PAYG system with a partial opt-out for funded pension funds; and
- Pillar III - voluntary, occupational and individual pension plans.

Table PL 1. Multi-pillar pension system in Poland

<u>Pillar I</u>	<u>Pillar II</u>	<u>Pillar III</u>
Mandatory	Mandatory[1]	Voluntary
PAYG	PAYG/Funded (opt-out)	Funded
NDC	NDC/DC (opt-out)	DC
Basic benefit	Basic benefit	Complementary benefit
<u>Publicly managed:</u>	<u>Publicly/Private managed:</u>	<u>Privately managed:</u>
Social Insurance Institution (ZUS)	Social Insurance Institution (ZUS);	Pension savings managed by different financial institutions, depending on the product form, organised by employer or individual
	in opt-out element:	
	Open Pension Funds	

Source: own elaboration.



Holding Period	Employee pension funds			Voluntary pension funds		
	Gross returns	Net Nominal Returns	Real Net Returns	Gross returns	Net Nominal Returns	Real Net Returns
1-year	-	7.07%	3.55%	0.093401	6.09%	2.60%
3-years	-	3.38%	0.93%	0.011498	-1.80%	-4.00%
5-years	-	4.39%	2.37%	0.040385	1.19%	-0.34%
7-year	-	3.30%	2.03%	0.038905	1.13%	0.20%
10-years	-	3.65%	2.02%	-	-	-
Since inception	-	5.88%	3.74%	0.078923	5.04%	4.11%

Source: Tables PL11 and PL12

The first part of the system is contributory and is based on a Non-financial Defined Contribution (NDC) formula. The total pension contribution rate amounts to 19.52% of gross wage (Pillar I + Pillar II) and the premium is financed equally by employer and employee. Out of the total pension contribution rate, 12.22 p.p. are transferred to Pillar I (underwritten on individual accounts of the insured), and 7.3 p.p. to Pillar II. If a person has not opted out for open pension funds (OFE), the total of 7.3 p.p. is recorded on a sub-account administered by the Social Insurance Institution (NDC system). If he/she has opted out for the funded element (open pension funds, OFE), 4.38 p.p. are recorded on a sub-account and 2.92 p.p. are allocated to an account in a chosen open pension fund.²²⁷

Pillar I is managed by the Social Insurance Institution (ZUS), which records quotas of contributions paid for every member on individual insurance accounts. The accounts are indexed every year by the rate of inflation and by the real growth of the social insurance contribution base. The balance of the account (pension rights) is switched into pension benefits when an insured person retires.

Pillar II of the Polish pension system consists of sub-accounts also administered by the Social Insurance Institution (NDC) and possible partial opt-out for open pension funds (*otwarte fundusze emerytalne*, OFE; funded system). An insured person who enters the labour market has the right to choose whether to join an OFE or whether to remain solely in the PAYG system. When the insured chooses to contribute to the OFE, 2.92% of his/her gross salary will be invested on financial markets. If no such decision is taken, his/her total old-age pension contribution will automatically be transferred to Social Insurance Institution (ZUS). This default option resulted in a huge decrease in OFEs' active participation in the year 2014.

Polish open pension funds are frequently treated as typical private pension plans (OECD 2012) or even employer-arranged pension funds (Oxera 2013) when presented in global private pension funds statistics. Such an assessment is incorrect in the sense that neither the employer nor the employee can decide on the creation of the pension plan. Moreover, the law establishes the

²²⁷ Two years after the change in 2014 that made OFE's voluntary the insured could again decide about opt-out. After 2016 "the transfer window" is open every four years.



contribution level and guarantees minimum pension benefits that are paid together from the whole basic system by the public institution (ZUS). Thus, Polish OFEs are just a mechanism of temporary investing public pension system resources in financial markets (financial vehicles for the accumulation phase).

The statutory retirement age is 60 for women and 65 for men.²²⁸ Prior to retirement the member's assets gathered in OFE (if one opted out for funded element) are transferred to the sub-account administered by ZUS.²²⁹ Pension benefits from the basic system are calculated in accordance with a Defined Contribution (DC) rule and are paid by Social Insurance Institution (ZUS).

The old-age pension from the basic system (Pillar I+II) depends solely on two components: 1) the insured person's total pension entitlements accumulated during his/her entire career (balance of NDC account and sub-account), and 2) the average life expectancy upon retirement. The gross replacement rate at retirement from the public pension system in Poland is 54.1% (projections for 2019 for an average earner).²³⁰

Pillar III supplements the basic, mandatory pension system and represents voluntary, additional pension savings. It consists of four different vehicles:

- employee (occupational) pension programmes (*pracownicze programy emerytalne*, PPE);
- individual retirement accounts (*indywidualne konta emerytalne*, IKE);
- individual retirement savings accounts (*indywidualne konta zabezpieczenia emerytalnego*, IKZE),
- employee capital plans (*pracownicze plany kapitałowe*, PPK).

Employee pension programmes (*pracownicze programy emerytalne*, PPE) are plans organised by employers for their employees. PPE settlement happens after an employer agrees with the representatives of the employees on the plan's operational conditions, signs the contract on asset management with a financial institution (or decides to manage assets himself) and registers a programme with the Financial Supervisory Commission (Komisja Nadzoru Finansowego, KNF). The basic contribution (up to 7% of an employee's salary) is financed by the employer but an employee must pay personal income tax on this. Participants to the programme can pay in additional contributions deducted from their net (after-tax) salaries. There is a yearly quota limit for additional

²²⁸ It started to increase in 2013 and was planned to reach 67 for both men and women (in 2020 for men and in 2040 for women) but this reform was cancelled three years later. Hence, since October 2017 the statutory retirement age in Poland is again 60 for women and 65 for men. It may result in a situation where the significant proportion of women will get a minimum pension when retiring at the age of 60. More in: A. Chłoń-Domińczak, P. Strzelecki, 'The minimum pension as an instrument of poverty protection in the defined contribution pension system – an example of Poland' (2013) 12(3) Journal of Pension Economics and Finance.

²²⁹ Money gathered on individual accounts in OFE is systematically transferred to the Social Insurance Institution (ZUS) during 10 years before retirement (before reaching the statutory retirement age).

²³⁰ European Commission, *The 2021 Ageing Report: Economic and Budgetary Projections for the EU Member States (2019-2070)*, Luxembourg 2021, p. 86, https://ec.europa.eu/info/sites/default/files/economy-finance/ip148_en.pdf.



contribution amounting to 4.5 times the average wage (PLN 23,665.50 - €5,190.14²³¹ - in 2021). PPE's returns are exempt from capital gains tax. Benefits are not taxable and can be paid as a lump sum or as a programmed withdrawal after the saver reaches 60 years. PPEs cover 631.8 thousand employees which represents only 3.7% of the working population in Poland.

Employee capital plans (*pracownicze plany kapitałowe*, PPK) are also organised by employers but they use auto-enrolment and matching defined contribution mechanisms. They started to operate in 2019 and their full implementation is staggered in accordance with the given below dates and depending on the company size:

- since 1 July 2019 – companies employing at least 250 people;
- since 1 January 2020 – companies with at least 50 employees,
- since 1 July 2020 – companies having at least 20 employees,
- since 1 January 2021 – remaining companies, including the entities financed from state budget.

The employee contribution amounts to 2-4% of the gross salary. The minimum matching contribution financed by employer is 1.5% of the gross salary but can be higher on a voluntary basis (up to 4%). People earning 120% or less of the average income can save less, namely minimum 0.5% of the gross salary. In order to encourage individuals to save in PPK, the state budget offers the PLN 250 kick-start payment (€ 54.83) and regular annual state subsidy amounting to PLN 240 (€52.64). The employee and employer contributions are taxed while the state subsidies remain exempt from taxation both at accumulation and decumulation stage. PPK's returns are exempt from capital gains tax. Benefits can be paid as a lump sum (max. 25% of the accumulated capital) and programmed withdrawal when a saver reaches 60 years. Savings can be partially withdrawn (25% of the capital) in the case of the serious disease of the saver, his/her spouse or a child. The accumulated money can be also borrowed from the account (100% of the capital) to finance an individual commitment when taking a mortgage. PPKs covered 1.48 mln employees at the end of 2020, which represents ca. 8.68% of the working population.

Individual retirement accounts (*indywidualne konta emerytalne*, IKE) were introduced in 2004, offering people the possibility to save individually for retirement. They are offered by various financial institutions such as asset management companies, life insurers, brokerage houses, banks and pension societies. An individual can only gather money on one retirement account at the time but is free to change the form and the institution during the accumulation phase. Contributions are paid from the net salary with a ceiling of 3 times the average wage (PLN 15,777 - €3,460.10 - in 2021). Returns are exempt from capital gains tax and the benefits are not subject to taxation. When a saver reaches 60 years of age (or 55 years, if he/she is entitled by law to retire early), money is paid in the form of a lump sum or a programmed withdrawal. At the end of 2020 only 741.6

²³¹ For the conversion of PLN to euros, the report uses the "Euro foreign exchange reference rates" provided by the European Central Bank (the exchange rate used for the data is the one of 31st December 2020: 1 EUR = PLN 4.5597), https://www.ecb.europa.eu/stats/policy_and_exchange_rates/euro_reference_exchange_rates/html/eurofxref-graph-pln.en.html



thousand Polish citizens had an individual retirement account (IKE) which represents 4.34% of the working population.

Individual retirement savings accounts (*indywidualne konta zabezpieczenia emerytalnego*, IKZE) started to operate in 2012 and are offered in the same forms as individual retirement accounts (IKE) but have other contribution ceilings and offer a different form of tax relief. Premiums paid to the account can be deducted from the personal income tax base. Contributions and returns are exempt from taxation, but the benefits are subject to taxation at a reduced rate. Savings accumulated in IKZE are paid to the individual as a lump sum or via a programmed withdrawal after the saver reaches the age of 65. The limit for IKZE contributions is 120% of the average wage (PLN 6,310.80²³²- €1,384.04 in 2021). Only about 2.39% of the Polish working population (2020) is covered by this type of supplementary old-age provision.

Table PL 2. Architecture of voluntary pension system in Poland (pillar III) at the end of 2020

<u>Name of the pension system element</u>	<u>Employee Pension Programmes (PPE)</u>	<u>Employee capital plans (PPK)*</u>	<u>Individual Retirement Accounts (IKE)</u>	<u>Individual Retirement Savings Accounts (IKZE)</u>
Types of pension vehicles	· Unit-linked life insurance	· Unit-linked life insurance	· Unit-linked life insurance	· Unit-linked life insurance
	· Investment fund	· Investment fund	· Investment fund	· Investment fund
	· Employee pension fund	· Pension fund	· Account in the brokerage house · Bank account · Voluntary pension fund	· Account in the brokerage house · Bank account · Voluntary pension fund
Assets under management in PLN bln	17.02	2.82	11.92	4.58
(€ bln)	€ 3.73	€ 0.62	€ 2.62	€ 1.00

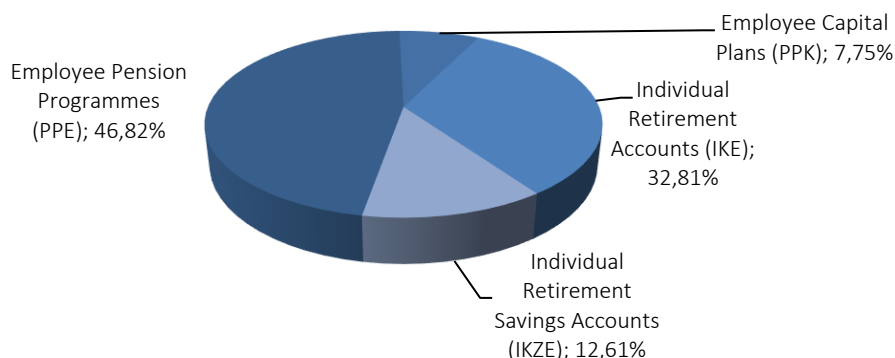
* This vehicle started to operate in 2019.

Source: own collaboration based on: UKNF, *Informacja o stanie rynku emerytalnego w Polsce na koniec 2020 r.*, Warszawa 2021, https://www.knf.gov.pl/knf/pl/komponenty/img/Informacja_o_stanie_rynku_emerytalnego_w_Polsce_na_koniec_2020_r.pdf

²³² Since 2021 there is also a special limit of contributions for self-employed that amounts to 180% of the average wage (PLN 9,466.20 - € 2076.06 in 2021).



Chart PL1. Market share of Polish voluntary pension system elements by assets under management as of 31 December 2020



Source: KNF, 2021

The efficiency of the supplementary old-age pension system in Poland is rather satisfactory when considering the operation of voluntary pension funds (DFE) and employee pension funds (PFE, a form of PPE). Since inception they offered a positive nominal annual rate of return amounting to 7.89% and 5.88% respectively.

Pension Vehicles

Employee pension programmes

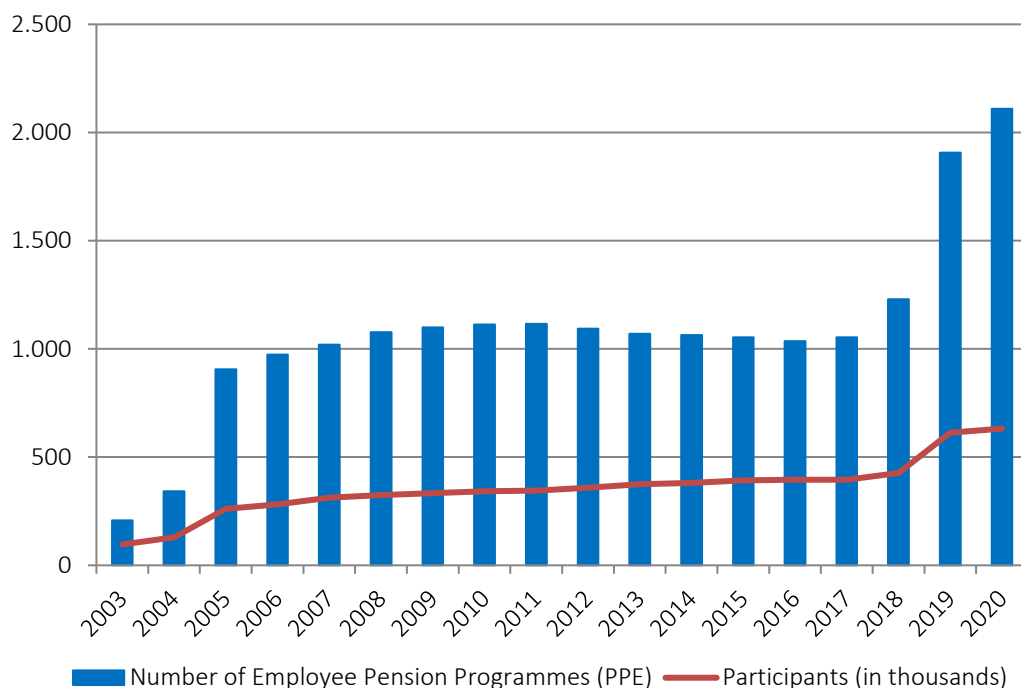
PPEs can be offered in four forms:

- as a contract with an asset management company (investment fund);
- as a contract with a life insurance company (group unit-linked insurance);
- as an employee pension fund run by the employer; or
- through external management.

Employee pension programmes started to operate in 1999. The development of the market was very weak during the first five years of operation. Thereafter, due to changes in PPE law, many group life insurance contracts were transformed into PPEs at the end of 2004 and in 2005. In 2020, the number of programmes reached 2,110 (see Graph PL4 below), mainly due to the regulations that allow employers to be exempt from the obligation to create PPK when they offer PPE.



Graph PL1. Number of Employee Pension Programmes and the number of PPE participants in 1999-2020



Source: own collaboration based on: Sprawozdanie z działalności Urzędu Komisji Nadzoru Finansowego oraz Komisji Nadzoru Finansowego w 2019 roku, UKNF, Warszawa 2020, https://www.knf.gov.pl/knf/pl/komponenty/img/SPRAWOZDANIE_ROCZNE_UKNF_ORAZ_KNF_2019_69795.pdf; UKNF, Informacja o stanie rynku emerytalnego w Polsce na koniec 2020 r., Warszawa 2021, https://www.knf.gov.pl/knf/pl/komponenty/img/Informacja_o_stanie_rynku_emerytalnego_w_Polsce_na_koniec_2020_r.pdf

The most popular forms of PPE are investment funds that represent 72% of PPEs (see table below) and manage 69.4% of total PPEs' assets. Their share is even higher when taking into consideration the number of participants (80.9%).



Table PL 3. Number and assets of Employee Pension Programmes (PPE) by form of the programme in 2020

	Number of PPE	Market share (as % of PPE number)	Number of participants (thousand)	Market share (as % of participants)	Assets (PLN million)	Market share (as % of PPE assets)
Unit-linked						
life	564	26.7%	89.2	14.1%	3,223.5	18.9%
insurance						
Investment	1519	72.0%	511.4	80.9%	11,816.2	69.4%
fund						
Employee						
Pension	27	1.3%	31.2	4.9%	1,976.3	11.6%
Fund						
Total	2,110		631.8		17,016.0	

Source: own collaboration based on: UKNF, *Informacja o stanie rynku emerytalnego w Polsce na koniec 2020 r.*, Warszawa 2021, https://www.knf.gov.pl/knf/pl/komponenty/img/Informacja_o_stanie_rynku_emerytalnego_w_Polsce_na_koniec_2020_r.pdf

PPE assets amounted to PLN 17.02 bln (€3.73 bln) and the average account balance equalled PLN 26,934 (€ 5,907) at the end of 2020. No data is available on the average percentage level of contributions paid to the programmes. The highest balance was observed in employee pension funds while the lowest in investment funds.

Employee capital plans (PPK)

Employee capital plans (*pracownicze plany kapitałowe*, PPK) can be offered by life insurance companies, investment companies (asset management companies, *towarzystwa funduszy inwestycyjnych*, TFIs), general pension societies (*powszechne towarzystwa emerytalne*, PTEs) and Employee Pension Societies (*pracownicze towarzystwa emerytalne*, PrTEs) in a form of target-date funds (TDF, life cycle funds). All employees ages 18-55 are automatically enrolled in a plan but can opt out by signing a declaration.

A plan member should be assigned, and his/her contributions should be allocated to the fund with a date that is the nearest to the date when he/she reaches 60. Every provider has to offer many TDFs with target dates every 5 years. The limits of portfolio structure depend on a target date and are as follows:

- the target date is since setting up till 20 years prior the age of 60: 60-80% shares and 20-40% bonds,
- 10-20 years prior the age of 60: 40-70% shares and 30-60% bonds,
- 5-10 years before 60: 25-50% shares and 50-75% bonds,
- 0-5 years before reaching 60: 10-30% shares, 70-90% bonds,
- since reaching 60: 0-15% shares and 85-100% bonds.



At the end of 2020 there were 19 financial institutions (16 asset management companies, 2 general pension societies and 1 insurance company) offering ca. 170 PPK funds on the market. At the end of 2020 1.48 mln participants gathered PLN 2.82 bln (€0.62 bln) in PPK.

Individual Retirement Accounts (IKE)

According to the Polish pensions law (the Individual Pension Accounts Act of 20 April 2004), individual retirement accounts (Indywidualne Konto Emerytalne, IKE) can operate in the form of:

- a unit-linked life insurance contract;
- an investment fund;
- an account in a brokerage house;
- a bank account (savings account); or
- a voluntary pension fund.

Pension accounts are offered by life insurance companies, investment companies (asset management companies), brokerage houses, banks and pension societies. The most recent pension vehicles are voluntary pension funds that were introduced in 2012 at a time of significant changes in the statutory old-age pension system.

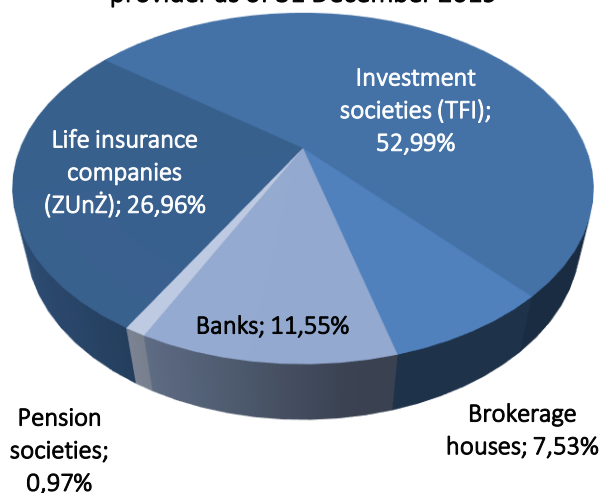
A voluntary pension fund is an entity established with the sole aim of gathering savings of IKE (or IKZE) holders. Pension assets are managed by a pension society (powszechne towarzystwo emerytalne, PTE) that also manages one of the open pension funds (OFE under Pillar II) in Poland. Assets of the funds are separated to guarantee the safety of the system, as well as due to stricter OFEs' investment regulations.

The design of IKE products usually does not vary significantly from the standard offer on financial markets. The difference relates to the tax treatment of capital gains (exclusion from capital gains tax) and contribution limits. Moreover, financial institutions cannot charge any cancellation fee when an individual transfers money or resigns after a year from opening an account.

The most popular IKE products take the form of investment funds and life insurance contracts (unit-linked life insurance). According to official data (UKNF 2021), these two forms of plans represent 80% of all IKE accounts.



Chart PL2. Structure of IKE market by number of accounts and type of provider as of 31 December 2019



Source: UKNF, Informacje o IKE według stanu na 31 grudnia 2020 roku, Warszawa 2021

Table PL 4. Number of Individual Retirement Accounts (IKE) by type of the product (2004-2020)

	Unit-linked life insurance	Investment fund	Account in the brokerage house	Bank account	Voluntary pension fund	Total
2004	110.728	50.899	6.279	7.570		175.476
2005	267.529	103.624	7.492	49.220		427.865
2006	634.577	144.322	8.156	53.208		840.263
2007	671.984	192.206	8.782	42.520		915.492
2008	633.665	173.776	9.985	36.406		853.832
2009	592.973	172.532	11.732	31.982		809.219
2010	579.090	168.664	14.564	30.148		792.466
2011	568.085	200.244	17.025	29.095		814.449
2012	557.595	188.102	20.079	47.037	479	813.292
2013	562.289	182.807	21.712	49.370	1.473	817.651
2014	573.515	174.515	22.884	51.625	1.946	824.485
2015	573.092	201.989	25.220	53.371	2.548	852.220
2016	571.111	236.278	27.615	64.031	3.580	902.615
2017	568.518	275.796	30.418	71.922	4.922	951.576
2018	562.476	316.996	32.584	78.288	5.307	995.651
2019	462.171	355.031	39.030	88.460	6.075	950.767
2020	199.929	393.010	55.821	85.678	7.188	741.626

Source: Informacje liczbowe o IKE za 2019 r., UKNF, Warszawa 2020



IKE holders do not fully use the contribution limit. The average contribution paid from 2004 to 2020 remains permanently below the statutory limit (3 times the average wage). The total amount of IKE assets amounted to PLN 11.92 (€2.62 billion) as of 31 December 2020. There were PLN 16,078 (€3,526) gathered on an IKE account on average.

Table PL 5. Limits on contributions and average contributions paid into IKE in 2006-2020 (in PLN)

	Contribution limit	Average contribution paid
2006	3.521	2.199
2007	3.697	1.719
2008	4.055	1.561
2009	9.579	1.850
2010	9.579	1.971
2011	10.077	1.982
2012	10.578	2.584
2013	11.139	3.130
2014	11.238	3.440
2015	11.788	3.511
2016	12.165	3.738
2017	12.789	3.843
2018	13.329	4.179
2019	14.295	4.557
2020	15.681	4.833

Source: Informacje liczbowe o IKE za 2020 r., UKNF, Warszawa 2021

Individual Retirement Savings Accounts (IKZE)

Like individual retirement accounts, the group of IKZE products consists of:

- unit-linked life insurance;
- investment funds;
- bank accounts;
- accounts in brokerage houses; and
- voluntary pension funds.

As this part of the pension system only has a eight-year history (started in 2012), the number of participants is still at an unsatisfactory level.



Table PL 6. Number of Individual Retirement Savings Accounts (IKZE) by type of the product (2012-2020)

Type of the product	2012	2013	2014	2015	2016	2017	2018	2019	2020
Unit-linked life insurance	363.399	388.699	418.935	442.735	446.054	448.881	447.303	376.839	96.410
Investment fund	5.202	9.565	17.510	54.471	87.510	121.269	150.217	175.029	191.691
Account in the brokerage house	559	1.012	2.797	4.325	6.201	8.478	11.172	16.838	31.533
Bank account	19	33	8.105	13.735	15.585	18.114	20.311	24.429	28.150
Voluntary pension fund	127.642	97.117	80.795	82.294	87.762	94.252	101.386	61.448	59.773
Total	496.821	496.426	528.142	597.259	643.112	690.994	730.389	654.583	407.557

Source: Informacje liczbowe o IKZE za 2020 r., UKNF, Warszawa 2021

AT the end of 2020 around 408 thousand Poles had individual retirement savings accounts. As shown on chart PL3, the IKZE market is dominated by asset management companies that offer investments funds and run 47% of the accounts. Brokerage houses and banks do not show a lot of interest in providing this type of old-age pension provision, although some of them put IKZE in their offers.

The savings pot of IKZE is small compared to other elements of the Polish supplementary pension system. At the end of 2020, financial institutions managed funds amounting to PLN 4.58 bln (€1 bln). It is worth noting that this capital was raised through contributions in just nine years. The rapid growth of IKZE market in terms of coverage and the asset value had been expected in the coming years but the implementation of PPK significantly reduced the interest in individual retirement plans.



Chart PL 3. Structure of IKZE market by number of accounts and type of provider as of 31 December 2020

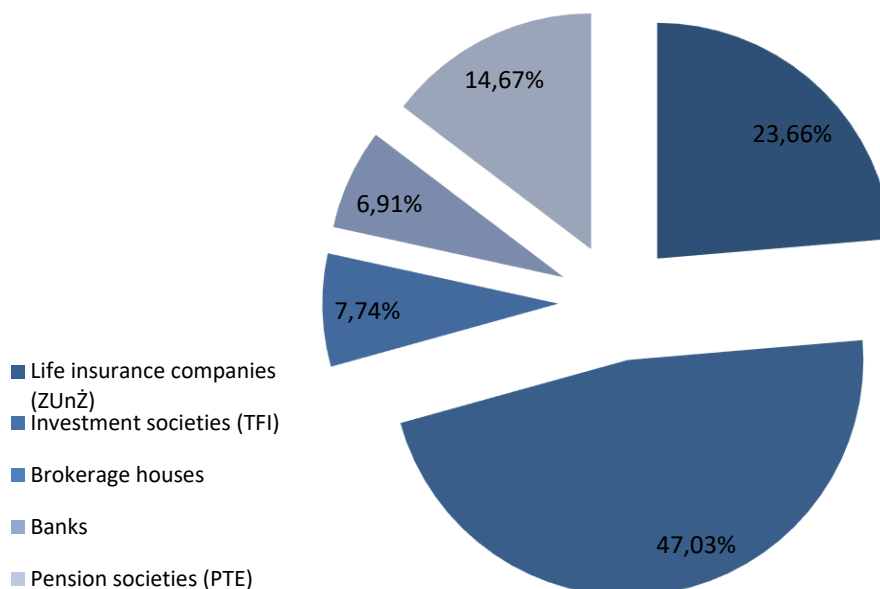


Table PL 7. Assets of IKZE (2012-2020, in thousands PLN)

Type of the product	Unit-linked life insurance	Investment fund	Account in the brokerage house	Bank account	Voluntary pension fund	Total
2012	36.393	7.973	1.673	40	6.803	52.882
2013	75.117	23.371	4.815	98	15.805	119.206
2014	167.737	63.559	14.638	11.624	37.792	295.35
2015	281.946	193.099	30.268	35.081	79.198	619.592
2016	398.589	407.884	57.045	66.600	147.972	1,078,090
2017	545.374	719.630	93.780	106.702	240.671	1,706.157
2018	635.146	1.083.451	119.354	156.208	320.798	2.314.957
2019	783.627	1.608.717	197.171	224.33	469.984	3.283.829
2020	956.179	2.257.552	392.266	306.986	668.791	4.581.774

Source: Informacje liczbowe o IKZE za 2020 r., UKNF, Warszawa 2021

Charges

The type and level of charges deducted from pension savings depend on the vehicle used and the type of programme. Lower fees are charged for group (collective) provision of an old-age pension organised by employers (PPE). Significant cost differences exist between various product types.



Since no comprehensive data regarding the costs of Polish supplementary products is collected or officially published, the information provided below reflects the costs of selected (exemplary) pension products and plans functioning on the Polish market.

Employee Pension Programmes (PPE)

Data on PPE charges is hardly available. The Financial Supervisory Commission does not provide any official statistics on value or the percentage of deductions on assets of employee pension programmes. Some information can be found in the statutes of PPEs, but they describe rather the types of costs charged than the level of deductions. Employers must cover many administrative costs connected with PPE organisation (disclosure of information, collecting employees' declarations, transfer of contributions, etc.). The savings of participants are usually reduced by a management fee that varied from 0.5% p.a. to 4% p.a. of AuM and depend on the investment profile of funds chosen.

The lowest charges are applied to employee pension funds (Pracownicze Fundusze Emerytalne – PFE), which are set up by employers (in-house management of PPE) and managed by employee pension societies. For this type of pension fund, no up-front fee is deducted and a rather low management fee (0.5% - 1% p.a.) applies to assets gathered.

Since 2019 there is a cap on management fee charged by asset management companies. It could not exceed 3,5% in 2019, 3% in 2020 and 2,5% in 2021. From 2022 the limit will be 2%.

Employee Capital Plans (PPK)

Financial institutions offering PPK can charge management fee (max. 0.5% AuM) and success fee (max. 0.1% AuM and only if return is both positive and above the benchmark). The fee level depends on the risk profile of the fund and amounts from 0.16% to 0.47% with 0.42% being the average for the whole PPK market.



Table PL 13. Average rates of management fee in PPK in 2020

Average management fees in PPK in 2020	
Target date of the funds	2020
	2025
	2030
	2035
	2040
	2045
	2050
	2055
	2060
	2065
AVG	

Source: PFR, 14 zestawienie średnich opłat za zarządzanie funduszami przez Instytucje Finansowe oferujące PPK, Warszawa 2020,

Individual Retirement Accounts (IKE) and Individual Retirement Savings Accounts (IKZE)

The type and level of charges depend on the type of product. There is a management fee for investment funds, voluntary pension funds and unit-linked insurance. In addition, for a unit-linked life insurance, a financial institution can charge an up-front fee, use different “buy and sell” prices for investment units (spread) and deduct other administrative fees from the pension savings accounts (such as conversion fees and fees) for changes in premium allocation in case changes occur more frequently than stipulated in the terms of the contract. Charges that are not connected with asset management and the administration of savings accounts cannot be deducted from IKZE (i.e., life insurance companies cannot deduct the cost of insurance from the retirement account). The accumulation of pension savings through direct investments (accounts in brokerage houses) is subject to fees which depend on the type of transaction and the level of activity on financial markets (trading fees and charges). Banks do not charge any fees for the IKZEs they offer (apart from a cancellation fee).

All financial institutions offering individual retirement accounts (IKE) can charge a cancellation fee (also called a transfer fee) when a member decides to transfer savings to a programme offered by another financial entity during the first year of the contract. No cancellation fee can be deducted from the account when a saver resigns from the services of a given institution after 12 months and transfers money to another plan provider.



The table below shows the level of fees charged in individual retirement accounts (IKE) and individual retirement savings accounts (IKZE) offered by life insurance companies, investment societies and pension societies.

Table PL8. Charges in IKE nad IKZE by type of provider			
Type of financial institution	Up-front fee	Management fee (% of AuM)	Transfer fee
life insurance companies	0-8%	0-4.5	10-50% of assets
Asset management companies	0-5.5%	0.8-3.0; success fee 0-30% of the return above the benchmark	0-PLN 500
pension societies	0-53.4%; quota limit may be applicable	0.6-3.0; success fee 0-20.0 of the return above the benchmark	10-50% of assets; min. PLN 50

Source: own elaboration based on Rutecka-Góra et al. 2020.

Taxation

Employee pension programmes (PPE)

Basic contributions financed by employers are subject to personal income tax, which is deducted from the employee's salary. Additional contributions paid by employer from the net salary are treated the same way (contributions paid from after-tax wage). Returns and benefits are not taxed ("TEE" regime).

Employee Capital Plans (PPK)

The employee and employer contributions are taxed. State kick-off payment and regular annual subsidies as well as investment returns, and benefits are exempt. Therefore, it is a TEE regime with a state subsidy.

Individual Retirement Accounts (IKE)

Contribution is taxed as it is paid by a saver from his/her net income. An individual can pay up to three times the average wage annually. There is a tax relief for capital gains. Benefits are not taxable ("TEE" regime).



Individual Retirement Savings Accounts (IKZE)

Contributions to IKZE are deductible from the income tax base. In 2012 and 2013 there was an upper limit of contribution amounting to 4% of the person's annual salary in the previous year. Due to the most recent changes in the pension system, the given limit was replaced with a flat-rate limit in 2014. Every individual can pay up to 120% of the average salary into an account. Since 2021 there is a higher limit of contribution for self-employed that amounts to 180% of the average salary in the economy. Returns are not subject to taxation, but benefits are taxed with a reduced flat-rate income tax (10%). This part of the **supplementary pension system is the only one that follows the EET tax regime.**

Pension Returns

Asset allocation

Employee Pension Programmes (PPE) and

Polish law does not impose any strict investment limits on voluntary pension savings accounts (IKE, IKZE, most forms of PPE, PPK) except for occupational pension programmes offered in the form of employees' pension fund (types of asset classes are described by law). Every financial institution that offers IKE or IKZE provides information on investment policy in the statute of the fund. Since many existing plans offer PPE participants the possibility to invest in funds from a broad group of investment funds operating in the market (not only the funds dedicated exclusively to pension savings), it is impossible to indicate how the portfolios of most PPEs look like.

The tables below present the investment portfolio of employee pension funds, which are the only types of occupational pension products with official and separate statistics on asset allocation.



Table PL 9. Portfolio of employees' pension funds (PFE) in years 2010-2020 (as % of assets)

	Shares	Gov. bonds	Investment funds units	Bank deposits	Other investments	Assets under management (in PLN mln)
2010	14.19	1.48	24.30	58.78	1.25	1542.60
2011	14.90	2.14	33.13	48.90	0.92	1559.00
2012	19.49	1.53	37.53	40.91	0.54	1873.28
2013	29.86	2.01	49.83	17.91	0.39	2038.54
2014	33.00	1.05	61.64	4.30	0.01	1749.60
2015	34.09	2.27	63.64	0.00	0.00	1797.08
2016	29.62	63.00	0	6.70	0.68	1766.59
2017	32.91	64.31	0	1.86	0.92	1856.91
2018	30.77	67.22	0	1.62	0	1740.38
2019	31.49	58.48	0	1.92	8.11	1886.42
2020	16.76	46.61	0	4.45	32.18	2017.40

PPKs are a target-date funds what means that the general asset allocation (bonds vs shares) depends on the target date of the fund as described in "Pension vehicles" section.

Individual Retirement Accounts (IKE) and Individual Retirement Savings Accounts (IKZE)

There are no available statistics that allow for the identification of the asset allocation within Individual Saving Accounts (IKE) and Individual Retirement Savings Accounts (IKZE) offered as insurance contracts, investment funds and accounts in brokerage houses. It is because an individual can buy units of many investment funds (or financial instruments) that are also offered as non-IKE and non-IKZE products. Since no separate statistics for pension and non-pension assets of a given fund are disclosed, it is impossible to indicate which funds create the portfolios of IKE and IKZE holders nor what the rates of returns obtained by this group of savers are.

The only form of IKE and IKZE that is strictly separated from other funds and is dedicated solely to pension savings is a voluntary pension fund. These vehicles started operating in 2012. The table below shows the DFE's investment portfolios in years 2014-2020.



Table PL10. Portfolio of voluntary pension funds (DFE) offered as Individual Retirement Saving Accounts (IKZE) and Individual Retirement Accounts (IKE) in 2014-2020, as % of DFE assets

Provider	Year	Shares	Gov. Bonds	Non-gov. Bonds	Other	Assets under management (in PLN mln)	Market share (as % of total DFEs' assets)
Allianz Polska DFE	2014	33.46%	32.43%	21.81%	12.30%	3.72	6.25%
	2015	35.12%	29.39%	28.60%	6.90%	5.6	5.28%
	2016	31.84%	22.54%	37.07%	8.54%	8.3	4.40%
	2017	53.62%	5.86%	34.17%	6.35%	11.9	3.87%
	2018	42.49%	17.33%	34.65%	5.53%	13.7	3.48%
	2019	32.92%	21.52%	38.90%	6.65%	16.9	2.92%
	2020	41.26%	17.49%	34.71%	6.53%	20.2	2.52%
DFE Pekao*	2014	43.83%	40.45%	2.86%	12.86%	13.18	22.16%
	2015	52.90%	30.95%	1.93%	14.21%	28.5	26.89%
	2016	57.41%	32.73%	4.78%	5.08%	52.2	27.65%
	2017	50.99%	43.12%	0.19%	5.70%	82.7	26.87%
DFE Pocztylion Plus	2014	24.62%	67.55%	0.00%	7.83%	0.55	0.92%
	2015	26.26%	67.64%	6.11%	0.00%	0.8	0.75%
	2016	34.83%	59.31%	0.00%	5.86%	1.1	0.58%
	2017	35.25%	55.08%	1.70%	7.97%	1.5	0.49%
	2018	35.38%	54.83%	1.00%	8.79%	2.5	0.64%
	2019	38.48%	53.66%	1.25%	6.61%	4	0.69%
	2020	55.55%	24.49%	14.54%	5.35%	5.9	0.73%
DFE PZU	2014	66.82%	13.94%	2.40%	16.84%	9.08	15.27%
	2015	73.26%	13.58%	1.45%	11.70%	14.8	13.96%
	2016	74.79%	17.64%	0.77%	6.80%	27	14.30%
	2017	72.84%	16.78%	0.42%	9.96%	47.8	15.53%
	2018	69.28%	9.55%	7.01%	14.16%	175.7	44.64%
	2019	60.80%	14.28%	16.31%	8.60%	262.7	45.39%
	2020	63.03%	4.01%	21.75%	11.70%	347.9	43.32%
Nordea DFE(D)	2014	37.44%	35.32%	10.44%	16.81%	1.63	2.74%
(ING DFE)	2014	63.74%	0.00%	12.35%	23.92%	5.92	9.95%
	2015	57.45%	4.49%	10.50%	27.57%	15.2	14.34%
	2016	50.51%	18.75%	6.85%	23.89%	36.7	19.44%
	2017	56.36%	35.58%	0.01%	8.05%	0.3	0.10%



	2018	69.28%	9.55%	7.01%	14.16%	175.7	44.64%
	2019	52.80%	24.09%	14.52%	8.58%	169.2	29.23%
	2020	59.95%	2.84%	29.32%	7.49%	260.3	32.41%
	2014	39.46%	40.26%	0.00%	20.27%	19.11	32.13%
	2015	61.24%	32.92%	0.00%	5.84%	24.2	22.83%
MetLife	2016	59.60%	32.60%	0.00%	7.80%	28.5	15.10%
Amplico	2017	56.99%	22.13%	12.91%	7.97%	73.5	23.88%
DFE	2018	49.69%	43.78%	0.66%	5.87%	30.8	7.83%
	2019	64.96%	29.25%	0.56%	5.23%	36	6.22%
	2020	43.92%	33.77%	0.00%	22.31%	47.3	5.89%
	2014	35.29%	53.04%	0.00%	11.67%	6.29	10.57%
	2015	35.84%	51.51%	0.00%	12.65%	16.8	15.85%
	2016	26.26%	58.34%	0.00%	15.40%	34.8	18.43%
PKO DFE	2017	41.48%	48.64%	0.00%	9.88%	56.3	18.29%
	2018	37.75%	48.14%	1.44%	12.67%	69.8	17.73%
	2019	37.20%	44.07%	6.50%	12.23%	89.3	15.43%
	2020	50.40%	46.46%	0.00%	3.14%	120.1	14.95%
	2015	37.44%	48.61%	0.00%	13.95%	0.1	0.09%
	2016	68.60%	29.87%	0.00%	1.53%	0.2	0.11%
Generali	2017	56.36%	35.58%	0.01%	8.05%	0.3	0.10%
DFE	2018	43.40%	48.54%	0.04%	8.02%	0.5	0.13%
	2019	56.54%	33.98%	0.00%	9.47%	0.7	0.12%
	2020	67.92%	23.70%	0.00%	8.35%	1.4	0.17%

Source: own elaboration based on analizy.pl

Pension returns

The investment efficiency of supplementary pension products is almost impossible to assess due to the lack of necessary data published by financial institutions. In Poland there is no obligation to disclose rates of return to pension accounts holders. Generally, owners of savings accounts are informed about contributions paid, the value of investment units and the balance of their accounts at the end of the reporting period. But they are not informed neither about their pension accounts real efficiency nor the total cost ratio deducted from their individual retirement accounts. No comprehensive data concerning the investment efficiency of supplementary pension products is submitted to the Financial Supervisory Commission or published in official statistics.

Due to the shortage of detailed statistics the assessment of the efficiency of pension product investments is possible only for the vehicles dedicated solely to PPE, IKE or IKZE, namely employee pension funds (PFE) and voluntary pension funds (DFE).



As the management fee is deducted from fund assets on a regular basis and the value of a fund unit is calculated based on net assets, the nominal rates of return indicated below take into account the levels of management costs. The only fee that must be included when calculating after-charges returns is the upfront-fee deducted from contributions paid into accounts.

During the period of 2002-2020 employee pension funds (PFE) showed rather positive returns up to 17.41% annually. Negative results appeared only in the years 2008, 2011, 2015 and 2018 when equity markets dropped significantly. After-charges real returns observed in 15 of 19 years and the average return in the 19-year period is highly positive as well. These satisfactory results were obtained due to proper portfolio construction, high quality of management and low costs.

Table PL 11. Nominal and real after-charges returns of Employee Pension Funds in 2002-2020 (in %)

Employees pension fund	PFE NESTLÉ POLSKA	PFE SŁONECZNA JESIEŃ	PFE ORANGE POLSKA	PFE UNILEVER POLSKA	PFE "NOWY ŚWIAT"	PFE "DIAMENT"	Weighted nominal return after charges, before inflation	Inflation (HICP)	Weighted real return after charges and inflation
2002			11.35%		9.76%	-21.05%	7.88%	0.81%	7.02%
2003			10.28%		10.44%	8.71%	10.14%	1.73%	8.26%
2004	11.25%		12.30%	14.24%	13.64%		12.59%	4.32%	7.93%
2005	12.53%		14.82%	12.93%	13.81%		14.50%	0.75%	13.65%
2006	12.41%	10.60%	15.40%	13.41%	15.25%		14.99%	1.37%	13.43%
2007	5.10%	4.52%	6.10%	5.77%	6.23%		5.94%	4.30%	1.58%
2008	-10.10%	-11.33%	-13.54%	-6.34%	-13.86%		-13.14%	3.30%	-15.91%
2009	13.33%	14.83%	15.78%	12.74%	17.41%		15.85%	3.88%	11.52%
2010	9.98%	9.60%	10.33%	9.75%	10.52%		10.22%	2.85%	7.16%
2011	-5.05%	-3.10%	-4.75%	-3.59%	-5.20%		-4.51%	4.59%	-8.70%
2012	15.82%	13.60%	14.96%	15.01%	14.15%		14.57%	2.14%	12.17%
2013	5.19%	5.21%	3.45%	4.56%	5.71%		4.28%	0.60%	3.66%
2014	4.42%		3.91%	4.92%	2.56%		3.65%	-0.70%	4.37%
2015	-1.24%		-2.74%	-0.97%	-1.35%		-2.31%	-0.40%	-1.92%
2016			3.18%	4.88%	3.93%		3.44%	0.90%	2.51%
2017			8.24%	6.66%	9.19%		8.47%	1.69%	6.67%
2018			-1.12%		-2.69%		-1.47%	0.88%	-2.33%
2019			5.58%		1.57%		4.72%	3.01%	1.66%
2020			8.36%		1.76%		7.07%	3.40%	3.55%
Annual average 2002-2020	5.84%	5.15%	6.01%	6.51%	5.85%	-7.36%	5.88%	2.06%	3.74%

Source: own elaboration based on Eurostat (HICP) and UKNF, Informacja o rynku PPE według stanu na dzień 31 grudnia 2020 r., Warszawa 2021

Voluntary pensions funds (DFE) have obtained extraordinary investment results from their start in 2012. The first years of their operation coincided with the time of the Polish financial market recovery and allowed the funds to maximise rates of return from the equity portfolios. The best DFEs reported more than 50% nominal return in 2013. But such returns were impossible to achieve



in next years. In 2014, some of DFE even experienced slightly negative returns that were covered by returns in the following years. The worst investment returns were achieved in 2018 when all DFE made losses. The average real rate of return after charges in years 2013-2020 amounted to 4.11%.

Table PL 12. Nominal and real returns of voluntary pension funds (DFE) in 2013-2020 (in %)

	2013	2014	2015	2016	2017	2018	2019	2020	Annual average 2013-2020
Allianz Polska DFE	7.80%	2.03%	-0.33%	5.81%	9.33%	-8.32%	3.44%	91.00%	2.45%
DFE Pekao*	16.30%	1.27%	3.26%	4.85%	6.78%				6.37%
DFE Pocztylion Plus	6.90%	-2.22%	2.56%	3.60%	-0.98%	-4.77%	1.04%	8.04%	1.69%
DFE PZU	32.80%	3.64%	9.07%	16.19%	14.67%	-9.90%	3.39%	1.62%	8.31%
NN DFE	59.10%	-0.73%	16.21%	13.26%	9.01%	-8.61%	8.91%	15.29%	12.69%
MetLife DFE	56.70%	6.09%	-1.89%	3.76%	6.65%	-16.61%	9.65%	33.28%	10.35%
PKO DFE	16.90%	2.54%	-0.88%	5.74%	8.63%	-8.51%	0.14%	10.97%	4.18%
Weighted nominal return before charges and inflation	40.57%	3.15%	3.90%	8.14%	8.92%	-9.75%	4.87%	9.34%	7.89%
Weighted nominal return after charges**, before inflation	36.94%	0.64%	1.36%	5.49%	6.18%	-12.28%	1.77%	6.09%	5.09%
Inflation (HICP)	0.60%	-0.70%	-0.40%	-0.90%	1.69%	0.88%	3.01%	3.40%	0.94%
Weighted real return after charges and inflation	36.12%	1.34%	1.77%	6.45%	4.42%	-13.04%	-1.21%	2.60%	4.11%

Source: own elaboration based on analizy.pl, Eurostat data

Positive rates of return were also reported by employee capital plans (PPK) that started to operate in the second half of 2019. Their investment efficiency in 2020 is presented in the table below.



Table PL 14. Nominal and real returns of employee capital plans (PPK) in 2020 (in %)

	Target date of the funds							
	2025	2030	2035	2040	2045	2050	2055	2060
nominal average								
return after charges	7.66%	9.30%	10.75%	10.95%	12.42%	12.19%	11.90%	13.43%
real average return								
after charges and								
inflation	4.12%	5.71%	7.11%	7.30%	8.72%	8.50%	8.22%	9.70%

Source: own elaboration based on analizy.pl

	Employee pension funds			Voluntary pension funds		
Holding Period	Gross returns	Net Nominal Returns	Real Net Returns	Gross returns	Net Nominal Returns	Real Net Returns
1-year	-	7.07%	3.55%	0.093401	6.09%	2.60%
3-years	-	3.38%	0.93%	0.011498	-1.80%	-4.00%
5-years	-	4.39%	2.37%	0.040385	1.19%	-0.34%
7-year	-	3.30%	2.03%	0.038905	1.13%	0.20%
10-years	-	3.65%	2.02%	-	-	-
Since inception	-	5.88%	3.74%	0.078923	5.04%	4.11%

Conclusions

Starting in 1999, with individual supplementary elements introduced in 2004, 2012 and 2019, the Polish supplementary pension market is still in its early stage of operation. The coverage ratios (3.7%, 4.34%, 2.39% and 8.68% respectively), show that only a tiny part of Poles decided to secure their future in old age by joining the occupational pension plan or purchasing individual pension products. This could be due to low financial awareness, insufficient level of wealth or just the lack of information and low transparency of pension products.

The official information concerning supplementary pension products in Poland is limited. Financial institutions do not have any obligation to disclose rates of return, either nominal or real, nor after-charges. Published data includes the total number of programmes or accounts by types of financial institution and total assets invested in pension products. The Financial Supervisory Commission (KNF) collects additional detailed data about the market (the number of accounts and pension assets managed by every financial institution) but does not disclose the data even for research purposes.

Moreover, no comparable tables on charges, investment portfolios and rates of return are prepared or made accessible to the public on a regular basis. Certain product details must be put in the fund



statutes or in the terms of a contract, but they are hardly comparable between providers. The Polish supplementary pension market is highly opaque, especially in terms of costs and returns.

Among a wide variety of pension vehicles, there are only a few products with sufficient official statistics to assess their investment efficiency: employee pension funds (PFE) managed by employees' pension societies, voluntary pension funds (DFE) managed by general pension societies (PTE) and employee capital plans (PPK). Other products are more complex due to the fact that supplementary pension savings are reported together with non-pension pots. That makes it impossible to analyse the portfolio allocations and rates of return for individual pension products separately.

After-charges returns in the “youngest” pension products offered as a form of voluntary pension fund (DFE) were extremely high in 2013, both in nominal and real terms, and offered relatively high average real rate of return amounting to 4.11% in the period 2013-2020. The second type of products analysed, namely employee pensions funds (PFE), delivered significant profits as well, with the annual average real return of 3.74%. But other pension vehicles may turn out not to be so beneficial, especially when a wide variety of fees and charges are deducted from contributions which are paid to the accounts.

To sum up, the disclosure policy in supplementary pension products in Poland is not saver oriented. Individuals are entrusting their money to the institutions, but they are not getting clear information on charges and investment returns. Keeping in mind the pure DC character of pension vehicles and the lack of any guarantees, this is a huge risk for savers. All this may lead to significant failures on the pension market in its very early stages of development. In the future, some changes in the law should be introduced, such as **imposing an obligation** on financial institutions **to disclose rates of return** to pension accounts holders. Moreover, there is **an urgent need for a full list or even ranking of supplementary pension products**, both occupational and individual ones, published by independent body. This would help individuals make well-informed decisions and avoid buying inappropriate retirement products.



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Pension Savings: The Real Return

2021 Edition

Country Case: Romania

Rezumat

Populația României emigrează, scade și îmbătrânește într-un ritm accelerat, ceea ce pune presiune semnificativă asupra sistemului de pensii publice. În 2019 au fost aduse modificări pentru formula de calcul a pensiilor publice, ce a intrat în vigoare în septembrie 2021. Pensiile pentru limită de vârstă vor fi recalculate însă nu vor aduce nicio scădere nivelului de pensii având în vedere că recalcularea va opera doar în favoarea beneficiarului (dacă suma rezultată este mai mare).

Deși contribuțiile la fondurile de pensii administrate privat (ocupaționale, pilonul II) sunt obligatorii, fără a distinge forma de angajare (salariați sau liber-profesioniști), cetățenii români trebuie motivați să investească mai mult în planuri voluntare de pensie (Pilonul III).

Randamentele reale – calculate în RON - ale planurilor de pensii din România au înregistrat o evoluție pozitivă până la sfârșitul anului 2020, fiind chiar printre cele mai bune în comparație cu alte sisteme de pensii private analizate în acest raport. Această evoluție se datorează și faptului că investițiile au avut loc după căderea, sau în timpul căderii, indicilor bursieri ca urmare a crizei globale financiare din 2007-2008, astfel că fondurile au reușit să prindă ciclul de redresare și creștere a piețelor de acțiuni și obligațiuni. Cu toate acestea, ajustate anual cu ratele de schimb valutar în euro, randamentele fondurilor private de pensii din România sunt mai mici. Aceasta ajustare a fost făcută pentru a facilita compararea profiturilor obținute din investiții cu alte jurisdicții din cadrul Uniunii Economice și Monetare.

Compunerea portofoliilor ambelor tipuri de fonduri administrate privat este aproape identică și, prin urmare, generează randamente brute similare. Randamentul net al Pilonului III este influențat în mod semnificativ de structura costurilor substanțial mai mari (aproape de 4 ori mai mari) și astfel, pe termen lung, va genera randamente mai mici decât cele aferente Pilonului II. În ansamblu, randamentele produselor de pensie din Pilonul II și Pilonul III au rămas pozitive și deasupra nivelului inflației.

O preocupare majoră o ridică și posibilitatea adoptării unei decizii politice de renunțare la Pilonul II. Având în vedere presiunea asupra sistemelor publice de pensii, fondurile sau schemele de pensii private vor deveni din ce în ce mai importante pentru compunerea venitului după pensionare.

Asociația Utilizatorilor Români de Servicii Financiare (AURSF), membră BETTER FINANCE, a atras în permanență atenția asupra riscurilor pe care le presupune o asemenea decizie. În plus, AURSF a criticat vehement decizia autorităților de a reduce contribuțiile virate în contul participanților de la 5,1% la 3,75%. De asemenea, AURSF consideră că trebuie identificate măsuri care să încurajeze opțiunea asumată a participanților pentru unul dintre fondurile administrate privat (în prezent, numărul celor care optează este extrem de redus, participanții fiind distribuiți printr-un mecanism aleatoriu).



Summary

Romania's population is rapidly decreasing, aging, and migrating, which puts considerable pressure on the State pension system. In 2019, new changes on calculating old-age pensions from PAYG pillar have been adopted effective since September 2021. All old-age pension will be recalculated in 2021 and no pensions will decrease, because changes will be made to pensions only if the recalculated amount is more favourable.

Although Romanian privately managed (occupational) pension funds are mandatory regardless of the work form (employees and self-employed), Romanian households must be further incentivised to save in voluntary pension plans (Pillar III). Romanian private pensions' real net returns – computed in RON – recorded a positive evolution by the end of 2020, being fact among the best performing in comparison with other private pension systems analysed in this report. This performance is also due to the fact that investments started after, or during, the fall of capital market indices due to the 2007-2009 global financial crisis, thus pension funds managed to capture the recovery and growth path of equity and stock markets. Nevertheless, adjusted on an annual basis with the Euro currency conversion rate, the returns of Romanian private pensions are lower. This adjustment was made to enable a comparison of returns with other jurisdictions part of the Economic and Monetary Union.

Both schemes (occupational and private) have almost identical portfolio structures and thus generate similar gross returns. However, Pillar III net performance is significantly influenced by the high fee structure (almost 4-times higher) and will, in the long-run, deliver lower returns than Pillar II peers. Overall, the real return of pension funds in Pillar II as well as Pillar III are still positive and above the inflation.

A major concern was generated by the possibility of a political decision to abandon the occupational pensions pillar. Considering the growing pressure faced by public pension systems, private pensions will become more and more important for the composition of retirement income. The Romanian Financial Services Users' Association (AURSF), member of BETTER FINANCE, has constantly drawn the attention to the risks entailed by such a decision. Moreover, AURSF has firmly criticised the public authorities' decision to reduce the contribution transfer rate to Pillar II from 5.1% to 3.75%. In addition, AURSF considers that measures incentivising an active choice of savers with regards to a mandatory privately administered funds must be found (currently, the number of those making an active choice is considerably low, the rest being randomly allocated).

Introduction

The Romanian old-age pension system is based on the World Bank's multi-pillar model, which consists of three main pillars:

- Pillar I – State pension organized as a mandatory Pay-As-You-Go (PAYG) scheme;



- Pillar II – Organised as a mandatory, funded and defined contribution pension scheme,
- Pillar III – A supplementary pension scheme, based on the principle of voluntary participation with the defined-contribution characteristic.

Romania's multi-pillar pension reform began in 2007, when Pillar III was added into the pension system (collecting the first contributions) and became voluntary for all persons earning any type of income. Pillar II was put into place in 2008 (collecting the first contributions) and became mandatory for all employees aged under 35.

Table RO1. Pensions system in Romania

National House of Public Pensions		Private Pension System Supervisory Commission	
PILLAR I		PILLAR II	PILLAR III
State Pension		Funded pension	Voluntary pension
Law no. 263/2010 on the unitary public pension system		Law no. 411/2004 on the privately managed pension funds, republished, including subsequent amendments and additions	Law no.204/2006 on the voluntary pensions, including subsequent amendments and additions
Mandatory		Mandatory	Voluntary
Publicly managed		Privately managed pension funds	
PAYG		Funded	
DB (Defined Benefit scheme)		DC (Defined Contribution scheme)	
The possibility of early and partially early retirement, contingent upon the fulfillment of the age conditions and the contribution stage provided by the law and the accumulated points.		Individual personal pension accounts	
		Withdrawal from the system is only allowed through retirement.	The participant can, at any time, suspend or stop the contribution payment (they remain members in the system until retirement).
Quick facts			
N° of old-age pensioners: 4.7 mil.		Administrators: 7	Administrators: 8
Number of insured: 5.9 mil.		Funds: 7	Funds: 10
Average old-age pension: €295,63		Custodians: 3	Custodians: 3
Average salary (gross): € 1060.70		Brokers: 14	Brokers: 21
Net replacement ratio (state pension): 27.8%		AuM: €15.43 bln. (75 bln. RON)	AuM: €0.60 bln. (2.93 bln RON)
		Participants: 7.63 mil.	Participants: 0.53 mil.
Average aggregate pension replacement ratio: 41% ²³³			

Source: Own elaboration based on CNPP, ASF and INSSE data, 2020; Notes: Exchange rate RON/EUR = 4.8683; data on average old-age pension and gross salary and data on the number of old-age pensioner are calculated as an average for the year 2020; data on number of participants and assets under management as of December 2020

²³³ Based on Pension adequacy report 2021 data



The overall coverage of Pillar II, measured as a ratio between the number of participants and the economically active population, was almost entire working population in 2019, while Pillar III covered only 6% of the economically active population. Thus, we can expect that future pension income stream will be influenced mostly by Pillar II pensions, while Pillar III will generate an insignificant part of individuals income during retirement.

Summary Return Table				
Holding Period	Pillar II		Pillar III	
	Nominal	Real	Nominal	Real
1 year	4.39%	2.59%	2.79%	0.99%
3 years	4.76%	1.81%	3.29%	0.35%
7 years	4.36%	2.68%	3.21%	1.53%
10 years	5.04%	2.95%	3.99%	1.91%
Since inception	5.48%	2.41%	2.56%	-0.85%

Source: BETTER FINANCE own composition, 2021

Pillar I – State Pensions

The first pillar of the Romanian pension system is organized on the Pay-as-You-Go (PAYG) principle of redistribution, being funded on an ongoing basis and functioning on the defined-benefit rule.

The state (through the National House of Public Pensions, a public institution constituted for this purpose in particular²³⁴) collects the social pension contribution from the contributors²³⁵ and immediately pays the pensions to the current retirees.²³⁶ State pension in Romania is also based on the principle of solidarity between generations and gives the right to pension entitlement upon retirement age, following a minimum contribution period (15 years), as provided by law.

This compulsory system is closely connected to the economic activity and income of citizens. It is 88%²³⁷ financed from social security contributions made by both employers and by employees, while generally consuming the biggest part (or entirety) of the social security budget.

Social security contributions are paid to the State's social security budget at a rate of 20.8% of payroll for employers and 10.5% of income (gross earnings) for employees. It should be noted that since 1 October 2014, the employer's contribution ratio has been reduced to 15.8%. This pillar is

²³⁴ In Romanian, „Casa Națională de Pensii Publice”, hereinafter CNPP, as per Article 4.2 read in conjunction with Article 52 (Chapter IV, Section I) of Law no. 263/2010:

<http://legislatie.just.ro/Public/DetaliuDocument/124530>.

²³⁵ According to the principle of contributivity, as per Article 2.c) of Law no. 263/2010.

²³⁶ According to the principle of redistribution provided in Article 2.e) of Law no. 263/2010.

²³⁷ In 2017, 75% of the budget was constituted from social security contributions and 25% from the consolidated state budget – see Annex no. 1/03 to Law no. 7/2017 concerning the social security budget for 2017; in 2018, 88% of the budget was financed from contributions and 12% from the consolidated state budget – see Annex no. 1/03 of Law no. 3/2018 concerning the social security budget for 2018.



financed by contributions of economically active individuals. These contributions are directed to the CNPP, which distributes the benefit to current pensioners (system beneficiaries).

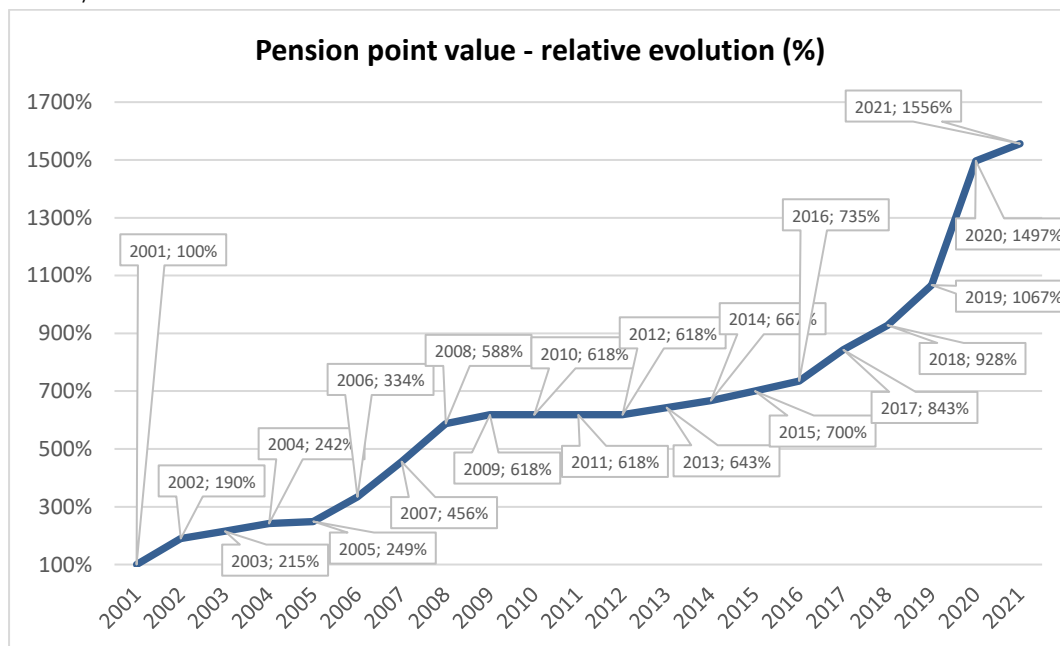
The pensions are calculated using a formula to an algorithm based on the mean salary score (which is calculated by comparing an individual's own salary to the average monthly salary), the correction coefficient, the full vesting period (35 years), and on pension points, which are expressed as a nominal value.

Therefore, the pension entitlement is calculated when the employee claims it and uses the values determined for that date (once), using the following formula:

Pension allowance =

Mean Salary Score x Correction Coefficient x Value of the Pension Point.

The most important variable is given by the value of the pension point, which have been increasing for 20 years in a row.



Source: BETTER FINANCE own composition based on CNPP data, 2021

However, in 2019, the legislation on calculating Pillar I old-age pensions came into force. Since September 2021, all old-age pensions will be recalculated. The new law increased the pension point value from 1,100 RON (230 Eur) to 1,265 RON (264 Eur). The pension point value will continue to increase to 1,775 lei (371 Eur) on September 1, 2020, and to 1,875 lei (386 Eur) on September 1, 2021. Starting in 2022, the pension point value will be automatically adjusted based on 100 percent of the annual inflation rate and 50 percent of the real increase in average gross wages.



The main retirement income stream is generated by Pillar I and, on average, representing 28% of the mean annual salary during the economically active period of the retiree in 2020, while the net replacement rate generated by Pillar I was 51%.²³⁸ However, gross replacement ration continues to decline.

According to Romania's legislation, starting on 1 January 2011, the standard retirement age is 63 years for women and 65 years for men. These levels will be gradually reached as follow:

- between January 2011 and January 2015, the standard age for the pensioning of women will grow from 59 years to 60 years and for men from 62 years to 65 years;
- at the end of 2015 period retirement age will gradually increase only for women from 60 years to 63 years until 2030.

Early retirement - According to Law no. 263/2010 regarding the public pension schemes (in force since 1 January 2011) claiming early pension is possible as of a maximum 5 years before the standard retirement age, provided the worker has at least eight or more contribution years. The deduction made on early pension payment is fixed at 0.75% for each month (9% per year), which might bring a maximum deduction of 45% from the standard pension. The deduction is applied until the standard age limit is reached.

Pillar II – Funded pensions

Romania's mandatory private pensions system (Pillar II) is based on the World Bank's multi-pillar model. It is a fully funded scheme, with mandatory participation and distinct and private management of funds based on personal accounts and on the defined contribution (DC) philosophy with minimum return guarantees. The minimum return guarantee means that participants will receive at least the sum of contributions, net of fees, at retirement. Each fund has to comply, during the accumulation phase, with a minimum return mechanism that is set quarterly by national regulation and based on average market performance of all funds. Pillar II represents the privately managed mandatory pensions funds or schemes.

The beginning of Pillar II in Romania is connected with three important dates:

- January – July 2007 (Authorizing the administrators),
- 17 September 2007 – 17 January 2008 (Choosing pension fund by participants),
- 20 May 2008 (Collecting the first contributions to Pillar II).

²³⁸ See OECD, 'Pensions at a Glance 2017: OECD and G20 Indicators' (OECD Library, 2017), page 106, https://www.oecd-ilibrary.org/docserver/pension_glance-2017-en.pdf?expires=1533208010&id=id&accname=guest&checksum=D723E9620BBEC45B10FD956DCF9A420A, data accessible here <https://data.oecd.org/pension/net-pension-replacement-rates.htm>.



Pillar II has been mandatory since its inception for all employees paying social security contributions under the age of 35 and voluntary (optional) for employees aged 35 to 45.²³⁹

Contribution collection is centralized by CNPP (The National House of Public Pensions), which collects and directs the contributions towards the mandatory pension funds.

A participant contributes during his active life and will get a pension when reaching the retirement age of 65 for men and 63 for women. The starting level of contribution was at 2% of the participant's total gross salary and it should go up by 0.5 percentage points a year, to reach 6% of total gross revenues in 2017. However, these values were never reached and the value for 2019 3.75 p.p. The contribution level is fixed, with no possibility to contribute less or more based on individual preferences.

The contributions to a pension fund are recorded in individual personal pension account. The savings are invested by the pension fund administrator, according to the rules and quantitative limits generally set by the law regulating Pillar II vehicles.²⁴⁰ Participants can choose only one pension fund.²⁴¹

Mandatory pension funds are managed by their administrators - Pension Management Companies (PMCs). Each PMC can manage only one mandatory pension fund. Mandatory pension funds operations are similar to the investment funds. PMC must obtain several licenses from Romania's pension market regulatory and supervisory body, which is the Financial Supervisory Authority (in Romanian, *Autoritatea de Supraveghere Financiară*, 'ASF').

The ASF is in charge of control, regulation, supervision and information about private pensions as an independent administrative authority and legal entity under the control of the Romanian Parliament.

Withdrawal from the system is only allowed at the standard retirement age of participants in the private pension system.

Pillar III – Voluntary private pension

Romania's voluntary private pensions system Pillar III is also based on the World Bank's multi-pillar model. It is also a fully funded system, based on personal accounts and on the defined contribution (DC) philosophy. Pillar III represents privately managed supplementary, voluntary pensions.

The beginning of Pillar III in Romania is connected with two important dates:

²³⁹ Article 30 of Law no. 411/2004 regarding the privately managed pension funds.

²⁴⁰ Article 23 defines the guiding principles and rules of conduct the fund administrator must follow, Article 25 defines the quantitative limits on asset allocations and Article 28(1) lists the ineligible investments (Law no. 411/2004).

²⁴¹ Article 31 of Law no. 411/2004.



- October 2006 – May 2007 (Authorizing the administrators),
- May 2007 (Collecting the first contributions to third Pillar).

Participation is open to everybody earning an income, either employees or the self-employed. Contributions are generally made through the employers in case of employees. In case of self-employed, the contributions are sent directly on the accounts managed by pension management companies. The contributions are made by the employee, with the possibility for employers to contribute a share.

Voluntary pension funds as a special purpose vehicle are managed by their administrators - Pension Management Companies (PMCs), Life Insurance Companies (LICs) or Asset Management Companies (AMCs). Each administrator is obliged to establish and operate at least one voluntary pension fund. However, in contrast to Pillar II, administrators can manage as many funds as they wish. A voluntary pension fund operates on a similar basis as investment fund. Pension fund administrators must get several licenses from Romania's Financial Supervisory Authority.

Participants to such a fund contribute during their active life and will get a pension at the age of 60 (both woman and men) if he had accumulated at least 90 contributions. The contribution is limited up to 15% of the participant's total gross income. The contribution level is flexible - it can be decided upon, changed, and even interrupted and resumed.

Pension Vehicles

Pillar II – Funded pensions

As indicated above, each PMC specifically authorized to provide Pillar II savings products in Romania is allowed to manage only one mandatory pension fund. At the introduction of the Pillar II, the total number of authorized administrators (funds) was 18. Consolidation started as early as 2009 and 2010. Currently (end of 2020), there are 7 administrators offering 7 pension funds. The two biggest mandatory pension funds (AZT and NN) serve almost 48% (according to number of participants) or 57% (according to AuM) of the market.

Each PMC is authorized and supervised by ASF. One of the most important conditions imposed on PMC is to attract at least 50,000 participants. ASF withdraws the fund's authorization if the number of participants drops below 50,000 for a quarter.

The structure of savers, assets under management and market share of respective mandatory pension fund (PMC) is presented in a table below.



Table RO2. Pension Management Companies market share in Romania (Pillar II)

Mandatory Pension Fund (PMC)	Assets under management (in €)	Market share based on AuM	Number of participants	Market share based on participants
ARIPI	1,373,764,281	8.90%	789,486	10.35%
METROPOLITAN LIFE*	2,149,012,955	13.93%	1,066,010	13.97%
AZT VIITORUL TAU	3,330,744,792	21.59%	1,611,778	21.12%
BCR	1,057,745,292	6.86%	692,213	9.07%
BRD	602,911,457	3.91%	476,215	6.24%
NN	5,373,765,710	34.83%	2,038,703	26.72%
VITAL	1,539,499,960	9.98%	955,652	12.52%
TOTAL	15,427,444,447	100.00%	7,630,057	100.00%

Source: Own calculation (www.csspp.ro), 2021.

Mandatory pension funds' investment strategy is very strictly regulated. The law imposes percentage limits for different asset classes.

Mandatory pension funds can invest:

- up to 20% in money market instruments;
- up to 70% in State bonds of Romania, the EU or EEA;
- up to 30% in bonds and other transferable securities issued by the local public administrations in Romania, the EU or EEA, traded on a regulated market in RO, EU or EEA;
- up to 50% in securities traded on a regulated market in Romania, the EU or EEA;
- up to 15% in bonds issued by third-party states, traded on a regulated market in Romania, the EU or EEA;
- up to 10% in bonds and other transferable securities issued by the local public administration in third-party states, traded on a regulated market in Romania, the EU or EEA;
- up to 15% in bonds issued by the World Bank, the European Bank for Reconstruction and Development and the European Investment Bank, traded on a regulated market in Romania, the EU or EEA;
- up to 5% in bonds issued by Non-governmental Foreign Bodies, traded on a regulated market in Romania, the EU or EEA;
- up to 5% in units issued by Undertakings for Collective Investment in Transferable Securities – UCITS, including ETF in Romania, the EU or EEA;
- up to 3% in ETC's and equity securities issued by non UCITS set up as closed investment funds, traded on a regulated market in Romania, the EU or EEA;
- up to 10% in private equity - only for voluntary pension funds.

There is no explicitly defined general quantitative limit on equity investments.



Aside from the quantitative restrictions by asset class, fund managers have quantitative limits by type of issuer:

- 10% of the total number of shares issued by one issuer;
- 10% of the preferential shares issued by one issuer;
- 25% of the equity securities issued by an UCITS, ETF, non UCITS closed investment fund or ETC;
- 10% of an issuer's bonds, with the exception of the state bonds.

Mandatory pension funds can invest all their assets abroad. There are no explicit restrictions regarding investments made abroad.

Pension funds can have one of three possible risk profiles, which are calculated on a daily basis according to a formula established by ASF regulations:

- low risk (risk level up to and including 10%),
- medium risk (risk level between 10%, exclusively, and 25%, inclusively),
- high risk (risk level between 25%, exclusively, and 50%, inclusively).

Pillar III – Voluntary private pensions

The Romanian Pillar III allows each administrator (PMC, LIC or AMC) to manage as many voluntary pension funds as they prefer. At its inception, there were only four providers and six voluntary pension funds. Currently (at the end of 2018), there was 8 providers offering 10 voluntary pension funds. Only two administrators (NN and AZT) are currently offering more than one voluntary pension fund.

Each administrator in Pillar III (PMC, LIC or AMC) is authorized by ASF and must get several licenses from ASF. ASF withdraws the fund's authorization if the number of participants drops below 100 for a quarter.

Voluntary pension funds are also constituted by civil contract and authorized by ASF. Accounting of the voluntary pension fund is separated from the administrator.

Investment rules in the voluntary private pension pillar are the same as in the mandatory pillar (see quantitative and restriction limits for different asset classes in the text above), with less strict limits on private equity (5%) and commodities (5%).

The structure of savers, assets under management and market share of respective voluntary pension fund is presented in a table below.



Table RO3. Pension Management Companies market share in Romania (Pillar III)

Risk profile	Mandatory Pension Fund (PMC)	Assets under management (in €)	Market share based on AuM	Number of participants	Market share based on participants
High	AZT VIVACE	23,410,409	3.89%	20,25	3.84%
	NN ACTIV	68,921,281	11.47%	54,887	10.41%
	AZT MODERATO	63,237,093	10.52%	39,684	7.53%
	BCR PLUS	107,164,804	17.83%	139,025	26.36%
	BRD MEDIO	32,576,817	5.42%	33,541	6.36%
Medium	NN OPTIM	256,036,740	42.60%	199,571	37.85%
	PENSIA MEA	19,030,740	3.17%	16,326	3.10%
	RAIFFEISEN ACUMULARE	22,801,816	3.79%	14,731	2.79%
	STABIL	5,965,116	0.99%	5,464	1.04%
	AEGON ESENTIAL	1,946,983	0.32%	3,857	0.73%
TOTAL		601,091,144	100.00%	527,336	100.00%

Source: Own calculation (www.csspp.ro), 2021.

Charges

Pillar II – Funded pensions

According to the Mandatory Pensions Law, the fund manager's income resulted from the administration of privately administrated pension funds are composed of:

- management fees and commissions;
- transfer penalties (covered from personal assets, in case of moving to another fund/PFC earlier than in 2 years – between 3.5% and 5%);
- tariffs for additional information services, in particular:
 - Depositary commission (depository fee);
 - Transaction costs (trading fees);
 - Bank commissions (banking fees);
 - Fund auditing taxes (pension fund auditing fees).

Since 2019, the administration fee is established by:

- a) deducting an amount from the contributions paid, but not higher than 1.0%, before the conversion of contributions into fund units (Management commission), of which 0.5% is transferred to the National House of Public Pensions (Casa Nationala de Pensii Publice; the organization that administers the social insurance program);



- b) Management fee - 0.02% to 0.07% of net assets under management, depending on the fund's rate of return relative to the inflation rate. Before 2019, the maximum monthly management fee was 0.05 percent.

The transfer penalty represents the amount paid by the participant in the event of a transfer to another administrator, occurring within two years of the subscription date to the private pension fund, with the maximum ceiling of this penalty being established by ASF and set at maximum 5% of assets (Norm CSSPP 12/2009 for Pillar II and Norm 14/2006 for Pillar III).

The fund also pays for the annual auditing fee (Fund auditing taxes) and the rest of the fund's expenses (custody, depositary, transaction/trading expenses) must be supported by the pension company (the administrator). The next table compares effective charges of mandatory pension funds in Pillar II over time (calculated via total and net NAV).

Table RO4. Effective annual charges in mandatory pension funds (Pillar II) in %													
Mandatory pension fund	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
ARIPI	1.23	0.86	0.75	0.68	0.63	0.62	0.62	0.63	0.61	0.58	0.63	0.49	0.49
METROPOLITAN LIFE	0.54	0.70	0.65	0.61	0.62	0.60	0.59	0.60	0.58	0.56	0.61	0.59	0.59
AZT VIITORUL TAU	0.56	0.69	0.66	0.60	0.61	0.61	0.60	0.60	0.58	0.56	0.61	0.48	0.47
BCR	1.69	0.93	0.75	0.64	0.63	0.62	0.63	0.61	0.58	0.56	0.62	0.48	0.60
BRD	2.4	1.11	0.87	0.75	0.70	0.62	0.62	0.64	0.60	0.56	0.61	0.47	0.48
NN	0.55	0.62	0.61	0.58	0.62	0.60	0.60	0.60	0.58	0.56	0.61	0.48	0.48
VITAL	0.00	0.58	0.79	0.70	0.65	0.64	0.61	0.61	0.58	0.56	0.61	0.60	0.60
EUREKO	0.36	0.12	0.84	0.60	0.60	0.60						0.00	0.00
PENSIA VIVA	0.12	0.60	0.60	0.60	0.60							0.00	0.00
BANCPOST	8.4											0.00	0.00
KD	5.88	0.60										0.00	0.00
OMNIFORTE	2.4											0.00	0.00
OTP	14.6	6.00										0.00	0.00
PRIMA PENSIE	8.88	6.72										0.00	0.00
TOTAL	0.77	0.70	0.66	0.61	0.62	0.61	0.60	0.60	0.58	0.56	0.61	0.51	0.51

Source: Own calculations based on CSSPP data, 2021 (data as of December 2020)

Pillar III – Voluntary private pensions

According to the Voluntary Pensions Law,²⁴² the administrator shall charge a fee from participants and beneficiaries for the management of a pension fund.

²⁴² Law number 204/2006 concerning voluntary pensions



- The levels of fees shall be established in the pension scheme prospectus and shall be the same for all participants and beneficiaries;
- Participants shall be notified of any change to the fees at least 6 months before it is applied.

The administrator's revenue will come from:

- management commission (up to 5% from the contributions) and management fee (up to 0.2% monthly from total gross assets in pension fund);
- transfer penalties (covered from personal assets, in case of moving to another fund/PFC earlier than in 2 years – 5%);
- fees for services requested by participants:
 - Depository commission (depository fee);
 - Transaction costs (trading fees);
 - Bank commissions (banking fees);
 - Fund auditing taxes (pension fund auditing fees).

Management fees are made up of:

- deduction of a percentage from contributions paid by participants; this percentage cannot be higher than 5% and must be made before contributions are converted into fund units (Management commission);
- deduction of a negotiated percentage from the net assets of the voluntary pension fund; this percentage cannot be higher than 0.2% per month and shall be mentioned in the pension scheme prospectus (Management fee).

A transfer penalty is applicable (paid by the participant) in the event of a transfer to another fund within two years of having joined the previous fund; its upper limit is established by Commission norms. The next table compares effective charges of voluntary pension funds in pillar III over time (calculated via total and net NAV).

Table RO5. Effective annual charges of voluntary pension funds (Pillar III)														
Voluntary pension fund	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
AZT VIVACE	1.05%	1.47%	2.83%	2.83%	2.52%	2.06%	2,00%	1.91%	1.84%	1.74%	1.67%	1.79%	2.14%	2.04%
NN ACTIV	0.04%	1.64%	1.85%	2.38%	2.19%	2.34%	2.14%	2.09%	2.17%	2.1%	1.95%	2.11%	2.04%	2.02%
AZT MODERATO	0.99%	1.83%	2.16%	1.86%	1.66%	1.41%	1.33%	1.28%	1.24%	1.18%	1.13%	1.21%	1.56%	1.51%
BCR PLUS	5.61%	2.38%	2.28%	2.77%	2.44%	2.4%	2.23%	2.27%	2.16%	2.03%	1.97%	2.16%	2.11%	2.07%
BRD MEDIO	0,00%	0,00%	0.85%	1.9%	1.56%	2.86%	2.18%	2.14%	2.2%	2.11%	1.91%	2.18%	2.05%	2.15%
CONCORDIA MODERAT*	0,00%	0,00%	1.47%	1.47%	1.43%	1.46%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0.00%
EUREKO CONFORT*	0,00%	0,00%	0.05%	0,00%	0.18%	0.06%	0.14%	0.07%	0,00%	0,00%	0,00%	0,00%	0,00%	0.00%
NN OPTIM	0.09%	1.58%	1.68%	2.09%	1.97%	2.05%	1.99%	1.97%	2,00%	1.94%	1.85%	2,00%	1.96%	1.95%
PENSIA MEA	3.22%	3.17%	2.85%	2.66%	2.66%	2.7%	2.66%	2.66%	2.64%	2.43%	2.37%	2.56%	2.51%	2.50%



RAIFFEISEN ACUMULARE	0,00%	0.15%	2.93%	2.4%	2.23%	2.15%	2.43%	2.26%	2.47%	2.16%	2.06%	2.19%	2.02%	1.99%
STABIL	0,00%	0,00%	2.26%	1.61%	1.5%	1.65%	1.63%	3.16%	3.71%	3.37%	2.8%	2.99%	2.81%	2.74%
AEGON ESENTIAL	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	1.87%	3.15%	2.99%	3.12%	2.86%	2.73%
BRD PRIMO*	0,00%	0,00%	0.83%	1.57%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0.00%
OTP STRATEG*	708.7 5%	19.1%	3.8%	2.91%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0,00%	0.00%
TOTAL	4.72%	1.91%	2.12%	2.3%	2.09%	2.1%	1.99%	1.99%	2.01%	1.92%	1.83%	1.99%	1.99%	1.98%

Source: Own calculations based on CSSP data, 2021 (data as of December 2020)

*Closed

The year 2020 brought no significant change in effective annual charges, and the Pillar III confirmed that the Pillar III pension funds remain expensive pension vehicles for effective pension wealth building process.

Taxation

Pillar II – Funded pensions

Romania applies an EET system for the taxation of future mandatory accounts. Employee contributions are tax-deductible and investment income on the level of the pension fund is tax-exempt. Pension benefits paid out during retirement will be subject to a personal income tax (10% tax rate) above a certain level.

Pillar III – Voluntary private pensions

The amount of contributions to voluntary pension funds is fiscally deductible from each subscriber's gross monthly wage or any other assimilated revenue if the total amount is not greater than the equivalent in RON of €400 in a fiscal year. The same rule applies to the employer, meaning that the employer can deduct the amount paid to the employee's voluntary pension account up to €400 annually.

The investment returns achieved by the third pillar fund are tax exempt until the moment of payments toward subscribers' start. The pension benefits paid from Pillar III are subject to personal income tax, thus representing an 'EET' regime.

Pension Returns

Pillar II – Funded pensions

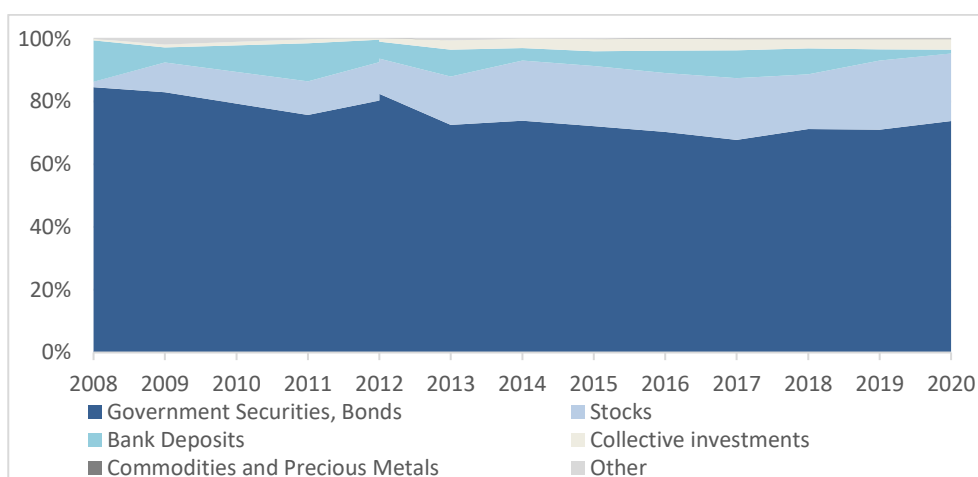
Seven asset managers offer seven mandatory pension funds in Romania. Performance analysis reveals similarities in their investment strategy, implying similarity in the pension funds' portfolio structure.



Romanian mandatory pension funds invest mostly in government securities and bonds asset classes. The second most important asset class (from the portfolio structure point of view) are equities and the third most important are bank deposits. Three other classes have minimal impact on pension fund's performance. The portfolio structure of the Romanian Pillar II is presented below. According to the data available, currently almost 74% of all investments in Pillar II pension funds are bond investments and less than 22% is invested in equities despite relatively young age structure of savers. More detailed data on Pillar II portfolio structure is presented below.

For the purpose of this study, we simplified the portfolio structure to only six main asset classes.

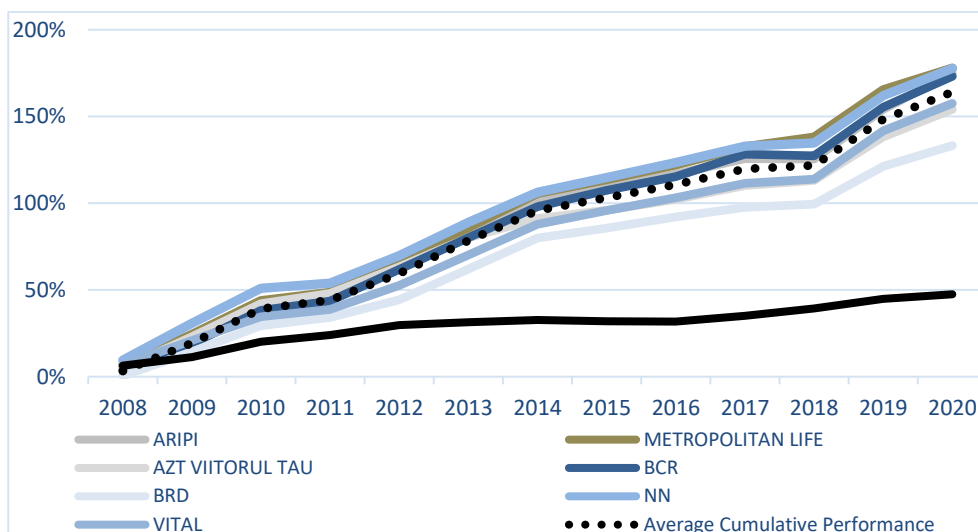
Graph RO1. Portfolio structure of Pillar II mandatory pension funds



Mandatory Pension Funds' performance compared to the inflation index is presented below.



Graph RO2. Pillar II Mandatory Pension Funds – Cumulative Nominal Performance



Nominal as well as real returns of Pillar II pension funds in Romania, weighted by AuM, are presented in a table below.

Table RO6. Nominal and Real Returns of II. Pillar in Romania

2008	-4.10%	-10.47%
2009	11.64%	6.94%
2010	14.34%	6.39%
2011	1.76%	-1.42%
2012	7.53%	2.97%
2013	10.82%	9.50%
2014	8.63%	7.59%
2015	2.75%	3.43%
2016	3.42%	3.51%
2017	1.58%	-1.00%
2018	0.95%	-2.07%
2019	9.10%	5.05%
2020	4.39%	2.59%

Nominal return
after charges,
before inflation
and taxes

5.48%

Real return
after charges
and inflation
and before
taxes

2.41%

Source: Own calculation (www.csspp.ro), 2021.



To indicate the evolution of annualized performance (nominal as well as real) of Pillar II pension funds in Romania based on different holding periods, see the summary table below.

Table RO7. Nominal and Real Returns of II. Pillar in Romania		
Holding Period	Net Nominal Annualized Performance	Real Net Annualized Performance
1-year	4.39%	2.59%
3-years	4.76%	1.81%
5-years	3.85%	1.58%
7-year	4.36%	2.68%
10-years	5.04%	2.95%
Since inception	5.48%	2.41%

Source: Own calculation (www.csspp.ro), 2021.

In general, we can confirm very similar performance of all provided pension funds, which lead us to a question of real competition and adjustment of the portfolio structure towards the length of the saving (holding) horizon.

Pillar III – Voluntary private pensions

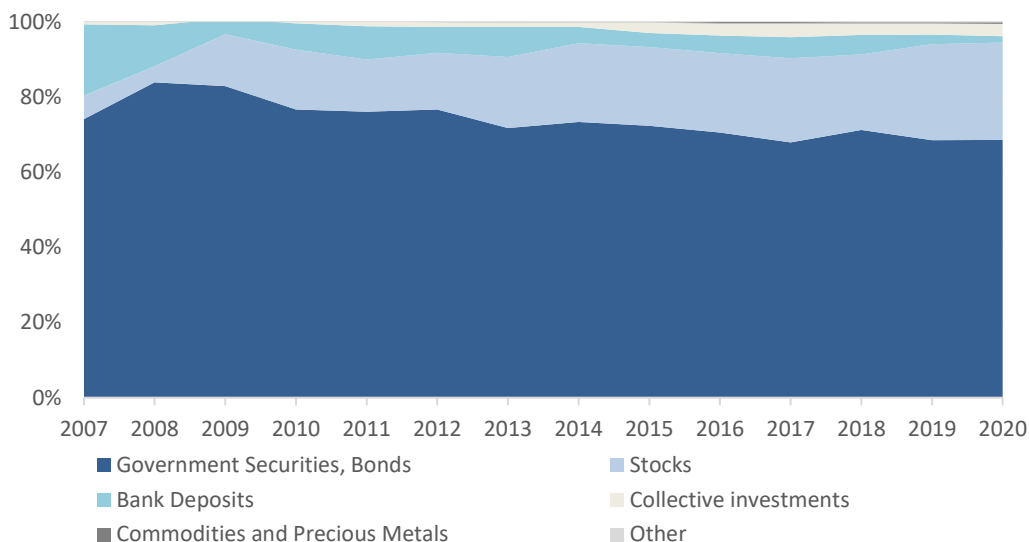
The eight asset managers offer 10 voluntary pension funds in Romania. AZT and NN are the only providers which offer two voluntary pension funds. The performance of all pension funds shows the same finding as with Pillar II mandatory pension funds - there is similarity in voluntary pension funds' investment strategy. Performance results also imply a similarity in pension funds' portfolio structure.

Analysing the portfolio structure of voluntary pension funds based on CSSPP data, we can conclude that most of the performance is tied to the Government Securities and Bonds asset classes. The second most important asset class (from the portfolio structure point of view) is equities and the third most important is bank deposits. The three other classes have minimal impact on pension fund's performance results.

Portfolio structure of Romanian Pillar III voluntary pension funds is presented below. According to the data for 2020, around 69% of all investments in Pillar III pension funds are bond investments and about 29% is invested in stocks and collective investment vehicles (UCITS funds). Overall, Pillar III portfolio structure is very similar to that of Pillar II over the whole analysed period. The difference in the performance could therefore be devoted to the negative impact of fees, which are significantly higher in Pillar III.



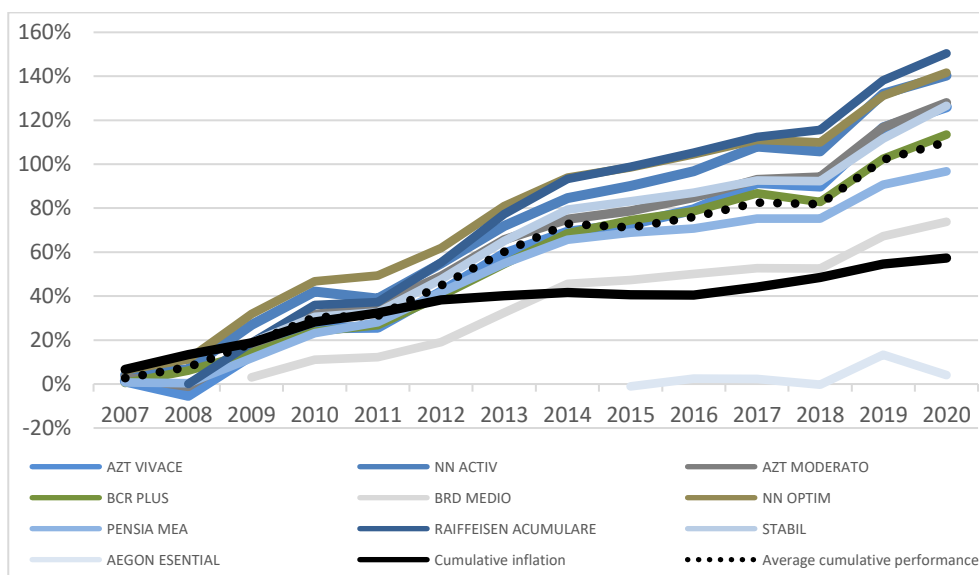
Graph RO3. Portfolio structure of Pillar III voluntary pension funds



Source: Own calculation (www.csspp.ro), 2021

All voluntary pension funds' performance on a cumulative basis compared to the inflation index is presented in the graph below.

Graph RO4. Voluntary Pension Funds – Cumulative Nominal Performance



Source: Own calculation (www.csspp.ro), 2021



Nominal as well as real returns of voluntary pension funds in Romania, weighted by AuM, are presented in a summary table below.

Table RO8. Nominal and Real Returns of III. Pillar in Romania

2007		-12.09%		-18.75%	
2008		-9.26%		-15.64%	
2009		9.31%		4.61%	
2010		10.47%		2.52%	
2011		0.14%		-3.03%	
2012	Nominal return after charges, before inflation and taxes	6.96%	2.56%	2.40%	-0.85%
2013		10.70%		9.39%	
2014		7.20%		6.16%	
2015		1.61%		2.29%	
2016		2.57%		2.66%	
2017		1.30%		-1.29%	
2018		-0.76%		-3.78%	
2019		8.04%		3.99%	
2020		2.79%		0.99%	

Source: Own calculation based on www.csspp.ro, 2021

To indicate the evolution of annualized performance (nominal as well as real) of Pillar III voluntary pension funds in Romania based on different holding periods, see the summary table below.

Table RO9. Nominal and Real Returns of Pillar III (Voluntary Pension Funds) in Romania

Holding Period	Net Nominal Annualized Performance	Real Net Annualized Performance
1-year	2.79%	0.99%
3-years	3.29%	0.35%
5-years	2.75%	0.48%
7-year	3.21%	1.53%
10-years	3.99%	1.91%
Since inception	2.56%	-0.85%

Source: Own calculation based on www.csspp.ro, 2021



Methodological note

The nominal gross, net, and real net returns for the Romanian mandatory and supplementary pension funds (Pillar II and Pillar III) differ from the last editions of the Pensions Report. This is due to the fact that the contributors have recalculated the returns using the RON/EUR conversion rate for each particular year. In the previous editions, the performance computations were calculated first in the local currency (RON) - based on the net asset value of the units, as reported by the Financial Supervisory Authority. Then, the annual performance of the entire sector (occupational/mandatory and voluntary/supplementary) were calculated as a weighted average of each pension fund's return, based on the market share it held within each sector (calculated as the ratio between its NAV and the total NAV of the sector).

However, following agreements to refine the methodology, the computations should be converted into EUR, in order to ensure comparability. Thus, for this edition, the contributors have converted the unit value of each pension fund from RON into EUR. As such, the fund performances were recalculated already into EUR (not in RON, as in the previous studies) using the formulae.

Conclusions

Romania's population is rapidly decreasing and aging, which – unless they adopt the necessary reforms - will lead to the explosion of the demographic bomb in a few decades. That is why Romania introduced the private pensions system in 2007, which is based on the model tested and recommended by the World Bank. The multi-pillar private pensions system includes Pillar II (mandatory schemes) and Pillar III (voluntary schemes).

In the public PAYG pensions system, the state collects contributions from employees and redistributes the money among existing pensioners. Demographics show that this redistribution logic is no longer viable, as contributors' numbers will fall, and the number of pensioners is already going up. The departure from this dilemma takes the form of the private pensions system, allowing each active person to save for their own future retirement.

Romanian pillar II is a fully funded system based on personal accounts and on the defined contribution (DC) philosophy. Pillar II is mandatory for all employees aged under 35 years and voluntary (optional) for employees aged 35 to 45. The starting level of contribution was set at 2% of the participant's total gross income and increases by 0.5 percentage points annually until it reaches 6 of total gross income in 2017. However, this level has not been reached, and the contribution system has inversed.

Mandatory pension funds are managed by their administrators - Pension Management Companies (PMCs). Each PMC is obliged by respective law to administrate and manage just one mandatory pension fund. Currently, there are seven PMCs managing seven mandatory funds on the Romanian Pillar II market. The market is dominated by two PMCs (AZT and NN).



Romanian pillar III is also a fully funded system based on personal accounts and on the defined contribution (DC) philosophy. Pillar III represents privately managed supplementary pensions. This system is opened to all income cohorts. The tax advantage contribution is limited to 15 of participant's total gross income.

Voluntary pension funds in Pillar III are managed by their administrators - Pension Management Companies (PMCs), Life Insurance Companies (LICs) or Asset Management Companies (AMCs). Each administrator is obliged to establish and operate at least one voluntary pension fund. Currently, there are eight providers offering 10 voluntary pension funds. Pillar III market is fairly concentrated, where three dominant players cover almost 90 of the market.

Mandatory as well as voluntary pension funds' investment strategy is strictly regulated. The law imposes percentage limits and restrictions for different asset classes. It must be noted that investment rules in mandatory and voluntary system are very similar. This fact logically causes implications on portfolio structure, thus also on performance of mandatory and voluntary pension funds in Romania. Currently about 70% of all investments in Pillar II as well as Pillar III pension funds are bond investments (Romanian Government Money market instruments and Bonds) and only about 22 is invested in equities, which could raise a question about suitability of portfolio structure with regard to the age structure of savers.

Overall, the real return of pension funds in Pillar II as well as Pillar III are positive and well above the inflation. However, considering the fee structure, Pillar II savers are better positioned as the charges are almost 5-times lower than the fees applied in Pillar III.

Policy considerations

We strongly advise Romanian public authorities to not destroy the private managed pensions system, considering that for 11 and, respectively, 12 years privately managed pension schemes in Romania have functioned quite well and returned performances above inflation. However, considering the "lucky timing" of their start, i.e., after the market downfall of the 2008 crisis, some may argue that Romanian private pension plans must pass a market correction to prove their resilience. Therefore, these policy considerations are forward looking and meant to further enhance this system.

First, bearing in mind the general and constant research results on the correlation between cost and performance in investment funds, one consideration would be to further cap the total costs for privately managed occupational pension funds (Pillar II).

Second, considering the concentrated market for Pillar II funds and the fact that enrolment is mandatory, the Romanian public authorities should consider including a mandatory minimum rate of return for these plans (e.g., inflation + 1%), in order to ensure that this well performing track record is maintained.



Last, Romanian citizens should be further incentivised through financial education and fiscal stimulants to increase their savings rate into voluntary pension plans (Pillar III).

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Pension Savings: The Real Return

2021 Edition

Country Case: Slovakia

Zhrnutie

Slovenský dôchodkový systém je typickým modelom Svetovej banky založenom na viac-pilierovom (troj-pilierovom) systéme s individuálnymi (osobnými) účtami sporiteľov. V roku 2019 došlo výrazným zmenám v I. pilieri, ktoré boli motivované politickým populizmom pred voľbami. Do dôchodkového systému bol ústavným zákonom zapracovaný dvojpilierový systém a zároveň strop dôchodkového veku. V roku 2020 boli očakávané výrazné reformné zmeny v I. pilieri, ktoré by mali zvýšiť finančnú stabilitu I. piliera a vyriešiť problémy v nastavení súkromných dôchodkových schém. Avšak navrhnuté zmeny skôr pokračujú v trende dôchodkového populizmu bez výraznejšej snahy o vytvorenie stabilného dôchodkového systému.

Summary

The Slovak pension system is a typical World Bank model based on a multi-pillar (three-pillar) system with individual (personal) accounts of savers. In 2019, there were significant changes in Pillar I, which were motivated by political populism before the elections. The two-pillar system was incorporated into the pension system by a constitutional law, as well as a ceiling on the retirement age. Significant reform changes to Pillar I were expected in 2020, which should increase the financial stability of Pillar I and resolve problems in the set-up of private pension schemes. However, the proposed changes are more likely to continue the trend of pension populism without any significant effort to create a stable pension system.

Introduction

The Slovak old-age pension system is based on the multi-pillar approach, which consists of three main pillars:

- Pillar I – State pension organized as a mandatory Pay-As-You-Go (PAYG) scheme;
- Pillar II – Funded pension organized as voluntary funded DC based scheme; and
- Pillar III – Supplementary pension organized as a voluntary individual pension DC based scheme.

The Slovakian pension reform started in 1996 with the introduction of Pillar III, which at that time (and until 2009) was organized as voluntary pension pillar offering life insurance contracts and as



an occupational pillar as well. Since July 2009, the system was changed to funded saving schemes and voluntary Pillar III pension funds are offered to the savers (members). The organization of Pillar III started to become more personal with the financial support of employers.

The World Bank's approach has been fully implemented by introducing Pillar II at the beginning of 2005, and, from a terminological point of view, it should be called the "1bis pillar", as individual retirement accounts are funded via partial redirection of social security contributions on individual pension savings accounts.

For a person who works a full career (42 years) and retires in 2018, the main income stream derives from the PAYG (Pillar I) pension scheme. On average, the individual replacement ratio of such a person could reach 50% of his gross salary. If the person would have participated since 1996 in Pillar III and contributed on average 3% of his salary into a Pillar III pension scheme, having also entered Pillar II (1bis pillar) in 2005, his income stream during retirement would have been slightly different and his replacement ratio would have been a little higher than 50%. However, still more than 90% of the retirement income stream is provided via the PAYG scheme (Pillar I), around 5% from Pillar II (1bis pillar) and 5% from Pillar III.

Introductory Table - SK Pension System Overview		
Pillar I	Pillar II	Pillar III
State pension (almost 100% coverage) - Mandatory (PAYG)	Occupational pensions - Mandatory DC (funded schemes) - coverage 60%	Individual pensions - Voluntary fully funded DC - coverage 27%
Managed by the Social Insurance Company	Managed by Pension Asset Management Companies	
Contribution rate: 14% (employer) and 4% (employee); Gross replacement rate: 51.48% Average pension: €455	Contribution rate: 4.50%; 17 pension funds offered	15 pensions funds offered
Quick facts		
Retirement age – 62.4 years		
A relatively high old-age dependency ratio of 24.65% in 2020		
Aggregate replacement ratio for pensions (excl. social benefits), total, 2019 of 53%		
<i>Source: authors' composition</i>		



Pillar I – State Pensions

Pillar I is a state organized Pay-As-You-Go (PAYG) pension scheme, managed by the State Social Insurance Company. Pensions are funded on an ongoing basis and benefits are calculated based on the number of insured years and paid contributions. The PAYG principle of financing is supplemented by the redistribution principle, where the lowest income groups receive higher replacement ratios and higher income groups (due to the solidarity mechanisms) receive lower replacement ratios.

Pillar I is closely connected to the economic activity and income of the citizens. This pillar is financed by contributions of economically active individuals, amounting to 12.50% (18% if the saver is not participating in Pillar II) of their base income (gross salary). These contributions are directed to the Social Insurance Company, which distributes the allowance to the beneficiaries (current pensioners).

Although Pillar I is a typical PAYG scheme, it has many NDC (notional defined contribution) scheme features with a certain income solidarity element. The old-age pension of the insured person depends on three parameters:

1. The insurance period (number of insured years with active contribution);
2. The average personal wage point (a ratio representing the contribution base of an individual is compared to the average salary in Slovakia); and
3. The value of the pension unit (this value is annually defined by the Slovak Government to mimic the increase in the average salary in Slovakia).

However, an individual is entitled to an old-age pension only after the statutory retirement age is reached. The pension insurance is comprised of two independent, separately funded sub-schemes managed by the Social Insurance Agency:

- the old-age pension insurance: insurance to secure income in retirement and in the event of death; and
- the disability insurance: insurance in the event of a reduced ability to work due to long-term illness of the insured and in the case of death.

Pension insurance is mandatory; statutory insurance and participation in this scheme is a legal obligation for all eligible persons. However, the Act on Social Insurance also enables voluntary pension insurance participation.

The basic pension insurance parameters that make up the content of the benefit scheme and affect the entitlement to individual pension benefits are: the insurance period, the average personal wage point, the value of pension unit and the retirement age, defined as follows:



- **Number of insured years (insurance period):** given by the number of working years of an individual during which social insurance contributions were paid;
- **Average personal wage point (APWP):** determined as the ratio of the sum of personal wage points calculated for each calendar year of the reference period and the period of pension insurance in the relevant period. The average personal wage point shall be rounded up to four decimal points;
- **Value of pension unit:** the monetary value of one personal wage point. The pension value is adjusted on 1 of January each year through indexation, which is determined as the ratio of the average wage calculated in the third quarter of the previous calendar year and the average wage calculated in the third quarter of the calendar year two years preceding the calendar year on which the pension value is calculated. This way the determined pension value is always valid from 1 January to 31 December of the calendar year. The current pension value, which is used to calculate pension benefits, is the pension value valid at the time of a claim for payment of the pension benefits;
- **Retirement age** – 62 years and 8 months in 2020, valid for both men and women. However, the automatic mechanism of retirement age adjustment has been abandoned in 2019 and replaced with the constitutional ceiling of retirement age at 64 years for men. For women, the retirement age is lower and depends on the number of raised children. For each raised child the retirement age is lowered by 6 months up to 3 children. The new constitutional ruling that passed the Parliament in 2020 removes the ceiling on retirement age.

To illustrate the calculation of an old-age pension, let us assume that an individual has the following individual parameters and reached the statutory retirement age of 62.4 years in 2018:

1. Number of insured years (N) = 42 (full working career);
2. Average personal wage point (APWP) = 1 (for the entire working career, an individual has been earning on average 100% of average salary in Slovakia)
3. Value of pension unit (VPU) = € 13.6361 (for persons retiring in the year 2020).

The old-age pension is then calculated using the following formula: $N \times APWP \times VPU$.

Therefore, considering the abovementioned individual parameters of a person claiming old-age pension, he/she will be entitled to a monthly pension equal to: $42 \times 1 \times €13.6361 = €573$.

If an individual has earned on average 100% of an average salary during his entire working career and the average salary in 2020 was €1,113, then the gross individual replacement ratio of such an individual would be: $€573 / €1,113 = 51.48\%$.

Pillar II – Funded pensions

The Slovak Pillar II was established as a defined contribution (DC) pension saving scheme in 2005. Since September 2012, the enrolment is fully voluntary (until September 2012 it was a mandatory



one) and eligible for persons up to 35 years of age. The principle of funded pension is based on the accumulation of savings during employment and investing savings in financial markets via special purpose vehicles - pension funds, which are managed and administrated by Pension Fund Management Companies (PFMCs), licensed by National Bank of Slovakia.

The role of old-age pension saving, along with old-age social insurance (Pillar I), is to ensure retirement income for savers and their survivors in the case of his/her death.

The Pillar II market is fairly concentrated. Each saver can choose one out of six currently existing providers (PFMCs) on the Slovak market. The PFMCs are private joint-stock companies with a minimum capital requirement of €10 million and established in the territory of the Slovak Republic. Their exclusive business is the creation and administration of pension funds. As a further condition, they must attain at least 50,000 members within a period of 18 months from the establishment of the pension fund.

According to the applicable law (the Act on Old-Age Saving), each PFMC is obligated to operate at least two pension funds. We can divide these pension funds into two main groups:

1. Bond guaranteed pension fund (guaranteed scheme);
2. Equity non-guaranteed pension fund (non-guaranteed scheme).

Each PFMC is free to choose (mostly based on their business model) whether it operates additional pension funds, which are optional. These legislative changes entered into force on 30 April 2013. Before this date, each PFMC had to operate three (respectively four) obligatory pension funds:

1. Bond (Conservative) pension fund (since March 2005);
2. Mixed (Balanced) pension fund (since March 2005);
3. Equity (Growth) pension fund (since March 2005);
4. Index pension fund (since April 2012).

After the legislative changes became effective in May 2013, mixed and index pension funds became optional, and some of PFMCs merged these pension funds with obligatory Equity non-guaranteed pension funds. It is important to say that the first three categories of pension funds are (from an asset management point of view) actively managed pension funds, and Index pension funds are the only funds managed entirely passively. However, changes in the fee policy (strictly regulated) forced providers to change the investment strategy of pension funds towards being passively managed using mostly ETFs as main financial instruments.

PFMCs are subject to a variety of regulations. The Old-age Pension Savings Act defines the range of allowed investment instruments and sets maximum limits for portfolio allocations (quantitative limits). Investment procedures and valuation of investments (daily at market prices) are also regulated. Thus, each category of pension funds has their own investment strategy, as well as



general or special quantitative limits and operating conditions. PFMCs and managed pension funds are supervised by the National Bank of Slovakia.

Pillar II as a voluntary DC scheme allows savers to enter the system whenever they wish before the age of 35. In general, pension fund members (Pillar II savers) are free to choose one or two of the aforementioned pension funds provided by the same PFMC.

Each saver has an individual retirement account (IRA). His contributions (savings) are redirected from the Social Insurance Company to the chosen PFMC on his IRA at a rate of 4% of gross salary. However, since 2017, the contributions have started to increase from 4% to 4.25% and will continue to grow by 0.25% annually until they reach the final level of 6% in 2024.

With the possibility to save in one or two pension funds at the same time, it is completely up to a saver how much of his own savings would be invested in one pension fund or another. He can invest, for example, 70% in a Bond guaranteed pension fund and another part (30%) in an Index non-guaranteed pension fund. There is no fee or charge to change this allocation ratio or switch pension funds managed by the same PFMC - even on a daily basis. Switching providers (PFMCs) for free is possible for savers if the change is made after one year, otherwise a fee of €16 is applied.

The reform of the pay-out phase, introduced in 2015, stipulates the following types of pension products that are allowed for the pay-out phase:

1. single annuity (for most cases) with guaranteed payment period for 84 months;
2. single indexed annuity;
3. single annuity with survivorship benefits (for up to 2 years);
4. programmed withdrawal (phased withdrawal);
5. perpetuity (withdrawal of only annual gains).

Products 1, 2 and 3 are provided by insurance companies, products 4 and 5 by PFMCs.

The year 2019 brought an introduction of Pension Benefit Statement with pension benefits projections also into the II. pillar. The providers are obliged to send the pension benefit statements to all savers since January 2021.

Pillar III – Supplementary pensions

The Supplementary pension is a voluntary funded DC-based pension saving scheme in which the funds of the participants are administered by Supplementary Pension Fund Management Companies (SPFMCs). The SPFMCs are private joint stock companies established under the Slovak law and able to only provide services tied to the management of supplementary pension funds. SPFMCs and their supplementary pension funds are supervised and regulated by the National Bank of Slovakia.



The purpose of supplementary pension saving is to allow participants to obtain supplementary pension income in old-age and the whole Pillar is mostly oriented towards employers and their employees. However, the coverage ratio is rather low (27% in 2020).

Currently there are four providers (SPFMCs) operating on the market, which could be considered concentrated. Each SPFMC is obliged by law to operate at least one contributory and one “pay-out” supplementary pension fund. The legislation does not determine specific types of contributory pension funds; however, we can divide all existing contributory pension funds according to the portfolio structure into 3 main groups:

- Conservative supplementary pension funds (no equity investments);
- Balanced supplementary pension funds (small portions of equity investments);
- Growth supplementary pension funds (highest portions of equity investments).

Company “NN” and later on “Axa” have launched the first passively managed equity fund within the Pillar III. There are no specific investment restrictions regarding asset classes in supplementary pension funds, but there are some general quantitative limits to restrict the concentration risk of the fund.

The following benefits are paid from the supplementary pension saving upon the completion of the saving period:

- supplementary old-age pension in the form of lifelong or temporary supplementary annuity;
- supplementary pension in the form of programmed withdrawal;
- lump-sum settlement;
- redundancy pay.

Pension Vehicles

Pillar II – Funded pensions

There are five providers - Pension Asset Management Companies (PFMCs) - operating on the market. In 2019, the NN bought the Aegon. According to the Assets under Management (AuM) measure, the two biggest, Allianz Slovenska and AXA, represent nearly 60% of the market. More details on the market share of particular providers are presented in the table below.



Table SK1. Pension Asset Management Companies market share (Pillar II)

Pension Fund Management Company	Assets under management (in millions €)	Market share based on AuM
Allianz – Slovenska	3,166.46	30.63%
AXA	2,747.12	26.58%
DSS Postovej banky	559.28	5.41%
NN (ING before 2015)	1,998.84	19.34%
VUB - Generali	1,864.94	18.04%
TOTAL	10,336.64	100.00%

Source: Own calculations based on oranzovaobalka.sk data, 2021 (data as of 31 December 2020)

The table below (Table SK2) presents the market share of Pillar II pension funds according to their dominant investment strategy and asset allocation. The dominant part of savings is allocated into bond pension funds that invest conservatively and mainly in short-term bonds.

Table SK2. Pillar II Market share by group of pension funds

Scheme	Type of voluntary pension fund	Assets under management (in millions €)	Market share based on AuM
Guaranteed PFs	Bond guaranteed pension funds (5) - <i>obligatory</i>	7,110.46	68.79%
	Mixed nonguaranteed pension funds (2) - <i>optional</i>	114.17	1.10%
Nonguaranteed PFs	Equity nonguaranteed pension funds (5) - <i>obligatory</i>	1,418.18	13.72%
	Index nonguaranteed pension funds (5) - <i>optional</i>	1,693.82	16.39%
TOTAL	17 Pension funds	10,336.64	100.00%

Source: Own calculations based on oranzovaobalka.sk data, 2021 (data as of 31 December 2020)

The increase in assets under management was caused mainly by the stabilization of the market and higher returns of Index pension funds. We see increased number of savers, who mix two funds on their individual retirement savings accounts.

However, the structure of investments does not match the age profile of Slovak savers and thus increases the risk of lower replacement ratio for most of the savers in the future. After the Governmental intervention in 2013, the number of savers in equity pension funds has dropped significantly. Currently, still 72% of all savings in Pillar II are allocated into the Bond guaranteed pension funds and it does not correspond to the age profile of savers. This fact might cause more problems and increase the political risk in the future, as many savers still believe that they save in equity pension funds.

Asset allocation of Pillar II pension funds is regulated by law (Act on Old-Age Saving), laying down the general quantitative investment limits on all pension funds – for example:



- max. 3% of AuM into one financial instrument (does not apply on bond investments or in case of passively managed pension funds);
- max. 10% of AuM into one UCITS fund;
- max. 15% of the whole pension fund portfolio into one issuer (does not apply on bond investments or in case of passive managed pension funds);
- bond investments must have investment grade rating (does not apply in case of passively managed pension funds).

Pillar II savers can choose from two main types of obligatory and two types of optional voluntary pension funds.

Obligatory - Bond guaranteed pension funds are actively managed pension funds and are obliged to invest 100% of the assets into bonds, money market instruments, deposits, investment funds in which assets must be invested in the above securities and deposits and other similar assets. Bond guaranteed pension funds are not allowed to invest in equities and real estate, nor respective investment funds. This conservative strategy focuses on bonds, and its objective is the preservation of capital and moderate growth primarily on shorter horizons. Bond guaranteed pension funds are obliged to hedge at least 95% of the whole portfolio against currency exposure. That means that if the pension fund allocates the assets into the financial instruments that are denominated in a currency other than Euro, fund managers must open the position (usually swaps or other hedging instrument) that fixes the value of such investment in Euro.

Obligatory - Equity non-guaranteed pension funds are actively managed pension funds and proceed in investing in different types of assets from the objective under quantitative limits:

- up to 80% of the assets of the funds can be invested in equities, equity funds and other instruments similar to equity;
- at least 20% of the whole portfolio has to be hedged against currency risks;
- max. 20% of the whole portfolio can be invested in precious metals.

Optional - Mixed non-guaranteed pension funds are actively managed pension funds and they invest in different types of assets, according to their objective and under general quantitative limits. There are no specific limitations applicable.

Optional - Index non-guaranteed pension funds, introduced in April 2012, are the only passively managed pension funds in Slovak pillar II. There are no general nor specific quantitative limits, because of the nature of investing. Slovak Index non-guaranteed pension funds track respective stock market benchmarks (such as MSCI World, Eurostoxx 50, MSCI ACWI, MSCI Euro).



Pillar III – Supplementary pensions

There are four providers – Supplementary Pension Fund Management Companies (SPFMCs) – operating on the market. According to Assets under management, the two biggest, NN and DDS Tatra banky, represent nearly 70% of the whole market.

DDS Tatra banky has introduced TDFs (target date funds) in 2015, with the aim to provide age specific investment strategy for its members saving for retirement in Pillar III pension vehicles.

Table SK3. Pillar III Supplementary Pension Companies market share

Supplementary Pension Company	Assets under management (in millions €)	Market share based on AuM
DDS Tatra banky	838.91	31.38%
AXA (<i>UNIQA since 2021</i>)	398.79	14.92%
NN	1,039.20	38.87%
STABILITA	396.37	14.83%
TOTAL	2,673.27	100.00%

Source: Own calculations based on oranzovaobalka.sk data, 2021 (data as of 31 December 2020)

Under the law, each SPFMC must operate at least two types of pension vehicles for supplementary pension (Pillar III):

1. contributory pension fund; and
2. “pay-out” pension fund.

Although the law does not determine specific types of contributory pension funds, we can divide all existing contributory pension funds according to the portfolio structure into three main groups:

- Conservative supplementary pension funds (no equity investments);
- Balanced supplementary pension funds (small portions of equity investments);
- Growth supplementary pension funds (higher portions of equity investments).

For supplementary pension funds, there are no special investment restrictions regarding asset classes, but there are some general quantitative limits, i.e., no more than:

- max. 5% of AuM in one financial instrument;
- max. 30% of AuM in securities and money market financial instruments from one issuer (does not apply to instruments issued by the EU Member States);
- max. 35% of AuM in securities and money market financial instruments issued by the EU Member State, the EU, ECB, MMF or World bank;
- max. 20% of AuM in one standard mutual fund (UCITS compliant);
- max. 10% of AuM in one alternative investment fund (AIF);
- max. 40% of AuM in mutual funds.



Table SK4. Supplementary Pension vehicles market share by group of funds

Type	Supplementary pension vehicles	Assets under management (in millions €)	Market share based on AuM
Contributory	Conservative supplementary pension funds (4)	830.40	31.06%
	Balanced supplementary pension funds (2)	1,073.71	40.16%
	Growth supplementary pension funds (9)	672.84	25.17%
PAY-OUT	Pay-out supplementary pension funds (4)	96.32	3.60%
TOTAL	19 Pension funds	2,673.27	100.00%

Source: Own calculations based on oranzovaobalka.sk data, 2021 (data as of 31 December 2020)

In general, the Pillar III scheme covers less than 27% of economically active population, while only 70% of them actively contribute to the scheme. At the same, most of the retirement savings are directed into balanced supplementary pension funds, which apply rather conservative investment strategy with limited long-term investments.

Charges

Pillar II – Funded pension

Charges are highly regulated and capped in the Pillar II scheme by the Old-Age Pension Saving Act.

PFMCs can apply the following types of charges at the expense of the pension funds:

- Management fee (as percentage of NAV in respective pension fund);
- Performance fee (as percentage of new highs reached in performance of respective pension fund –High Water Mark²⁴³ ‘HWM’ principle);
- Administration fee - Administration of Personal pension account (as percentage of new contributions);
- Depository fee (as percentage of NAV in the respective pension fund); and
- Other charges (mostly trading charges).

It must be mentioned that on top of these charges, each saver in Slovak Pillar II also has to pay an Administration fee to the Social Insurance Company that administers the central collection system, central information, and offering system for annuities. The Social Insurance Company collects the

²⁴³ Slovak legislation defines the HWM method for calculating the success fee as a comparison of new highs of respective pension fund to its historical performance achieved 3 years ago. If today's closing price is higher than historical highs achieved 3 years ago, the provider has the right to charge 10% success fee from the difference between today's pension unit price and highest historical price. If the difference is negative no success fee can be charged.



social security contributions and transfers part of savers' contributions to his personal pension account managed by the Pension Asset Management Company.

The following table compares applied charges in Pillar II.

Table SK5. Pillar II Pension Funds' Fees		
Fee type	Since 2005	as of 31 December 2020
Management fee (for PFMC)	max 0.8% p.a., NAV	max 0.3% p.a., NAV (since 1 April 2012)
Success Fee (for PFMC)	max 5.6%, HWM	max 10%, HWM (since 1 July 2013)
Administration of Personal pension account (for PFMC)	1% of new contribution	1% of new contribution
Administration fee (for Social Insurance Agency)	0.50% of new contribution	0.25% of new contribution (since 1 January 2013)

Source: Own research, data as of 31 December 2020

Pillar III – Supplementary pensions

Charges in Pillar III are capped by law. Supplementary Pension Fund Management Companies are (since 1 January 2014) allowed to apply the following types of charges:

- Management fee (as percentage of AuM in a respective supplementary pension fund),
- Performance fee (as percentage of new highs reached in performance of a respective supplementary pension fund – High Water Mark principle),
- Depository fee (as percentage of AuM in a respective pension fund),
- Other charges (Switching fee).

The Following table compares charges applied in the Pillar III.

Table SK6. Supplementary Pension Funds' Fees		
	Since 2009	Since 1 January 2014
Management Fee		
1. contributory SPF	max 2,5% NAV (2010) => max 1,98% (2019+)	max 1,2% NAV
2. payout SPF	max 0,996% NAV	max 0,6% NAV
Success Fee		
1. contributory SPF	max 10% (2010) => max 20% (2020+); HWM principle	max 10%; HWM principle
2. payout SPF		0%
Switching Fee	0% more than 3 years	0% more than 1 year / max 5% less than 1 year
Early Exit Fee	20% (5% SPC + 15% SPF)	0%

Source: Own research based on Supplementary pension saving Act, data as of 31 December 2020



Taxation

The Act on Income Tax recognizes two different of income tax rates in Slovakia that apply to pension saving schemes.

Personal income tax rate has been set at 19% since 2005. Since 2013, there is higher tax rate of 25% for higher earners, whose monthly income in 2020 was higher than €3,097 (around 6% of working population in 2020).

Corporate income tax rate for 2020 was 21%.

Pillar II – Funded pensions

Pillar II should be viewed as a 1bis pension pillar that is basically a derivate of the basic old-age security scheme, as a part (5% in 2020) of the overall (18%) old-age social insurance contributions are diverted from a PAYG pillar into funded DC scheme. Understanding this principle, Pillar II taxation is similar to the PAYG pillar, meaning that an “EEE” taxation regime is applied.

Taxation of contributions

Contributions paid to Pillar II are tax deductible. However, a saver can add voluntary contributions on top of the 5% contributions redirected from PAYG pillar. Since 2017, voluntary contributions on top of redirected social insurance contributions are subject to the personal income tax (19%) as well as social and health insurance. Thus, the “T” regime applies for voluntary contributions.

Taxation of the Fund

Fund returns are not subject to Slovak income taxes at the fund level.

Taxation of pay-out phase income

Income generated via purchased pillar II pay-out phase products (annuity, perpetuity, programmed withdrawal) are not subject to personal income tax. In case of heritage, the amount the successor receives as inherited (accumulated) savings is not subject to personal income tax.

Thus, we can say that for Pillar II the “EEE” taxation regime applies in general. However, for voluntary contributions, the “TEE” regime applies.

Pillar III – Supplementary pensions

Taxation of Pillar III differs from the Pillar II taxation approach significantly. There are different taxation treatments of contributions as well as different treatments of the pay-out phase. It is rather difficult to generalize the regime. However, the “EET” regime can be used with several exceptions and specifications.



Taxation of contributions

When considering the taxation treatment of contributions, a slightly different regime is used for savers' (employees') contributions and a different regime for employer's contributions.

Generally, both contributions are income-tax deductible; however, for employees (savers) there is a ceiling of €180 per year. This means that the monthly contributions to the Pillar III supplementary pension fund up to €15 are income tax base deductible. Above this amount, the contributions made to the individual saving account are subject to personal income tax. Considering that the average salary (€1,113 in 2020), employee contributions up to 1.35% of the gross average salary can be deducted from the personal income tax base.

Employer contributions are treated in a slightly different way. Contributions are tied to the monthly salary of employees. Employer's contributions up to 6% of monthly salary are treated as tax expenses. Therefore, employers are motivated to contribute on behalf of employees up to this tax favourable ceiling. Taking into account the average salary in Slovakia, contributions up to €66.78 per employee per month are considered as tax expenses for contributing employers in 2020. Taking into account the poor supplementary pension funds' performance and the relatively high level of charges, favourable tax treatment of employer's contributions are the key drivers for the participants. At the same time, this favourable treatment of employer's contributions paid on behalf of its employees exclusively in the Pillar III scheme creates an administrative monopoly in form of preferred supplementary retirement product in Slovakia.

Taxation of the Fund returns

Fund returns are exempt from income taxes at the fund level.

Taxation of pay-out phase

There are three different types of products used for the Pillar III pay-out phase (according to the Act on Supplementary Pension Saving):

- 1) Lump-sum – paid out through SPFMC at maximum of 50% of accumulated savings;
- 2) Annuities – paid out through insurance company in form of a single annuity;
- 3) Phased (Programmed) withdrawal – paid out through SPFMC for at least 5 years.

There are 3 general conditions, where at least one should be met when entering the pay-out phase in order to achieve more favourable tax treatment of income stream from Pillar III savings. They concern the member's age, the entitlement for state retirement pension benefits or the entitlement for early state retirement pension benefits.

When considering the tax treatment of the pay-out phase income stream from the saver's point of view, there is a possible way to adjust the personal income tax base. The Act on Income Tax



stipulates that the deduction from income tax base will be applied to the income stream from Pillar III benefits and life insurance contracts. Personal income tax base shall be lowered by the paid contributions (Pillar III) or paid premiums (life insurance contract). The Act on Income Tax also defines the income tax base adjustments in case of paid monthly benefits according to the following formulas:

- In the case of temporary annuity, the income tax base is calculated as positive balance between sum of already received benefits and sum of paid contributions;
- In the case of single annuity, the income tax base is calculated as paid monthly benefits and total paid contributions (or premium) divided by the number of remaining years calculated as life expectancy and the age of the taxpayer (beneficiary) at the moment of the first paid benefit.

Therefore, we can conclude that the income tax treatment of pay-out phase is, in fact, a deferred taxation of investment returns applied not to the supplementary pension fund, but directly to the saver during the pay-out phase. In general, we can say, that the tax regime for Pillar III is “EET”.

Pension Returns

Pillar II – Funded pensions

The five asset managers offer 17 pension funds in Slovakia (see table below). Pension funds are divided into 2 main groups:

1. obligatory pension funds
 - a) bond guaranteed pension funds (5 offered)
 - b) equity nonguaranteed pension funds (5 offered)
2. optional pension funds
 - c) mixed nonguaranteed pension funds (2 offered)
 - d) index nonguaranteed pension funds (5 offered)

Groups a), b) and c) were launched onto the market by the beginning of Pillar II. Index nonguaranteed pension funds (only passively managed pension funds) were launched in 2012.



Table SK7 Pension vehicles in Pillar II

Pension vehicle	Fund Name	Fund Inception Day
Bond guaranteed pension funds	Allianz - Slovenska d.s.s. – BGPF (Garant)	22 March 2005
	AXA d.s.s. – BGPF (Dlhopisovy)	22 March 2005
	DSS Postovej banky d.s.s. – BGPF (Stabilita)	22 March 2005
	NN d.s.s. – BGPF (Tradícia)	22 March 2005
	VUB Generali d.s.s. – BGPF (Klasik)	22 March 2005
Mixed nonguaranteed pension funds (optional)	NN d.s.s. – MNGPF (Harmónia)	22 March 2005
	VUB Generali d.s.s. – MNGPF (Mix)	22 March 2005
Equity nonguaranteed pension funds (obligatory)	Allianz - Slovenska d.s.s. – ENGPF (Progres)	22 March 2005
	AXA d.s.s. – ENGPF (Akciovy)	22 March 2005
	DSS Postovej banky d.s.s. – ENGPF (Prosperita)	22 March 2005
	NN d.s.s. – ENGPF (Dynamika)	22 March 2005
	VUB Generali d.s.s. – ENGPF (Profit)	22 March 2005
Index nonguaranteed pension funds (optional)	NN d.s.s. – INGPF (Index Global)	2 April 2012
	AXA d.s.s. – INGPF (Indexovy)	2 April 2012
	DSS Postovej banky d.s.s. – INGPF (Perspektiva)	2 April 2012
	NN d.s.s. – INGPF (Index Euro)	2 April 2012
	VUB Generali d.s.s. – INGPF (Index)	2 April 2012

Source: Own elaboration based on oranzovaobalka.sk data, 2021

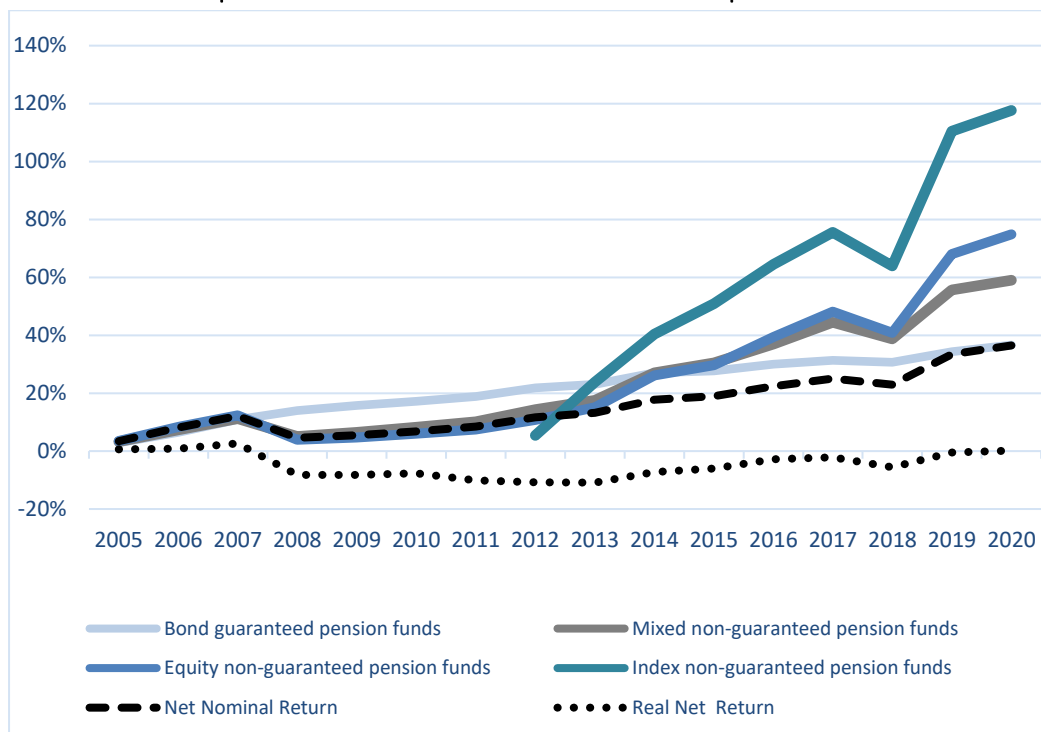
The performance (returns and respective volatility) differs in all four types of pension funds. This is caused by the portfolio structure and different investment strategies.

Bond guaranteed pension funds do not invest in equity investments. Mixed non-guaranteed pension funds invest a small portion in equity investments (currently less than 40% of AuM on average) and equity non-guaranteed pension funds invest higher portion in equity investments (currently more than 50% of AuM on average). Optional Index non-guaranteed pension funds possess the highest level of equity investments (nearly 100% of AuM), because their fully passive investment strategy focusing on the replication of benchmark (various equity market index) performance.

The following graph presents the cumulative performance of Pillar II Pension Funds. At the same time, we present the nominal as well as real cumulative performance, where the returns are weighted by funds' AuM.



Graph SK8. Cumulative Performance of Pillar II pension funds



Source: Own elaboration based on oranzovaobalka.sk data, 2021 (as of 31 December 2020)

From the view of a saver, one could present the performance using various holding periods. The table below presents the AuM weighted performance of Pillar II pension funds net of fees in nominal as well as real terms.

Holding Period	Net Nominal Annualized Performance	Real Net Annualized Performance
1 year	2.29%	0.69%
3 years	2.97%	0.78%
5 years	2.78%	1.28%
7 years	2.71%	1.69%
10 years	2.48%	0.83%
Since inception	1.96%	0.01%

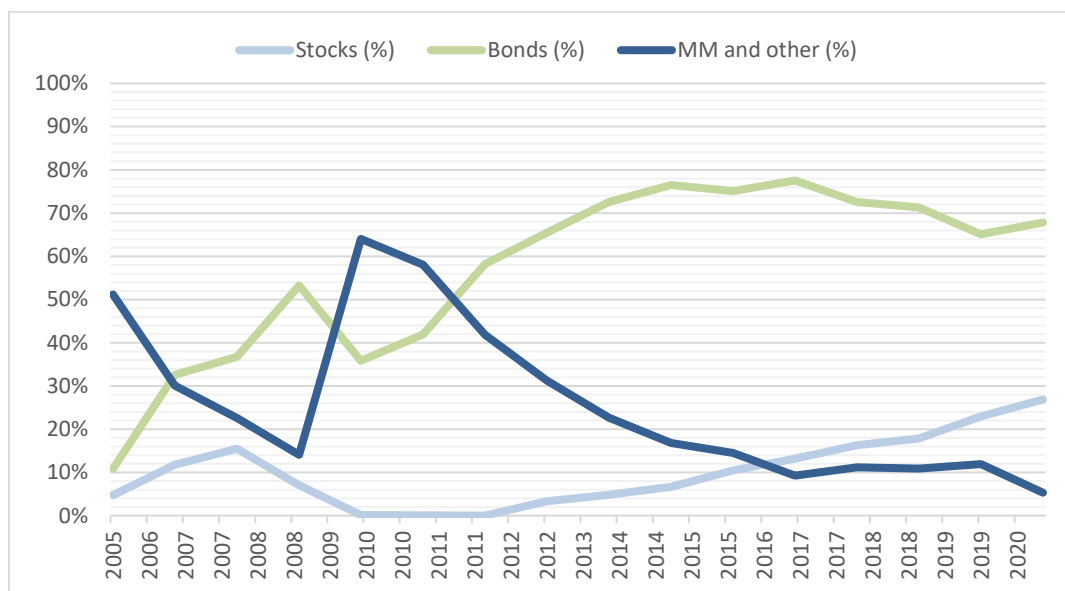
Source: BETTER FINANCE calculations based on oranzovaobalka.sk data, 2021 (data as of 31 December 2020)

The portfolio structure of Pillar II pension funds according to the classes (bonds, equities, money market instruments) is presented in the graph below. According to our analysis, currently about



65% of all investments in Pillar II pension funds are bond investments. On the other hand, only 23% of all investments are equity investments. The portfolio structure does not correspond to the age profile of Pillar II savers, which causes overall low returns of Pillar II savings.

Graph SK10 Pillar II Pension funds' Portfolio Structure



Source: Own elaboration based on oranzovaobalka.sk data, 2021

The portion of equities in Pillar II Pension funds' portfolios is rising constantly, however the overall portfolio structure does not correspond the age profile of existing savers. On the other hand, younger savers who joined the Pillar II voluntarily after 2012 invest more aggressively in line with conventional knowledge.

Nominal as well as real returns of Pillar II pension funds in Slovakia weighted by AuM are presented in a summary table below.



Table SK11 Nominal and Real Returns of Pillar II Pension Funds in Slovakia

2005		3.42%		0.62%	
2006		4.54%		0.24%	
2007		3.67%		1.77%	
2008		-6.65%		-10.55%	
2009		0.84%		-0.06%	
2010		1.26%		0.56%	
2011	Nominal return after charges, before inflation and taxes	1.48%	1.69%	Real return after charges and inflation and before taxes	-2.62%
2012		3.03%			-0.67%
2013		1.34%			-0.16%
2014		4.03%			4.13%
2015		1.04%			1.34%
2016		2.82%			3.32%
2017		2.17%			0.77%
2018		-1.65%			-3.52%
2019		8.53%			5.36%
2020		2.29%			0.69%

Source: Own elaboration based on oranzovaobalka.sk data, 2021

Negative real returns between years 2008 and 2013 were caused by inappropriate legislative changes that came into effect in July 2009 after stock market turmoil. These changes forced portfolio managers to sell off all equities and hold cash in portfolios. Year 2019 brought solid returns on equity markets, which has positively influenced the performance of mixed, equity and index pension funds.

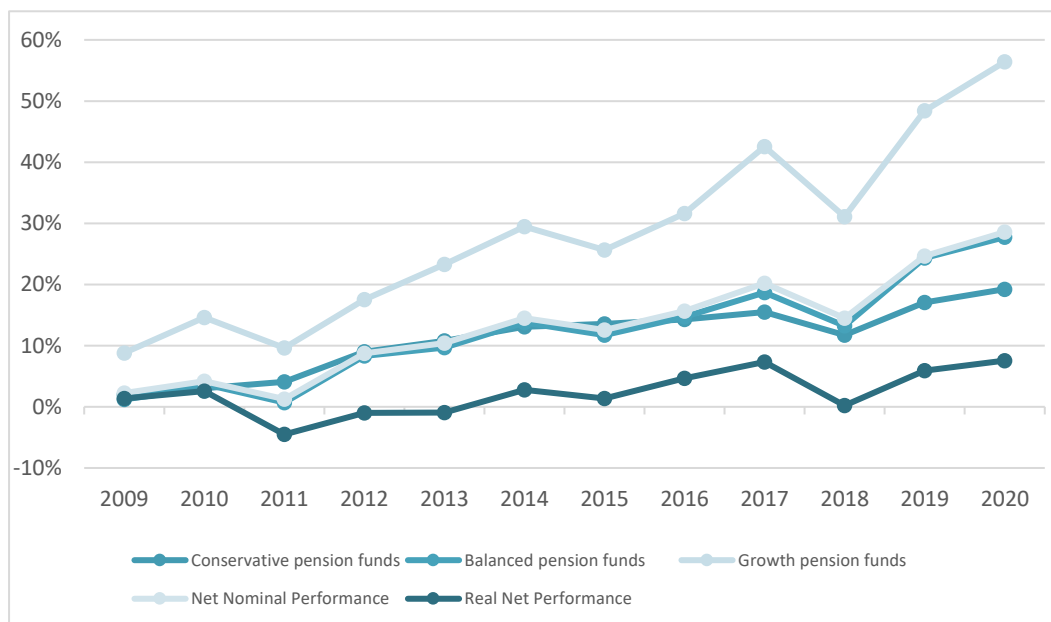
Pillar III – Supplementary pensions

Supplementary pension funds differ in strategy and portfolio structure. Conservative pension funds do not invest in equity investments. Balanced pension funds invest a small portion in equity investments (currently less than 20% of AuM in average) and growth pension funds invest a higher portion in equity investments (currently more than 40% of AuM in average).

Supplementary pension funds' performance on a cumulative basis accompanied by the calculated net nominal as well as real cumulative performance is presented in the graphs below.



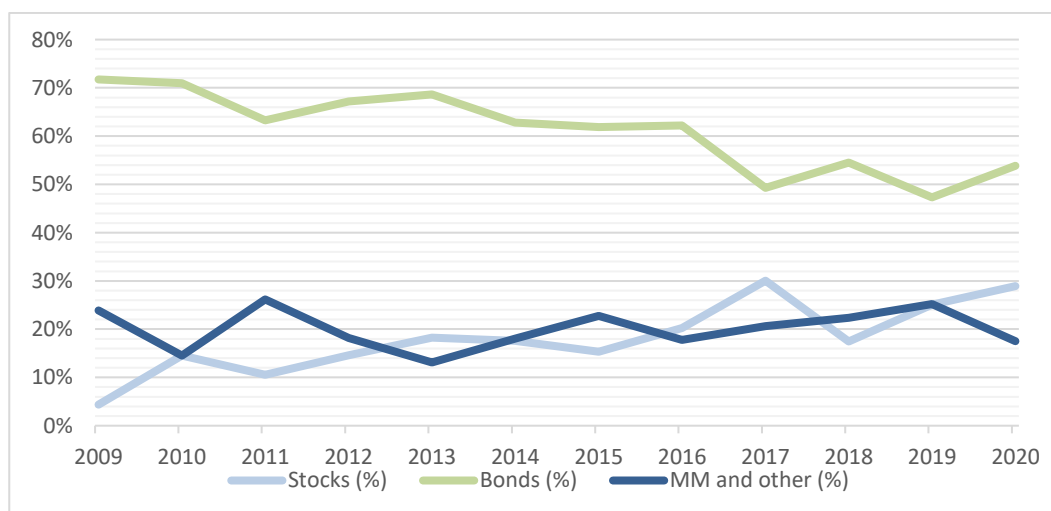
Graph SK12. Supplementary Pension Funds Cumulative Performance



Source: Own elaboration based on oranzovaobalka.sk data, 2021

Balanced and Conservative supplementary pension funds have achieved very similar returns over the analysed period. This could be explained by similar portfolio structure. The portfolio structure of Pillar III is presented in the graph below.

Graph SK13. Supplementary Pension Funds' Portfolio Structure



Source: Own elaboration, 2021



Currently, more than 47% of all investments in Pillar III pension funds are bond investments. In 2020 we could have seen portfolio changes in favour of equities and rather sharp decrease of money markets instruments.

Looking at the performance from a saver's point of view, where various holding periods are considered, we present the net of fees nominal as well as real returns.

Table SK14. Supplementary Pension funds Nominal and Real Performance according the holding period

Holding Period	Net Nominal Annualized Performance	Real Net Annualized Performance
1 year	3.14%	1.54%
3 years	2.27%	0.08%
5 years	2.69%	1.19%
7 years	2.20%	1.18%
10 years	2.13%	0.48%
Since inception	2.12%	0.61%

Source: BETTER FINANCE calculations based on oranzovaobalka.sk data, 2021 (data as of 31 December 2020)

Nominal as well as real returns of supplementary pension funds in Slovakia weighted by AuM are presented in a summary table below.

Table SK15. Nominal and Real Returns of Supplementary Pension Funds in Slovakia

2009	2.25%		1.35%	
2010	1.88%		1.18%	
2011	-2.78%		-6.88%	
2012	7.37%		3.67%	
2013	1.56%		0.06%	
2014	3.69%		3.79%	
2015	-1.68%		-1.38%	
2016	2.72%		3.22%	
2017	3.95%		2.55%	
2018	-4.73%		-6.60%	
2019	8.84%		5.67%	
2020	3.14%		1.54%	
		2.12%		
			0.61%	

Source: BETTER FINANCE calculations based on oranzovaobalka.sk data, 2021 (data as of 31 December 2020)

Supplementary pension funds have achieved positive returns in 2020 mainly due to the increased portion of equities in their portfolios. However, relatively high fees played their role and contributed negatively to the overall low performance.



Conclusions

The Slovak multi-pillar pension system is not quite favourable for savers. Pillar II suffers from constant changes and significant political risk therefore not only arises from diverging political opinions on the pension system. The new phenomena in Slovak pension system is the pension populism, where political parties reverted stabilization features and decreased the financial stability and trustworthiness of the PAYG scheme. The year 2020 could therefore be viewed as a year of expected major changes in Pillar I.

Even though there have been negative interventions in Pillar II from 2008 to 2012 (significant investment restrictions, a decrease in contributions from 9% to 4%), several positive features have been introduced in Pillar II. However, unprofessional move of transferring savers' assets from equity-based pension funds into bond ones have had detrimental effect on savings, which could lead to low pension pots and further political pressures on decreasing importance of private pension savings in Slovakia.

Pillar III pension vehicles are generally poorly performing, costly and without significant tax benefits for employees' contributions; Pillar III would never survive competition from Pillar II pension funds and typical investment funds. The debate on finding an appropriate regime for the Pillar III scheme is still ongoing, while there are several different views on how to make Pillar III more favourable for savers. Major governmental spending review in this area is expected to provide a clearer way forward.

Policy Recommendations

Slovak Pillar II suffers from the misalignment between the remaining saving horizon of savers (age profile) and applied investment strategy or allocation of savings. Most of the savers allocate their savings into the bond funds even if their remaining saving horizon is far longer than 15 years. Pension asset managers and regulators should therefore acknowledge inertia of savers and imply default investment strategy that would at least recognize the remaining saving horizon of savers and thus allocate the savings accordingly.

Pillar III faces two main limitations that are in fact deeply interconnected. The first problem is the small coverage of economically active population, which disqualifies the pillar from being recognized as universal pension pillar. This problem is however connected to the high fees that effectively refrain larger participation of employers and employees in this pillar. Regulators should scrutinize the possibilities to lower the management fees with rising assets under management, which would show the clear and transparent road map towards the development of supplementary pension schemes in Slovakia.

However, the key issue of the pension system in Slovakia is the I. pillar managed by state-owned Social Insurance Company. Pension populism has financially destabilized the I. pillar and decreased



the trustworthiness of the I. pillar, while the private forms of pension savings have increased on importance. The government should immediately start taking actions to increase the financial stability of the I. pillar and remove the populist features introduced in 2019 with continuation in 2020 as soon as possible.

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Pension Savings: The Real Return

2021 Edition

Country Case: Spain

Resumen

Los trabajadores españoles no ahorran para su jubilación. "El ladrillo y el mortero" constituyen más del 70% de la cartera de un hogar español típico. Y no hay forma de pensar en este activo como ahorro para la jubilación. Dado que las prestaciones de jubilación de la Seguridad Social sustituyen más del 80% de los ingresos laborales perdidos en el momento de la jubilación (según la OCDE, ya que la tasa de sustitución agregada de Eurostat es mucho menor, pero sigue siendo una de las más altas de las jurisdicciones analizadas en este informe, con un 70%), ¿por qué los empleados españoles deberían ahorrar con este fin? En consecuencia, la industria española de pensiones (pilares II y III) es mucho menor que en Dinamarca (la más alta de la UE27) y Países-Bajos (la segunda más alta). Los activos de los Fondos de Pensiones a finales de 2019 alcanzaron el 10,75% del PIB de ese año, y si a ello se le añaden los vehículos de jubilación asegurada o similares a la jubilación, se podrían encontrar 15,24 puntos porcentuales más. Estas y otras razones implican que la gestión de activos en esta limitada industria no puede ser barata. Sin duda, los activos del Pilar II son tan baratos de gestionar como en los países avanzados, pero no es el caso de los activos del Pilar III. La fiscalidad de los activos y rentas de jubilación en España responde al régimen de EET, como en la mayoría de los países de la OCDE. La rentabilidad real neta media acumulada desde el año 2000, en el sistema estándar de Planes de Pensiones, una vez ajustada la inflación, ha sido de apenas un 0,43% anual. Poco se sabe sobre la rentabilidad media de los activos de los vehículos asegurados, y su cálculo no ha sido el objetivo de este informe. Todos los datos utilizados pueden encontrarse en las páginas web de fuentes oficiales fácilmente disponibles (INVERCO, DGSFP y Banco de España).

Summary

Spanish workers don't save for their retirement. "Bricks & Mortar" make more than 70% of a typical Spanish household's portfolio. And there is no way to think of this asset as retirement savings. As Social Security old-age benefits replace more than 80% of lost labour income at retirement (according to OECD, as the Eurostat aggregate replacement rate is much lower, but still among the highest of the jurisdictions analysed in this report, at 70%), why Spanish employees should save with this purpose? As a result, Spanish Pensions Industry (Pillars II and III) is much smaller than in Denmark (highest in the EU27) and Netherlands (second highest). Pension Funds' assets at end 2019 reached 10.75% of GDP that year, and if insured retirement or retirement-like vehicles were added to this, an extra 15.24 percentage points could be found. These and other reasons imply that



asset management in this limited industry cannot be cheap. To be sure, Pillar II assets are as cheap to manage as in advanced countries, but this is not the case with Pillar III assets. Taxation of retirement assets and income in Spain responds to the EET regime, as in most OECD countries. Average cumulative net real returns since 2000, in the standard Pension Plans system, once inflation adjusted, has been just 0.43% annually. Little is known about average returns to insured vehicles' assets, and its computation has not been the purpose of this report. All data used can be found on readily available official sources' web sites (INVERCO, DGSFP and Bank of Spain).

Introduction

The Spanish pension system is composed of three pillars:

- Pillar I – Public, with a pay-as-you-go major branch of compulsory, contributive pensions (old-age, invalidity and survivors' benefits) and a minor, means-tested assistance branch for over 65 years old individuals (old-age and invalidity).²⁴⁴
- Pillar II – Voluntary, defined benefit and defined contribution employer-sponsored pension plans (restricted de facto to large companies).
- Pillar III – Voluntary, personal (or associated) defined benefit pension plans and a variety of other qualified retirement savings vehicles.

A more detailed structure of these three pillars is presented in the following table.

Introductory Table. Multi-pillar pension system in Spain (2019)			
	Pillar I	Pillar II	Pillar III
	National Social Security	Employer-Sponsored Pension Plans	Individual Pension Plans
Participation	Mandatory	Voluntary	Voluntary
Type of funding	Financed by social contributions (employees 4.7%, employers 23.6%)	Financed normally by employers' contributions (no standard rate)	Financed by insured persons
Type of benefit entitlement	Variable percentage of a 22-year average pensionable wage	Both DB and DC	DC
Management	Publicly managed; Benefits paid via National Social Security Agency (INSS)	Managed by independent agencies under Companies' Social Partners supervision	Managed by Plan's Promoters (Financial, Insurers or Associations)
Products	Contributory state pension, Non-contributory state pension and Minimum Basic Income (as from July 2020)	Pension Plans (standard vehicle), Insured Pension Plans (PPA), Life Insurance, Individual Saving Plan (Spanish acronym: PIAS) and Long-term Individual Saving Insurance (Spanish acronym: SIALP).	

²⁴⁴ As recently as in June 2020 the Government enacted a new Social Security basic scheme, the "*Ingreso Mínimo Vital*" (Minimum Basic Income), addressed to people most in need, means tested and subject to job search and other eligibility conditions. See this for a compact explanation (in Spanish): <https://revista.seg-social.es/2020/05/30/el-gobierno-aprobara-el-ingreso-minimo-vital-esta-semana/>.



Average benefit	Average contributory pension (14 payments per year): €1,466 per month (old-age, newly retired employees)	Employer Sponsored standard Pension Plans (14 payments per year): €799 per month (old-age, income only Plans, 2018)	Individual standard Pension Plans (14 payments per year): €174 per month (old-age, income only Plans, 2018)
	Average non-contributory pension (14 payments per year): €396 per month (old-age and invalidity)	Only 40,4% of total beneficiaries opt for income only benefits and these amount to 27,8% of total benefits paid	Only 19,1% of total beneficiaries opt for income only benefits and these amount to 51,5% of total benefits paid
Coverage	Social Insurance is compulsory for all workers. There were 6.1 million old-age pensioners in 2019. All persons 65 and over are eligible for Social Assistance.	Barely 8.6% of active population (11,9% of employees) are covered by Employer-sponsored Pension Plans. Only 41.7 thousand retirees received income-only benefits in 2019.	Slightly below 25% of population aged 16 to 64 is covered by Individual Plans. Only 190 thousand retirees received income-only benefits in 2019.

Aggregate replacement rate: 70%

It is well known that Social Security contributions, even if they are immediately spent on current benefits and not accumulated as savings by workers, may return relevant yields when retirement benefits are finally received. This happens everywhere, also in Spain. Estimations of the implicit rate of return for Spain are around 6% real per year. This means that Social Security, as a matter of fact, returns every euro paid in contributions around 12 years after retirement when the average retiree has a similar time span of remaining life years.

This implicit return is difficult to beat by marketed retirement products, even if these offer by default sustainability when they are of the DC variety. Something that Social Security benefits cannot offer.

This said, the summary table below tells a story that bears a sharp contrast with the above description of Social Security internal rate of return. Long term (since 2000) net (of fees), real, before taxes, returns of the standard retirement plans Pillars II and III) in Spain has been 0.51% and this thanks to the good performance of stock markets in 2019.



Aggregate summary return table									
	1 year		3 years		7 years		10 years		Since 2000
	2020	2019	2018-2020	2017-2019	2014-2020	2013-2019	2011-2020	2010-2019	2000-2020
PILLAR II									
Nominal return	1.53%	8.78%	2.24%	3.73%	3.22%	5.26%	3.81%	4.78%	3.01%
Real return	2.10%	7.93%	1.74%	2.14%	2.80%	4.28%	2.94%	2.60%	0.79%
PILLAR III									
Nominal return	0.23%	8.81%	1.37%	2.72%	2.25%	4.34%	2.87%	3.42%	2.53%
Real return	0.80%	7.96%	0.86%	1.14%	1.83%	3.35%	2.00%	2.10%	0.32%
Both Pillars									
Nominal return	0.67%	8.80%	1.66%	1.47%	2.62%	4.66%	3.23%	3.91%	2.72%
Real return	1.24%	7.95%	1.15%	1.25%	2.20%	3.67%	2.36%	2.60%	0.51%

Source: Own calculations based on INVERCO data

Pillar I

The National Institute for Social Security (INSS, Spanish acronym) is the national agency for pensions run by the central government. The Spanish Social Security covers all workers against old-age, invalidity (their dependants) and survivorship (widowhood and orphanhood). It has two separate branches: an insurance branch and an assistance branch sharply differentiated not only by law but also by its size, nature and functions.

The insurance branch of Social Security is, by far, the dominant scheme in the Spanish pension's arena (all vehicles considered). It is contributory, compulsive for all workers, either employee and firms and is financed through social contributions that, within each current year, are used to pay for current pensions. The financial method of the system is thus of the Pay-As-You-Go variety. As of 31st December 2020, The INSS was paying 9.8 million pensions (to about 8.9 million beneficiaries) at a rate of € 995.80 each per month (14 payments in a year, all pension categories, all beneficiaries). Within these figures, almost 6,1 million pensions went to the old age category at an average rate of € 1,143,55 per beneficiary and month (14 payments in a year).

As for workers' coverage, as of 31st December 2018, 19.3 million workers were affiliated to the national Social Security scheme. Out of these, almost 14.8 million (76.7%) were wage earners covered by the General Regime of SS and almost 3.3 million (17.1%) independent workers covered by the Self-employed Regime. The remaining few, a mere 6.2% of workers, belonged to different sub-regimes within Social Security. Around half of unemployed workers were covered at the end of 2019 by Social Security through social contributions paid on their behalf by the Spanish Employment Agency for as long as they received unemployment benefits.

Besides social insurance pensions, the Spanish Social Security, through its assistance branch, as of 31st December 2019, paid 452.2 thousand pensions of which 261 thousand pensions were old-age and the rest were invalidity pensions. Non-contributory (assistance) pensions are subject to means



tests and are clearly a minor scheme since autonomous regions in Spain offer a wide range of basic benefits to those individuals and households in need.²⁴⁵ These pensions are paid by Social Security, although fully financed out of general taxation. The average amount paid under this scheme was € 392 per month and beneficiary (14 payments in the year). This amount can be complemented by other personal characteristics.

Within the contributory pensions class, social contributions provide, as of 2019, for 87,8% of total cost of Social Security contributory pensions. The total contribution rate is 28.3% of gross pensionable wage. This rate splits in 23.6 pp paid by employers and 4.7 pp paid by workers. The self-employed must pay the whole 28.3% rate on their pensionable earnings. Pensionable wages (and earnings) track effective wages closely through a scale with a minimum pensionable wage (as of 2019) of € 1,050 and a maximum pensionable wage of € 4,070.10 per month. Employees cannot choose their contribution base but self-employed can do it and the majority of them do choose the minimum pensionable earnings base. This results in their retirement pensions being too small. Many of these benefits will have to be latter complemented with an assistance top in order to reach the statutory minimum retirement pension. This resulting, paradoxically, in a larger internal rate of return for minimum contributory old age pensions recipients, over their past contributions, compared to retirees receiving higher or maximum contributory pensions payable by Social Security.

Pillar II

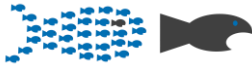
As shown in the Introductory Table above, Social Security old-age benefits in Spain replace pre-retirement wages with one of the highest rates in the world and against a rather high pay-roll tax mostly paid by employers²⁴⁶. So, there is little margin left for occupational and personal retirement accounts to step substantially into the retirement arena²⁴⁷. And, indeed, what we observe in Spain is a very limited landscape for marketed retirement solutions despite the fact that the modern regulation for these products was enacted around 1987 last century.

Pillar II in Spain embraces employer-sponsored retirement accounts for wage earners and individual pension plans for the self-employed (and associate pension plans, a minor category). These products are financed through contributions mostly paid by employers and employees rarely participate on a matching basis. Independent workers pay their own Pillar II contributions. There is a variety of retirement vehicles that employers may offer their employees, or available for self-employed workers as well. Amongst them, tax-qualified Pension Plans are the standard and most prevalent vehicle. These Pension Plans are capitalisation retirement accounts of either Defined Benefit or Defined Contribution type to which employers contribute with a percentage of wage.

²⁴⁵ As recently as June 2020, Social Security is offering a new individual Minimum Basic Income. See footnote no 1 above.

²⁴⁶ This said, however, pay-roll taxes to Social Security or other welfare programs are deferred wages and, were they to be entirely supported by employees, gross wages should be accordingly updated to accommodate this wedge.

²⁴⁷ See Introductory Table above.



Workers can also contribute. Contribution rates to occupational Plans may vary considerably, but their average rate can be estimated at around a modest 2.6% of average gross wage²⁴⁸, or around €629 per employee and year (2019). Employers are not obliged by law to offer these accounts, although some may be obliged by Collective Bargaining agreements in an industry or sector, which is rare. And indeed, very few companies, but the large ones, offer them to their workers as only barely 2 million accounts of this type were registered through 2019, to a total active population of 23 million that same year, a mere 8,6%. In 2019, only 41.7 thousand retired workers received old-age benefits. Average annual benefit was € 11,180 (gross) and the benefit rate (against average annual gross pay) was 39.6%. As of 31st December 2019, total assets under management (AuM, in what follows) to these accounts totalled € 35,7 billion (almost € 2 bn up from one year earlier), that is, a small 2.9% of Spanish GDP.

Pillar II retirement accounts are fiscally qualified by the government. Contributions by employers or employees are tax free up to a general limit of €8,000 per person per year. Benefits, no matter whether retrieved in form of monthly income or as a lump-sum, are taxed under the existing personal income taxation rules (a dual personal income taxation system). When benefits are retrieved in form of an income stream, beneficiaries are obliged to buy an annuity (life or term) or a drawdown.

Often in Spain and in many other countries, and this is a crucial issue of understanding for our industry, layman savers and even experts refer to this fiscal treatment as “incentives” or even “a fiscal gift”. The truth is that having contributions tax exempted and taxing benefits (tax deferral) is the world standard, rather than the opposite or, even worst, double taxation of pensions if both contributions and benefits were to be taxed. Tax deferral, as opposed to an “incentive”, is not a gift from government or from the rest of society is a just treatment for income won after decades of work efforts and frugality.

²⁴⁸ Estimation based on data from INVERCO and INE.



Pillar III

Pillar III embraces personal, or individual Pension Plans, the latter being again the dominant type within a large variety of types (see the Introductory Table above). These plans are personal, voluntary and “complementary” to both Pillar I and Pillar II arrangements. These accounts are equally treated, as Pillar II accounts, from the tax point of view or, in what concerns other features, are virtually the same product as employer-sponsored Pension Plans. In 2019, only 190 thousand retired workers received old-age benefits. Average annual benefit was € 2,441 (gross) and the benefit rate (against average annual gross pay) was 8.6%. As of 31st December 2019, Pillar III included 7.5 million retirement accounts that belonged to around 6.5 million individuals (or 21,37% of Spanish population 16-64 years old). AuM for these plans totalled € 79.85 bn (slightly € 7.6 bn up from one year earlier), that is, a mere 6.4% of Spanish GDP.

Household Savings

Personal (financial) saving in Spain is not a salient feature of its economy’s financial side. But for the fact that it is so low because Spaniards love to save “*autrement*”, in “bricks & mortar”. This said, households are still able to spare some money by the end of the year and have so far managed to accumulate a financial buffer. Only a small part of these assets, however, are dedicated to retirement purposes. One of the reasons for this lies in the fact that Social Security forces Spanish workers to save through pay-roll taxes paid in large part as for employees) by their employers. This reduces the disposable income households could save. Besides, in exchange for heavy pay-roll taxation (28.3% of gross -pensionable- wages only for retirement and associated contingencies), public pensions replace lost wages due to retirement, at a 72.7% (average, effective benefit) rate. This, definitely, must reduce enormously the desire and/or capacity to save for retirement of Spanish workers.

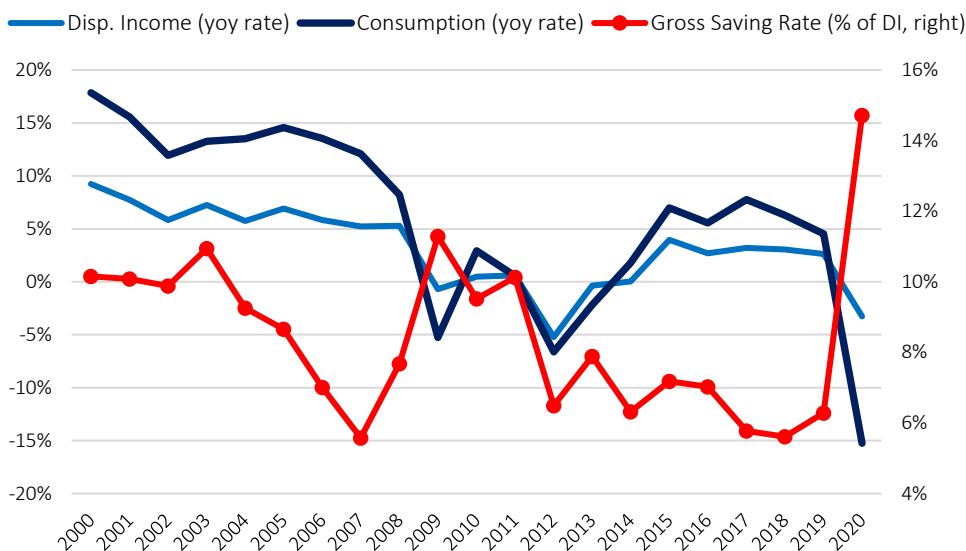
As for real estate, it is well known that it is hardly a retirement asset at all. Yet many owners, that in Spain tend to own more than one house or apartment, think that they could use their houses as a source of retirement income. However realistic this may be, the fact is that an astonishing three fourths of Spanish households’ total wealth is made of “bricks & mortar”, its value representing around four times the value of Spanish GDP. So, housing is “the” retirement asset in Spain and retirement solutions providers would better think on how to develop sound retirement income products based on housing rather than hope for households to start accumulating proper retirement assets, at least for a while.

The overall picture on households’ Gross Disposable Income (year-on-year change), Consumption (year on year change) and Gross Savings (rate over Disposable Income) is shown in Graph ES1 below. During the crisis (2009-2013), the savings rate oscillated amply around an average of 10.5% of Gross Disposable Income. 2009 and 2013 were precisely the most recessive years of the period. Pre-crisis years (since mid-90s in the last century) savings rate was low reflecting the strong



dynamics of private consumption, fuelled by cheap debt and intense employment creation coupled with wage increases. After 2008, the big recession and a twin recession in 2011-2013, led Spanish households to increase their savings ratio above 13% in 2009, and keep it close to 10% in the following recessive years. Meanwhile, wages stagnated, and employment continued to fall bringing the unemployment rate above 25% in the through of the second recession, at mid-2013.

Graph ES1. Evolution of household spending and (financial) savings rate



Source: Own calculations based on data from the Bank of Spain

Expansive years (2015-2018), when consumption was growing vigorously the savings rate dipped to a bottom 5% of disposable income. In 2019, consumption (and the economy) decelerated, and savings bounced to above 7%. However, 2020 brought an unprecedented health crisis, which triggered many restrictions on travelling and economic activity. As such, the consumption rate decreased sharply in 2020, respectively-12%, while the gross savings rate increased by 14.7%.

By the end of 2020, financial assets owned by Spanish households (and non-profit institutions serving households - NPISH) amounted to € 2.34 trillion, according to the Spanish Central Bank financial balance sheets statistics.

If we take a closer look at the distribution of financial assets owned by households in 2019-2020, as shown in Table ES2 below, one can immediately observe that the “cash and bank deposits” class of assets, with €988 billion, takes up to 42% of all financial assets held by Spanish households. “Equity” being the second most important financial asset in households’ portfolios at €545 billion and 23.2% of total financial assets.



Table ES2. Financial assets held by Spanish households 2019

	2019		2020		Change (%)
	€ bn	%	€ bn	%	
Cash and bank deposits	918.6	38.3%	988.8	42.2%	7.6%
Investment Funds	338.5	14.1%	347.7	14.8%	2.7%
Shares	670.2	27.9%	544.9	23.2%	-18.7%
Pension rights	174.6	7.3%	176.3	7.5%	1.0%
Insurance	213.6	8.9%	210.4	9.0%	-1.5%
Other	84.3	3.5%	77.4	3.3%	-8.2%
Total	2,399.8	100%	2,345.5	100%	-2.3%

Source: own elaboration based on Bando de España

Spanish households continued to increase their investment funds and insurance holdings in 2020 compared to 2019. Equity holdings went down by 4.7 p.p. and pension entitlements (apart those included in insurance contracts, *vid infra*) continued to stay slightly above 7% of their total financial assets. A very modest claim.

Pension Vehicles

Even if, due to the overwhelming presence of Social Security, the room for Pillars II and III is not a very large one in Spain, there is a large variety of marketed retirement products. The most standard retirement vehicles are Pension Plans and Insured Pension Plans. Normally, retirement vehicles are provided by financial institutions and insurers that also act as managers and depositaries of occupational pension funds. Also, a number of professional associations have since long created *Mutualidades* (Mutual Funds) some of which operate as regulated alternative schemes to Social Security self-employed schemes for these occupational groups.

Current laws regulating modern Pillars II and III were enacted around 1987-1988. Occupational pensions, that were directly provided by employers to their employees before then, were gradually taken out of company books and entrusted to newly created operators (*Planes de Pensiones*) and/or integrated into standard vehicles also created by those laws (*Fondos de Pensiones*).

Notwithstanding the fact that Spanish households choose to hold their financial assets in form of bank deposits and cash, collective investment vehicles kept their place in 2020 at a 14.8% share of total financial assets, just after equity, however Table ES2). Holdings of all major sub classes, within the broad collective investments class, had healthy increases with pension funds spotting a rarely seen in a decade 8.9%.



Table ES3. Total assets managed by Instituciones de Inversión Colectiva - 2009-2019 (€Mn)

	Investment Funds					Pension Funds	Total
	Investment Funds		Investment Trusts		Foreign IF		
	Financial	Real Estate	Financial	Real Estate			
2009	163,243	6,774	25,925	309	32,200	84,920	313,371
2010	138,024	6,123	26,155	322	48,000	84,750	303,374
2011	127,731	4,495	24,145	316	45,000	83,148	284,835
2012	122,322	4,201	23,836	284	53,000	86,528	290,171
2013	153,834	3,713	27,331	868	65,000	92,770	343,516
2014	194,818	1,961	32,358	826	90,000	100,457	420,420
2015	219,965	421	34,082	721	118,000	104,518	477,707
2016	235,437	377	32,794	707	125,000	106,845	501,160
2017	263,123	360	32,058	620	168,000	110,963	575,124
2018	257,514	309	28,382	734	168,000	106,886	561,825
2019	276,557	309	29,446	725	195,000	116,419	618,456
2020	276,497	311	27,599	886	220,000	118,523	643,816

Source: INVERCO Report on Investment Funds and Pension Funds 2020

In 2020, investors and savers witnessed extraordinary returns that fully compensated for the dim results in the previous year. They even jumped into more risky assets in most asset classes. But they did not significantly increase their net savings into Investment and Pension Funds. Returns on assets were vastly responsible for the healthy increases in assets values as shown in Table ES4. These returns happened to be the highest observed during the recovery since 2013.

Table ES4. Flows of funds for Investment Funds & Pension Funds 2010 – 2018 (€ Mn)

	Investments Funds				Pension Funds			
	BoY Assets	Net Investment	Net Yields	EoY Assets	BoY Assets	Net Investment	Net Yields	EoY Assets
2012	127,731	-10,263	4,854	122,322	83,148	70	3,310	86,528
2013	122,322	23,048	8,463	153,833	86,528	239	6,003	92,770
2014	153,833	35,573	5,412	194,818	92,770	898	6,789	100,457
2015	194,818	24,733	413	219,964	100,457	526	3,535	104,518
2016	219,964	13,820	1,652	235,436	104,518	264	2,063	106,845
2017	235,436	21,410	6,277	263,123	106,845	451	3,667	110,963
2018	263,123	8,410	-14,019	257,514	110,963	-170	-3,907	106,886
2019	257,514	1,693	17,350	276,557	106,886	799	8,734	116,419
2020	276,557	1,161	-1,221	276,497	116,387	1,184	952	118,523

Source: INVERCO Report on Investment Funds and Pension Funds 2020

Pension Plans

Pension Plans (Planes de Pensiones) are the standard retirement saving vehicle in Spain, albeit only one of many different retirement vehicles. They can be promoted by employers on behalf of their employees, by professional associations on behalf of their members or by financial institutions for



the general public (workers included, of course). Insurance companies also promote Insured Retirement Plans (Planes de Previsión Asegurados, PPA) for the general public and Insured Employers Retirement Plans (Planes de Previsión Social Empresarial, PPSE). These insured vehicles are basically equivalent to their non-insured counterparts.

Pension Plans are voluntary and complementary to Social Security pensions. They are not integrated in whatsoever way with Social Security. Plans created after 1987 legislation are DC plans but many of previously existing occupational plans, that had to be latter segregated from their parent companies, continue to be DB plans.

Pension Plans integrate for the sake of management and by law into Pension Funds (Fondos de Pensiones) to reach scale and financial synergy. This is the case of small II Pillar plans and of III Pillar or individual retirement plans. Pension Funds are legal entities, linked or not to financial institutions, obliged by law to contract out their managing and a depositary function with specialized agents.

Pension Plans in Spain, like in most countries, are tax qualified retirement vehicles. All payments by participants (or in their behalf) are tax-exempt up to a limit, so that compounded interest may play its full magic over larger savings during many years. Benefits are taxed (*vid infra*). In exchange for this tax treatment, funds cannot be cashed in in advance of retirement, unless some major contingencies happen (redundancy, sickness or long-term unemployment), albeit some extra flexibility has been added recently (*vid infra*). Accrued rights, however, can be switched between managing institutions and/or depositaries at no cost within the individual accounts scheme.

Table ES5 below presents the number of participants (accounts rather, see note at the bottom of the table) to Pension Funds as of 31st December 2010 to 2019. That decade sums up the recent trajectory of this important complementary retirement income institution in Spain. As of December 2019, slightly more than 9.5 million accounts were integrated in the whole scheme. The individual accounts sub scheme totalled 7.5 million accounts, 78.7% of total number of accounts.

Table ES5. Number of participants to Pension Plans 2010-2020					
	Dec. 2010		Dec. 2020		Change 10-19
	Participants	% of total	Participants	% of total	
Associate schemes	78,072	0.7%	52,292	0.5%	-33.0%
Employer-sponsored schemes	2,149,334	19.8%	1,961,787	20.6%	-8.7%
Individual schemes	8,601,775	79.4%	7,527,819	78.9%	-12.5%
Total	10,829,181	100%	9,541,898	100%	-11.9%

Source: Own elaboration based on INVERCO data

The most salient feature displayed in the above table is the drop in the number of accounts since 2010, an 11.9% rather uniformly distributed on time, shared by all sub schemes but especially relevant (in absolute terms) in the individual accounts sub scheme, that lost more about 1.2 million accounts in the period.



Correspondingly, as Table ES6 shows, the number of pension plans displays an almost regular decrease all through the present decade. The number of plans totalled 2,964 in 2010 and 2,399 at the end of 2020, a 19.1% decrease averaging over sub-schemes, and fairly regular though time.

By putting the figures from Table ES5 and ES6 together, we deduct that the average size of pension plans increased between 2010-2020 from 3.2 thousand accounts per plan to almost 4 thousand, likely making the system more efficient. Even if one cannot get rid of the feeling that the whole scheme reached a ceiling time ago and is now well set for a continuous and regular decline unless a new policy is devised.

Table ES6. Number of Pension Plans by type of scheme				
As of December 31st	Individual schemes	Employer-sponsored schemes	Associated schemes	Total
2010	1,271	1,484	209	2,964
2011	1,342	1,442	198	2,982
2012	1,385	1,398	191	2,974
2013	1,384	1,350	187	2,921
2014	1,320	1,330	178	2,828
2015	1,257	1,312	172	2,741
2016	1,189	1,305	164	2,658
2017	1,107	1,291	156	2,554
2018	1,079	1,293	151	2,523
2019	1,027	1,284	146	2,457
2020	976	1,282	141	2,399
Change 2010-2020	-23.2%	-13.6%	-32.5%	-19.1%

Source: Own elaboration based on INVERCO data

If Pillar II schemes (employer-sponsored and associate) represented, as of December 2019, 20.6% of total accounts and 58.2% of total plans, implying that individual accounts sub schemes are considerably larger than Pillar II plans in terms of number of accounts managed, the former had 31.4% of AuM (Table ES7 below). This, in turn, implies that average retirement assets per account are also larger within the Pillar II schemes than within Pillar III. Actually, €10,619 per account in the latter versus €17,956 per account in the former.²⁴⁹

Coming to total AuM for the whole Pension Plans and Funds industry, as of December 2020, this indicator showed a moderate increase (compared to 2019-2018), at 1.8% (whereas employer-sponsored plans slightly decreased) over the preceding year. Two warnings are in order now. First,

²⁴⁹ Using standard mortality tables for Spain and assumptions about returns, these amounts yield very low pure lifetime annuities. The annuity a typical individual account could buy retiring at 65 amounts to around € 53 per month and increases up to € 90 in the case of the typical occupational account. This said, retirement savings under these two modalities tend to be larger at retirement age. Also, within the occupational variety, around half a million accounts belong to civil servants and these accounts have almost no vested assets. On the other hand, some associate and employer-sponsored plans, covering dozens of thousands of employees in manufacturing and financial and advanced services, notably in the Basque Country (manufacturing) but also all across Spain for professional services (lawyers or engineers), hold large average retirement accounts. That's why benefits at retirement are normally cashed in as a lump sum.



note that the current level of Pension Plans' AuM is the highest on record albeit due to the brilliant performance of investments in 2019, rather due to more investment by participants coming to the system (Table ES5). Second, the total AuM for Pension Plans today barely represent 10.75% of GDP, compared to other EU jurisdictions, such as the Netherlands, where the assets managed by pension funds are twice the country's GDP.

Table ES7. Evolution of Pension Plans' AuM by scheme (31st December, 2009-2019)

	Individual		Employer sponsored		Associate		Total
	AuM (Mn)	%	AuM (Mn)	%	AuM (Mn)	%	AuM (Mn)
2009	53,228	62.6%	30,784	36.2%	992	1.2%	85,004
2010	52,552	62.0%	31,272	36.9%	926	1.1%	84,750
2011	51,142	61.5%	31,170	37.5%	835	1.0%	83,148
2012	53,160	61.4%	32,572	37.6%	795	0.9%	86,528
2013	57,954	62.5%	33,815	36.5%	1,001	1.1%	92,770
2014	64,54	64.0%	35,262	35.1%	940	0.9%	100,457
2015	68,012	65.1%	35,548	34.0%	958	0.9%	104,518
2016	70,487	66.0%	35,437	33.2%	921	0.9%	106,845
2017	74,378	66.9%	35,843	32.3%	903	0.8%	111,123
2018	72,247	67.5%	33,957	31.7%	829	0.8%	107,033
2019	79,850	68.6%	35,710	30.7%	859	0.7%	116,419
2020	82,014	69.2%	35,681	30.1%	827	0.7%	118,523

Source: Own elaboration based on INVERCO data

It can also be seen that 69.2% of total AuM in these retirement vehicles belong to the Individual accounts sub scheme, representing a mere 7.44% of GDP. This category of assets has increased its value a 2.7% over the previous year, compared to the -0.16% decrease for occupational pensions assets.

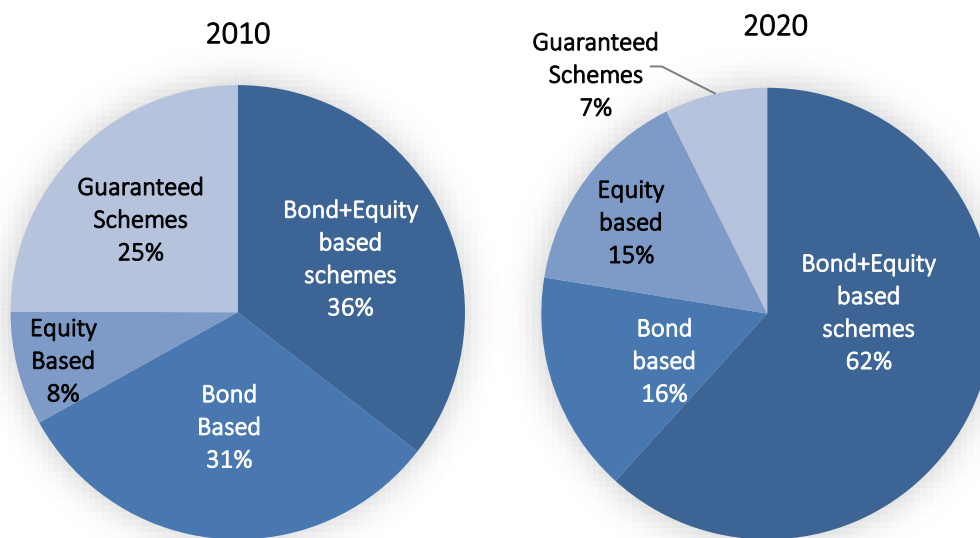
Even if the type of assets in which Pension Funds' assets are invested vary regularly with time, in an effort to increase overall returns for participants, the primary objective of managers is to do their best given the overall choices of participants concerning the class of assets their funds are invested in.

Typically, Pension Funds offer a variety of risk profiles that participants generally adhere to for some time until they decide to switch their risk profile. This is generally the case of individual schemes, where participants can switch regularly between schemes albeit these schemes remain relatively specialized as for their risk profile as participants come and go. The above implies that all standard asset class must be present in overall portfolios at minimum and maximum thresholds, ranging from mostly bond based schemes to mostly equity-based schemes. Occupational schemes, however, are set with the risk profile established (if at all) by their sponsors and fund managers (or control boards, where employers and workers representatives sit) will have certain freedom to change the risk profile of the fund according to market conditions. Over a large period of time then, both participants, with their regular scheme choices, and managers and social partners may induce relevant changes in the asset allocation of pension funds.



Graph ES8 below shows that Spanish Pension Funds are relatively conservative, as one should expect, and allocate more than $\frac{3}{4}$ of their assets to a combination of mostly-bond-based and mixed (equity + bond-based) schemes. Mostly-equity-based schemes have a reduced stance but, indeed, in 2020 funds have switched towards riskier investments as yields have truly soared.

Graph ES8. Investments by asset class (Pillar III schemes) 2010 - 2020



Source: INVERCO Report on Investment Funds and Pension Funds 2010-2020

On a shorter-term perspective (Table ES9), asset allocation structure of Pension Funds (all schemes) is obviously more stable even if there has been a sharp contrast with respect to 2018 concerning assets' returns. At the end of 2020 (latest data available by the DGSFP), a bias towards equity, Investment Funds and Trusts and foreign sovereign bonds is clearly discernible as well as away from domestic sovereign bonds and liquid assets, less attractive. Less risky investments, however, continued to dominate the allocative strategies of the Spanish Pensions Industry during 2020.

Table ES9. Pension Funds' Asset Allocation 2018-2020

	IVQ18	IQ19	IIQ19	IIIQ19	IVQ19	IQ20	IIQ20	IIIQ20	IVQ20
Equity	15%	16%	16%	17%	17%	15%	16%	16%	16%
Investment Funds & Trusts	24%	25%	25%	27%	27%	24%	27%	27%	29%
Domestic Government Bonds	19%	18%	17%	17%	15%	15%	15%	14%	13%
Foreign Government Bonds	13%	13%	13%	14%	14%	17%	14%	14%	13%
Securities and Private Bonds	18%	18%	18%	18%	18%	19%	20%	20%	19%
Other (Liquid Assets)	11%	10%	11%	8%	9%	10%	9%	8%	10%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: Own elaboration based on DGSFP data



As shown in Graph ES8, when a mid-term perspective is adopted, the increasing role of riskier assets in Pension Funds' allocation strategy is the result of a gradual switch from bonds in the last few years after sovereign debt became less and less attractive in an ultra-low interest rate scenario. A bet that finally, in 2019, has rewarded those who undertook it.

Life Insurance

Measured by own AuM, the Insurance Industry is a major retirement income products provider in Spain, both for Pillar II and, specially, Pillar III. Also, a substantial part of Pension Funds' assets is managed by insurers. A salient feature of this trade is the large variety of retirement vehicles that are marketed by the industry, in Spain and everywhere.

Some of these vehicles are indistinguishable from genuine retirement or pension plans (if we forget about the insurance part of any retirement solution) and quite a few are genuine life insurance solutions marketed since very old times by the industry and turned into retirement vehicles through a progressive assimilation with the standard vehicle (Pension Plans) firstly regulated in Spain some thirty years ago (*vid supra*). This assimilation has been fuelled by converging fiscal treatments for all these products even if some of them continue to have distinctive features of their own.

Very often, market practitioners make the distinction between "finance" and "insurance" when describing the nature of a given retirement solution. It must be said that as long as it is a true, integral "retirement solution", any product must contain insurance genetics in its composition. What is also true, instead, is that this insurance part must not necessarily be the heaviest part of any retirement product. Any retirement solution can contain an insurance part all through the accumulation and decumulation cycles of the most comprehensive product one might imagine to just the time span past the life expectancy points of the cohort the buyer belongs to. In between that span, a retirement product may or may not embody insurance features but just financial ones. Insurance-only retirement products tend to be safer and thus costlier for the buyer than financial only (no insurance on them, thus). This balance implies per se a rather large array of products, but not necessarily a "very large one". As retirement products are not easy to understand by the common buyer, a very large array of products in the market does not makes things easier for the retirement industry.

According to UNESPA, the Spanish Insurers Association, the total life and saving technical reserves/assets under management of the entire Spanish insurance sector at the end of 2020 amounted to € 242.4 bn, having spotted a 0.61% increase over 2019. As for the number of insured persons (and participants), 2020 ended with 33.4 million, slightly decreasing compared to 2019 (-1.36%).

Not all insured persons/participants and technical reserves/assets under management were allocated to retirement and/or pension vehicles. But about 25 million insured persons and €189.8 Bn worth of technical reserves were closely related to retirement rights and savings generated within the insurance sector. Moreover, insurers established in Spain manage assets worth €48.2 bn



on behalf of 3.4 million Pension Plans participants. The details of these gross numbers can be seen in Table ES10 below.

Table ES10. Insured Retirement and other Retirement-like vehicles 2020							
Broad Category	Type of Vehicle	Persons insured (x000)			Technical provisions (Mn)		
		Pillar II	Pillar III	Both Pillars	Pillar II	Pillar III	Both Pillars
Deferred capital	Insured Pension Plans (PPA)		884.1	884.1		12,097.8	12,097.8
	Company Retirement Plans (PPSE)	35.5		35.5	390.7		390.7
Pension Accruals and Insured Saving Vehicles	Risk	2,330.9		2,330.9	532.0		532.0
	PIAS*		1,195.5	11,955.6		14,441.1	14,441.1
	SIALP**		526.9	526.9		4,396.5	4,396.5
	Deferred capital	195.0	2,689.5	2,884.5	2,960.7	43,163.2	46,123.9
	Annuities***		1,536.6	1,536.6		64,985.5	64,985.5
	Income (acc. phase)	212.1		212.1	11,649.6		11,649.6
	Income (pay-out phase)	278.3		278.3	10,293.8		10,293.8
Other Group Insurance	Unit/Index-Linked	34.7	1,200.2	1,234.9	1,483.7	13,594.0	15,077.7
	Risk	3,356.6		3,356.6	1,063.8		1,063.8
	Deferred capital	315.9		315.9	2,489.6		2,489.6
	Pensions (acc. phase)	21.0		21.0	1,227.8		1,227.8
	Pensions (pay-out phase)	55.1		55.1	3,389.5		3,389.5
	Unit/Index-Linked	31.1		31.1	937.8		937.8
Total		6,866.4	8,032.8	14,899.1	36,418.9	152,678.2	189,097.1
YoY change (in %)		0.80%	-5.60%	-3.89%	0.46%	-0.62%	-0.41%
Pro memoria		Numbers (x000)		Assets under Management (Mn)			
Pension Plans managed by Insurers		3,411.6		48,278.3			
YoY change (in %)		0.97%		4.57%			

Note: Individual life insurance and long-term care insurance are not included in these figures.

**Standing for Plan Individual de Ahorro Sistemático or Regular Individual Saving Plan*

*** Standing for "Seguro Individual de Ahorro a Largo Plazo" or Individual Long-Term Saving Insurance*

**** Life and Term Annuities, including tax-qualified asset's conversions into annuities in the year*

Source: own computations based on UNESPA Nota de Prensa on the insurance sector, Q4 of 2020

Table ES10 above also shows indeed a large variety of retirement and pension vehicles offered by the insurance industry and, it can also be seen, that even as they share an insurance feature that



makes then quite different from the purely financial vehicles (as they try to cope with death uncertainty through actuarial techniques) each vehicle responds to a different need by consumers concerning their risk profiles, fiscal rules applying to them, etc.

It is clear that the most popular insured retirement products are Deferred Capitals and Annuities, commanding, respectively, 2.9 and 1.5 million insured persons and totalling technical reserves of €46 bn and € 65 bn, respectively. Many other products that emerged when the standard Pension Plans were regulated in Spain have a rather moderate presence in the insurance industry. In what follows, some of these different products are explained.

Insured Retirement Plans (PPA)

The Insured Retirement Plans (PPA or *Planes de Previsión Asegurados*, in Spanish) are the insured counterpart of standard Pension Plans previously discussed. Among all insured retirement (or retirement-like) vehicles, PPAs are the most proper for this purpose. Their features concerning taxes, redeemability or other are thoroughly the same as with Pension Plans, but for the fact that interest and principal risks are taken by the insurer, at a cost naturally. In particular, a known and certain interest rate is attached to this product. Once retirement happens, the insured person gets a life annuity (a lump-sum is also a popular option). In a way, technically at least, a PPA is basically a pure deferred annuity. Table ES10 shows that, by December 2020, 0.84 million individuals had adopted this Pillar III retirement vehicle, with total technical reserves amounting to €12.1 bn, a mere 14.4 thousand euros per account.

Company Retirement Plans (PPSE)

These are employer-sponsored Group Insurance aimed at complementary retirement benefits, basically a deferred capital product. They are the insured counterpart to the employer-sponsored Pension Plans (Pillar II), albeit more flexible as they adapt better to SMEs conditions. Table ES10 shows that, as of December 2019, only 35.5 thousand workers have been opted in this Pillar II retirement vehicle by their employers, with technical reserves amounting to €390.5 Mn, again a mere €11,000 per account.

Regular Individual Savings Plan (PIAS)

Regular Individual Saving Plans (PIAS or *Planes Individuales de Ahorro Sistemático*, in Spanish) are, again, insured saving plans to which individuals can contribute regularly. If certain conditions are met and savings are not removed after a long period of time, accumulated assets must be converted into a permanent income at very low (and decreasing with age) fiscal cost (on interest or capital gains). Table ES10 shows that, as of December 2020, almost 1.2 million individuals remained in this Pillar III retirement vehicle, with technical reserves amounting to €14.4 bn, or 12 thousand euros per account, representing an increase of about 1,600 euros compared to 2019.



Long-Term Individual Saving Plans (SIALP)

Long-term Individual Saving Plans (SIALP or Seguro Individual de Ahorro a Largo Plazo, in Spanish) are PIAS-like retirement vehicles. The major difference with a PIAS being that they can be cashed both as an annuity or as a lump-sum. As of December 2020, 527 thousand individuals have this product totalling € 4.4 bn technical reserves, barely €8.3 thousand euros per account.

Charges

Since inception (19987/1988), the current Pension Plans market in Spain has been characterized by large average charges. This said, there are three aspects that need to be dealt with right away: (i) the market has always been and continues to be very small and this entails a heavy toll on efficiency, (ii) Pillar II schemes bear internationally competitive low fees that, given market size, must be cross subsidized with significantly higher fees charged in Pillar III markets, and (iii) fees have been decreasing in the last years due to regulatory pressure on companies.

Data discussed below is eloquent enough about the consequences for savers that stem out of these market conditions. Average fees²⁵⁰ have been oscillating in the last decade at around 1% of assets under management. Using this figure as a proxy for Total Expense Ratio (TER or total cost ratio for investors), and under basic assumptions, typical investors could bear a Reduction in Yield (RiY) rate of 13%.²⁵¹

As for the insurance part of the retirement market, little is known referring to data directly usable for harmonized comparison, although all relevant data are available in raw from the regulators and the industry itself. The large variety of retirement and pension products available in this market segment, and their varied features complicates enormously the task, however. The work to be done in order to produce directly comparable data cannot be made in the context of this chapter and any initiative to reach that goal should be most welcomed.

Even if regulation itself accounts for part of the extra burden that management and depositary fees pose on consumers, the fact is that too large a chain of intermediaries (managers, commissioners and retailers) end up by adding to the overall cost for the participant or the insured. Recently, and regularly, management and depositary fees have been limited by law.²⁵² These regulations however allow variable fees to be set based on yields, within certain limits.

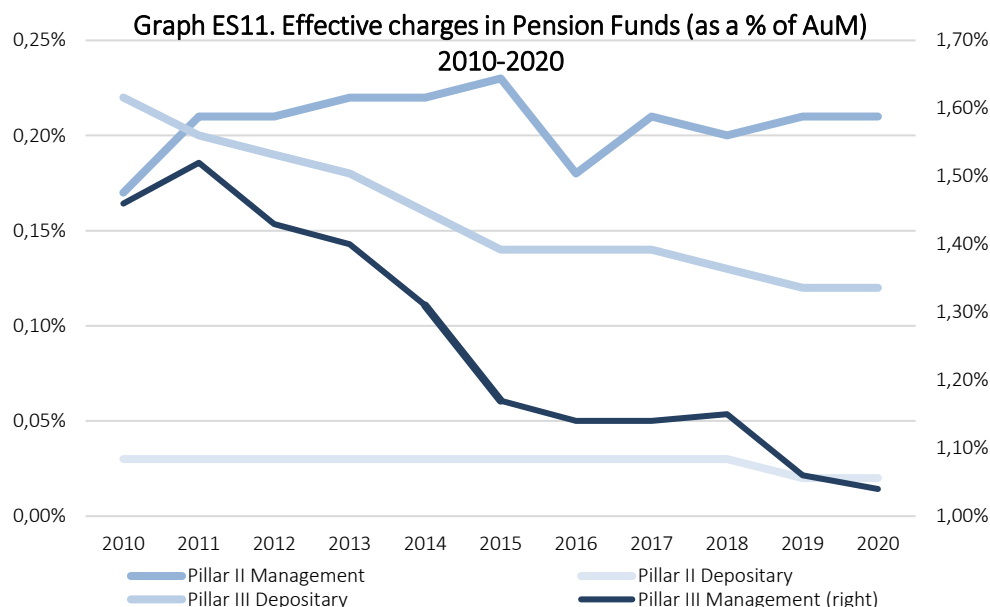
²⁵⁰ Management and depositary, all classes combined, weighted by market shares

²⁵¹ It is assumed that a typical investor increases his or her annual savings in retirement assets at 2% per year, for 35 years; total annual fees (TER) are 1% of AuM at the end of the year. Gross yields of AuM are assumed at 2% per year. Total Expenses (TE) from previous year are detracted from AuM for the next year. RIY ratio is then computed as accumulated TC at year 35 as a percentage of gross AuM at year 35.

²⁵² Royal Decree 304/2004 established specific limits to management and depositary fees. Royal Decree 681/2014 modified this. More recently, Royal Decree 62/2018, set maximum management fees including fees paid to non-managing retailers, depending on the asset classes under management at 0.85% for mostly bonds funds, 1.3% for mixed bonds funds and 1.5% for the rest of funds. Maximum depositary fees were set at 0.2%.



Graph ES11 and Table ES12 and below show the evolution of effective average fees charged on Pillars II and III Pension Funds to Plan participants by both managers and depositaries. Note that to management fees, as said before, some retailing fees (not known) may also be added.



Source: Table ES12 below.

The most salient feature of the data in the graph is clearly and immediately appreciated at first sight: Pillar II assets (employer-sponsored pension plans) are considerably cheaper to manage (up to almost 6 times cheaper in recent years) whereas depositary fees, that are comparatively lower in both pillars, continue to be 4 times cheaper in Pillar II as compared to Pillar III. The question remains whether just market scale grants such a large difference and, ultimately, large fees (Table ES12).

Table ES12. Effective charges in Pension Funds (as a % of AuM)												
Pillar	Function	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Pillar II	Management	0.17%	0.21%	0.21%	0.22%	0.22%	0.23%	0.18%	0.21%	0.20%	0.21%	0.21%
	Depositary	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.02%	0.02%
Pillar III	Management	1.46%	1.52%	1.43%	1.40%	1.31%	1.17%	1.14%	1.14%	1.15%	1.06%	1.04%
	Depositary	0.22%	0.20%	0.19%	0.18%	0.16%	0.14%	0.14%	0.14%	0.13%	0.12%	0.12%

Source: Own elaboration based on DGFSP data

Within this context, industry transparency requirements at the international scale are starting to provide a framework within which generate a comprehensive understanding and common ground for comparison about the cost and the advantages of complementary retirement vehicles as these



solutions became increasingly necessary to help cushion the hard landing of Social Security benefits everywhere.

All Pillar III vehicle providers are obliged to advance a Key Information Document (KID) package to their customers. These KID packages are firmly rooted on PRIIPS regulation that is not binding however for pension products. Pillar II products are not obliged to advance a KID package to their customers, albeit they must of course provide information akin to this package.

Taxation

With charges and returns (*vid infra*) taxation is one of the hottest issues around retirement products. But it shouldn't be, think twice. Income must be taxed, this everyone admits, but not double taxed. This is unjust and inefficient. One could also admit easily that labour and capital income can be differently taxed, or that tax bases can convey certain policy objectives. But definitely not that the same income concept is taxed twice.

In the absence of ordinary tax deductibility for retirement vehicles, as practiced by virtually all countries, that part of income saved for years for future retirement, and the interest earned on that income, would be taxed twice.

This treatment is often referred to as “tax incentives” or “tax gifts”, and also questioned by certain social or political agents as unjust or regressive tax benefits. Nothing less true. The conventional tax treatment to which pension assets and products are subject is generally and admittedly the best way to avoid what otherwise would be a case of unacceptable double taxation of personal income.

The pensions industry must be clear and strong on this if their members want to be perceived as truly looking after the best interest of those who entrust their savings to them. As much as they must be clear and strong, by the way, on transparency, open competition and best-efforts concerning charges and returns.

Normally, taxing retirement vehicles means exempting income as it is saved (as well as interest earned on this income) and taxing benefits as they are cashed. That's the “Exempt-Exempt-Tax” or EET paradigm most commonly used in the world. Another way to avoid double taxing of income is to tax contributions and interest and make benefits tax exempt (TTE), but this paradigm is rarely used. In truth, neither pure extreme is actually being used as all countries have some limits to deductibility and also some limits to benefits exemption.

Normally too, tax allowances at accumulation of savings are justified because these retirement savings can't be cashed or converted into non-retirement savings before retirement age. Yes, this a legitimate way to justify EET schemes. But again, tax authorities only have to claim unpaid taxes back when savings conversion occurs instead of forcing savers to stay fixed on their products.

Taxing retirement savings and benefits remains in the literature and in practice a much-debated issue, just because we don't realize that the best and most fair taxing schedule for these bases



should be exactly the same tax regime that Social Security social contributions and benefits enjoy, that is full (or almost full) EET.

Even if standard Pension Plans set the tax norm for many other retirement vehicles, there remain important differences, especially at the pay-out phase, among the pension plans and insurance vehicles. Some of these peculiarities are analysed below.

Pension Plans

The fact that tax exemptions during accumulation are important is well reflected in the Spanish market as most of the payments into these vehicles happen at the end of the year when investors seek to improve their tax bills by deciding up to what limit bring their contributions to retirement saving plans. This has contributed to locate the only and most important attractive of saving for retirement into the tax treatment of this kind of investments. The limit up to which income saved for retirement under a Pension Plan is tax exempt in Spain is currently €8,000.

Table ES13. Personal Income Tax scale and rates - Central Government*

Tax Base from...	To	Nominal Marginal Rates**
€ 0	€ 12,450	9.50%
€ 12,450	€ 20,200	12.00%
€ 20,200	€ 35,200	15.00%
€ 35,200	€ 35,200	18.50%
€ 60,000	-	22.50%

* Spain has several government levels and PIT is roughly split in half between Central and Regional Governments (See Table ES11).

** Only Central Government, only labour income. Interests and dividends are thoroughly taxed at 19%. Effective rates are sensibly lower.

Source: Agencia Tributaria

When withdrawal of benefits at retirement occurs, there are three possible cases:

- (i) Retirement income is retrieved as a lump-sum: after a deduction of 40% from this sum the rest is taxed at the current marginal personal income tax rate. No distinction is made between principal and interest earned during accumulation phase, despite the fact that Spain has a dual personal income tax.
- (ii) Retirement income is retrieved as a life (or term) annuity: this income is considered as wages or labour income and taxed at the current marginal personal income tax rate, again with no distinction whatsoever between principal and interest part of pension benefits.
- (iii) Retirement income is retrieved both as a lump-sum and an annuity ("mixed income"): both tax regimes apply, each of them to the corresponding part of the retirement benefit in the first year.

This said, depending on where each retiree has his or her fiscal residence, the tax bill may change. Spain has its Personal Income Tax scheme split between the Central Government and its seventeen Autonomous Regions. While the Central Government sub scheme applies uniformly for the whole



nation, the regional sub schemes have different income brackets and marginal tax schedules, as it is shown in Tables ES10 and ES11.

Table ES14. Personal Income Tax - Autonomous Regions		
Region*	Top Income Bracket (ordered)	Top Marginal Tax Rate beyond Top Income Bracket
Madrid	53,407.20	21.00%
Castila y León	53,407.20	21.50%
Catilla-La Mancha, Galicia, Ceuta y Melilla	60,000.00	22.50%
Murcia	60,000.00	23.30%
Canarias	90,000.00	24.00%
Cantabria	90,000.00	25.50%
Extremadura	120,000.00	25.00%
Andalucía	120,000.00	24.90%
La Rioja, C. Valenciana	120,000.00	25.50%
Aragón	150,000.00	25.00%
I. Balears	175,000.00	25.00%
P. de Asturias, Cataluña	175,000.00	25.50%

* Two historical Autonomous Regions (Navarra and The Basque Country) are exempted from the Common Tax Regime. Two Autonomous Towns are included (Ceuta and Melilla)

Source: Agencia Tributaria

Life insurance products

Since 1999 premiums paid into insured saving are not tax exempt. Retirement capitals or income from these vehicles are not taxed except in its interest and capital gains part. These capital gains are integrated into the savings tax base and subject to a tax rate schedule of 19% up to the first € 6,000, 21% from € 6,000 to € 50,000 and 23% beyond € 50,000. When benefits are paid as annuities, the tax rate depends on the life of the annuity and the age of the annuitant when payments began. In case of death of the annuitant, with remaining capital reverting to them, heirs will have to pay inheritance tax, which may vary considerably depending on the region where they have their fiscal residence, as this tax lies within the regional jurisdiction.

Insured Retirement Plans (PPA)

This vehicle has a similar tax treatment as standard Pension Plans, Contributions to these plans are tax exempted up to an annual limit of € 8,000 and benefits are taxed as labour income taking into account the recipients age at retirement. Capital gains are subject to a dual income tax scheme. The tax regime of this vehicle thus can be said to be of the EET kind.

Regular Individual Savings Plan (PIAS)

PIAS are a more flexible vehicle than Pension Plans and PPAs, also from the point of view of taxation. As a retirement saving vehicle, annual contributions to it are fully tax deductible up to a limit of €



8,000 per year, as with Pension Plans and PPAs. There is also a global limit for this type of saving plan: €240,000. Savers can only own one PIAS. At the pay-out phase, if income is received as a lump-sum, taxation intervenes as usual through the dual income tax for labour income (principal) and capital gains income (returns).

But if retirement income is retrieved as a life annuity, capital gains are 100% exempt and principal is taxed according to a rapidly diminishing rates schedule. PIAS can be cashed in well before ordinary retirement age, but when cashed after age 65 the tax rate is 20% falling to 8% when cashed after age 70.

The €240,000 limit for total saving under a PIAS is relevant here for, as from 2015, individuals aged 65 or more who liquidate any asset they may own (financial, real estate, art works, etc) to buy a life annuity have related capital gains fully exempted from the dual income tax.

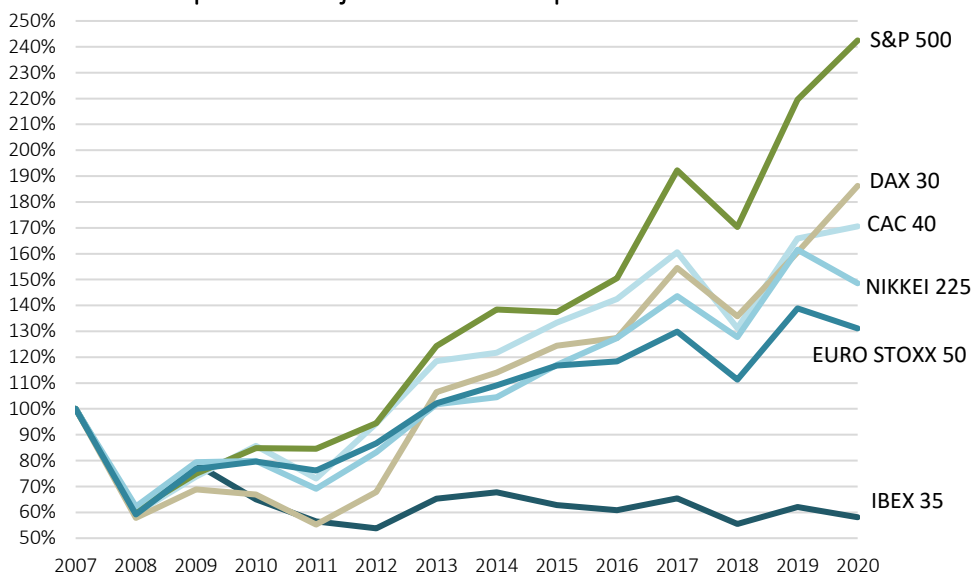
Returns

Spanish capital and debt markets returns

In 2008 major world stock indexes suffered a 40% loss with respect to the previous year. That was a catastrophe. All asset classes linked to stock suffered accordingly. Hundreds of thousands of workers in advanced countries had to postpone their retirement because these losses would mark the value of their retirement incomes for the rest of their lives nearing them to poverty at old age. Most of these stock markets recovered the 2007 line by 2012-2013, But the Spanish stock market has barely recovered the 2008 bottom-line. This can be seen in Graph ES15 below.



Graph ES15. Major Stock Markets performance 2007-2019

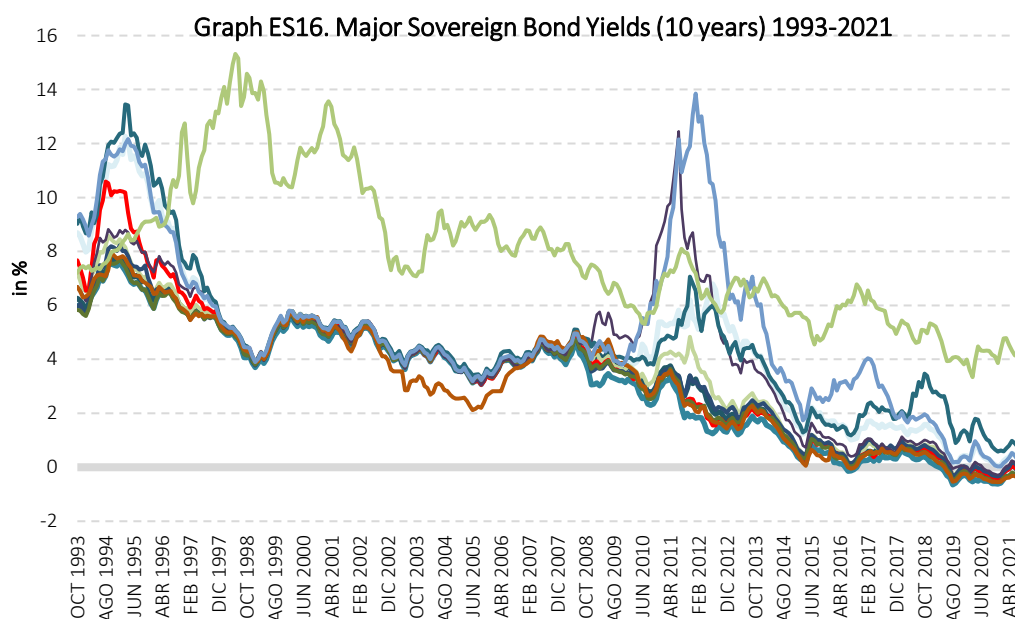


Sources: BME, STOXX, Euronext, DAX, S&P 500, DOW

Happily enough (unfortunately), Spanish workers have their retirement savings well away from the stock market. In fact, Spanish workers have no (relevant) retirement assets at all as we have been arguing so far. Spanish workers have no relevant retirement savings because they have a rather large (expected) Social Security implicit wealth as pension benefits replace labour income above 80% (OECD).

If 2018 was a bad year for stocks return, 2019 was exceedingly better so that most exchanges overshot 2017 levels and took most markets to all-time highs since the beginning of the financial crisis. In the period 2007-2019 the S&P 500, for instance, grew by around 120% (a cumulative annual rate of 6.8%), or a 66% in the case of the German DAX 30. The Spanish IBEX 35, in 2019, displayed a dismal 62% of its 2007 value.

Sovereign debt markets in advanced countries, on the other hand, haven't been less turbulent. Provoking real roller coaster effects in associated assets and savings. Spanish 10y bond yields, in particular, reached intervention levels in 2012, at 679 bpts in August. Only a financial sector rescue package saved the sovereign market from Brussels intervention, at a cost naturally. See Graph ES6 below.



Source: Banco de España

Since May 2015, the ECB succeeded calming lenders and sovereigns entered into a considerably quieter environment. By mid-2019 European and Japanese 10y bonds reached around 0 or negative levels. Spanish 10y bonds were quoted at 0.33% in September, doubling compared to the same period in 2020, most probably due to the decrease in economic output and state borrowing. Only, among advanced economies, Treasury 10y bonds (USA) stood below 2% in late 2019, albeit at historical low levels.

All in all, any retirement vehicle has to be invested in a mix of stocks, debt and monetary assets and the performance of these underlying assets determines the returns of those savings. As for vehicles set in advanced countries, the strong recovery of Stock markets in 2019 and the strong appreciation of bonds has undoubtedly been a blessing provided that management has profited efficiently from these conditions. In Spain, stock and bond markets have increased slightly in 2020, albeit more modestly in what concerns the former.

Retirement assets' performance (standard Pension Funds)

One of the salient features of the Spanish retirement vehicles market is the large variety of solutions marketed and the small size of the overall market, let apart the small significance of some of its segments. This may seem hard saying, but a way must be found to substantially enlarge the number of workers covered and the size of per account assets and reserves.

So far, as it is shown in the tables below, savings have managed to maintain their purchasing power with few exceptions performing better. Undoubtedly, even if a crude one, the key factor pushing



or keeping Spaniards into the complementary retirement savings system is tax deferral (and the locking-in effect it creates), and not as much the real, after fees returns of these assets.

However, all the evidence produced below belongs to the standard Pension Plans system, not to insured retirement vehicles, due to data limitations. All data comes basically from the web site of INVERCO, the Spanish body representing Mutual Investment Institutions and Pension Funds.

Notice, nevertheless, that retirement products insurance comes at an additional cost (with respect to purely financial vehicles) due to the intrinsic nature of both guaranteeing assets' value, on the one hand, and mutualising longevity, on the other. Even if insurers are good performers also in terms of assets management and enjoy the very long-term premiums of the underlying matching assets they invest in, they need to beat the insurance extra cost that these products embody.

Table ES17 contains the basic information concerning Pillars II and III Pension Funds. Returns are labelled "gross", "net" and "real". Gross means before management and depositary fees and commissions (retailing and other transaction costs are disguised here), net means after management and depositary fees and commissions, being nominal returns, and real means after fees and inflation. We obtain the gross returns by adding to the net returns published by INVERCO the management and depositary fees published by the DGSFP; as such, since data earlier than 2009 is not available, we were not able to compute the gross returns between 2000-2009.

The returns by pillar are calculated as follows: we use the employer-sponsored and associate plans as a proxy for the Spanish occupational pensions pillar (pillar II) and we calculate, for each year, the weighted average return, based on the assets under management of associate and employer-sponsored plans. For the voluntary pillar (pillar III), we use INVERCO's data for individual pension plans. To calculate the overall return of Spanish pension funds, we use the same methodology: weighted returns based on the assets under management of associate, employer-sponsored, and individual plans.

At first glance, positive net nominal returns dominate the landscape, and even net real returns, with some years at really good returns on assets invested. On historical basis, average cumulative real returns continue to be clearly positive (INVERCO).

2018, however, was a bad year for investments returns of all sorts, particularly the stock market. But returns in 2019 overshoot the 2018 ones. This provided for the best year in the current decade.



Table ES17. Returns of Spanish Pension Funds (before taxes)

	Pillar II			Pillar III		
	Gross Return	Net Return	Real net Return	Gross Return	Net Return	Real net Return
2000	n.a.	-3.40%	-7.40%	n.a.	7.9%	3.93%
2001	n.a.	0.62%	-1.89%	n.a.	-3.5%	-6.04%
2002	n.a.	-3.72%	-7.74%	n.a.	-5.0%	-8.98%
2003	n.a.	6.69%	4.00%	n.a.	5.1%	2.40%
2004	n.a.	5.56%	2.28%	n.a.	3.7%	0.41%
2005	n.a.	8.43%	4.71%	n.a.	6.4%	2.69%
2006	n.a.	5.46%	2.74%	n.a.	5.1%	2.37%
2007	n.a.	2.46%	-1.82%	n.a.	2.0%	-2.27%
2008	n.a.	-10.5%	-12.0%	n.a.	-6.6%	-8.09%
2009	9.47%	9.28%	8.38%	10.39%	8.76%	7.86%
2010	2.18%	1.98%	-0.89%	0.25%	-1.43%	-4.30%
2011	0.21%	-0.03%	-2.38%	0.50%	-1.22%	-3.57%
2012	8.25%	8.01%	5.01%	7.29%	5.67%	2.66%
2013	8.00%	7.75%	7.45%	10.30%	8.72%	8.41%
2014	7.38%	7.13%	8.27%	7.77%	6.30%	7.43%
2015	3.13%	2.87%	3.00%	2.52%	1.21%	1.34%
2016	2.94%	2.73%	1.32%	2.97%	1.69%	0.28%
2017	3.42%	3.19%	1.96%	3.85%	2.56%	1.34%
2018	-2.99%	-3.22%	-4.44%	-3.20%	-4.48%	-5.71%
2019	9.01%	8.78%	7.93%	9.99%	8.81%	7.96%
2020	1.76%	1.53%	2.10%	1.39%	0.23%	0.80%

Note: Gross Returns are returns before management and depositary charges, Real Returns are computed using the Spanish HCPI published by Eurostat.

Source: Own calculations based on INVERCO data

A more vivid landscape emerges when overall returns are followed through time with the help of average cumulative returns computations as presented in Table ES17. This time overall returns for the entire Pension Funds' system are presented and the cumulative perspective is based in 2000. Average cumulative returns at any particular year are thus for the period "2000-that-particular-year".²⁵³ We must note that deflation in 2020 helped a bit the returns of all investments in Spain.

In the period 2000-2020, Spanish pension plans delivered a 65% profit in nominal net terms (165% value of 2020 compared to the beginning) and an annual cumulative nominal return of 2.49%, which is among the highest among the jurisdictions analysed in this report. This return is net (after charges) for savers, but inflation must be taken into account. After adjusting for inflation, the cumulative real returns are smaller (+7.91%), which means that nominal returns just helped to match inflation since 2000 to present. The corresponding average cumulative real rate is thus 0.52% for the period. Note that inflation has been negative in four years in the period and moderate over

²⁵³ Average cumulative returns for the last 3, 5, 10 or 15 years at 2019 or at any other year can be easily computed using the cumulative return data in the corresponding column in Table ES13.



the rest of years. The annual average inflation rate decreased between due to the deflation recorded in 2020 (-0.6%), which means that the purchasing power of the Euro increased compared to Spanish consumer prices.

Table ES18. Returns of Spanish Pension Funds (after charges and before taxes)							
	Nominal Returns			Real Returns*			Harmonised
	YoY Return	Cum. Return	Average since 2000	YoY Return	Cum. Return	Average since 2000	Consumer Price Index
2000	2.95%	102.95	2.95%	-0.54%	99.46	-0.54%	3.49%
2001	-2.07%	100.82	0.41%	-4.89%	94.60	-2.74%	2.82%
2002	-4.77%	96.01	-1.35%	-8.36%	86.69	-4.65%	3.59%
2003	5.79%	101.57	0.39%	2.69%	89.02	-2.87%	3.10%
2004	4.51%	106.15	1.20%	1.45%	90.32	-2.02%	3.06%
2005	7.21%	113.80	2.18%	3.82%	93.77	-1.07%	3.39%
2006	5.23%	119.75	2.61%	1.68%	95.34	-0.68%	3.55%
2007	2.08%	122.25	2.54%	-0.77%	94.61	-0.69%	2.85%
2008	-8.07%	112.38	1.31%	-12.19%	83.07	-2.04%	4.12%
2009	7.70%	121.03	1.93%	7.94%	89.66	-1.09%	-0.24%
2010	-0.13%	120.88	1.74%	-2.18%	87.71	-1.19%	2.05%
2011	-0.76%	119.96	1.53%	-3.80%	84.38	-1.41%	3.04%
2012	6.59%	127.86	1.91%	4.15%	87.87	-0.99%	2.44%
2013	8.36%	138.55	2.36%	6.83%	93.88	-0.45%	1.53%
2014	6.92%	148.14	2.65%	7.12%	100.56	0.04%	-0.20%
2015	1.78%	150.78	2.60%	2.41%	102.98	0.18%	-0.63%
2016	2.04%	153.85	2.57%	2.38%	105.43	0.31%	-0.34%
2017	2.77%	158.11	2.58%	0.47%	105.92	0.32%	2.30%
2018	-4.08%	151.66	2.22%	-5.76%	99.82	-0.01%	1.68%
2019	8.80%	165.01	2.54%	8.10%	107.91	0.38%	0.70%
2020	0.67%	167.61	2.49%	1.24%	111.44	0.52%	-0.57%

* Real Returns are computed using the Spanish HCPI published by Eurostat

Source: Own elaboration and computation based on INVERCO data

The overall picture shown in the table above, however, hides a much richer detail of returns by type of retirement scheme and the asset classes these schemes are invested in. Tables ES19 to ES20(A) and (B) below offer this detail.

Pillar II Pension Funds are much cheaper to manage, as seen before, and obtain a larger net nominal return as seen in Table ES19, particularly those of the associate segment, a minor one, nevertheless. Spanish Pension Funds' average cumulative nominal returns were 2.53%, 3.04% and 2.80% over the 2000-2020 period for, respectively, individual, associate and employer-sponsored plans. A 67%, 87.5% and 78.4% cumulative return, respectively, over the entire period. The overall return rate was 2.49%. Once inflation adjusted, average real returns managed to stay slightly above inflation, namely 0.23%, 1.07% and 0.82% for, respectively, individual, associate and employer-sponsored plans and 0.40% for the standard Pension Plans system.

**Table ES19. Returns of Spanish Pillar II Schemes (after charges and before taxes)**

	Associate Plans		Occupational Plans	
	Nominal	Real	Nominal	Real
2000	0.93%	-2.56%	-3.62%	-7.11%
2001	0.10%	-2.72%	0.64%	-2.18%
2002	-3.84%	-7.43%	-3.72%	-7.31%
2003	5.61%	2.51%	6.73%	3.63%
2004	6.56%	3.50%	5.52%	2.46%
2005	9.49%	6.10%	8.39%	5.00%
2006	8.16%	4.61%	5.36%	1.81%
2007	3.05%	0.20%	2.44%	-0.41%
2008	-11.10%	-15.22%	-10.50%	-14.62%
2009	9.23%	9.47%	9.28%	9.52%
2010	0.95%	-1.10%	2.01%	-0.04%
2011	-1.11%	-4.15%	0.00%	-3.04%
2012	6.94%	4.50%	8.04%	5.60%
2013	9.51%	7.98%	7.70%	6.17%
2014	6.88%	7.08%	7.14%	7.34%
2015	2.57%	3.20%	2.88%	3.51%
2016	2.45%	2.79%	2.74%	3.08%
2017	2.99%	0.69%	3.19%	0.89%
2018	-4.32%	-6.00%	-3.19%	-4.87%
2019	10.31%	9.61%	8.74%	8.04%
2020	1.39%	1.96%	1.53%	2.10%
Cum. 2000-2020	187.49%	124.95%	178.41%	118.65%
Average 2000-2020	3.04%	1.07%	2.80%	0.82%

Source: Own calculations based on INVERCO data

Given the performance of Pillar II pension funds and the overall system performance just discussed, the conclusion emerges that Pillar III funds have performed in the 2000-2020 period very slightly above inflation, namely at 0.23%.

Being this, indeed, the case, it is interesting to look at the asset classes these funds are invested in as these schemes' managers have more flexibility than occupational schemes' managers, rather more constrained by social partners' presence in control boards of these Plans.

Table ES20(A) shows returns of debt-based Individual Funds (Pillar III). Due to higher charges (already netted out in data), net returns are sensibly poorer to those of occupational funds, where charges are typically five to six times lower. After inflation adjustment, real returns show a dominant negative pattern that, in averaged cumulative terms over the 2000-2020 period, translate into real investment returns that range between -0.15% for Long-term debt-based funds to -1.11% for Mixed debt-based funds. Average nominal returns cannot beat the 1.85% mark in the best performing class the Long-term debt-based category. Before charges, however, returns for Pillar III funds' investments aren't that different from returns for Pillar II funds' investments.



Table ES20(A). Returns of Individual Pension Plans - (After charges and before tax)

	Short-Term Debt		Long-Term Debt		Mixed Debt	
	Nominal	Real	Nominal	Real	Nominal	Real
2000	3.83%	0.34%	0.68%	-2.81%	-2.20%	-5.69%
2001	3.64%	0.82%	0.62%	-2.20%	-2.41%	-5.23%
2002	3.83%	0.24%	0.73%	-2.86%	-5.16%	-8.75%
2003	1.95%	-1.15%	2.62%	-0.48%	3.92%	0.82%
2004	1.77%	-1.29%	1.92%	-1.14%	3.16%	0.10%
2005	1.04%	-2.35%	1.78%	-1.61%	5.33%	1.94%
2006	1.26%	-2.29%	0.34%	-3.21%	3.58%	0.03%
2007	1.94%	-0.91%	0.75%	-2.10%	1.32%	-1.53%
2008	2.13%	-1.99%	2.03%	-2.09%	-8.79%	-12.91%
2009	1.80%	2.04%	3.96%	4.20%	6.05%	6.29%
2010	0.64%	-1.41%	0.47%	-1.58%	-1.54%	-3.59%
2011	1.38%	-1.66%	1.39%	-1.65%	-2.21%	-5.25%
2012	3.47%	1.03%	4.79%	2.35%	5.41%	2.97%
2013	2.08%	0.55%	4.66%	3.13%	6.11%	4.58%
2014	1.37%	1.57%	8.93%	9.13%	3.61%	3.81%
2015	-0.20%	0.43%	-0.46%	0.17%	0.78%	1.41%
2016	0.20%	0.54%	1.25%	1.59%	0.71%	1.05%
2017	-0.11%	-2.15%	0.11%	-1.93%	1.50%	-0.54%
2018	-1.79%	-3.53%	-2.01%	-3.75%	-4.08%	-5.82%
2019	0.65%	-0.25%	2.91%	2.01%	5.14%	4.24%
2020	-0.19%	0.38%	1.36%	1.93%	-0.39%	0.18%
Cum. 2000-2020	135.33	90.02	146.19	96.90	119.81	79.13
Average 2000-2020	1.45%	-0.50%	1.82%	-0.15%	0.86%	-1.11%

Source: Own elaboration based on INVERCO data

As for Pillar III funds mostly invested in stock, Table ES20(B) contains further and final evidence telling us that by no means returns for this category can be said to be better than those of debt-based investments. Indeed, average real returns to mostly-stock-based investments, as shown in the table, lie around the -0.54%/-0.94% threshold on average over the 2000-2020 period. Paradoxically, guaranteed funds, despite being the option of more conservative savers manage to obtain a healthy 1.25% real return in the last two decades, a 3.21% nominal return and a cumulative 94.3% nominal return over the entire period.

**Table ES20(B). Returns of Individual Pension Plans - (After charges and before tax)**

	Stocks Mixed		Stocks		Guaranteed	
	Nominal	Real	Nominal	Real	Nominal	Real
2000	-4,97%	-8,46%	-10,60%	-14,09%	9,22%	5,73%
2001	-7,73%	-10,55%	-16,30%	-19,12%	0,35%	-2,47%
2002	-17,20%	-20,79%	-30,10%	-33,69%	5,04%	1,45%
2003	8,70%	5,60%	16,18%	13,08%	5,67%	2,57%
2004	5,60%	2,54%	8,88%	5,82%	4,66%	1,60%
2005	12,16%	8,77%	18,73%	15,34%	4,64%	1,25%
2006	10,09%	6,54%	18,30%	14,75%	1,44%	-2,11%
2007	2,96%	0,11%	3,93%	1,08%	1,48%	-1,37%
2008	-23,80%	-27,92%	-38,40%	-42,52%	0,68%	-3,44%
2009	14,21%	14,45%	27,20%	27,44%	3,77%	4,01%
2010	-0,82%	-2,87%	1,63%	-0,42%	-3,96%	-6,01%
2011	-7,01%	-10,05%	-10,40%	-13,44%	1,15%	-1,89%
2012	8,62%	6,18%	10,43%	7,99%	5,48%	3,04%
2013	12,51%	10,98%	22,19%	20,66%	9,41%	7,88%
2014	4,77%	4,97%	7,63%	7,83%	11,37%	11,57%
2015	2,50%	3,13%	5,58%	6,21%	0,27%	0,90%
2016	2,70%	3,04%	4,34%	4,68%	2,12%	2,46%
2017	4,54%	2,50%	8,83%	6,79%	0,41%	-1,63%
2018	-6,55%	-8,29%	-10,10%	-11,84%	0,41%	-1,33%
2019	12,17%	11,27%	23,59%	22,69%	4,12%	3,22%
2020	-0,66%	-0,09%	2,93%	3,50%	1,03%	1,60%
Cum. 2000-2020	124.77	82.02	137.22	89.18	194.29	129.72
Average 2000-2020	1.06%	-0.94%	1.52%	-0.54%	3.21%	1.25%

Source: Own elaboration based on INVERCO data

The two tables below summarise the returns of all Spanish pension funds (aggregated based on weightings of AuM) on standardised reporting period (last year, last 3 years, last 7 years, 10 years, and since 2000) and the subsequent table presents the standardised period returns based on the “Pillar” classification.

Average nominal and real net returns of Spanish pension funds					
	1 year 2020	3 years 2018-2020	7 years 2014-2020	10 years 2011-2020	since 2000
Nominal	0.67%	1.66%	2.62%	3.23%	2.49%
Real	1.24%	1.15%	2.20%	2.36%	0.52%

Source: Tables ES19 and ES20



Aggregate summary return table									
	1 year		3 years		7 years		10 years		Since 2000
	2020	2019	2018-2020	2017-2019	2014-2020	2013-2019	2011-2020	2010-2019	2000-2020
PILLAR II									
Nominal return	1.53%	8.78%	2.24%	3.73%	3.22%	5.26%	3.81%	4.78%	3.01%
Real return	2.10%	7.93%	1.74%	2.14%	2.80%	4.28%	2.94%	2.60%	0.79%
PILLAR III									
Nominal return	0.23%	8.81%	1.37%	2.72%	2.25%	4.34%	2.87%	3.42%	2.53%
Real return	0.80%	7.96%	0.86%	1.14%	1.83%	3.35%	2.00%	2.10%	0.32%
Both Pillars									
Nominal return	0.67%	0.67%	1.66%	1.66%	2.62%	2.62%	3.23%	3.23%	2.49%
Real return	1.24%	1.24%	1.15%	1.15%	2.20%	2.20%	2.36%	2.36%	0.52%

Source: Tables ES19 and ES20

Investment strategies

Returns discussed in the previous section are indeed varied. Their diversity, of course, is rooted in a couple of basic factors: (i) the assets in which retirement funds are invested in and (ii) the strategies managers deploy, given the portfolio, in order to get a high return for their customers. In general, few facts can be established concerning the data described above:

- For the 2000-2019 period, overall nominal (after charges) returns for Pillars II and III pension funds combined have been 2.49% and real returns have been 0.52%, nominal and real respectively, that is, a 197-basis points difference given to inflation.
- In the last decade (2011-2020), for Pillar II pension funds, with gross nominal returns of 3.94% (simple average), net nominal returns of 3.70% and net real returns of 2.67%, barely 23 basis points of assets under management have been given to managers and depositaries every year and 112 basis points per year have been given to inflation.
- However, for Pillar III pension funds, in the same period, with (unweighted, simple average) gross real returns of 3.97%, net returns of 2.55% and real returns of 1.51%, a much higher 143 basis points have been given to management and depositary costs and also 112 basis points to inflation. So that charges have been 120 basis points larger for Pillar III vehicles than for Pillar II ones.
- In Spain, up to six different regular portfolios are managed in the pensions industry, ranging from almost-only debt to almost-only stocks and guaranteed funds (that may contain both bonds and stock in varied proportions). Nominal returns for these broad categories, for the 2000-2020 period (annual, cumulative) have been 1.45%, 1.82% and 0.86% for, respectively, short-term, long-term and mixed debt vehicles and 1.06%, 1.52% and 3.21% for, respectively, mixed stocks, almost-only stocks and guaranteed funds.

As a clue for the reasons behind the widely varied results just discussed, several ones are rather standard irrespective of managers' capacity to beat the most popular categories. Long-term debt yields more than short-term debt, debt is less volatile than stocks and thus less risky and managers' fees are far smaller for Pillar II vehicles than for Pillar III ones. The superior returns of guaranteed



funds however defy common sense as these should bear some extra cost due to the guaranty over the principal they embody.

So, to what extent managers have been responsible for the rather mild results that pension funds have obtained in Spain since 2000? To answer this question, one should go fund by fund and manager by manager, which is not the purpose of this chapter²⁵⁴, but few general comments can be made. Guaranteed funds, that accounted for 9.53% of Pillar III total assets in 2029 (19.47% in 2010) have been much more profitable for participants than the rest, while assumedly they are more expensive to run due to the insurance coverage they embody. On the other hand, Pillar III vehicles are considerably more charged by management fees than their Pillar II counterparts.

Managers in Spain may be restricted by the rigid asset structure in the established portfolios within Pillar III while being rather freer in what concerns Pillar II vehicles (albeit they may eventually be the same). But the fact is that gross (before charges) returns in these two broad categories differ by a mere 3 basis points in favour of the former since 2010. The large difference in (net) returns (115 bp, same period) being thus entirely attributable to managing fees, much lower within Pillar II than within Pillar III.

All categories or retirement vehicles in Spain invest rather shyly in foreign assets with only few funds specialising in these assets' class. Superior returns in foreign assets however are by no means assured and this investment strategy has extra costs anyway.

Guaranteed funds' managers, finally, which are considerably freer than their non-guaranteed counterparts (being also the same managers eventually) and, besides, do not have to face internal control bodies like their Pillar II counterparts, seem to have profited from these conditions to obtain larger returns for their vehicles' participants.

Conclusion

Spanish retirement assets, through standard Pension Plans are a mere 9.3% of GDP. Insurance retirement (and retirement-like) assets and provisions, a large array of different products not equally qualified as retirement vehicles, could add another 15.24% GDP points to standard Pension Plans. This, by all standards, is a small pensions industry even if some 9.5 million individuals participate in Pension Plans and some 15.5 million individuals are covered by insurance retirement or quasi-retirement vehicles. Assets, technical provisions or other retirement rights barely reach €10,000 per contract or account making the whole system an insufficient complement, let alone an alternative, to Social Security retirement benefits. Unfortunately, this state of affairs is common to many other European countries.

The retirement vehicles market in Spain, however, has a rich structure of agents, products and retirement schemes that, on paper, should be able to cover the entire work force and beyond. Two

²⁵⁴ See Fernández y Fernández-Acín (2019). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3319461



tightly related factors prevent this to happen: the pervasive presence of Social Security pensions, whose old-age variety replaces lost labour income at retirement by around 80% and the reluctance of employers to sponsor retirement schemes for their employees because of costs reasons, particularly among SMEs.

This Spanish pension report, apart general descriptions of the landscape, has gone with a certain detail through some of the most salient features of our Pillars II and III arrangements on, basically, three crucial dimensions: (i) charges, (ii) taxes and (iii) returns.

On charges, we find that these are rather large on average, only because the Individual schemes are considerably costlier to manage than occupational ones. The latter keep their charges very low in line with what is observed in other more advanced and developed markets. Actually, thanks to intense regulatory effort in the last few years, charges to the Pillar III schemes have decreased clearly. A continuation of this trend, without a significant increase in market size, continues to look far less affordable.

On taxation, Spain has an EET, tax-deferral regime for retirement assets and incomes, which is the standard in most countries in the world. Spain also has deductibility of contributions to retirement vehicles (up to certain limits), an even more followed standard in most countries in the world. This is the right way to avoid unacceptable double taxation. No tax expert would have any doubt about the importance of keeping not only the current deductibility of contributions but also tax deferral. Tax deferral empowers the accumulation of pension rights and may also turn to be a good business for tax authorities in the longer run.

This means that the above-mentioned tax treatment of pensions (deductibility cum deferral) should not be seen as gifts or favours, but as the best policy that can be performed. Some ceilings to tax deductibility may be too low or even arbitrary. Less understandable is still the push among political and social agents to dismantle deferral and/or deductibility. The latter would be even worse.

This said, tax deferral in Spain is seen by most agents participating in the retirement market, be they workers, insured persons or even managers and retailers, as the only reason to buy/sell these products. A cultural trait that may explain, jointly with other reasons discussed in this report, the poor development of Pillars II and III in our country.

On returns, it has to be admitted that performance to date has been barely enough to just beat inflation. A result that many will find poor. Nominal gross returns for more than two thirds of participants are loaded with heavy charges, as mentioned before, but before charges returns are not that terrible. Again, it is taxes that come in to help many participants to reach the conclusion that it is still worth putting their money into this vehicle, despite the illiquid nature of most of these schemes. Participants' *revanche*, however, takes the form of a strategic game in which they allocate just enough money every year to these investments as to exhaust the fiscal margin, no more. And this just for some of them, as the rest of participants cannot perhaps afford to put more money into their complementary pension pots and/or, perhaps, they think that Social Security will always



be there to give them back retirement benefits with a much higher implicit rate of return (on their contributions) free of management fees and inflation linked.



Pension Savings: The Real Return

2021 Edition

Country Case: Sweden

Swedish summary

Det svenska pensionssystemet består till stor del av avgiftsbestämda/fonderade pensioner. Totalt förvaltas över 6900 miljarder SEK (€688 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 6.95% sedan 2001, jämfört med 4.18% 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 6,900 trillion (€688 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 6.95% compared to the 4.18% 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 2019, the total pension capital was estimated at SEK 6,900 billion (€688 billion), which corresponds to fourteen times the size of outgoing pension payments. A share of 46% 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).



Introductory table: Pension system in Sweden

Pillar I	Pillar II	Pillar III
State pension	Occupational pension	Voluntary pension
Mandatory	Mandatory*	Voluntary
PAYG/funded	Funded	Funded
DC/NDC	DC/DB**	DC
Flexible retirement age 62-68	ERA of 55 or 61, paid out at 65 or 67	Tax rebate abolished in 2016***
No earnings test	Normally a restriction on working hours	

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: 1797 EUR	Average monthly pension: 487 EUR	Average monthly pension: 95 EUR
Average monthly salary (gross, age 60-64): 3,100 EUR	AuM: 688 billions EUR (see Table SE 1)	

Average replacement rate: 58%****

* Occupational pension coverage is organized by the employer

** The defined benefit components are being phased out

*** Self-employed and employees without occupational pension still eligible

**** OECD estimate 54%

Summary returns table. Sweden nominal returns in 1st and 2nd pillar

	Public pension		Occupational pension*			
	AP7 Såfa	Other funds	ITP1	SAF-LO	PA-16	AKAP-KL
2020	4.4	8	7.28	7.833	5.5375	7.729
2019	32.2	27.6	22.1	24.6	25.3	25.0
2018	-2.7	-3.8	-0.2	-1.97	-3.2	-2.12

* For each occupational pension plan, the return is an unweighted average among the available funds.

Source: Tables SE11 and SE14



The average pension in Sweden was €1,797 EUR (SEK 18,033) per month before taxes in 2019; whereof €1,215 (SEK 12,195) came from the national pension, €487 (SEK 4,887) from occupational pensions and €95 (SEK 950) derived from private pension savings. The outcome furthermore differed quite significantly between genders. For women, the average total pension was €1,490 (SEK 14,956) per month before taxes and for men €2,144 (SEK 21,519) per month before taxes²⁵⁵. 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. - Capital Managed (billions of sek)											
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Income-based pension	895	873	958	1058	1185	1230	1322	1412	1383	1596	1696
<i>In € (billions)</i>	89	87	95	105	118	123	132	141	138	159	169
Premium pension	443	434	515	648	812	896	1024	1182	1180	1549	1678
<i>In € (billions)</i>	44	43	51	65	81	89	102	118	118	154	167
Occupational pension	1509	1705	1795	1948	2227	2369	2567	2787	2900	3392	
<i>In € (billions)</i>	150	170	179	194	222	236	256	278	289	338	
Private pension	423	406	412	433	465	478	478	484	476	367	
<i>In € (billions)</i>	42	40	41	43	46	48	48	48	47	37	

Source: Sveriges Pensioner 2006-2019 and Orange Report 2020

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

²⁵⁵ 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.



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 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.²⁵⁶

Pillar I: The national pension

The national pension consists of an *income-based pension*, a *premium pension* and a *guarantee pension*. A share of 18.5% of the salary and other taxable benefits up to a maximum level of 7.5 income-base amount²⁵⁷ 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.²⁵⁸ 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 9,000 –

²⁵⁶ See Hagen (2017) for a more detailed description of the Swedish Pension System

²⁵⁷ 49,000 EUR (519,400 SEK) for 2019.

²⁵⁸ Vägval för premiepensionen, Ds 2013:35



17,000 (€896 – €1695) and amounts to maximum SEK 600 per month. The purpose of the 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 guarantee 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 guarantee 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.

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%²⁵⁹. 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.

²⁵⁹ The Swedish Pensions Agency, *Orange report 2020*



Table SE2. Funds in the Premium Pension System and Capital Managed 2010–2020, December 31, billions of SEK

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Equity fund	214	159	193	240	295	347	388	441	407	517	582
Mixed funds	17	41	51	63	77	67	69	70	66	69	65
Generation funds	43	60	71	90	114	128	147	166	167	209	221
Interest funds	24	28	24	27	27	25	127	26	30	31	31
AP7 Såfa (default)	110	105	132	182	246	272	328	407	433	632	680
Total:	408	393	471	602	759	839	959	1110	1103	1458	1579
Total € (billions):	41	39	47	60	76	84	96	111	110	145	157

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.²⁶⁰ 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.²⁶¹

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 2018²⁶² sparked discussions on the issue. As of June 2021, there were 471 eligible funds registered in the Premium Pension, managed by 62 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 savers 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 platform where the participating funds have been procured. The procurement and administration of this

²⁶⁰ The Swedish Pensions Agency, Stärkt konsumentskydd inom premiepensionen

²⁶¹ <https://www.pensionsmyndigheten.se/nyheter-och-press/pressrum/nytt-avtal-klart-for-premiepensionens-fondtorg>

²⁶² See Cronqvist et al. (2018) for a discussion of the Allra case.



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 2023.²⁶³ 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.²⁶⁴

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.²⁶⁵ 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 members²⁶⁶.

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.

²⁶³ Socialdepartementet, Ett förbättrat premiepensionssystem, SOU 2019:44

²⁶⁴ <https://www.fondbolagen.se/aktuellt/pressrum/pressmeddelanden/forslagen-i-utredningen-ett-battre-premiepensionssystem-gar-emot-malen-med-premiepensionen/>

²⁶⁵ AMF, "Tjänstepensionerna i framtiden – betydelse, omfattning och trender", p. 17.
ISF Rapport 2018:15, "Vem får avsättningar till tjänstepension".

²⁶⁶ 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.²⁶⁷ 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).²⁶⁸ 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).²⁶⁹ The new rules were implemented in April 2021.

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 2019.²⁷⁰

²⁶⁷ Konkurrensverket, Flyttavgifter på livförsäkringsmarknaden – potentiella inlåsnings effekter bland pensionsförsäkringar, Rapport 2016:12.

²⁶⁸ Ministry of Finance, "En effektivare flytträtt av försäkringssparande"

²⁶⁹ Ministry of Finance, "Avgifter vid återköp och flytt av fond- och depåförsäkringar."

²⁷⁰ 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.²⁷¹ 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, similar to what is already in place in Germany,²⁷² matching benefits, in particular, 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 has to bear the costs of matching in the future when the contributors retire. In addition, the redistributive 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 “*Investeringsparkontot*” (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 tax on the transactions.

²⁷¹ <http://www.statistikdatabasen.scb.se/>

²⁷² OECD Pension Outlook 2018.



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 2020 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; 37% of net savings in funds in 2020 was allocated to ISK accounts. The Premium Pension (1st pillar) is the most important saving vehicle in funds accounting for 55% of net savings and 30% of total fund assets (see Table 4).

Cash, securities traded on a regulated market or an MTF, and fund shares are the permitted holdings for this type of account. The cash holdings are covered by the deposit guarantee. The securities and the fund shares are covered by the investor protection guarantee. The account is not an insurance product. It is not possible to name a beneficiary, and standard inheritance laws apply.

Table SE3. ISK accounts

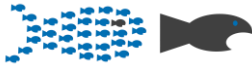
Year	Number of accounts	Number of account holders
2012	222 664	210 895
2013	493 221	453 911
2014	891 550	788 201
2015	1 840 152	1 528 939
2016	2 305 137	1 853 227
2017	2 818 490	2 163 762
2018	3 267 512	2 420 819
2019	3 768 666	2 671 091

Source: Swedish Tax Agency

Table SE4. Household fund assets 2020

Fund type	Fund assets	Net saving (%)	Share of assets (%)
Direct fund investments	495 469	-51	9
ISK	468 419	37	9
IPS	125 705	-8	2
Private pension insurance	1 235 134	43	23
Premium Pension (1st pillar)	1 579 041	55	30
Trustee-registered funds	596 789	10	11
NGOs	113 523	1	2
Swedish companies	580 703	11	11
Others	151 651	2	3
Total:	5 346 433	100	100
Total € (millions):	532 816		

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 Alecia. The eligible insurance companies for traditional insurance are Alecia, 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 Alecia, 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.

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 2020, 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 12 % lower. Furthermore, the pension savers are in a position 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. The total cost deduction in the premium pension capital is about 0.23% per year. At this level of cost the deduction will decrease the premium pension by an average of about 8% from what it would have been without any cost deduction. The deduction is expected to decrease in the future.²⁷³

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 marginally exceed the capital managed in the premium pension (SEK 1,696 billion in 2019). 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	2018	2019	2020
Premium pension	0.36%	0.33%	0.30%	0.28%	0.27%	0.25%	0.23%	0.23%	0.23%
- 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%	0.16%	0.15%
- Administrative fee	0.031%	0.033%	0.028%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%

Source: Orange report 2020, p58

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

²⁷³ The Swedish Pensions Agency, Orange report 2020, page 29



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.

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.²⁷⁴ 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.

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%.

Table SE6. Charges 2nd pillar		
ITP 1		
Traditional insurance	Fixed cost, SEK	Management fee, %
Alecta (default)	0	0.09
AMF	50	0.17
Folksam	0	0.20
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

²⁷⁴ SOU 2012:64, page 466



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	0.36-0.45
Länsförsäkringar	65	0.12-0.20
Movestic	65	0.14-0.45
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)	6	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
Lärfonderna	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 2020



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	0.40-1.83
Nordnet Bank	0	0,00	0.26-5.26
SEB	N/A	N/A	N/A
Skandiabanken	0	0,00	0.90-1.81
Swedbank	0	2 (max SEK 125)	0.20-1.40

Source: The Swedish Consumers' Insurance Bureau 2020



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	149	0.16	0,00
SEB Traditionell Försäkring	192	0.14	0,00
Skandia Framtid Internet	0	0.034	2,00
Skandia Framtid Rådgivning	0	0.034	2,00
SPP PLUSpension Traditionell	0	0.21	0,00
Unit-linked			Fund fee. %
Avanza Pension PrivatPension Depå	0	0	0.1
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	0.29
Movestic Pension Privat Fond	286	0.44-0.5	0,50
Nordea Ålderspension Fond	149	0.4	0.42
Nordnet Privatpension Depå	0	0	0,13
SEB Privat Pensionsförsäkring Fond	311	0.65	0.48
SEB Svensk Depåförsäkring	311	0.65	0.48
Skandia Privatpension Depå	0	0.75	0.37
Skandia Privatpension Internet Fond	0	0	0,42
Skandia Privatpension Rådgivning Fond	360	0.65	0,42
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 (2019)

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 2019, the government borrowing rate was -0.09%, which means that the calculated average value of an account is taxed with 0.375% ($0.3 \times 0.0125 = 0.00375$). 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.

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.²⁷⁵ When it comes 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

²⁷⁵ Deductible contributions amount to maximum 35% of the wage of the employee. However, the deduction cannot exceed 10 prize base amounts.



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.²⁷⁶ 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.²⁷⁷

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.

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 2020 is 0.08% and 0.26%, respectively.

²⁷⁶ The Swedish earned income tax credit is a refundable tax credit for all individuals aged below 65.

²⁷⁷ Financial year 2020:

<https://www.skatteverket.se/privat/skatter/beloppochprocent/2020.4.7eada0316ed67d728238ec.html#h-Skitgrans>



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 6.95% and 4.18% 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

Year	AP7 Sâfa (default)			Other funds		
	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
2016	15,2	15,09	13,13	8,6	8,3	6,4
2017	16,4	16,30	14,32	10,5	10,2	8,3
2018	-2,7	-2,79	-4,84	-3,8	-4,1	-6,1
2019	32,2	32,11	29,85	27,6	27,3	25,2
2020	4,4	4,3	3,7	8,0	7,7	7,1
AVG	9,0	8,8	7,13	6,1	5,7	4,03

Source: 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 returns	Net Nominal Annualized Performance	Real Net Annualized Performance
1-year	4,40%	4,32%	3,70%
3-years	10,33%	10,24%	8,62%
5-years	12,48%	12,39%	10,63%
7-years	11,95%	11,85%	10,44%
10-years	15,98%	15,87%	14,63%
Since inception	8,72%	8,59%	6,95%

Source: Table SE11

Table SE13. Standardised returns for the Premium Pension System (other funds)

Holding Period	Gross returns	Net Nominal Annualized Performance	Real Net Annualized 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%

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 2018, respectively. The inflation (measured by CPI) in 2020 was 0.6 percent.²⁷⁸ In 2020, a year characterized by the Corona pandemic (initial stock market downturn and subsequent recovery), 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.

²⁷⁸ <https://ec.europa.eu/eurostat/web/products-datasets/product?code=tec00118>



Table SE14. Return on capital, 2nd pillar, %

ITP1				
Traditional insurance	Av. return 3 yrs	Return 2020	Net of charges	Net return
Alecta (default)	7,8%	6,9%	6,8%	6,2%
Folksam	9,5%	6,9%	6,7%	6,1%
AMF	9,4%	8,9%	8,7%	8,1%
SEB	3,7%	3,2%	3,1%	2,5%
Skandia	5,9%	3,2%	3,0%	2,4%
Unit-linked insurance				
Futur Pension	11,7%	2,8%	2,6%	2,0%
Handelsbanken	14,8%	13,5%	13,4%	12,8%
Movestic	13,6%	10,7%	10,5%	9,9%
SPP	11,8%	5,0%	4,9%	4,3%
Swedbank	15,4%	11,7%	11,5%	10,9%
SAF-LO				
Traditional insurance	Av return 3yrs	Return 2020	Net of charges	Net return
Alecta	7,8%	6,9%	6,7%	6,1%
AMF	9,7%	7,1%	7,0%	6,3%
Folksam	9,8%	12,0%	11,9%	11,3%
AMF (default)	9,7%	8,9%	8,8%	8,1%
SEB	3,2%	3,2%	3,1%	2,5%
Unit-linked insurance				
AMF	10,3%	7,1%	6,9%	6,3%
Folksam LO	13,6%	12,0%	11,6%	11,0%
Futur Pension	11,4%	2,5%	2,2%	1,6%
Handelsbanken	13,1%	11,1%	10,7%	10,0%
Länsförsäkringar	11,3%	5,9%	5,7%	5,1%
Movestic	12,6%	11,8%	11,4%	10,7%
Nordea	10,6%	5,0%	4,6%	4,0%
SEB	10,6%	6,7%	6,4%	5,7%
SPP	11,6%	5,0%	4,7%	4,1%
Swedbank	15,6%	12,3%	12,0%	11,4%
PA-16 - Avd I				
Traditional insurance	Av return 3yrs	Return 2020	Net of charges	Net return
Alecta	7,8%	6,9%	6,7%	6,1%
AMF	10,3%	8,9%	8,8%	8,1%
Kåpan (default)	8,0%	6,6%	6,5%	5,9%



Unit-linked insurance

AMF	10,3%	7,1%	6,9%	6,3%
Futur Pension	10,4%	2,2%	1,8%	1,2%
Handelsbanken	12,0%	7,0%	6,7%	6,0%
Länsförsäkringar	10,5%	3,1%	2,7%	2,1%
SEB	9,3%	2,5%	2,1%	1,5%
Swedbank	13,3%	0,0%	-0,4%	-1,0%

AKAP-KL

Traditional insurance	Av return 3yrs	Return 2020	Net of charges	Net return
Alecta	7,8%	6,9%	6,8%	6,1%
AMF	10,3%	8,9%	8,8%	8,2%
KPA (default)	5,6%	5,1%	4,9%	4,3%
Skandia	5,9%	3,2%	3,2%	2,6%
Unit-linked insurance				
AMF	10,3%	7,1%	6,9%	6,3%
Folksam LO	13,5%	12,3%	12,0%	11,4%
Futur Pension	10,4%	2,2%	1,8%	1,2%
Handelsbanken	12,0%	7,1%	6,8%	6,2%
KPA Pension	13,2%	9,5%	9,2%	8,6%
Länsförsäkringar	10,4%	3,1%	2,8%	2,2%
Lärfarfonder	12,7%	11,5%	11,2%	10,5%
Nordea	10,6%	4,9%	4,5%	3,9%
SEB	11,3%	4,1%	3,8%	3,2%
Swedbank	17,8%	22,3%	22,0%	21,4%

Source: The Swedish Consumers' Insurance Bureau 2020

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 SE15. Return on capital, 2nd pillar, % (annual)					
AVG	2020	2019	2018	2017	2016
ITP1					
10%	7%	24%	0%	11%	9%
SAF-LO					
10%	8%	27%	-2%	10%	10%
PA-16 - Avd I					
10%	6%	27%	-3%	11%	11%
AKAP-KL					
11%	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 a large number of 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 total pension amount for people born between 1938 and 1946 shrank from 86 % to 77 % of the final salary. And the public pension, which every Swedish citizen with a salary or another taxable benefit is entitled to, shrank from 61 % to 49 % of the final salary for the same age groups. 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 fairly constant.²⁷⁹ 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 occupational pension makes up an important component of old-age income. Occupational pensions constitute 28% of outgoing pension payments and play a relatively more important role for high-income earners. The occupational pension coverage is high in Sweden (>90% of employees), but 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.

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. 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. A useful extension would be to allow users to execute their pension fund choices from this site.

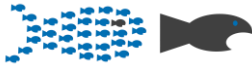
²⁷⁹ This is mainly due to reduced disability pension rates (through stricter eligibility rules), which affects the exit age but not necessarily the claiming age if people claim their pension instead. Another explanation is that individuals who work past the age of 65 do not postpone the withdrawal of their pension.



- 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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Pension Savings: The Real Return

2021 Edition

Country Case: The Netherlands

Samenvating

In veel opzichten bevinden de Nederlanders zich in een benijdenswaardige positie wat hun pensioenen betreft. Het Nederlandse pensioenstelsel staat, naast het Deense, voor het derde jaar op rij op de hoogste plaats in de Mercer CFA Institute Global Pensions Index, en wordt omschreven als "een eersteklas en robuust pensioeninkomenstelsel dat goede uitkeringen biedt, duurzaam is en een hoge mate van integriteit heeft". Toch presteert het particuliere pensioenstelsel in Nederland beter met zijn fondsen dan de verzekeringen - de vergelijking van het reële nettorendement over 21 jaar tussen bedrijfspensioenfondsen en levensverzekeringen van de derde pijler spreekt voor zich: 2,83% tegenover 0,13%. Het vertrouwen van Nederlandse werknemers in de toereikendheid van hun pensioen is de afgelopen 10 jaar echter gedaald van 75% (vertrouwen dat hun pensioen toereikend zal zijn om hun levensstijl bij pensionering voort te zetten) tot 66%. Met name in het licht van de geleidelijke verschuiving van Defined-Benefit (DB) regelingen, gebaseerd op het laatste salaris van de werkenden, naar een Collectief Defined-Contribution (DC) systeem "zullen pensioenuitkeringsgaranties (...) komen te vervallen".

Een andere belangrijke reden waarom een grote meerderheid van de Nederlanders zich zorgen maakt over hun pensioeninkomen is het feit dat de wereldwijd historisch lage rente het Nederlandse pensioenstelsel relatief gezien meer schade toebrengt dan het pensioenstelsel van andere landen. Dit heeft niet alleen te maken met het feit dat Nederlanders over één van de grootste pensioenreserves ter wereld beschikken, maar ook met het feit dat De Nederlandsche Bank (DNB), de nationale pensioentoezichthouder, een van de voorzichtigste en daardoor laagste disconteringsvoeten ter wereld hanteert voor de berekening van pensioenverplichtingen. Dit dwingt Nederlandse pensioenfondsen om meer dan de helft (52%) van hun vermogen in obligaties te beleggen. Obligaties stijgen sterk in waarde (zij het minder sterk dan de pensioenverplichtingen) wanneer de rente daalt, maar hebben de afgelopen jaren zeer lage reële dividenden opgeleverd. Door de strenge regelgeving worden Nederlandse pensioenfondsen ontmoedigd om in te spelen op de stijgende waarde van obligaties. In plaats daarvan zijn zij uit overwegingen van toekomstige voorzichtigheid verplicht deze laag renderende activa aan te houden.

Uit een recente studie van het Thinking Ahead Institute naar het wereldwijde pensioenvermogen blijkt dat gemiddeld 27% van het pensioenfondsvermogen in de wereld in obligaties is belegd. In Nederland was dit percentage eind 2020 bijna het dubbele: 52%. Dit percentage is sinds 2011 niet meer onder de 50% gezakt. Toch biedt het Nederlandse pensioenstelsel met drie pijlers (of three-



tier) ieder individu ruime mogelijkheden om zijn/haar pensioeninkomen te verhogen. Hoe waar dat ook moge zijn, uiteindelijk komt het allemaal neer op de allesbepalende vraag van het reële rendement. Verdienen de Nederlandse pensioenfondsen genoeg om de Nederlandse gepensioneerden in de toekomst een behoorlijk inkomen te bieden? Deze vraag is voor Nederlandse pensioenfondsen en beleidsmakers in 2020 nog steeds van centraal belang, ondanks de overvloedige rendementen (meer dan 16% nominaal) die pensioenfondsen dat jaar behaalden. De reden hiervoor is dat ook de pensioenverplichtingen in hoog tempo bleven stijgen, waardoor de financiële positie van pensioenfondsen op lange termijn precair bleef.

Mede om hieraan tegemoet te komen, hebben Nederlandse beleidsmakers, vakorganisaties en vakbonden in juni 2020 besloten (ter nadere uitwerking van een akkoord dat zij een jaar eerder hadden gesloten) om het Nederlandse pensioenstelsel zodanig te hervormen dat in de tweede pijler (zie hieronder) toegezegde-bijdrageregelingen (DC) dominant worden. Hierdoor zullen pensioenuitvoerders meer kunnen beleggen in risicovollere activa met een potentieel hoger rendement, maar zal de variabiliteit van de pensioenuitkomsten en de kans op aanzienlijke verliezen waarschijnlijk toenemen. Het zal ook de vraag doen rijzen of de pensioenbijdragen op een voldoende voorzichtig niveau zullen blijven om aanvaardbare pensioenresultaten te waarborgen.

In dit rapport geven wij een overzicht van het Nederlandse pensioenstelsel, kijken wij naar de jaarlijkse rendementen op beleggingen van pensioenfondsen en berekenen wij het reële rendement, waarbij het nominale rendement wordt gecorrigeerd voor diverse kosten, belastingen en inflatie.

Summary

In many ways, the Dutch are in an enviable position as far as their pensions are concerned. The Dutch pension system, next to the Danish one, ranked for the third year in a row highest in the Mercer CFA Institute Global Pensions Index,²⁸⁰ being described as *“a first class and robust retirement income system that delivers good benefits, is sustainable and has a high level of integrity”*. Nevertheless, while the private retirement system in the Netherlands outperforms with its funds, insurances lag behind – the 21-year real net return comparison between occupational pension funds and pillar III life insurances speaks for itself: 2.83% vs 0.13%. However, Dutch workers’ trust in the adequacy of their pensions has been decreasing from 75% (trusting that their pension will be sufficient to continue their lifestyle at retirement) to 66% in the last 10 years.²⁸¹ Particularly, in light of the gradual shift from Defined-Benefit (DB) plans, based on the last salary of

²⁸⁰ Mercer CFA Institute Global Pensions Index, 2020, available at:

<https://www.mercer.com.au/content/dam/mercer/attachments/private/asia-pacific/australia/campaigns/mcgp-2020/MCGPI-2020-full-report-1.pdf>, p. 5.

²⁸¹ Frank van Alphen, ‘Dutch Workers Expect Lower Pensions in DC System’ (IPE.com, 29 June 2021), accessed 7 October 2021, available at: <https://www.ipe.com/news/dutch-workers-expect-lower-pensions-in-dc-system/10053757.article>.



the worked, to a Collective Defined-Contribution (DC) system “*pension benefit guarantees (...) will be abandoned*”.²⁸²

Another important reason why a large majority of the Dutch worry about their retirement income is the fact that the historically low interest rates worldwide are causing, relatively speaking, more harm to the Dutch pension system than to other countries’ pension systems. This is due not only to the fact that the Dutch boast one of the world’s largest pension reserves, but also to the fact that the Dutch central bank (DNB), the national pension supervisor, applies one of the world’s most prudent and therefore lowest discount rates for the calculation of pension liabilities. This forces Dutch pension funds to invest more than half (52%) of their assets in bonds. Bonds rise sharply in value (although less so than the pension liabilities) when interest rates drop but have yielded very low actual dividends over the past several years. Due to the strict regulatory regime, Dutch pension funds are discouraged to cash in on rising values of bonds. Instead, they are obliged to retain these low-yielding assets for reasons of future prudence.

A recent study on global pension assets, by the Thinking Ahead Institute,²⁸³ showed that on average 27% of pension fund assets in the world are invested in bonds. In the Netherlands the percentage was almost double that at the end of 2020: 52%. This percentage has not fallen below 50% since 2011. Still, the Dutch three-pillar (or three-tier) pension system does provide every individual with ample opportunity to increase his/her retirement income. True as that might be, at the end of the day it all boils down to the all-important question of real return. Are Dutch pension funds earning enough to provide a decent income to Dutch retirees in the future? This question retained its central relevance to Dutch pension funds and policymakers in 2020, despite the copious returns (exceeding 16% in nominal terms) that pension funds achieved that year. The reason for this is the fact that pension liabilities continued to rise at great rates too, ensuring that the long-term financial position of pension funds remained precarious.

In part to address that concern, Dutch policymakers, trade organizations and unions resolved in June 2020 (further elaborating an accord they struck a year earlier) to reform the Dutch pension system so that in Pillar II (see below) defined-contribution (DC) schemes become dominant. This will allow pension providers to invest more in riskier assets with the potential of higher yields but will likely increase the variability of pension outcomes and the potential for significant losses. It will also raise the question whether pension contributions will retain prudent enough levels to ensure acceptable pension outcomes.

²⁸² Ed Westerhout, Eduard Ponds, Peter Zwaneveld, *Completing Dutch Pension Reform* (August 2021) CPB Netherlands Bureau for Economic Policy Analysis, available at: <https://www.cpb.nl/sites/default/files/omnidownload/CPB-Background-Document-Completing-Dutch-pension-reform.pdf>.

²⁸³ <https://www.willistowerswatson.com/en/insights/2018/02/global-pension-assets-study-2018>.



In this report we will provide an outline of the Dutch pension system, take a look at the annual returns on investment of pension funds and calculate the real return, adjusting the nominal return for various charges, taxes and inflation.

Introduction

The Dutch pension system rests on three pillars, which will be described in what follows:

- Pillar I – the contributory scheme that provides the Dutch state pension, organised as a social insurance system and implementing the Pay-As-You-Go (PAYG) principle;
- Pillar II – fully funded, mostly tax-exempted and (for now) mostly defined-benefit (DB) pension schemes comprising investment funds and life insurance contracts, for which participation is mandatory in sectors in which representative trade associations that cover more than half of the sector have agreed a specific sector-wide scheme with relevant labour unions, which by law then become mandatory for the entire sector at hand. In practice this means that most sectors of the economy are covered by these (sector-specific) mandatory schemes;
- Pillar III – composed of pre- and post-retirement fully funded and completely defined-benefit (DB) pension saving products, for which participation is voluntary.

Table NL1. The Dutch pension system

Pillar	Characteristics	Coverage	Replacement ratio
Pillar I	PAYG, DB, social insurance, taxed as income on pay out	100%	According to OECD, for both men and women: 71% (gross) and 80% (net) in 2019, ²⁸⁴ while the Eurostat aggregate replacement rate is 51% for 2020. ²⁸⁵
Pillar II	Funded by the employer and employee, (mostly) DB, investment plan, contributions tax exempted, return on investment tax exempted, pay-out taxed at progressive income tax rates	Approx. 87% coverage ²⁸⁶	
Pillar III	Funded by individual, DC, contributions subject to a limit, contributions tax exempted, pay-out taxed at progressive income tax rates	n.a.	

Source: BETTER FINANCE own composition; OECD data

²⁸⁴ OECD Data, Gross and Net pension replacement rates (2018) available here: <https://data.oecd.org/pension/gross-pension-replacement-rates.htm#indicator-chart>.

²⁸⁵ See Table GR9 in the General Report.

²⁸⁶ Ed Westerhout, Eduard Ponds, Peter Zwaneveld, *Completing Dutch Pension Reform* (August 2021) CPB Netherlands Bureau for Economic Policy Analysis, available at: <https://www.cpb.nl/sites/default/files/omnidownload/CPB-Background-Document-Completing-Dutch-pension-reform.pdf>, p. 7.



Summary Return Table - Pensions in the Netherlands					
	1 year	3 years	7 years	10 years	whole reporting period
	2020	2018-2020	2014-2020	2011-2020	2000-2020
Pension funds	6.23%	5.01%	6.99%	6.86%	2.89%
Life insurances	1.83%	1.39%	1.14%	0.27%	0.13%

Source: own computations based on Table NL15

Pillar I

Pillar I is a social insurance scheme and consists of the Dutch state pension, called AOW (*Algemene Ouderdomswet* or General Old-Age Law). It provides a lifelong state pension for all elderly inhabitants of the Netherlands, regardless of their nationality and employment history. For a long time, 'elderly' (for the purpose of this law) meant 65 years or older. Recently the age was increased beyond 65 (66 to 71 depending on date of birth, with a 'transition age' of retirement between 66 and 67 for people who reach those ages over the next few years), mainly to maintain the system's viability in the future as, due to ageing, the costs threaten to reach unsustainable levels. While the original intention was to raise the "AOW-age" continually on a par with life expectancy, the recently concluded Pension Accord between government, trade organizations and labour unions, on an 8-month increase for every full year that life expectancy rises. The rationale behind raising the age at which citizens start receiving these pensions is that AOW is a pay-as-you-go (PAYG) system: this part of the retirement income is financed by those in the workforce at that particular moment in time. In 2019 the "AOW-age" was 66 plus 4 months. It will remain that way until 2022.²⁸⁷ Each person between 16 and 66 years of age, either working, self-employed or on benefits, contributes to the AOW-financing via a deduction (social premium) on the salary or benefit. In addition, the AOW is partially financed by taxes collected by the government every year. Every inhabitant of the Netherlands is automatically enrolled in the AOW-system in such a way that he or she is entitled to 2% of the maximum monthly allowance for each year he/she has lived in the Netherlands between the ages of 16 and 66 (so someone living in the Netherlands that entire period is entitled to a full monthly AOW-allowance as $66-16 = 50 \times 2\% = 100\%$ of the allowance).

A single person is entitled to a monthly allowance (gross) of €1,228.22. People who are married, or couples living together, receive (gross) €843.78 per month each. In addition, 8% of the monthly allowance is set aside by the Government to be paid out in May as a holiday allowance. Typically, women are more dependent than men on Pillar I, the AOW, due to the fact that in the past and to some extent still in the present, women are employed less often than men, less often have full-time jobs and generally have lower incomes.

²⁸⁷ <https://www.rijksoverheid.nl/onderwerpen/pensioen/toekomst-pensioenstelsel/aow-leeftijd-stijgt-minder-snel>.



Pillar II

Pillar II is a system of collective pension schemes operated by pension funds, entities which are legally independent from their (often corporate) sponsors, or by insurance companies. Little over a decade ago, there were over 1,000 pension funds operating in the Netherlands. Over the years, several of these pension funds merged or were liquidated (with their assets and liabilities transferred to other pension funds or insurance companies). As a consequence, the number of pension funds (active and dormant) under supervision (DNB) declined to 220 by the end of 2019 and 208 in 2020.²⁸⁸ It is expected that the number of active pension funds will further decline in the years to come.

Whereas Pillar I (AOW) is a PAYG scheme, the Pillar II is financed by capital funding. Each person enrolled in a pension fund contributes directly or indirectly to it (with the employer paying the lion's share contribution, often 50% to 70%). This money is subsequently invested in order to fund retirement pay-outs.

Although enrolment in a Pillar II scheme is not compulsory as such, in many cases it in fact is. The reason for this is that if labour unions and employers in the Netherlands decide to set up a pension scheme for a company or a sector, the government can make enrolment mandatory for everyone working in that company or sector. In practice this means that almost every working person is enrolled in a pension scheme. The government makes it mandatory in order to achieve economies of scale that, in turn, makes it possible for pension funds to operate more efficiently in terms of costs and fees. In addition, mandatory sectoral enrolment prevents a 'race to the bottom' in paid pension premiums - an expensive but notoriously oblique wage element - through labour cost competition between rival companies. In practice, more than 90% of Dutch employees are enrolled in one or more pension funds.²⁸⁹ An employee can be enrolled in more than one pension fund if he/she, for example, moves to another job in another sector. In such cases he/she starts building his/her pension with the pension fund of the new sector or company. The old pension capital can be left in the former pension fund or subject to specific rules, transferred to the new pension fund. By law, pension funds are currently required to maintain a funding ratio of at least 105% (approximately) and even larger reserves are required to allow for increases of pensions in line with inflation. According to the provisions of the recent Pension Accord, which will go into effect, these mandated reserves will be scrapped in favour of more flexible pension results.

Under the still current system, the "coverage ratio" ("dekkingsgraad" in Dutch) or funding ratio is calculated by discounting the future pension liabilities (i.e., future nominal retirement outflows) with the use of an interest rate curve mandated and regularly updated by the Dutch Central Bank. The current value of pension liabilities up to 20 years in the future are determined by using the

²⁸⁸ Based on data from the Dutch Central Bank (<https://statistiek.dnb.nl/downloads/index.aspx#/details/onder-toezicht-staande-pensioenfondsen-jaar/dataset/fd267edd-3135-4628-8313-85e968197b57/resource/12ac9dff-d047-4803-9fa4-9d31373e9ac0>).

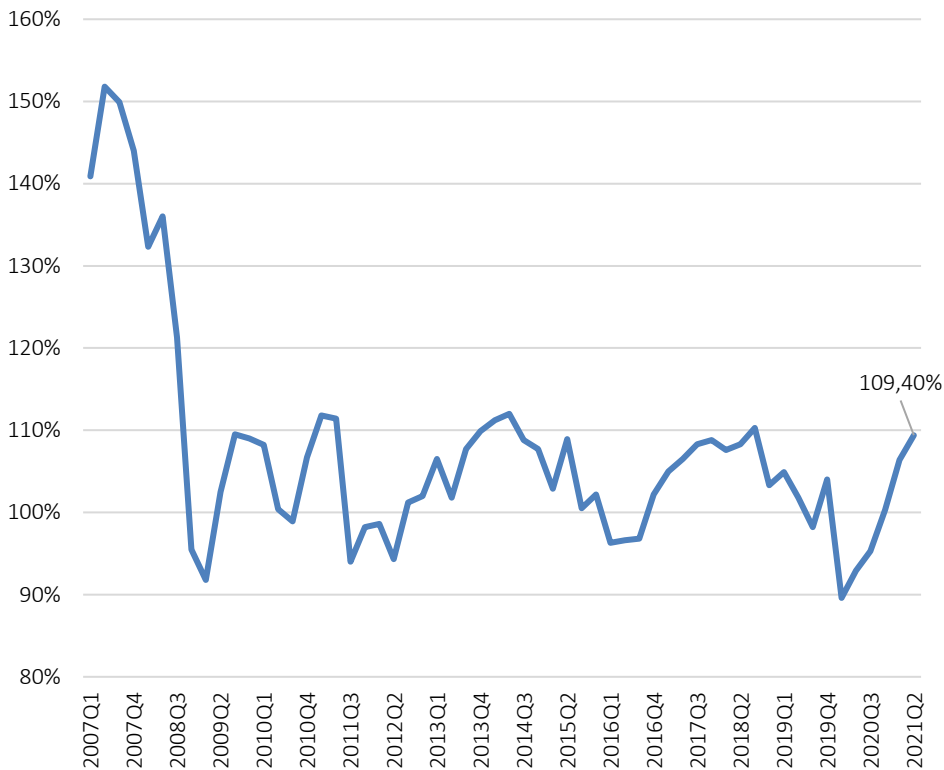
²⁸⁹ Statistics Netherlands (CBS), *Pensioenaansprakenstatistiek 2015. Verantwoording en de eerste resultaten*.



actual market-based interest swap curve. The discount interest rates for periods from 20 years onwards are calculated by the Dutch central bank. The interest rates calculated in this way are called Ultimate Forward Rates (UFR) and the Dutch Central Bank imposes a UFR on Dutch pension funds that is more 'prudent' than the European UFR determined by EIOPA. Prior to 2015, this UFR was fixed at 4.2%. Starting from mid July 2015, the UFR is a 120-month moving average of the 20-year forward rate which, in effect, means that it is much lower than the 4.2% used previously. Hence, the funding ratio of the Dutch pension funds fell. The UFR has been lowered even further as of June 2019 to mirror more closely the trend of falling market rates. The lower the interest rates on financial markets, and hence the UFR, the higher the value of future liabilities and the greater the chance that the required coverage ratio (in Dutch "*dekkingsgraad*") falls below 105%. When the coverage ratio falls below this threshold, a pension fund is required to submit a plan detailing how to restore it to above 105% within a period of five years. It must also submit contingency plans in case recovery remains elusive. Failure to recover to the 105% threshold means that pensions must be lowered within the current regime. Furthermore, indexation by pension funds is not allowed if the funding ratio is lower than 110% and only fully allowed when the funding ratio has reached the level of a fund-specific "sustainable indexation funding ratio" (*toekomstbestendige indexatie dekkingsgraad*), which usually falls somewhere between 120% and 130%. These indexation-constraining regulations are designed to minimize the risk of future insolvency, thereby protected younger members within pension funds from the risk of large pension cuts in the future. However, these regulations are very controversial – both politically and among Dutch pension experts/professionals – as large financial "buffers" have to be maintained to the detriment of current pensioners. Under the newly agreed Pension Accord pensions will be raised *and* lowered more quickly, although some buffers will still be mandated.



Graph NL2. Average funding ratio's of Dutch pension funds



Source: Own composition based on DNB data

Pillar III

Pillar III is made up of individual pension products sold by insurance companies. Life insurance is one example. Another product used in the Netherlands is the so-called “*pensioensparen*”, a special-purpose savings account, with the purpose of accumulating supplementary income after retirement. Anyone in the Netherlands can enrol in this pillar, either to save for retirement (there are those who do not fall in Pillar II scheme described above, for example entrepreneurs or those working in a sector or a company without a pension fund of its own) or to supplement the retirement income from Pillar I and II. Purchasing Pillar III products is attractive due to particular tax benefits associated with them.

According to a recent OECD report on pensions, the net replacement ratio (the ratio of earnings after and just before retirement) in the Netherlands stood at 80% for the average income earner in 2018. This replacement ratio differs little between income groups in the Netherlands, in contrast to most other OECD countries.²⁹⁰ Other research suggests that the retirement income from Pillar I

²⁹⁰ OECD, *Pensions at a Glance 2019. OECD and G20 Indicators*.



and II, on average, equals 70% of the average income before retirement. However, data from Eurostat on the aggregate replacement ratio for pensions is much lower, at 56%. Statistics Netherlands paints a similar picture for 2014 (the most recent year it provides such data on). When we take into account the third pillar and various other assets, such as savings and the excess value of one's own home (i.e., value of the home minus mortgage) and adjust for the fact that the income tax for retired persons in the Netherlands is lower than tax before retirement, we get the average net replacement ratio of 105%.²⁹¹

Pension vehicles

Second pillar

Note on Premium Pension Institutions (PPIs): Premium Pension Institutions are not analysed separately in this report (in particular under Pension Returns). According to the leading Dutch outlet for pension-related news (PensioenPro), which based its figures on DNB sources, there were 861,199 workers enrolled in PPIs (out of some 13 million enrolled in pension funds) at the end of 2019 and the schemes had invested assets of some 12.1 billion EUR (total AuM of Dutch pension funds is around 1,554 billion EUR).²⁹² This share is small because it is only offered by firms that do not have their own or sectoral pension arrangement (if there is one, it is mandatory to enrol and almost every sector has its pension scheme). In practice, this means that such schemes are generally limited to small- and medium-sized enterprises in certain sectors. Nevertheless, PPIs have been growing fast over recent years so may play a bigger role in the future.

The Dutch private pension system is dominated by pension funds. However, their number has declined greatly in recent decades and this consolidation is expected to continue in the future. Some of the funds are financial giants, with millions of people enrolled and hundreds of billions of euros in assets, while others several thousand participants and several hundred million euros under management. In the table below, we provide some statistics for the 5 largest pension funds in the Netherlands.

Table NL3. Largest Pension Funds in the Netherlands		
Pension fund	Sector / company	Assets (€ bln)*
ABP	Civil service	572.10
Zorg en Welzijn	Medical services	291.70
Metaal en Techniek	Metal	110.50
Bouwnijverheid	Building companies	103.30
Metalelektro	Electrometal sector	68.30

Source: The 2020 annual reports of these 5 largest pension funds.

²⁹¹ <https://www.netspar.nl/assets/uploads/Netspar-Design-Paper-68-WEB.pdf> and <https://opendata.cbs.nl/statline/#/CBS/nl/dataset/71763ned/table?ts=1567116265753>.

²⁹² <https://www.befrank.nl/assets/2020/05/20200514-PensioenPro-Overzicht-PPI-markt-2020.pdf>



There are four kinds of pension funds in the Netherlands. First, there are the industry-wide pension funds. Those administer and operate the pensions for an entire sector, such as food companies or civil service. The civil service pension fund, ABP, is by far the largest in the country (and one of the world's largest) with assets worth over half a trillion euros at the end of 2019 and around 3 million people enrolled. Secondly, there are corporate pension funds, administering and operating pension schemes for (often) major corporations. Thirdly, there are several pension funds for independent professionals, such as medical specialists. Finally, there are the relatively new General Pension Funds, which are allowed to ringfence and can incorporate several (former) corporate pension funds under a single administrative umbrella to achieve economies of scale and improve governance.

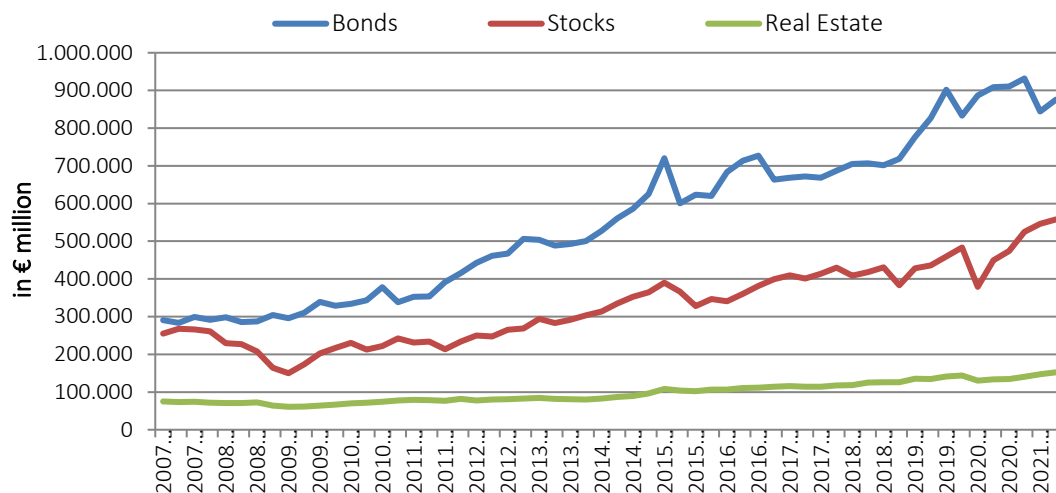
Pension funds are independent entities, i.e., they are strictly separated from the company (if applicable) on whose behalf they administer and run the pension scheme. One of the consequences is that if a company files for bankruptcy, employees know that their pensions are not affected.

By the end of 2020, Dutch pension funds in Pillar II had assets worth €1,679.4 billion in total, rising again to €1,724.8 billion by the second quarter of 2021, representing a 8% and, respectively, 3% increase. Although last year's turmoil due to COVID-19 restrictions caused losses in the first and second quarters, stock markets caught up and were, again, the main driving force behind this increase. Dutch gross domestic product in 2019 was approximately €810 billion, so that assets of the pension funds were valued at over 210% of Dutch GDP.²⁹³ The five largest Dutch pension funds combined managed 68% of these assets.

²⁹³ Eurostat lists Dutch GDP in 2020 as €795.9 billion
<https://ec.europa.eu/eurostat/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=tec00001&language=en>.

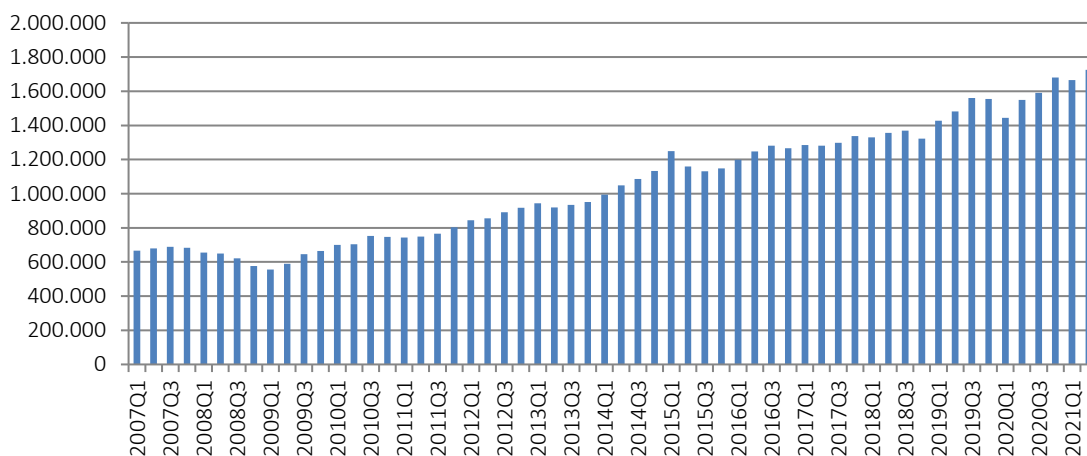


Graph NL4. Pension fund assets invested in stocks, bonds, real estate and other assets over time (in € million)



Source: own computations based on DNB Dutch Central Bank

Graph NL5. Pension funds' assets



Source: Own calculations based on DNB Dutch Central Bank

Third pillar

The third pillar is not mandatory and is run by private insurance companies offering various pension-like products such as life insurance. Every employee can choose whether or not to take part in it, sometimes provided he/she fulfils the conditions to enrol as stated by the law. The most important condition in order to benefit from tax benefits associated with these products is that one has to have a shortfall in his/her pension (called *pensioentekort* in Dutch). There is an annual maximum amount any Dutch inhabitant can pay in towards his/her retirement income. This maximum,



determined by the Dutch tax authority on an annual basis, ensures an acceptable retirement income. If for any reason contributions fall under the maximum amount allowed, the contributor is considered to have a pension shortfall and can deposit the amount equal to the difference between the maximum allowed retirement contribution and the paid contributions into a savings account for retirement income. There is a tax benefit involved since contributions can be deducted from the taxable income, effectively reducing the income tax one has to pay. Moreover, the pay-off upon retirement is taxed at a lower tax rate than the current income. Once a pension shortfall has been identified, and the decision has been taken to deposit the difference on a special-purpose savings account, the deposit(s) cannot be withdrawn before retirement.

The share of those third-pillar products in the retirement mix of the Dutch households is relatively low. According to Statistics Netherlands, Pillar III products only account for 6% of the accrued pension rights of Dutch households. By comparison, Pillar I accounts for around 54% with Pillar II assuming a share of 40%.

Charges

Obviously, in order to make money, pension funds and insurance companies must spend money, i.e., there are various fees and other costs involved with investing their assets on the financial markets.

However, information on these costs was difficult to obtain and where available, they must still be interpreted with a great deal of caution. For example, even the Dutch central bank stated in an article from May 2014 that ‘there are reasons to believe that not all costs are reported’. The reason is not that the pension funds do not want to report them, but rather that even they are not able to determine them. For example, some companies investing assets of pension funds do not report all costs separately, because it is not in their interest to do so. The Dutch financial markets supervisor (*Autoriteit van Financiële Markten*, AFM) has called upon these companies to disclose all costs. Another difficulty is that information on transaction costs, i.e., costs associated with transactions in the financial markets such as purchase or sale of stocks and bonds or shares in investment funds for example, is not always available.

The consequence is that in previous years when DNB asked the Dutch pension funds to provide the supervisor with, among others, an analysis and details of all the costs they incur, 70 pension funds were not able to report all costs associated with their investments. According to the AFM, ‘readers of annual reports are not able to get a clear picture of the relationship between costs, returns and risks pension funds are taking’²⁹⁴. Just to illustrate how important costs are in the big picture:

²⁹⁴ Research report by AFM on information on various charges pension funds incur and how they report those in their annual reports, entitled ‘Op naar een evenwichtige verantwoording over deze kosten in jaarverslagen van pensioenfondsen’, July 2014



according to the AFM, lowering costs by a 0.1 percentage point (pp) leads to a 3 pp higher retirement income in the medium-term (25 years).

During the last five years, much effort has gone into making sure all costs are accounted for. Since 2015, the Dutch central bank has published the total charges, including transaction costs, for individual pension funds under its supervision. For the years, 2017, 2018 and 2019 we have used the data that The Pension Rating Agency (TPRA) has collected from the annual reports of more than 65% of Dutch pension funds, as the data in annual reports has all been validated by an accountant, whereas the data pension funds provide to the Dutch central bank are often provisional and not always readily comparable from one pension fund to the other. The utilized dataset includes all Dutch sectoral pension funds and all of the largest corporate pension funds in the country. The latest 3-year average charge is close to 54 basis points. For 2020, as the TPRA ceased to exist and the aggregated data (from public sources) was no longer available, the research team gathered one by one the costs of the 40 largest occupational pension funds in the Netherlands, representing 80% of pillar II in terms of Assets under Management. The costs (management costs and transaction costs) were calculated as a simple average and amount to 0.45%.

Table NL6. Pension fund charges (% of total assets)	
Year	Charges
2007	0.20%
2008	0.24%
2009	0.19%
2010	0.15%
2011	0.19%
2012	0.21%
2013	0.23%
2014	0.17%
2015	0.50%
2016	0.50%
2017*	0.55%
2018*	0.52%
2019*	0.54%
2020**	0.45%

* Weighted average of the total investment costs (including direct and indirect costs, transaction costs and performance fees) as % of average AuM reported by 172 pension funds for 2017, 174 pension funds for 2018 and 143 for 2019. The average AuM (belegd vermogen voor risico fonds) over the course of a year was estimated by taking the average between the AuM at the start and end of the year; ** average cost from the Annual Reports of the 40 largest pension funds by average invested capital (gemiddeld vermogen, both risico fonds and risico deelnemers) representing 80% of the AuM in Pillar II.

Source: DNB Dutch Central Bank / TPRA data derived from annual reports of pension funds / BETTER FINANCE own calculations

We would like to remark that the real annual return in the years prior to 2015 is most likely lower than calculated, given the fact that the new data sets shows that total charges were significantly higher than in previous years. In 2019 average charges were 0.54% of total assets, more than double the charges the central bank reported for 2014 and previous years. Another indicator is some sporadically conducted research on total charges undertaken in previous years. For example, in



2012 researchers at consultancy bureau Lane, Clark & Peacock put those costs for the Dutch pension funds at 0.53% of their assets. CME Benchmarking, a Canadian global benchmarking company, calculated that the average cost of the Dutch pension funds in 2012 amounted to, on average, 0.44% of their assets, with the median being 0.41%. There are several reasons to assume that the levels of total charges, including transaction costs, prior to 2015 were higher still, higher in fact than the current level of 0.54%. Transaction costs are notoriously ambiguous and difficult to account for. In recent years, presumably, some progress has been made to account for these costs more fully as pension funds and Dutch regulators have focused heavily on making these costs more transparent. Furthermore, Dutch pension funds have invested more in bonds over the last decade and these investments generally incur lower costs. Lastly, pension funds have largely eliminated the payment of performance fees from their contracts with asset managers, which has served to lower costs.

Taxation

Pension funds are exempted from company taxes in the Netherlands²⁹⁵. The money Dutch employees pay into their pension funds during their working life is deducted from their gross income and therefore not taxed. In this sense, they enjoy a tax subsidy as their taxable income decreases and, hence, they fall into a lower tax bracket. As stated, pension funds then invest these funds in order to be able to pay an income upon reaching retirement age. The returns, i.e. the increase in pension rights, is not taxed either. When the Dutch reach retirement, however, their pension is subject to the personal income tax rates in the pay-out phase. This so-called deferred taxing of pensions means that the Dutch get another tax benefit as tax rates are lower for retirees than taxes on non-retiree income.

In the Netherlands, income is taxed at various rates, progressively relative to the level of income. The tax rates are lower for those aged 66 and older. Just as an example, in the table below, we provide the tax rates for the persons older and younger than 66 years of age in 2021, as provided by the Dutch Tax Authority.

In short, contributions to pension savings products are exempt from tax, investment returns are also exempt, but investment pay-outs are subject to income tax, thus rendering an “EET” taxation regime.

Table NL7. Income tax brackets for various age cohorts		
Income bracket / age	Younger than 66	66 and older
€0 – €35,130	37.10%	35.61% or 19.10%
€20,384 – €34,300*	37.10%	37.10%
€34,301* – €68,507	37.10%	37.10%
over €68,508	49.50%	49.50%

²⁹⁵ Article 3 of the law, available via (in Dutch) <http://www.rijksoverheid.nl/documenten-en-publicaties/besluiten/2009/12/15/vennootschapsbelasting-subjectieve-vrijstellingen-artikel-5.html>.



Source: Dutch Tax Authority

This means that the tax deferral of pensions constitutes an advantage to an individual, as his/her tax rate is lower when he/she turns 66. The average tax tariff in 2020 for those age 66 and older was 37.10%. We have used the tariffs for the first three brackets on income tax as these are the tax brackets that apply to the vast majority of Dutch retirees in practice (the fourth and highest bracket only applies to income over €68,508 which is almost twice the modal income level in The Netherlands).

As stated earlier, contributions towards pensions are deducted from the gross income. In order to calculate the net tax advantage, we have to compare the average tax rate applied to pensions (as stated: 37.10%) and the average tax rate that would have applied if contributions towards pension income was not tax exempt. We can estimate this average tax rate by computing the average of the first three brackets for people younger than 66 years of age. The second and third bracket are the same for this age group but are counted separately to establish an average comparable to the average rate for people aged over 66. The gap between the two averages can be seen as a tax advantage for the older group. The average for those younger than 66 years of age in 2019 was 37.10% which means that the average person in the Netherlands enjoys nearly a 12pp tax advantage on his/her pension scheme due to pension contributions being tax exempt and only pension income is taxed.

Pension returns

As stated, the pensions Dutch employees receive upon reaching the statutory retirement age depend on their pension funds achieving enough return on their investments. We will report nominal annual, aggregate returns for all Dutch pension funds from 2000 onwards. This is done by using the statistics available at the Dutch central bank, which supervises pension funds and insurance companies. Annual returns will be reported for life insurance companies as well.

We will then focus on various charges and fees pension funds must pay. These costs must be subtracted from the returns, as only net return is available for retirement income. In order to establish the real rate of return, we will control for the annual inflation in the Netherlands (Harmonized Index of Consumer Prices).

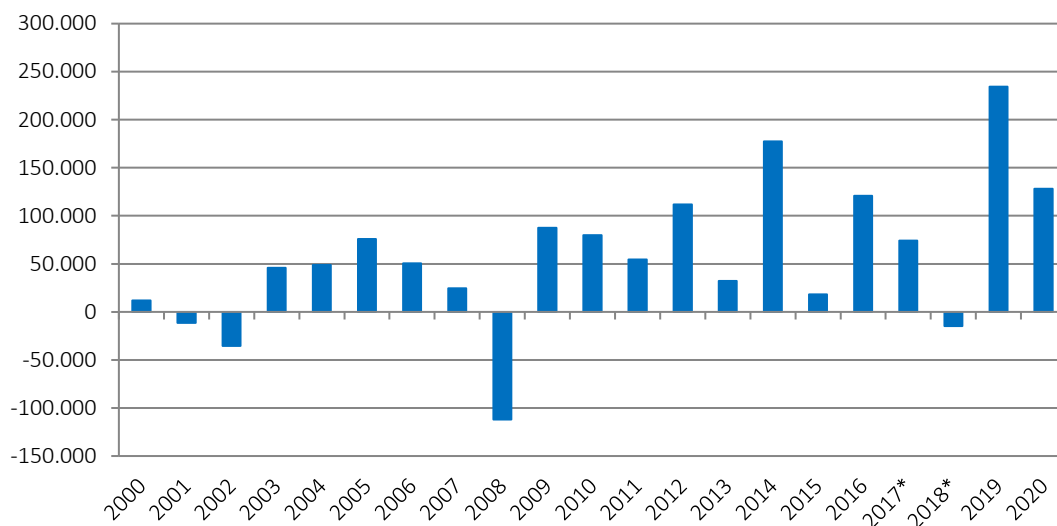
Pension funds

The Dutch supervisor of pension funds, the Dutch central bank, provides investment return figures, in billion euros, for aggregate pension funds²⁹⁶ and also the quarterly return data for DB and DC pension funds. Occupational pension funds' average return can either be calculated as the ratio between the total investment results and AuM or as a weighted average – by quarter – of returns reported by the DNB. The results are the same.

²⁹⁶ <http://www.statistics.dnb.nl/financieele-instellingen/pensioenfondsen/index.jsp>



Graph NL8. Investment returns of Dutch pension funds (in € million)



Source: DNB Dutch Central Bank

At this stage, we have calculated the time-weighted nominal returns on investment for each year between 2000 and 2020 (in percentages). Using the quarterly returns reported by the Dutch regulator DNB we have determined the weighted overall investment return of all pension funds for the 2020 as well. The results show that 2019 was a truly exceptional year in terms of returns, but also followed close by in 2020. The annual weighted nominal return achieved by pension funds was 7.66%, higher than in many other jurisdictions analysed in this report. This was due to a combination of stock markets, which compensated for the low interest rates on bonds. With this positive result, 2020 raised the geometric yearly average since 2000 with more than half a percentage point, from 4.95% to 5.08%, continuing the growth trend.



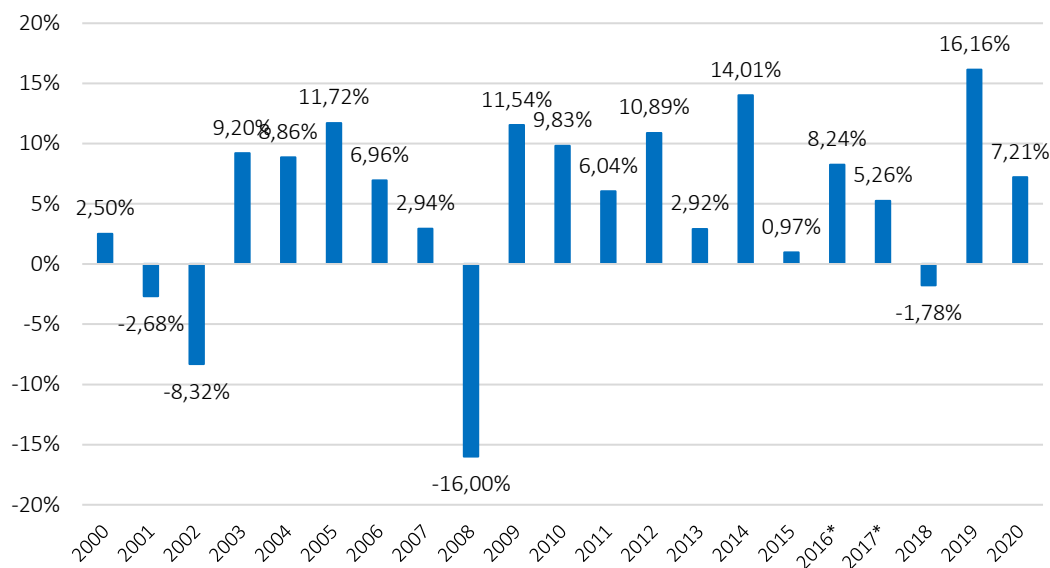
Table NL9. Annual nominal return of all Dutch pension funds	
Year	Return as % of total assets
2000	2.70
2001	-2.48
2002	-8.12
2003	9.40
2004	9.06
2005	11.92
2006	7.16
2007	3.14
2008	-15.76
2009	11.73
2010	9.98
2011	6.23
2012	11.1
2013	3.15
2014	14.18
2015	1.47
2016	8.74
2017	5.81
2018	-1.26
2019	16.70
2020	7.66
Average 2000-2020	5.08

Source: DNB Dutch Central Bank

After establishing the nominal returns, we have subtracted the average charges from the average return (which are generally exempted from taxation). The results are visible in the graph below.



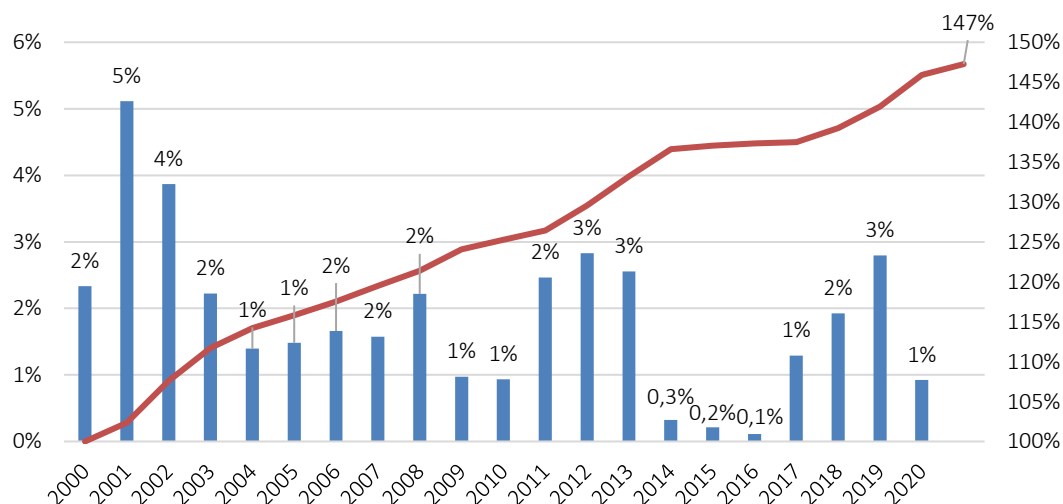
Graph NL10. Returns after charges and before inflation



Source: Derived from tables NL3 and NL5

The next step on the way to calculating the real return on investment of the Dutch pension funds is to control for the annual inflation rate which reached 2,7% in 2019 but deflated considerably in 2020, due to COVID-19 restrictions, to 0.92%.

Graph NL11. Annual inflation rate in the Netherlands



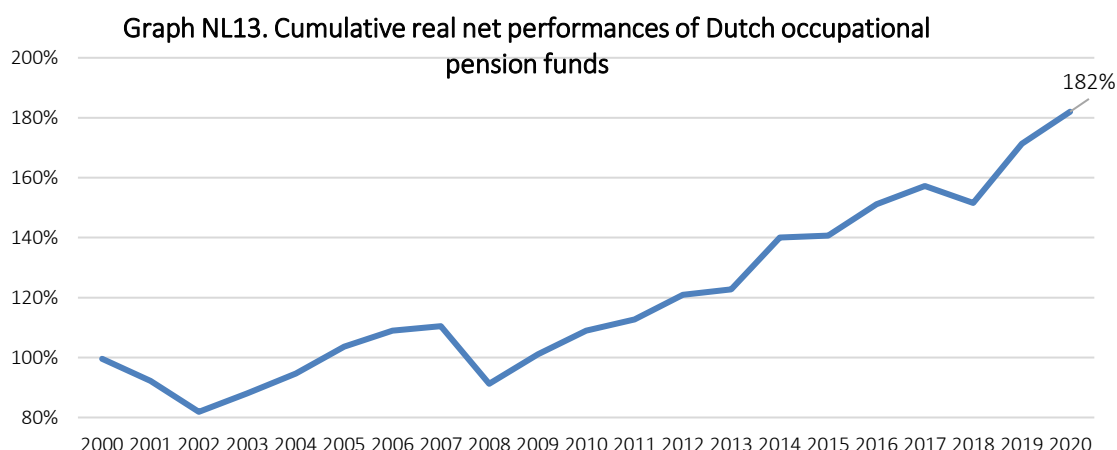
Source: Own calculations based on Eurostat



When we use the inflation data from Eurostat (M12 to M12 change) from 2000 and adjust the return after charges for inflation, we get the following outcome:

Table NL12. Return after charges and inflation	
2000	0.16%
2001	-7.41%
2002	-11.73%
2003	6.82%
2004	7.36%
2005	10.09%
2006	5.21%
2007	1.34%
2008	-17.82%
2009	10.46%
2010	8.82%
2011	3.49%
2012	7.84%
2013	0.35%
2014	13.64%
2015	0.76%
2016	8.12%
2017	3.92%
2018	-3.63%
2019	13.00%
2020	7.21%
Average 2000-2020	2.89%

Source: Own calculations



Source: Own composition based on Table NL12



Over the last 21 years, Dutch pension funds collectively have had very variable, even volatile, annual results in terms of real returns. Real annual returns ranged from -17,36% in 2008, the year the collapse of Lehman Brothers threw global financial markets into a tailspin, to 14,08% in 2014 when the European Central Bank did its utmost to lift the Eurozone out of its debt crisis and stagnation. Even as Dutch pension funds invest relatively heavily in bonds and other securities, their returns have proved greatly dependent on volatile financial markets in an age of low interest rates. This is partly due to the fact that interest rate changes have a greater impact on the durations and value of securities when the starting rates are close to zero, compared to situations in which interest rates at the start of year are at higher levels. Much of these returns, however, remain unrealized as pension funds hold on to their bond assets to continue matching their long-term liabilities, which are even more interest-rate dependent.

2019 and 2020 stood out as years of high real returns together with 2009 (a bounce back year) and 2014. During the aftermath of the dotcom bubble in the early 2000s, in 2008 when the financial crisis was at its height and in 2018, real returns have been disappointingly negative. Overall, the last 21 years have produced solidly positive real returns for Dutch pension funds, with the geometric annual average real return reaching 2.89% by the end of 2020. While the first decade of the 21st century was a lost decade in terms of real returns, cumulative yields since the start of 2010 have added 80% to the real value of pension savings.

Pillar III vehicles

Third-pillar products in The Netherlands have been wrought with problems in The Netherlands. In 2006 the largest financial scandal in Dutch history erupted when it was revealed that commercial life insurance and pension products had hidden cost structures that greatly penalized savers. This *woekerpolis-affaire* (usurious insurance affair) seriously dented the Dutch public's trust in the financial sector and sparked a host of regulations designed to increase transparency and limit or eliminate profiteering. The momentum for such regulations was strengthened even further by the global financial crisis which started two years later. These regulations threw the market for third pillar products into turmoil, forced the reform or abolishment of some of these products themselves, and greatly limited the profits that could be made with them by providers and (especially) by middlemen. On the upside, consumer interest became better protected and the impetus to increase transparency has made The Netherlands one of the global forerunners in terms of detailed and accurate reporting on the fortunes and expenses of financial products and institutions.

Afterwards, new products were introduced, some of which depended on interest rates. But these have remained so low over the past decade that all pension products based on guaranteed benefits have become unsustainably expensive to purchase and have all but disappeared from the Dutch third-pillar market. Virtually all life insurances and pension products sold to individuals currently have higher risk profiles. Furthermore, tax regime changes implemented in 2015 have also meant that pension saving has become less fiscally attractive for those with high incomes. Nevertheless,



the third-pillar market in The Netherlands is still alive and may see a change of fortunes in this century's third decade, especially if the coming reform of pension schemes and pension funds (resulting from the Pension Accord) does not go smoothly and further erodes the Dutch public's trust in Pillar II.

Life insurance schemes constitute a large part of the third pillar products and hence can be used as a proxy for the returns in this pillar. Below we present the total return after charges and taxes, but before inflation, and the amount invested on behalf of owners of life insurance policies. It is important to note that an unknown percentage of the pension plans executed by life insurance companies fall under Pillar II (employer-related pension) rather than Pillar III (personal pension). So, as stated, the returns of the life insurance companies are merely a proxy for Pillar III returns (data on the returns of another pension vehicle active in both the second and third pillar, the PPI, are missing entirely).

Year	Investment result (after charges and taxes) (in mln EUR)	Investments on behalf of policy holders (in mln EUR)	Nominal return (net of charges)	HICP Inflation	Real return (net of charges, inflation)
2000	2,771	70,928	4%	2%	2%
2001	2,593	76,960	3%	5%	-2%
2002	240	68,535	0%	4%	-3%
2003	2,793	76,814	4%	2%	1%
2004	2,306	82,755	3%	1%	1%
2005	3,322	95,972	3%	1%	2%
2006	3,935	99,693	4%	2%	2%
2007	6,951	100,755	7%	2%	5%
2008	-5,580	87,460	-6%	2%	-8%
2009	2,070	101,246	2%	1%	1%
2010	180	106,624	0%	1%	-1%
2011	-460	105,555	0%	2%	-3%
2012	360	110,790	0%	3%	-2%
2013	2,208	106,480	2%	3%	0%
2014	-2,988	111,112	-3%	0%	-3%
2015	3,547	104,934	3%	0%	3%
2016	2,819	110,160	3%	0%	2%
2017	3,179	103,093	3%	1%	2%
2018	3,280	85,634	4%	2%	2%
2019	3,069	95,938	3%	3%	0%
2020	2,735	98,744	2.77%	1%	1.83%
AVERAGE 2000-2019			1.98%	1.84%	0.13%

Source: Own calculations, Statistics Netherlands, DNB

The average annual return after charges, but before inflation, for life insurance companies in the Netherlands between 2000 up to and including 2020 amounts to 1.94%. The average annual inflation rate in the Netherlands over the same period was 1.84%. Therefore, the average real



annual return of insurance companies in the Netherlands for the period between 2000 and 2020 stands at virtually nil (0.13%).

Presenting all these calculations together, we get the following table:

Table NL15. Average real return of pension funds and insurance companies in the Netherlands

	Nominal return pension funds (1)	Return insurance companies after charges (2)	HICP annual inflation rate (3)	Charges pension funds (4)	Real return pension funds ((1-4)/3)	Real returns insurance companies (2/3)
2000	2.7	3.91	2.33	0.2	0.16	1.54
2001	-2.48	3.37	5.11	0.2	-7.41	-1.66
2002	-8.12	0.35	3.87	0.2	-11.73	-3.39
2003	9.4	3.64	2.22	0.2	6.82	1.38
2004	9.06	2.79	1.39	0.2	7.36	1.38
2005	11.92	3.46	1.48	0.2	10.09	1.95
2006	7.16	3.95	1.66	0.2	5.21	2.25
2007	3.14	6.9	1.57	0.2	1.34	5.24
2008	-15.76	-6.38	2.22	0.24	-17.82	-8.41
2009	11.73	2.04	0.97	0.19	10.46	1.06
2010	9.98	0.17	0.93	0.15	8.82	-0.75
2011	6.23	-0.44	2.47	0.19	3.49	-2.84
2012	11.1	0.32	2.83	0.21	7.84	-2.44
2013	3.15	2.07	2.56	0.23	0.35	-0.47
2014	14.18	-2.69	0.32	0.17	13.64	-3.00
2015	1.47	3.38	0.21	0.5	0.76	3.16
2016	8.74	2.56	0.11	0.5	8.12	2.45
2017	5.81	3.08	1.29	0.55	3.92	1.77
2018	-1.26	3.83	1.92	0.52	-3.63	1.87
2019	16.70	3.2	2.80	0.54	13.00	0.39
2020	7.66	2.77	0.9	0.45	6.23	1.83
Avg.	5.08%	1.98%	1.84%	0.29	2.89%	0.13%

Source: Data reported by the Dutch Central Bank.

Conclusion

Dutch employees are far less dependent on a state pension compared to other Europeans since their individual pension plans account for the main part of their retirement income.

Generally speaking, the pension funds that invest the largest share of pension contributions tend to provide decent returns after taxes, charges and inflation. For the period considered here, 2000-2020, the average annual real return is 2.89%. The pension vehicles in the third pillar, such as life



insurance companies, return far less, practically nil over the same period. However, one must note that the third pillar is relatively small, and a relatively small number of individuals are enrolled in it.

Historically, in the post-war period, Dutch employers and employees have invested much in pension schemes and premiums, with the traditional rule of thumb being that one-fifth of wage benefits were dedicated to pension investments. Also, the Dutch pension system has maintained an exceptional degree of compulsion, submitting most sectors of the economy to mandatory sectoral pension schemes. This, combined with a regulatory framework which utilizes discount rates that are more prudent (many argue that these are too prudent) than those used by EIOPA, for example, explains why the Dutch pension system is consistently judged to be (one of the) strongest in the world.

Like other pension systems in OECD countries and elsewhere, however, Dutch pensions have come under strain by the combination of an aging population and historically low interest rates. Over the last decade, Dutch pensions have not kept up with inflation rates despite positive real returns. The reason for this is the low discount rate that pension funds are forced to employ in their valuation of pension liabilities, which in the age of low interest rates has made the *effective* returns of pension funds (the growth of assets compared to the growth of liabilities) negative. Also, as the labour market has become increasingly flexible, generational conflict has increased within pension funds (which utilize cross-generational subsidies in the traditional expectation that employees spend their entire working lives within a single sectoral or company-based pension fund) and a growing part of the work force does not fall under any Pillar II pension scheme at all.

The Dutch government, trade unions, and employers' organizations have signed an accord (*Pensioenakkoord*) aimed to address the issue of intergenerational subsidies and financial difficulties which points towards a general move away from DB towards DC. So far, however, little has been done to address the growing Pillar II 'blind spot' (*witte vlek*) which may lead to strongly declining average replacement rates in the future and to growing elderly poverty rates. On a brighter note, Dutch pension regulators and pension funds, have pioneered a focus on cost-related transparency over the last few years. Due to the financial clout of Dutch pension funds, this has forced many (internationally operating) investment firms to clarify the structure of fees and charges, as well as their policies on sustainable investments. The governance and efficiency of pension funds themselves has improved as well, partly as a result of an ongoing process of consolidation driven by mergers between pension funds.





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