

Will you afford to retire?

The Real Return of Long-term and Pension Savings

2023 Edition



BF **BETTER FINANCE**

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

Will You Afford to Retire?

The Real Return of Long-term and Pension Savings

2023 Edition

A research report by BETTER FINANCE

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Executive Summary

For long-term and pension savers, the year 2022 was undoubtedly a calamitous one. Poor capital market performance and sky-rocketing inflation across all European Union (EU) Member States resulted in disastrous returns, both in nominal and real terms, for virtually all of the product categories analysed in this report. This comes after a year 2021 that had seen strong equity returns, tempered by already rising inflation (BETTER FINANCE, 2022b).

One or even two years of past performance, however, do not tell us much about the long-term performance of saving products. What matters for individuals who invest part of their income into those products is how much income they will be able to draw from them in the distant future, in particular for retirement purposes. The objective of this report therefore is to provide readers with a long-term perspective on performance that aligns with the extended investment horizon. We analyse the costs and performance of a broad range of products across various holding periods, spanning up to 23 years.

Over this longer period good years supposedly make up for bad ones. Nevertheless, we observe that many of the product categories do not offer sufficient nominal returns in the long run to compensate for inflation, even with the moderate inflation rates of the 2010s. This weak performance then results in a loss of purchasing power for many European savers and investors.

The real net return of European long-term and pension savings

BETTER FINANCE's annual reports on the real return of long-term and pension savings have been met with criticisms—mainly from industry representatives—on account of our choice not to analyse risk-adjusted returns. However, the purpose of this report is to draw attention on what we—together with the European Insurance and Occupational Pensions Authority (EIOPA)—consider to be “the main risk of a pension product [that] is the risk of not reaching the individual's retirement objective” (European Insurance and Occupational Pensions Authority [EIOPA], 2020, p. 3). Market risks may be part of this picture but, primarily,

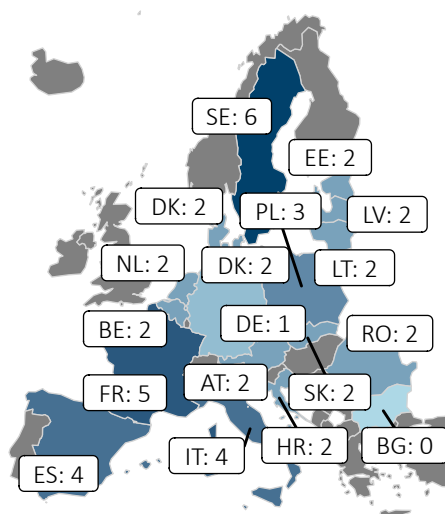
the riskiness of a personal pension product is its potential inability to outperform inflation, and so to lose savings in real terms, or not being sufficiently “aggressive” to reach higher investment returns to compensate for potentially low contribution levels (EIOPA, 2020, p. 3).

Then, since reaching one's retirement income objective depends primarily on the real net rate of return, it is once more on this metric that BETTER FINANCE chose to focus this year's report.

This research report by BETTER FINANCE covers 17 of the 27 EU Member States. In each of these countries the team of contributors analyses the costs and performance of up to 6 product categories. Our goal is to calculate, based on publicly available data about these product

categories, the **real net return** that long-term and pension savers may expect to obtain from their investments. When we refer to real net return, we are indicating the rate of return on an investment after deducting all costs and charges levied by the product provider. This calculation also accounts for inflation, which reduces the purchasing power of both the invested capital and returns. Figure XS.1 shows the countries included in this study, and the number of product categories analysed in each country.

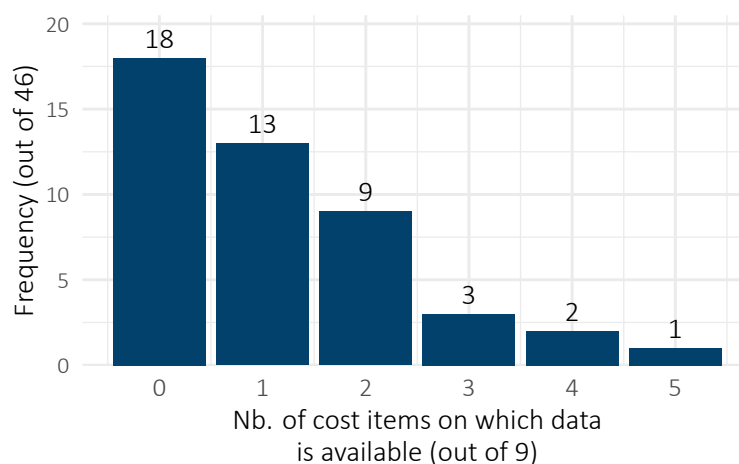
Figure XS.1 – Countries and number of product categories included in the report



The reader may be surprised to see that we analyse no product category in Bulgaria, and only one in Germany. In both cases, the reason is the unavailability of data on nominal returns, costs, and charges. In the case of Bulgaria, despite BETTER FINANCE’s multiple calls to the relevant authorities, essential data necessary to calculate the real net returns of Bulgarian pension savings remain unavailable. For the second year in a row, we then had to renounce including any Bulgarian long-term or pension savings product category in our study. For Germany, our sample includes only life insurance on an aggregated basis. This does not do justice to the variety of long-term and pension saving products that exist in the country: the lack of data on returns and on costs and charges forced us to exclude important product categories, such as *Riester* or *Rürup* pensions, *Pensionkassen* or *Pensionfonds*.

Even where we manage to calculate real net returns, it is increasingly difficult for the team of contributors to obtain data about costs and charges. In most cases, the available cost data are partial, covering only a subset of all cost items charged to investors. Information on costs is very often patchy and displayed in a way that makes it impossible for investors to compare cost levels across product providers, and for our contributors to aggregate this information at the level of product categories. The reader can appreciate this reality in Figure XS.2: for none of the 44 product categories included in our study could our contributors find data for more than 5 out of the 9 cost items defined in our methodology. Additionally, for more than a third of the product categories in our study, there is simply no cost information available.

Figure XS.2 – Availability of cost & charges data for 2022



For the 18 product categories for which no cost data is available, the lack of information on costs and charges prevents us from evaluating the average effect of charges on investors' returns. Consequently, we are forced to start our analysis with disclosed nominal *net* returns, whereas providers' marketing communications usually communicate on the basis of nominal *gross* returns.

Given the challenges in obtaining fundamental data on the average costs and performance of long-term and pension savings products, which capture a large share of the wealth of European households, we advocate for EU and national authorities to urgently enact and implement the proposed rules on product oversight, governance, and information to investors, as outlined in the recent Retail Investment Strategy (RIS) proposals made by the European Commission (see our policy recommendations in the next section).

While opacity on cost and charges is pervasive across the countries we study, it is only fair to acknowledge the few cases in which industry and supervisors made significant efforts to define and implement coherent reporting frameworks.

2022: Annus horribilis for long-term and pension savings

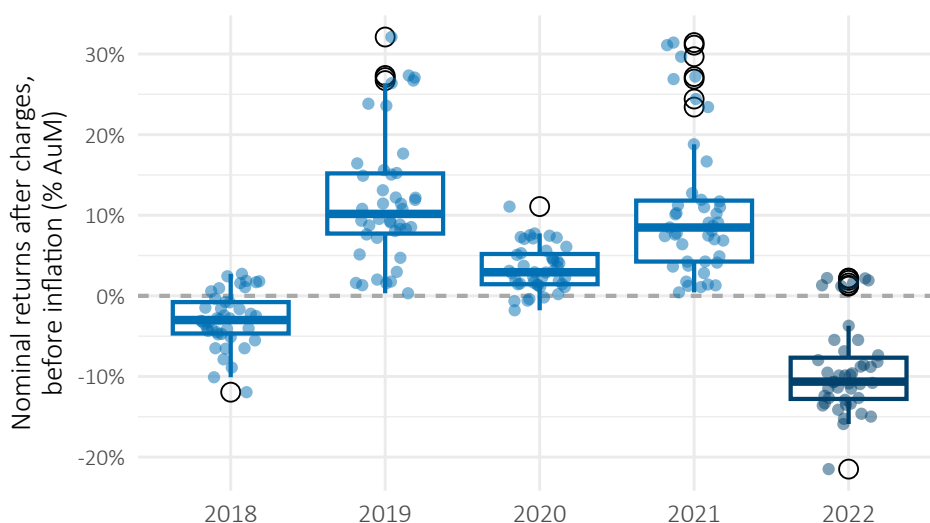
The long-term and savings products included in our study have performed particularly poorly this year, with nominal net returns (that is, after charges but before inflation) turning negative for 35 out of 41 product categories. As shown in Figure XS.3, 2022 presents a sharp contrast with 2021, which had seen strong equity markets boost performance.¹

These poor results across the board stem from a combination of capital markets taking a plunge and inflation skyrocketing, triggered, inter alia, by Russia's attack on Ukraine and other perceived geopolitical risks.

Figure XS.4 shows the performance of European capital markets, using two pan-European mar-

¹In box plots such as Figure XS.3, the central box represents the interquartile range (i.e., 50% of the data), the thick central line is the median, the whiskers (vertical lines) indicate where roughly 99% of the data points are located, and the black circles at each end of the whiskers represent outliers.

Figure XS.3 – Average 1-year return rates of analysed product categories (2018–2022)



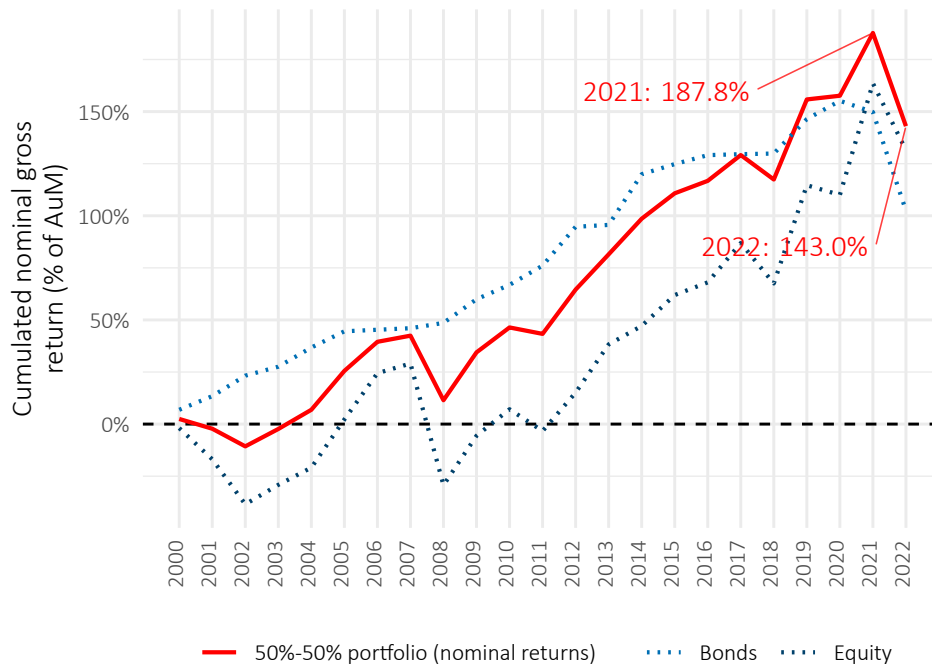
Data: NCAs and sectoral associations (see Country Cases); Calculations: BETTER FINANCE

ket indices as proxies—one for equities and one for bonds. Based on these, we calculate the cumulative return of a hypothetical portfolio composed of European equity and bonds in equal proportion, with annual rebalancing. The cumulated return of this portfolio, which we use as a benchmark throughout our report to assess the performance of long-term and pension products, dropped by 44.8 percentage points between end-2021 and end-2022 (before inflation).

Meanwhile, inflation, which had already begun to rise in 2021, reached levels unseen in decades by 2022. This can be observed in Figure XS.5, where the inflation rate for 2022 is juxtaposed with the annual average inflation over the period 2000-2022 for each country in our study, as well as the EU and Euro Area averages.

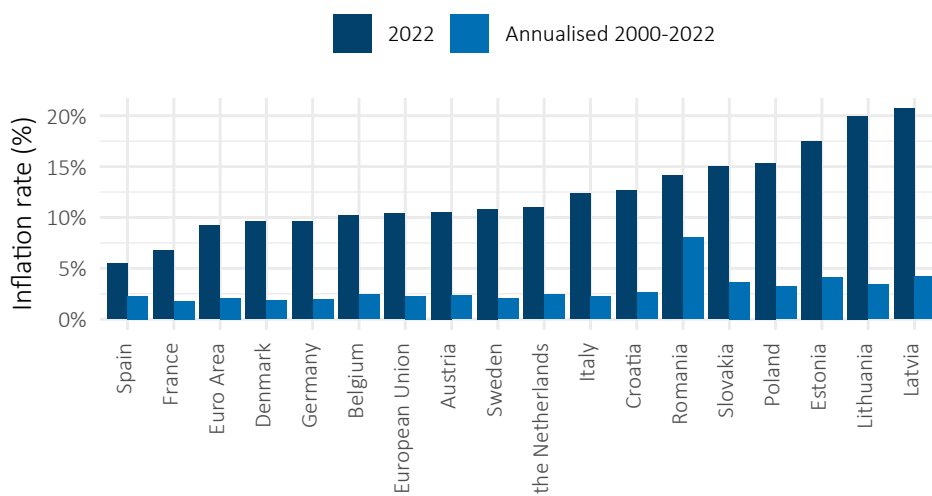
Both phenomena combined to create a “perfect storm”, resulting in dramatic losses, in real terms, for long-term and pension savers. Figure XS.6 illustrates the average performance of analysed long-term and pension-saving products in nominal terms (left-hand box) vs. real terms (right-hand box). The already strikingly poor nominal returns of most products are pushed significantly further into negative territory when taking into account inflation. All of the positive nominal net returns turn negative after inflation.

Figure XS.4 – Cumulated performance of European capital markets (2000-2022)



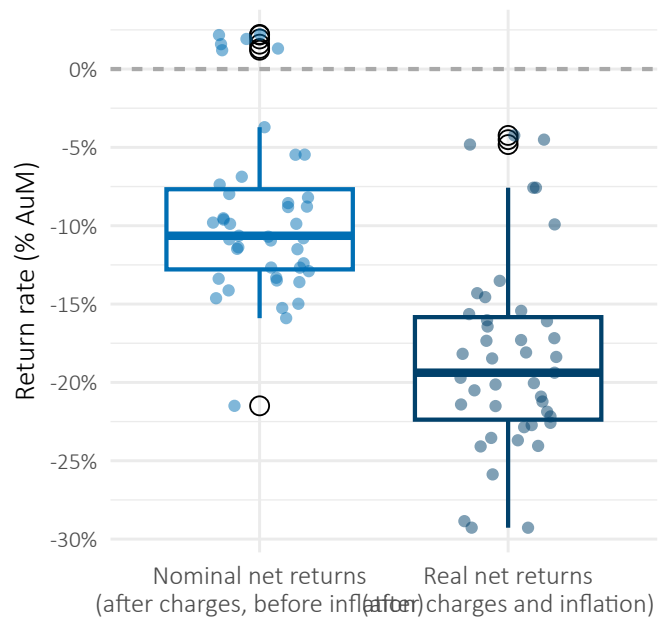
Equity index: STOXX All Europe Total Market (gross return); Bonds index: Barclays Pan-European Aggregate Index (gross return); The 50%-50 portfolio is rebalanced annually.

Figure XS.5 – Inflation 2022 vs. 23 year annual average



Data: Eurostat (HICP monthly index); Calculations: BETTER FINANCE.

Figure XS.6 – Average 2022 1-year net returns: nominal vs. real

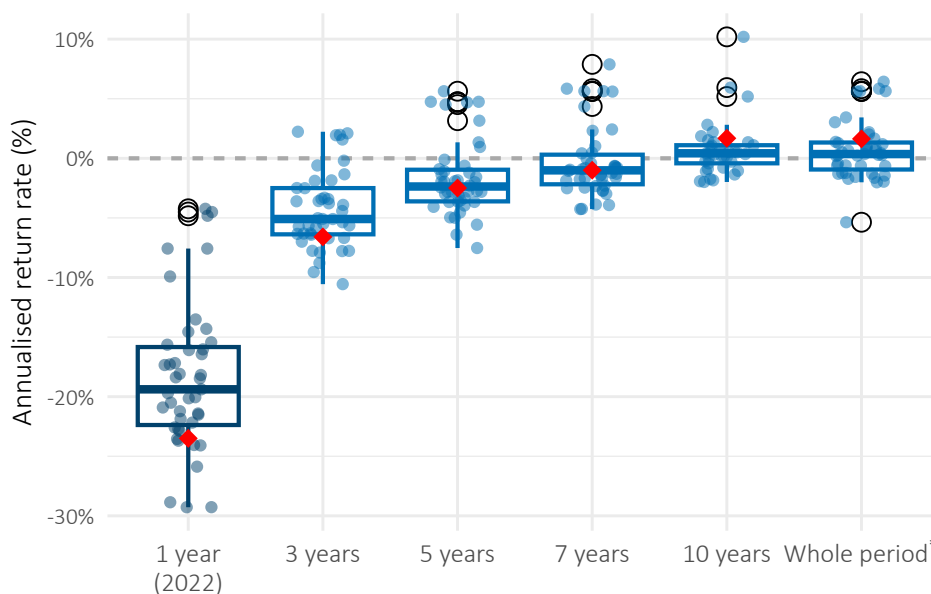


Calculations: BETTER FINANCE

The long-term view on long-term savings

Naturally, one should not assess the performance of long-term and pension savings products based on the results obtained in one bad year but rather take a long-term view. That is why our ambition in this report is to gather data about costs and performance for a period of up to 23 years (2000–2022), calculating annualised and cumulated returns over more than two decades.

Figure XS.7 – Average annualised real net returns over varying holding periods



Calculations: BETTER FINANCE; * The reporting period varies across products (earliest year: 2000)

Figure XS.7 displays the average performance after charges and inflation of the long-term and pension saving products analysed in our report over varying holding periods, from 1 year (2002) to the whole period for which data could be found (“whole period”, up to 23 years). The first observation is that the longer products are held, the better performances can be expected to be. The effect of the heavily negative results in 2022 is indeed felt over short holding periods, which at least partly explains the negative performance of many products over 3, 5 or even 7 years.

When looking at results over 10 years and entire reporting periods, we generally see better results than for shorter timeframes, as capital market volatility tends to smooth out over time. Nevertheless, it is striking that even over the long-term, many of the analysed product categories show disappointing results.

11 out of the 37 product categories have negative real net performance, and of the 26 that show positive performances, only 6 manage to beat the 10-year performance of our benchmark portfolio (1.68%, shown by the red diamonds in Figure XS.7).

The median real net performance is only 0.4%. The average 10-year performance from 2013–2022, though influenced by the robust performance of Sweden’s Premium pensions (AP7 Såfa +10.2%, other funds +5.9%), only reaches 0.7% (see Table XS.1).

Table XS.1 – Summary statistics of performance over varying holding periods

Holding period	Nb. of product cat.	Median	Mean	Standard Deviation	Best performance	Worst performance
1 year	43	-19.4%	-18.4%	6.2pp.	-4.2%	-29.3%
3 years	43	-5.1%	-4.3%	3.2pp.	2.2%	-10.6%
5 years	42	-2.4%	-1.7%	3.1pp.	5.6%	-7.5%
7 years	42	-1.0%	-0.3%	3.0pp.	7.9%	-4.3%
10 years	37	0.4%	0.7%	2.3pp.	10.2%	-2.0%
Whole period*	43	0.4%	0.7%	2.4pp.	6.4%	-5.4%

Calculations: BETTER FINANCE

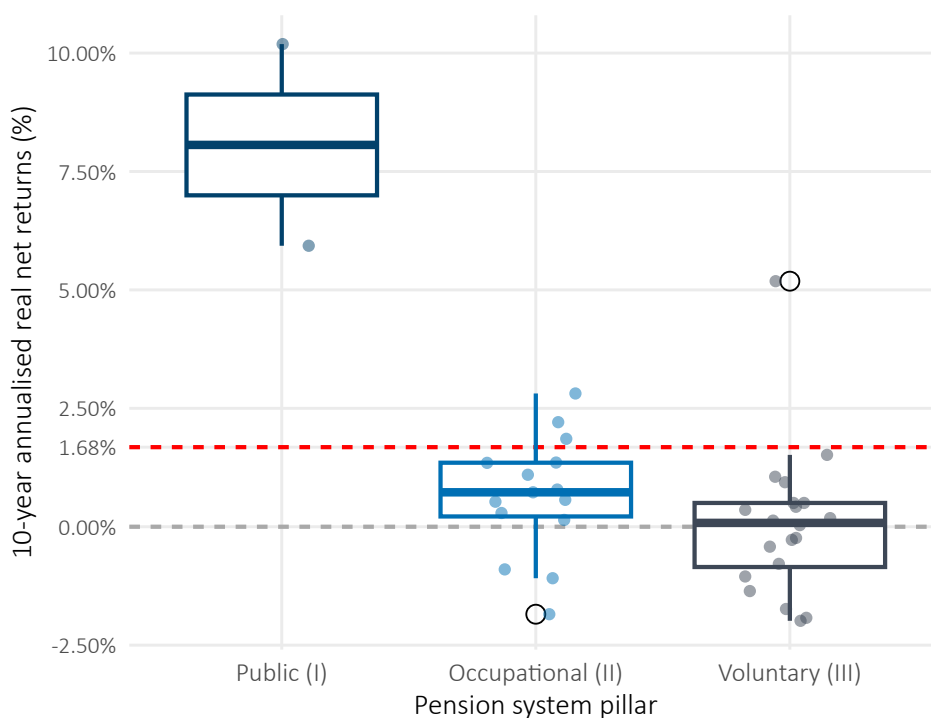
* “Whole period” varies across products (up to 23 years)

Observing the distribution of performance levels across pension system pillars, we also note that occupational pension schemes in Pillar II generally outperform voluntary products within Pillar III. Figure XS.8 illustrates the distribution of 10-year performance per pillar.

Swedish Premium pensions, which show very strong performance compared to the rest of the analysed product categories, are classified as Pillar I products but bear strong resemblance to occupational pension schemes (Pillar II). Leaving these extreme positive outliers aside, we observe that median 10-year performance of Pillar II products (central line of the middle box) is above the upper limit of the interquartile range of Pillar III performances (upper bound of the right-hand box), meaning that 75% of Pillar III products have a performance below the median performance of Pillar II products. Spanish Equity Pension Plans constitute a notable exception, with 10-year real net returns above 5%, the only product in Pillar III to beat our 50% equity-50% bond benchmark portfolio (the dotted red line in Figure XS.8)

It is beyond the scope of this report to explore the significance of the trend, although future research should investigate the factors that may explain it, including differences in asset allocation, management costs, distribution costs, and the potential effect of auto-enrolment schemes. Additional cost data would be particularly valuable to consistently analyse whether the observed divergence in performance might arise from higher costs associated with Pillar III products. We hope that such data becomes available if the EU legislator follows the much-welcomed proposals regarding cost disclosures under the Markets in Financial Instruments Directive (MiFID) and Insurance Distribution Directive (IDD), crucial elements of the European Commission’s proposals for the Retail Investment Strategy (RIS).

Figure XS.8 – Average 10-year annualised real net returns per Pillar



Calculations: BETTER FINANCE, returns are shown after charges and inflation.

Policy recommendations

Policy recommendation 1 – Supervisory reporting and statistics

Urgently improve reporting to supervisory authorities and publication of sectoral data, including the ESAs's report on the cost and performance of retail investment products.

The report once more highlights the difficulty to obtain data about long-term and pension saving products. Gathering comprehensive data about costs and charges is often an impossible task. Even obtaining data about net returns is becoming increasingly difficult.

Nevertheless, counter-examples exist, where detailed figures are reported in a harmonised way by market participants to a supervisory authority or sectoral organisation, which aggregates and makes them available to the public. The EU legislator should draw inspiration from these examples and incorporate into EU law - specifically, the MiFID and IDD legislation for Pillar III products, currently under review as part of the Retail Investment Strategy (RIS), or the next revision of the IORP II directive on occupational pensions - requirements for national competent authorities (NCAs) to adequately report figures on a quarterly or monthly basis. This should include the constant updating and public reporting of assets under management (AuM) and net AuM, unit value, asset allocation, as well as the number of participants for all supervised vehicles in the area of long-term and pension savings.

As part of these efforts to better report on the costs and performance of retail investment prod-

ucts, BETTER FINANCE calls on the European supervisory agencies (ESAs) to keep improving their annual costs and performance reports. Currently, the data and coverage of these reports are incomplete and based on commercial databases or surveys. The European Securities Markets Authority (ESMA), the EIOPA and—in the future—the European Banking Authority (EBA) should be able to rely on regular reporting of supervisory data from NCAs, which themselves should have the necessary powers to require regular reporting of data on the costs and performance of saving and investment products in their respective areas of competence.

Policy recommendation 2 – Conflicts of interest in scheme management and product distribution

Harmonise and reinforce rules to curb the conflicts of interests in the distribution of long-term and pension saving products, and improve the governance of collective long-term pension schemes.

Conflicts of interest plague the management and distribution of long-term and pension saving products in Europe. The sales commissions-based distribution system of voluntary long-term and pension saving products (Pillar III) directs retail investors towards fee-laden and often underperforming products. Our report showcases various product categories with high average fees and poor long-term returns that so-called “advisors” are paid to recommend to consumers, against the best interest of the latter.

BETTER FINANCE has consistently opposed this system, and strongly supports the European Commission’s proposal to partially ban so-called “inducements” as part of the RIS. We believe that the inducements-based distribution system hurts retail investors through higher charges, the illusion of “free” investment advice and a selection bias in distributors’ recommendations, all of which result in lower returns and inadequate retirement income for European citizens.

For more details on BETTER FINANCE’s position regarding conflicts of interests in the distribution of retail investment products, see (BETTER FINANCE, 2023a, pp. 4–13)

In occupational pension schemes (Pillar II), the issue of conflicts of interest takes on a different form. In those schemes, it is crucial that the board, which takes decisions on behalf of the scheme’s members, includes independent members representing the interests of beneficial owners.

Policy recommendation 3 – Information to (prospective) investors

Provide simple, intelligible, and comparable information on cost and performance of long-term and pension saving products.

Obtaining information on long-term and pension vehicles, as well as monitoring them, should not be difficult for non-professional savers. This implies also reinstating standardised actual cost and past performance disclosure, and in real terms alongside the less relevant nominal ones.

The proposed revisions to the EU’s MiFID and IDD legislation, along with the amendments to the PRIIPs regulation, offer the opportunity to finally provide investors with the information they

actually need to compare the costs of products. BETTER FINANCE strongly supports, in particular, the provision of annual statements to holders of investment funds' shares distributed under MiFID and to life insurance policyholders distributed under IDD, including the provision of information on the cost of distribution and the possibility to obtain a detailed breakdown of all charges.

Although we welcome the innovations introduced to the format of Key Information Documents (KIDs) by the proposed amendments to the PRIIPs regulation, we still call for a thorough review of this legislation to drastically improve the understandability and comparability of the information provided in the KID. We strongly believe that providers of packaged retail and insurance-based investment products (PRIIPs) should include the actual most recent costs of their products in the KID.

PRIIPs providers should also be required to provide 10 years of past performance data together with the benchmark that is used as investment objective by the product provider. While past performance is not indicative of future performance, it is a good indicator of whether a PRIIP has ever made money or not for the investor, and of an asset manager or insurance company's ability to meet its investment objectives, and to generate returns for the client. Furthermore, it is comparable across product providers and timelines, as it does not rely on assumptions and hypothetical scenarios. The past performance of various products shows how their respective providers navigated through a similar set of real-world circumstances. Finally, displaying past performance in comparison with the product's stated benchmark enables the prospective investor to clearly see whether the provider has been able to make good on their commitment to meet its target.

For more information about our recommendations regarding information to investors and prospective investors, see BETTER FINANCE (2023a, pp. 17–22).

Readers may also refer to BETTER FINANCE's response to the consultation conducted by EIOPA on the review of the Directive on institutions for occupational retirement provision (IORPs) (BETTER FINANCE, 2023b). In occupational pension schemes too, managers should provide pension scheme participants with the information necessary to keep track of their pension benefits and effectively plan their savings and investments to ensure adequate levels of retirement income.

Finally, EU authorities should follow-up on the recommendation of the High-Level Forum on the Future of the Capital Markets Union (HLF CMU) to establish individual pension tracking systems, enabling individuals to keep track of their accumulated pension rights across employers and across borders.

Policy recommendation 4 – Sustainability

Provide clear, intelligible information on the sustainability of European long-term and pension savings and investments.

An increasing number of retail investors expresses a desire to invest in financial products that consider sustainability criteria and pursue environmental, social and governance (ESG) objectives (2° Investing Initiative [2DII], 2020). Despite significant progress in recent years, much remains to be done to provide retail investors with an investing environment that accommodates both

their financial and sustainability preferences.

First, EU policymakers should increase their efforts to develop a clear, precise, and standardised taxonomy of economic activities. This taxonomy should be grounded in scientific analyses and address all three major aspects of sustainability: environmental, social and governance (ESG). These efforts should also include the development of a **well-designed EU-wide Ecolabel for retail investment products** that avoids the pitfalls of existing national labels.

EU policy-makers should also address the short-termism of the financial industry by reinforcing the consistent linkage between sustainability and long-term value creation. **It must be clearly emphasised that exemplarity with regard to investor protection rules first and ensuring decent returns for individual investors is compatible with investing in a way that respects environment and society.** To this end, clear and intelligible ESG disclosures should be combined with financial disclosures, preferably integrated into one document providing savers and investors with a holistic picture of the products they buy.

Finally, EU and national policymakers should require sustainability and ESG knowledge and training for board members in long-term and pension savings vehicles, as well as for financial advisors and sales personnel distributing such products. Regarding the latter, BETTER FINANCE supports the European Commission's RIS proposals regarding the knowledge and competence of financial advisors and sales personnel but urges additional training specifically dedicated to sustainable investing (see BETTER FINANCE, 2023a, pp. 12–13).

Policy recommendation 5 – Asset allocation

End the fixed-income bias in the asset allocation of long-term savings.

Prudential rules, designed to protect investors against the risk of excessive risk-taking leading to financial losses, require pension fund managers and life insurance providers to allocate a significant portion of participants' and policyholders' funds into fixed-income assets, particularly sovereign debt from EU Member States.

However, in doing so, these rules excessively restrict the possibility for long-term and pension savers to take advantage of investment opportunities in equity markets, which, while more volatile, also offer higher yields in the long term.

Regulations governing long-term and pension savings should not discriminate against long-term equity investments. Specifically, life-cycling strategies that adjust risk to the investment horizon of the saver should enable managers to invest a substantial portion of younger investors' contributions or premiums in equity market instruments (as is the case of Sweden's Premium pensions, in particular the AP7 Såfa fund).

Policy recommendation 6 – Taxation

Stop penalising taxation of long-term and pension products.

Taxation on pensions, whether on contributions, returns, or payouts, should be based on real

values rather than nominal ones. Taxes should be applied to values adjusted for inflation, using the harmonised index of consumer prices (HICP). To recoup the value of pension pots, at least occupational schemes (Pillar II) should apply an “EEE” regime. Pillar II contributions should be deductible from the income base tax.

Policy recommendation 7 – Auto-enrolment

Introduce auto-enrolment in occupational pensions.

The active labour force should be automatically enrolled in a default pension fund, with the option to withdraw or switch provider at no additional cost. Romania, Sweden, Slovakia and other serve as best practice examples: This auto-enrolment ensures that working individuals start saving early and consistently for their retirement, reducing the risk of insufficient income in retirement. This was also a recommendation of the HLF CMU.

Policy recommendation 8 – Suspensions

Allow savers to defer contributions to pensions without penalties.

Savers should be allowed to suspend payments into a pension savings or life insurance plan without incurring a penalty. In an era characterised by uncertainty, it can never be assumed that an individual will always have an income sufficient to cover their immediate needs as well as pay their premium or set contribution towards their pension plan. When an individual, for whatever reason, cannot, for a short period of time, contribute to their pension product, they should not be faced with the choice between foregoing their pension plan or paying a penalty. Instead, they should be able to suspend payments and resume as soon as they have a new income stream.

Policy recommendation 9 – Insurance guarantee schemes

Urgently establish harmonised insurance guarantee schemes in the EU.

EU citizens are partially covered against the default of product manufacturers through Directive 2014/49/EU on deposit guarantee schemes (DGs) and Directive 97/9/EC on investor compensation schemes (ICSs). However, many pension savers across the EU lack an appropriate protection for insurance-based investment products (IBIPs), a shortcoming of the EU’s protection regime that is particularly problematic as IBIPs (such as life insurance) are predominant in some pensions systems in the EU (e.g., in France).

BETTER FINANCE calls on the EU legislator to revamp the project for a Regulation on insurance guarantee schemes (IGs), which should mimic the rules of the DGS Directive, and urgently harmonise protection against defaults at a minimum level across the EU.

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List of abbreviations

aba *Arbeitsgemeinschaft für betriebliche Altersversorgung e. V.*

ACPR *Autorité de Contrôle Prudentiel et de Résolution*

AFG *Association française de la gestion financière*

AFM *Autoriteit van Financiële Markten*

AIF *alternative investment fund*

AMC *Asset Management Company*

AMF *Autorité des Marchés Financiers*

AOW *Algemene Ouderdomswet*

APP *Asset Purchase Program*

APWP *average personal wage point*

ASF *Autoritatea de Supraveghere Financiară*

AuM *assets under management*

BaFin *Bundesanstalt für Finanzdienstleistungsaufsicht*

BEAMA *Belgian Asset Managers Association*

BMAS *Bundesministerium für Arbeit und Soziales*

CBA *collective bargaining agreement*

CMU *Capital Markets Union*

CNAV *Caisse Nationale d'Assurance Vieillesse*

CNPP *Casa Națională de Pensii Publice*

COVIP *Commissione di Vigilanza sui Fondi Pensione*

CPI *consumer price index*

CRH *Complémentaire Retraite des Hospitaliers*

CSSPP *Comisia de Supraveghere a Sistemului de Pensii Private*

DB defined benefit

DC defined contribution

DGS deposit guarantee scheme

DNB *De Nederlandsche Bank*

EBA European Banking Authority

EC European Commission

ECB European Central Bank

EEA European Economic Area

EFTA European Free Trade Area

EIOPA European Insurance and Occupational Pensions Authority

ESA European supervisory agency

ESG environmental, social and governance

ESMA European Securities Markets Authority

EStG *Einkommensteuergesetz*

ETF exchange-traded fund

EU European Union

FAIDER *Fédération des Associations Indépendantes de Défense des Epargnants pour la Retraite*

FCPE *Fonds Commun de Placement d'Entreprise*

Fed Federal Reserve System

FSMA Financial Services and Markets Authority

GDI gross disposable income

GDP gross domestic product

GDV *Gesamtverband der Versicherer*

GRV *Gesetzliche Rentenversicherung*

GVfM Good Value for Money

GWP gross written premium

HANFA Croatian Financial Services Supervisory Agency

HICP harmonised index of consumer prices

HLF CMU High-Level Forum on the Future of the Capital Markets Union

HWM High Water Mark

HZMO *Hrvatski Zavod za Mirovinsko Osiguranje*

IBIP insurance-based investment product

IBPP insurance-based pension saving product

ICS investor compensation scheme

IDD Insurance Distribution Directive

IGS insurance guarantee scheme

INAMI *Institut National d'Assurance Maladie-Invalidité*

INPS *Instituto Nazionale Previdenza Sociale*

INSS *Instituto Nacional de la Seguridad Social*

IORP institution for occupational retirement provision

IRA individual retirement account

KID Key Information Document

KIID Key Investor Information Document

LIC Life Insurance Company

MiFID Markets in Financial Instruments Directive

MISSM *Ministerio de Inclusión, Seguridad Social y Migraciones*

MOD Pension Insurance Company

NAV net asset value

NBB National Bank of Belgium

NCA national competent authority

NDC notional defined contribution

NPISH non-profit institution serving households

OECD Organisation for Economic Co-operation and Development

PAC Pension Accumulation Company

PAMC Pension Assets Management Company

PAYG pay-as-you-go

PEE *Plan d'Épargne Entreprise*

PEPP Pandemic Emergency Purchasing Program

PEPP Pan-European Pension Product

PER *Plan d'Épargne Retraite*

PERCO *Plan d'Épargne Retraite Collectif*

PERE *PER Entreprises*

PERP *Plan d'Épargne Retraite Populaire*

PIAS *Plan Individual de Ahorro Sistemático*

PIP *Piani Individuali Pensionistici*

PLCDE supplementary pension plan for company directors

PLCI supplementary pension plan for self-employed individuals

PLCIPP additional pension agreement for self-employed as individuals

PLCLS supplementary pension plan for employees

PMC Pension Management Company

pp percentage point

PPA *Planes de Previsión Asegurados*

PPI *premiepensioeninstellingen*

PPSE *Planes de Previsión Social Empresarial*

PRIIP packaged retail or insurance-based investment product

PTS pension tracking system

REGOS Central Register of Insured Persons

RIS Retail Investment Strategy

RITA *Rendita Integrativa Temporanea Anticipata*

RiY reduction in yield

SEPE *Servicio Público del Empleo Estatal*

SIALP Seguro Individual de Ahorro a Largo Plazo

SPAMC Supplementary Pension Assets Management Company

TDF target date fund

TER Total Expense Ratio

TFEU Treaty on the Functioning of the European Union

TFR *Trattamento di Fine Rapporto*

UCITS undertaking for collective investment in transferable securities

UK United Kingdom

UMR *Union Mutualiste Retraite*

US United States

VPU value of pension unit

WIFO Austrian Institute of Economic Research

WTP *Wet Toekomst Pensioenen*

Contributors

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Arnaud Houdmont is Chief Communications Officer at BETTER FINANCE. Prior to his career in communications and research in the heart of Europe, he earned a master's degree in Global Communication from Goldsmith's College and a bachelor's degree in international relations from Sussex University.

Matis Joab joined BETTER FINANCE at the beginning of 2020 as Finance Officer, before being promoted to Executive Director in July 2023. Since joining, he has been in charge of finances, administration and member relations, as well as representing BETTER FINANCE at the European

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Amadeus Malisa earned his PhD in Economics from Jönköping International Business School in Sweden in 2022. He is currently working as a consultant with the World Bank. His research interests are in public economics, specifically on topics related to pension savings and retirement.

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Part I

General report

General Report 1

Introduction

Why this report?

In 2009, in the aftermaths of the global financial crisis, associations of all types of financial services users, such as individual shareholders, fund investors, insurance policyholders, bank savers, pension fund participants from all over Europe and beyond joined forces to make their voice heard on the European Union (EU) policy-making stage. From this encounter was born BETTER FINANCE, the European Federation of Investors and Financial Services Users, whose mission is to act as an independent financial expertise and advocacy centre to the direct benefit of European financial services users.¹

The Real Return research report series, which started in 2013, is part of this ambition: draw users', providers' and policy-makers' attention to the many flaws in Europe's long-term and pension saving system. From cognitive biases—such as the “monetary illusion” that makes us neglect the eroding effect of inflation—to shortcomings of the regulatory framework—lack of product transparency, non-comparable product information and conflicts of interest—via penalising taxation regimes, the contributors to the ten previous editions of this report have sought to raise awareness of a whole series of issues that prevent European citizens from taking advantage of long-term investment opportunities to generate income in the distant future.

Commentators—mostly from the industry—often criticize BETTER FINANCE's report on account of the fact that we do not analyse risk-adjusted returns. While proper market risk management is essential in long-term and pension saving products that invest people's hard-earned money on capital markets, we argue with the European Insurance and Occupational Pensions Authority (EIOPA) that “the main risk of a pension product is the risk of not reaching the individual's retirement objective” (EIOPA, 2020, p. 3), and that this risk primarily arises from insufficient real net returns over the long-term. The primary importance of insufficient returns to beat inflation as a risk factor for pension savers was clearly stated by EIOPA:

the riskiness of a personal pension product is its potential inability to outperform inflation, and so to lose savings in real terms, or not being sufficiently “aggressive” to reach higher investment returns to compensate for potentially low contribution levels (EIOPA, 2020, p. 3).

Contrarily to what public pension authorities typically stress, it may not be sufficient to start

¹More information about BETTER FINANCE's mission and vision is available at <https://betterfinance.eu/organisation/>.

saving early and to save a significant proportion of one's income to achieve pension adequacy: significantly positive long-term real net returns are essential. This is why we focus our report on the real net returns of long-term and pension saving products.

The European Securities Markets Authority (ESMA) and EIOPA began reporting on the cost and performance of long-term retail investment and pension products in 2018, answering a request made by the European Commission in its mid-term review of the Capital Markets Union (CMU) action plan (European Commission, 2017, p. 20). The Organisation for Economic Co-operation and Development (OECD) also reports on the returns of pension savings, but limits its analysis to occupational pensions (Pillar II).

Although we are proud to say that the Commission's request to the European supervisory agencies (ESAs) directly followed up on BETTER FINANCE's call to policy-makers (see BETTER FINANCE, 2015, p. 27), we believe that our report remains unique and necessary. Indeed, our report relies on data that cover, for each product category, the whole population of product providers, not merely a sample, in both occupational pillars, and for backward periods of up to 23 years. Contrary to ESMA's and EIOPA's reports, we provide information about the average allocation of assets within a product category and a description of the national pension systems, including Pillar I State pensions. Unlike EIOPA and the OECD, we report—whenever possible—about gross and net returns, and unlike EIOPA—and to ESMA until 2023—we calculate net returns adjusted for inflation, enabling savers to consider the evolution of the purchasing power of their pension savings beyond the “money illusion” (Shafir et al., 1997). Finally, unlike ESMA and EIOPA, we base our entire report on publicly available data and not licensed, private information inaccessible to retail investors.

“Will you afford to retire?” A question for all ages

This eleventh edition bears a new title—*Will you afford to retire*—but the ambition remains unchanged: making long-term and pension savers aware of the effect of charges and inflation on the long-term performance of the products they invest into, and draw policy-makers' attention to the pressing issues facing Europe's private pension systems.

Pension sustainability is a concern for governments, but citizens are mostly concerned about *pension adequacy*, that is, about whether the income they will obtain in their retirement years will be sufficient to maintain the standard of living they had in employment. Indeed, according to the Organisation for Economic Co-operation and Development (OECD, 2023b), while the net pension replacement rate in 2020 reached 94% for men in Hungary, at the other extreme, women in Poland can only expect retirement income to cover 28.2% of their pre-retirement income. The average across EU Member States reaches 67.6% for men and 66.9% for women, that is a reduction of income by almost a third upon retirement, which most people will seek to offset through additional private pension savings, especially in a context characterised by continued pressures on States' and social security systems' budgets and an ongoing trend to reduce or delay benefits from public pensions.

Nevertheless, for private pension savings to actually improve retirement income, real net returns must be positive—and significantly so—over the long term. That is where cost and performance of long-term and saving products come into play: insufficiently “aggressive” products—investing only or mostly in low risk-low yield instruments—are unlikely to generate sufficient nominal gross returns to compensate for the costs of managing assets and administering pensions, for income

reduction induced by the taxation of pension payouts, and for inflation that in the long run, even at moderate levels, significantly reduces the purchasing power of savings. Several European countries have or are about to transform systems of private pension savings that used to be organised on the defined benefit (DB) model to the defined contribution (DC) model, which may be more stable from a prudential point of view but definitely entails more risk of financial losses for individual pension scheme participants.

Those, BETTER FINANCE and its expert contributors believe, are issues that EU citizens must be made aware of. Building an adequate pension not only requires starting saving early and saving a lot, it also requires asking the right questions to the professionals in charge of collecting and administering one's occupational pension, and to those distributing voluntary long-term saving products. Generous redistributive pension systems have been an essential part of the European social model in the 20th century, drastically reducing old-age poverty. Now that this model is under the strain of an ageing population, Europeans need to have an informed democratic debate about the management of the funded private pensions if those are to play an effective role in ensuring pension adequacy.

Cost & charges: Getting value for your money

When gathering data for this report, the team of contributors seeks information on nominal returns, of course, but also information on the costs and charges that reduce the value of investors' contributions to pension funds or premiums paid toward life insurance policies. It is clear that if the former is often publicly available, in one way or another, the latter is, in (too) many cases, simply impossible to obtain.

In most of the cases analysed in this report, cost data are partial, either covering only a subset of the one-off or ongoing charges associated with the investment, or (where a comprehensive cost metric is provided) failing to disclose a breakdown of cost items.

The question of costs has been a hot topic in EU policy debates in 2023: The European Commission, in its legislative proposals for the Retail Investment Strategy (RIS), suggests to require from any manufacturer and distributor of packaged retail and insurance-based investment products (PRIIPs)—among which many products used by retail investors for retirement savings purposed, e.g., life insurance policies—to quantify and justify all costs of their products—including distribution costs—and to provide detailed breakdowns of those costs to existing and prospective clients (European Commission, 2023). BETTER FINANCE has expressed its support for this “pricing process” of these products (BETTER FINANCE, 2023a), which are often used as voluntary pension saving vehicles (Pillar III).

Unfortunately, the Commission's proposals regarding the Key Information Document (KID)—which is the main information document for prospective investors—completely eschew the issues of intelligibility and comparability of the cost and performance information, and fail to require the communication of past performance data, despite BETTER FINANCE's advocacy (BETTER FINANCE, 2021; BETTER FINANCE & CFA Institute, 2021).

Inflation: More than an anomaly

This year, we hardly need to highlight that **inflation** remains a pressing concern. Web searches for the keyword “inflation” increased fourfold between August 2021 and August 2022, illustrating

how suddenly consumers became aware of the dramatic impact that spiking inflation may have on their domestic finances.² In the world of financial policy-making, the sudden rise in the general level of prices led the ESAs to produce a fact sheet to inform consumers of financial services about the effect of inflation and the rise in interest rates on loans and savings, a most welcome initiative, especially as the ESAs highlight the fact that “inflation may impact your financial situation and reduce your purchasing power now and in the long term” (European Supervisory Agencies [ESAs], 2023).

The fact that inflation is by now receding to slightly less preoccupying levels throughout most EU Member States should nevertheless not send the issue back into shadows where it, until Russia’s attack on Ukraine, laid quietly eating at the value long-term savings. We should indeed always remember that the European Central Bank (ECB) translates its mandate to maintain price stability³ as a 2% inflation target over the medium term. This means that under “normal” conditions, the purchasing power of any individual’s savings will be reduced by 2% each year. Over 20 years, that is a 58% reduction.

Average inflation in the EU over the period 2000-2020 was actually only 1.75% per year—leading the ECB to implement an accommodating monetary policy, maintaining ultra-low interest rates—amounting to a 44.07% reduction in purchasing power of each euro over two decades. Then, even without considering the “anomaly” that the past two years may constitute in a trajectory of otherwise low inflation, any long-term or pension saving product would have to have returns over 1.75% per year (i.e. cumulated returns above 44.07%) over the period 2000-2020 for the investor *not* to have lost any money, in real terms, on their investment. As the remainder of this report will show, that is already a benchmark that many long-term and pension saving products failed to beat. Now, let’s factor in the effects of the 2021-2022 inflation peak, and suddenly we’re faced with a threshold of 2.27% per year (67.48% cumulatively) that must be surpassed to prevent losses in real terms.

So, why a new title?

After the publication of the tenth edition of *The Real Return* in 2022, the BETTER FINANCE research team and the contributors to the report took the time to reflect on the evolution of the project over the past decade. What started off as a short report covering only three countries grew over the years to reach 43 product categories in 17 countries. Despite the criticisms, BETTER FINANCE’s “pensions report” has become a recognised publication that policymakers consider in their analyses of the European pension landscape.

We are proud of this evolution, but we also want to go further. We wish to make this report a tool to inform EU citizens about the private pension landscape in their countries, provide them with useful information to assess the performance of their own long-term and pension savings by comparing it to the average performance of products in their country and others.

With this report, we also wish to raise awareness among the general public of the importance of financial planning and, crucially, of the factors affecting the performance of long-term savings, inter alia, asset allocation, costs, taxation and inflation. We do not see long-term and pension savers as passive consumers; instead, as member-based organisations representing the voice of

²Source: Google Trends.

³Treaty on the Functioning of the European Union (TFEU), Art. 127(1)

retail investors in European and national political and policy debates, BETTER FINANCE and its member organisations see consumers of pension and other retail investment products as active citizens who express their preferences through their investment choices and through engagement with policymakers.

This new title—*Will you afford to retire?*—is deliberately provocative: It seeks to draw the general public’s attention to the fact that retirement needs to be planned, taking into account the adverse conditions that pension savers are likely to encounter along the road. Will you afford to retire? If, after reading our report, your answer to this question is positive, so much the better. But if the data presented in the remainder of this report leads you to believe that your pension savings may be insufficient to maintain your standard of living after the end of your working life, then another question arises: What can you do about it? How can you act, as an investor and as a citizen, to ensure the adequacy of your own pension?

Methodology

In this section, we briefly present the methodology that BETTER FINANCE and its expert contributors follow to analyse the real return of long-term and pension saving products. Despite the great diversity of the European pension saving landscape, we strive to follow a common approach in order to make our results as sound and comparable as possible.

Scope

The objective of this research is to report on the real costs and performances of *all* financial products used by EU citizens for long-term and pension savings purposes. Beyond pension schemes and the related “pension vehicles” they rely on—institutions for occupational retirement provision (IORPs) or pension insurance—, this potentially also includes financial products not specifically dedicated to pension savings but which are often used for this purpose—such as life insurance in France—or particular bank savings accounts in several countries.

The analysis, computation and presentation of costs and performances—the *real net* returns—is done at the product-category level. Where the computation is not possible at the product-category level, then it is at least done at the Pillar level. Each product category analysed in the report is classified as either an *occupational* (Pillar II) or *voluntary* (Pillar III) pension product following the conceptual framework progressively defined by the World Bank since the mid 1980s (World Bank, 2008). There are only two exceptions to this approach in the report: Sweden’s Premium pensions (AP7 Såfa and other funds), which, despite being officially classified as State pensions (Pillar I), effectively function as occupational pension schemes (Pillar II), and; France’s insurance-based pension saving products (IBPPs) a category that, although mostly composed of voluntary products, also includes some occupational pension products and is therefore classified here as *mixed*. State redistributive, pay-as-you-go (PAYG) pension systems are briefly presented for information purposes in the introduction of each country case in the second part of the report but are not analysed in terms of cost and performance.

Data sources

To establish the report, the contributors have relied on data that is publicly available, either published in aggregated form by national competent authorities (NCAs) and trade associations repre-

senting pension funds, life insurance and other providers of long-term and pension saving products.

Neither BETTER FINANCE nor its expert contributors produce any of the data or information presented in the report. The report is entirely based on publicly available information, and no private data sources or licences—that are not available for any reader—are used in elaborating this report.

Elaborating the report on the basis of publicly available data alone pursues a threefold purpose:

1. First, we wish to demonstrate to public authorities, especially to regulatory and supervisory authorities, that such computations can be done without access to commercial databases, licences or non-public information, where and when product providers adopt a coherent and comprehensive information disclosure framework. By contrast, we also highlight the need to improve disclosure of information in the countries and for the product categories where data is not fully available.
2. Second, we wish to enable non-professional savers to understand how and where they can find all necessary information on the real returns of their pension savings in order to engage more and make informed decisions.
3. Third, and last, we wish to make our results as transparent as possible and facilitate external reviews of the report. To this end, BETTER FINANCE maintains a record of all “raw” data, computations, and results for the entire report, including the individual country cases.

Producing our report on that basis constitutes a particularly tough challenge considering the scarcity of such publicly available data, as already noted above. Comprehensive historical data is often missing, breaks in time series sometimes force our contributors to extrapolate missing data, and incomplete cost data often lead to overestimated net returns calculations.

Calculating the “real” return

The calculation of the *real net* returns of long-term and pension saving products is done in several steps based on the above-mentioned data.

First, all amounts in currencies other than the euro are **converted to euros** using the ECB’s euro foreign exchange reference rates taken on the last working day of each year.⁴

Second, where data are available on nominal returns before charges—i.e., **nominal gross returns**—as well as sufficient data on the product’s costs and charges, we calculate the nominal returns net of charges, before inflation—**nominal net returns**—by subtracting the year’s costs and charges from the gross returns figure. Considering the scarcity of costs and charges data, and the variety of ways in which those available are presented, this step varies from one product category to the next. Contributors to the report first check whether any cost item is already deducted from the “nominal gross” return figures communicated by NCAs or industry bodies, in order not to deduct any cost item twice. They then calculate the total of the remaining ongoing charges as a percentage of assets and subtract this from nominal gross returns.

⁴The euro foreign exchange rates are available on the ECB’ website: https://www.ecb.europa.eu/stats/policy_and_exchange_rates/euro_reference_exchange_rates/html/index.en.html.

We list nine common cost metrics that we believe should—as a minimum—be reported by all long-term and pension saving vehicles at individual and aggregate level:

- Entry fees (either contribution fees or acquisition) as a percentage of contributions;
- Ongoing investment administration and management fees (related to the cost of investing assets on capital markets) as percentage of total assets;
- Ongoing flat fees charged for the management of the contract or pension;
- Other ongoing fees not already included in the administration and management fees;
- Performance fees or success fees, in relation with overperformance of the product compared to its benchmark;
- Exit fees, i.e, fees charged on amounts withdrawn from the account;
- Other non-recurrent;
- Total Expense Ratio (TER); and
- Reduction in yield (RiY)

In each country and for each category of pension saving products, the contributors seek information on these metrics at aggregate level in order to obtain, for each year, the average level of costs and charges by which nominal gross returns are reduced.

Third, annual returns net of charge are adjusted for inflation—*real net returns*—in order to evaluate the actual evolution of the purchasing power of the investment. Annual inflation rates are calculated for each country in the report based on Eurostat’s monthly harmonised index of consumer prices (HICP), taking for each year the December value of the HICP for the corresponding country. Each year’s inflation is calculated as:

$$i = \frac{HICP_{y^n}^{m12} - HICP_{y^{n-1}}^{m12}}{HICP_{y^{n-1}}^{m12}} \quad (\text{GR.1})$$

where, for any given country, i is the annual inflation rate in year n , and $HICP_{y^n}^{m12}$ represents the monthly HICP published by Eurostat in December of year n .⁵

Nominal net returns are then adjusted for inflation to obtain the evolution of the purchasing power of the investment. To obtain the annual *real net return rate*, the annual nominal net return rates are adjusted using the following formula:

$$r_{real} = (1 + r_{net}) \times (1 + i) - 1 \quad (\text{GR.2})$$

where r_{real} is the product’s annual real net return for a given year, r_{net} is the nominal net return of the product for the same year, and i is the annual inflation rate for that same year.

Once annual nominal gross, nominal net and real net return figures are obtained, we calculate cumulated and annualised return rates over varying periods. Cumulated returns of a product

⁵The reference HICP values used throughout this report are available at: https://ec.europa.eu/eurostat/databrowser/view/PRC_HICP_MIDX__custom_4523281/default/table?lang=en.

over a period of n years are calculated based on the following formula:

$$r_{cumulated}^n = (1 + r_{y1}) \times (1 + r_{y2}) \times \dots \times (1 + r_{yn}) - 1 \quad (\text{GR.3})$$

where $r_{cumulated}^n$ represents the cumulated return and r_y represents annual returns from year 1 to year n .

Annualised returns of a product over a holding period of n years are calculated as:

$$r_{annualised}^n = \sqrt[n]{(1 + r_{y1}) \times (1 + r_{y2}) \times \dots \times (1 + r_{yn})} - 1 \quad (\text{GR.4})$$

In each country case, we then present jointly the average nominal gross (where available), nominal net and real net annualised and cumulated returns of products within the product category over holding periods from 1 year up to 23 years, depending on the earliest year for which data is available.

Benchmarking

The nominal gross, nominal net and real net returns calculated following the methodological steps presented above are compared to a capital markets benchmark. To conduct this benchmarking exercise, we calculate the returns of a hypothetical capital markets portfolio based on diversified equity and bond market indices.

By default, we compare performance with a 50% equity–50% bond portfolio, rebalanced annually, based on the STOXX All Europe Total Market index for equity,⁶ and Bloomberg Pan-European Aggregate Index for bonds.⁷ The two indices have been chosen due to their scope matching in most cases the investment universe of the analysed products: they are limited to European equity and to fixed-income, investment grade securities in European currencies. The 50% equity-50% bond balance is neither aggressive nor conservative and matches the asset allocation of many product categories in our study. The cumulated and annualised returns of the default benchmark (nominal and corrected by the average EU inflation rate) are presented in Figure GR.6, Page 18 of Chapter 2.

Where the composition of this benchmark portfolio may not be appropriate to assess the performance of a specific product—e.g., because of regulatory constraints that may limit certain investment decisions—this composition has been adapted by modifying the balance between equity and bonds in the portfolio. In most cases, the contributors to the report have found the default benchmark appropriate to assess the performance of long-term and pension saving products. The returns of the benchmark capital market portfolio—default or modified—are in each case adjusted for inflation in the country of the analysed product category before being compared with the real net returns of the product.

⁶A description and recent values of the STOXX All Europe Total Market index are available at: <https://www.stoxx.com/data-index-details?symbol=TE1GR>. The index values are taken “gross”, that is, before withholding tax.

⁷A description and recent values of the Bloomberg Pan-European Aggregate Total Return Index are available at: <https://www.bloomberg.com/quote/LP06TREU:IND>.

General Report 2

Will you afford to retire?

European pension systems are confronted to a major challenge: how to maintain the current living standards that pensioners enjoy while general population ageing puts an increasing financial strain on the redistributive pension systems that made those living standards possible? There is a consensus that funded pensions—which require the current labour force to save a part of its earnings to supplement its own pension benefits—hold the potential to solve the pension sustainability-adequacy conundrum. This promise, however, requires more than early and important savings, it crucially requires strong real net returns.

Unfortunately, as the aggregate results presented in this chapter will show, too many long-term and pension saving products currently on offer across EU Member States generate sluggish returns in the long-term, when not outright losses of purchasing power.

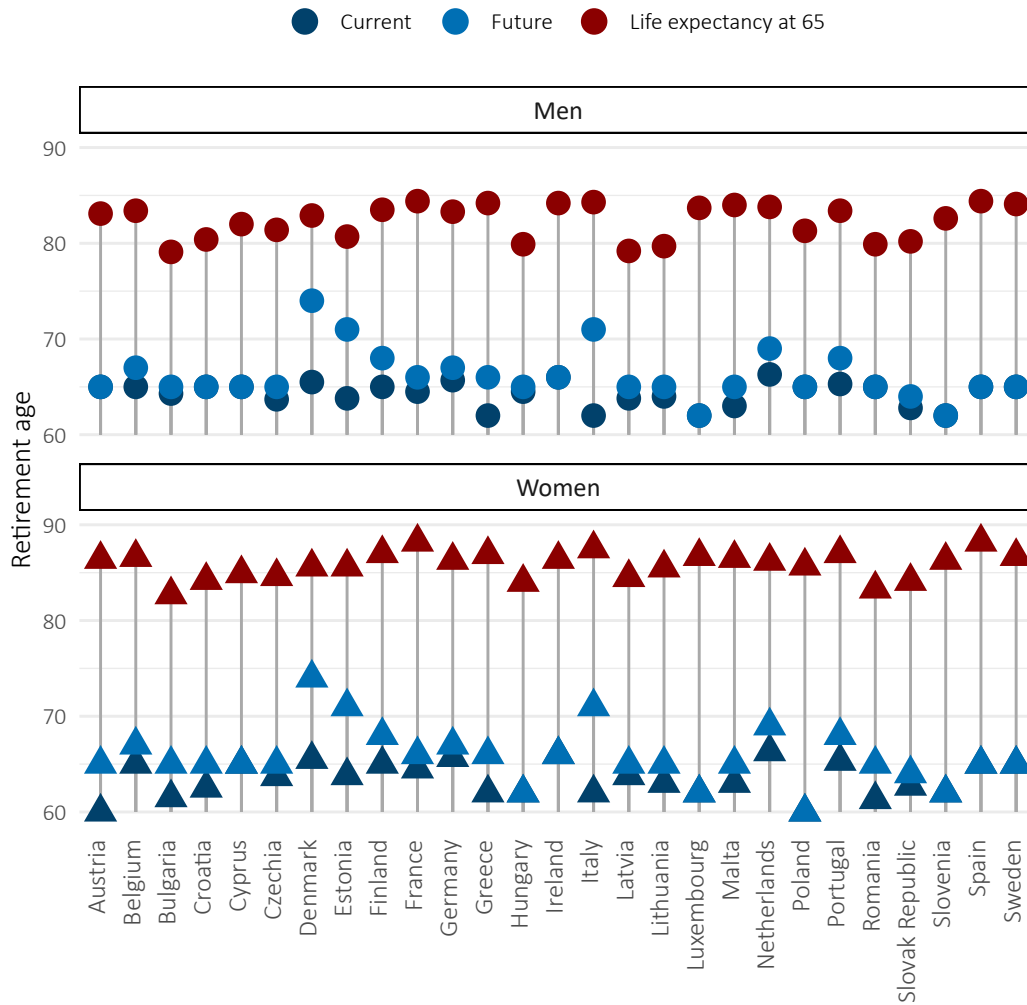
The issue with European private pensions

The population of EU Member States is ageing, dramatically quickly in some countries, and the number of individuals in retirement grows faster than the active population. This trend puts an increasingly heavy strain on the redistributive, PAYG public pension systems that European countries set up over the 20th century to eradicate old-age poverty. In those systems, pensions are paid out of the social contributions paid by the current workforce to the old-age branch of social security. Therefore, with an increasing old-age dependency ratio—the ratio of people in retirement to active population—comes an increasingly heavy burden on wages. Since, in the meantime, growing international competition for foreign investments since the early 1980s has led governments to reduce company taxes and multiply exemptions from social contributions, European social security systems have found it increasingly difficult to meet their old-age pension commitments.

Two complementary solutions have been proposed—if not always accepted—to this “pension sustainability” problem: postponing the statutory retirement age and having the current workforce accumulate savings to be used as supplementary income upon reaching retirement age.

Postponing the retirement age—i.e., have current employees work longer—increases income from social contributions and reduces the overall amount of public pension liabilities (employees pay social contributions more years and receive pension benefits fewer years). However, increasing the retirement age on a par with life expectancy is politically almost impossible (the latest row of demonstrations against the French government’s reform of public pension is a case in point), and most reformers opt for limited, below par increases that might be insufficient to save beneficiaries of public pensions from suffering benefit cuts.

Figure GR.1 – Life expectancy at 65 and current and future retirement ages



Data: OECD, "Pensions at a Glance", 2023; retirement ages for a person who entered the labour force at age 22; life expectancy at 65 represents the number of years one can expect to live beyond 65.

The development of funded pensions—pension savings accumulated by the current workforce to be used as supplementary income in retirement—constitutes the second, complementary, part of the response to the pension sustainability problem: If the PAYG pension system cannot maintain the current level of pension benefits, then let us reduce the benefits of public pensions and require employees to save a part of their income into various pension savings vehicles that will hold—and, supposedly, increase—their wealth by investing those savings in capital market instruments until retirement age.

The core issue is the capacity of these pension saving vehicles to generate sufficient long-term returns to ensure “pension adequacy”, that is, enable individuals to maintain in retirement, to the extent possible, the standard of living they had in employment.

A variety of institutions were created or re-purposed to harbour employees’ long-term and pension savings, some specifically dedicated to managing pensions—such as pension funds—others more versatile but often used for pension saving purposes—like life insurance. These products have developed differently in each European country: As shown in Table GR.1, while in some countries, the assets under management (AuM) with pension funds or other private pension product providers by far overcome the country’s gross domestic product (GDP) (like the Dutch pension funds, 182.9% of GDP and the Danish life insurance, 180.7%), in most EU Member States, private pensions remain underdeveloped.

The challenge: Pension adequacy

What is pension adequacy? We can summarise the concept saying that a pension is adequate if it enables its holder to maintain a standard of living throughout his retirement that is comparable to that which he had at the end of his working life. The EU generally holds that a pension system must achieve (European Commission & Social Protection Committee, 2012):

- Income replacement, i.e., provide pensioners with an income in retirement sufficient to ensure a minimum standard of living;
- Sustainability, i.e., ensure that the public pension system will be able to balance income from social security contributions and payment commitments;
- Transparency, i.e., inform workers about the need to plan their retirement.

Pension adequacy is very often considered from a financial point of view, as a comparison between retirement and pre-retirement income. However, in its 2021 “Pension Adequacy Report”, the European Commission distinguishes three dimensions of pension adequacy (Directorate-General for Employment, Social Affairs and Inclusion, 2021, p. 22):

- “First, the adequacy of pensions is measured by their ability to prevent and mitigate the **risk of poverty in old age**”, and the related risk of social exclusion;
- “Secondly, the adequacy of pensions is measured by their **capacity to replace income earned before retirement**”;
- “Thirdly, it is important to consider the duration dimension [...], whether people can **spend a reasonable share of their lives in retirement**”.

Table GR.1 – Size of European private pension systems, 2021

Country	Pension funds		Other private pensions	
	€ mln.	% of GDP	€ mln.	% of GDP
Netherlands	1 826 397	182.9%	0	0.0%
Finland	154 779	57.8%	19 310	7.2%
Denmark	168 149	49.2%	617 605	180.7%
Malta	7 723	33.7%	149	0.7%
Ireland	145 000	30.1%	9 570	2.0%
Croatia	19 042	16.0%	0	0.0%
Slovak Republic	15 424	9.3%	0	0.0%
Estonia	4 482	8.8%	670	1.3%
Belgium	46 480	7.6%	n.a.	n.a.
Spain	126 903	7.4%	44 833	2.6%
Portugal	24 125	7.2%	22 263	6.6%
Italy	171 999	6.9%	52 665	2.1%
Germany	287 042	6.6%	0	0.0%
Bulgaria	10 030	5.9%	0	0.0%
Austria	26 973	5.7%	n.a.	n.a.
Lithuania	6 131	5.6%	0	0.0%
Czechia	23 117	5.5%	0	0.0%
Sweden	26 317	4.7%	596 773	107.4%
Slovenia	3 718	4.5%	364	0.4%
Poland	41 537	3.3%	9 073	0.7%
Romania	18 690	3.0%	0	0.0%
Luxembourg	1 931	2.6%	0	0.0%
France	74 500	2.4%	n.a.	n.a.
Hungary	5 444	1.7%	2 364	0.8%
Latvia	730	1.3%	6 013	10.4%
Greece	1 839	0.6%	0	0.0%

Data: OECD (2023c, 2023d)

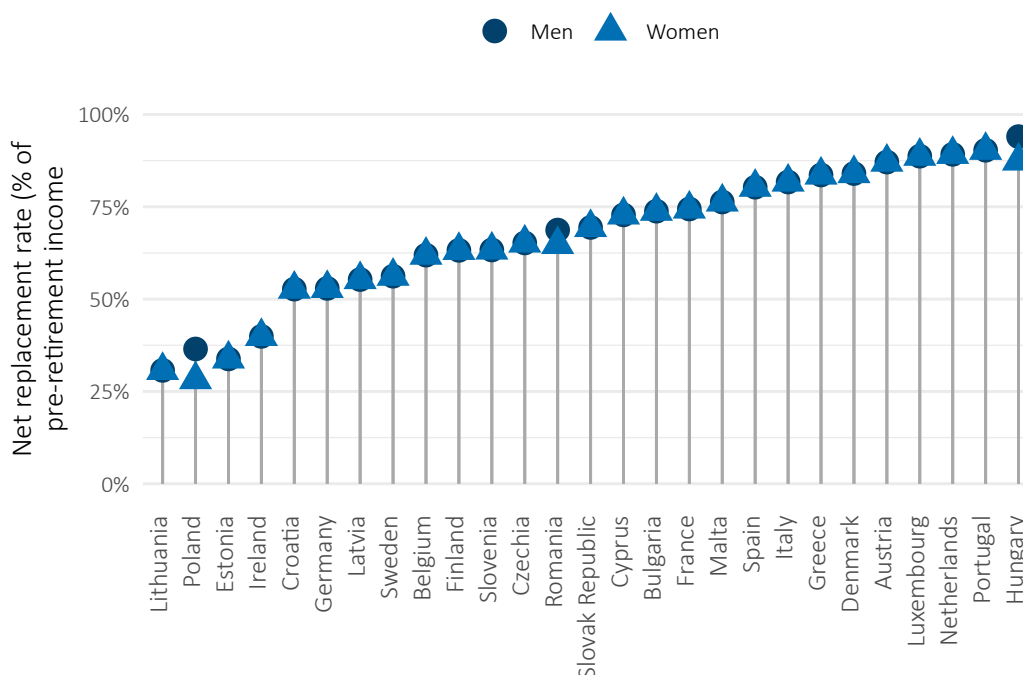
While this list may immediately lead to pension income considerations—which are the focus of this report—we must note that a good access to public services for older generations, for instance, also constitutes an important element of an adequate pension system.

From a financial point of view, the challenge is to manage the pension *sustainability* constraints without endangering the *adequacy* of European pensions. The adequacy of retirement income is often measured with the *replacement rate*:

$$\text{Replacement rate} = \frac{\text{Retirement income}}{\text{Pre-retirement income}} \quad (\text{GR.1})$$

Economists debate on the most appropriate way to calculate the replacement rate (OECD, 2020, chapter 2): different sources of income may be considered and different levies may be deducted; and measures of retirement and pre-retirement income may be taken over varying lengths of time. Figure GR.2 shows the *net* replacement rates—that is, “taking into account personal income taxes and social security contributions paid by workers and pensioners” (OECD, 2023b)—calculated by the OECD across EU Member States.

Figure GR.2 – Net pension replacement rates, 2020



Data: OECD, 2023; The net replacement rate is calculated as net pension entitlements divided by net pre-retirer

Funded pensions, as already mentioned, hold the potential to solve the pension sustainability-adequacy conundrum by front-loading the burden of future pension liabilities on the current labour force. However, the mantra “save early, save lots” has its limits: many households have a limited saving capacity and cannot afford to put aside more than a tiny fraction of the annual income into retirement savings. Therefore, the capacity of private pensions to maintain—and, if possible, improve—current replacement rates hinges crucially on their capacity to generate *additional* wealth out of savings, in other words, to offer *significantly positive real net returns* to investors.

Return review: 2022 in perspective

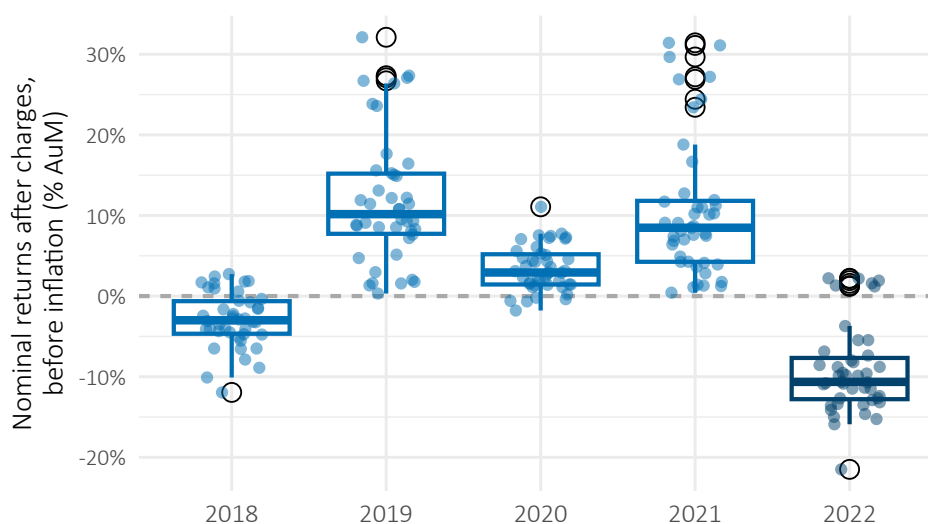
In this section, we analyse the data collected on the cost and performance of 43 categories of long-term and pension products. The diversity of European pension systems, particularly when it comes to private pensions, makes it particularly difficult to draw straightforward conclusions. Comparisons are rendered particularly complex by the lack of a fully harmonised set of concepts and reporting frameworks across countries and products. Broad categories such as “occupational” vs. “voluntary”, “pension fund” vs. “life insurance”, or “asset management costs” vs. “administrative costs” are interpreted in different ways.

Nevertheless, our expert contributors have, to the greatest extent possible, ensured that the categorisations and calculations hereafter presented are accurate and faithfully account for the performance of long-term and pension saving instruments in the countries we analyse.

2022: An unsurprisingly grim year

As Figure GR.3 clearly shows, 2022 was a bad year for everyone: the median nominal return before charges across the product categories in our study for which we have this data fell to a dismal -9.7%, with the best performing product still managing to offer a 12.4% positive return, but the worst performing product showing a -21.1% performance. For the broader set of products for which we could collect or compute nominal returns after charges, the median performance fell to -10.6%, with a maximum performance of +2.2% and a minimum performance of -21.5%.

Figure GR.3 – Average nominal returns after charges of analysed products 2022



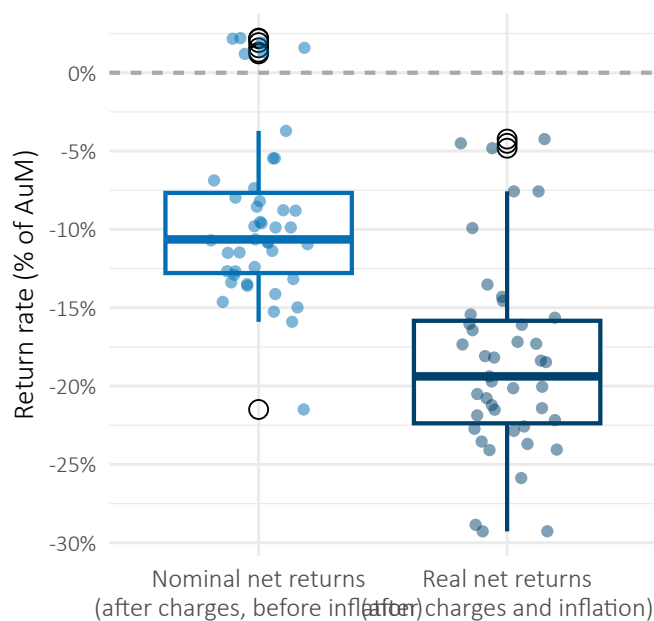
Data: NCAs and sectoral associations (see Country Cases); Calculations: BETTER FINANCE

This comes after three years of positive performance for most products, two of them particularly strong: in 2019 and 2021, the median net nominal gross returns climbed to +11.6% and +8.96, respectively; and +10.2% and +8.48% when considering net-of-costs performance data.

These poor performances in nominal terms are compounded by soaring inflation, which began in 2021 and continued throughout 2022 (see Figure GR.17 on Page 31), the EU average peaking at 10.4%, following a +5.3% in 2021, and up from a mere 0.3% in 2020. After adjusting for this inflation, the level of which had been unheard of over the first 22 years covered by our report, the median performance in real terms after charges falls to -19.4%. For none of the analysed product categories do we see positive returns in real terms: with a best performance at -4.2% and a worst performance at -29.3%, all long-term and pension savings lost purchasing power last year.

Looking at the aggregate performance of pension funds and other pension saving products over one single year alone however does not tell us much about what really matters to the people placing their savings in those vehicles: how do they perform over a period of several decades? This is what we now turn to.

Figure GR.4 – Average 2022 1-year nominal vs. real return (after charges, % of AuM)



The long-term record: 2000–2022 performance

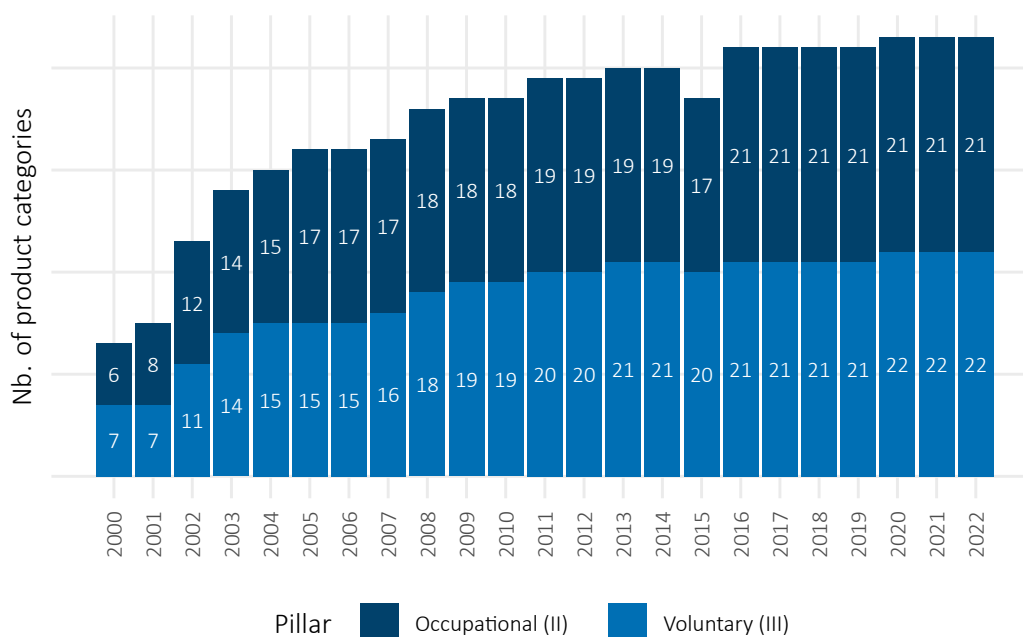
For the preparation of this report, our expert contributors have sought to gather performance data for each product category from the year 2000. Where that was not possible—either because the product has not been in existence for that long or because historical data is not available—they reported performance data of the longest period possible. Figure GR.5 shows, for each year since 2000, the number of occupational and voluntary pension products for which we have been able to collect or compute nominal performance after charges.

Readers may notice a drop in the number of products in 2015: this is due to the cessation of reporting on Belgian life insurance performance by the national trade association, Assuralia. We furthermore note that for the second year in a row we could not update the Bulgarian country case due to data unavailability, despite our calls to the authorities; we still hope to resume reporting on Bulgarian private pensions as soon as data becomes available again.

Calculating the real net return of long-term and pension saving products over increasing holding periods constitutes a first way to assess their performance: a positive real net return shows the ability to beat inflation and at least preserve the purchasing power of savings.

To assess the long-term performance of the products covered by our study, we also compare their returns with those of a hypothetical portfolio composed of European equity and bonds in varying proportions and rebalanced annually, as explained on Page 9 of Chapter 1. By default, the benchmark portfolio is composed of 50% equity and 50% bonds but for each product category, expert contributors adapt the composition of the benchmark as necessary to account for potential regulatory constraints on asset allocation. Annualised and cumulated returns of the

Figure GR.5 – Number of product categories with available net performance data 2000–2022



benchmarks are calculated over the same period as those of the product category, and adjusted for inflation in the country of the product category, based on Eurostat's HICP. Figure GR.6 shows the returns of the benchmark portfolio calculated over the maximum reporting period (2000–2022) and adjusted for average EU inflation.

The upper pane of Figure GR.6 shows the annualised performance calculated over varying holding periods from 1 to 23 years (2000–2022), both before and after correcting for inflation. We clearly see here the strongly negative performance of European capital markets in 2022, which drags average annual nominal performance into negative territory for a 3-year period. After correcting for inflation, capital markets performance is negative up to a 7-year holding period.

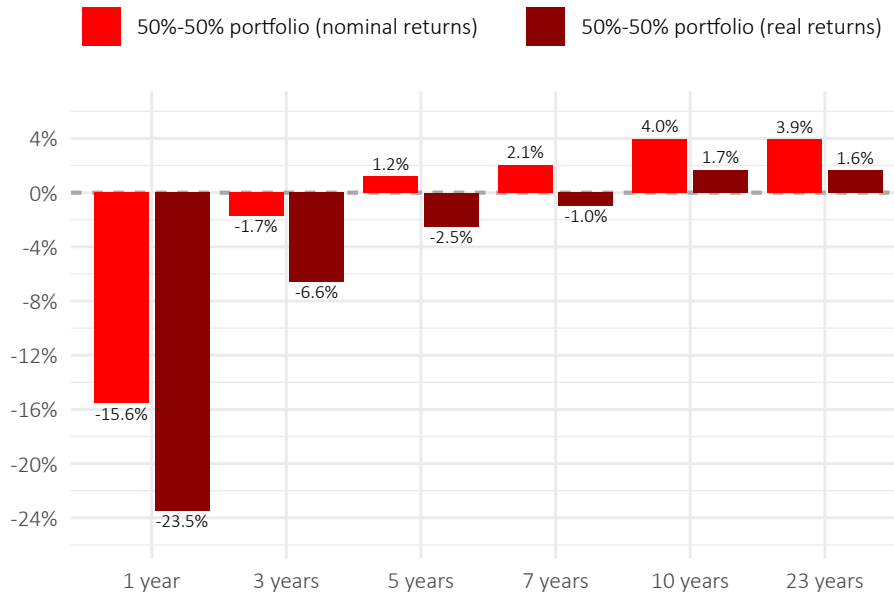
Nevertheless, as the lower pane of Figure GR.6 shows, over the long-term market volatility does not prevent strongly positive returns both in nominal and real terms. Over the period 2000–2021, our hypothetical portfolio would have offered a +187.8% nominal return, and 89.7% after inflation. After integrating the negative 2022 performance, the default benchmark portfolio still returns +143% before inflation, and 45.1% in real terms.

Figure GR.7 shows the annualised returns of product categories over increasing holding periods, after charges and inflation, from 1 to 10 years, and for the entire reporting period, which varies across product categories from 3 to 23 years.

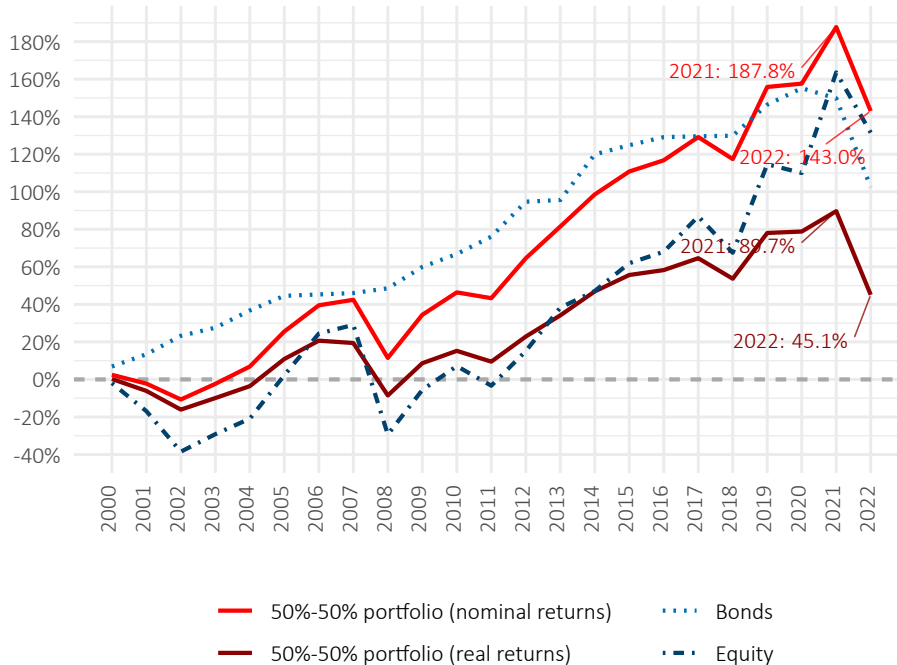
The 1-year performance reflects the strongly negative performance of capital markets and strong inflation in 2022. The longer the holding period, the better the annual average performance. However, despite the smoothing effect of longer holding periods, we observe that a worryingly large proportion of the analysed product categories still yield negative returns over seven and

Figure GR.6 – Performance of European capital markets 2000–2022

Annualised returns over varying periods

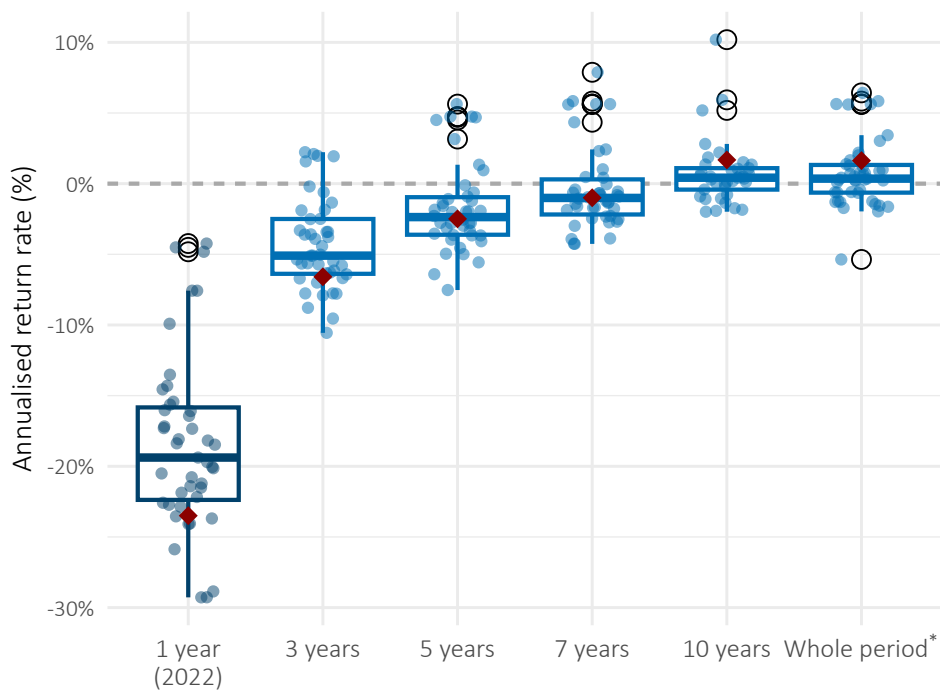


Cumulated returns 2000–2022



Data: Qontigo, Bloomberg, Eurostat; Calculations: BETTER FINANCE. Note: The real returns are corrected using the inflation rates for the EU (varying composition).

Figure GR.7 – Average annualised real net returns over varying holding periods



Calculations: BETTER FINANCE; * The reporting period varies across products (earliest year: 2000)

even ten years. Over ten years, the median value of average performances of the 40 products for which we have data only reaches a meagre 0.5%, 12 product categories show negative average real net returns, and the worst performance amounts to a -2% per year.

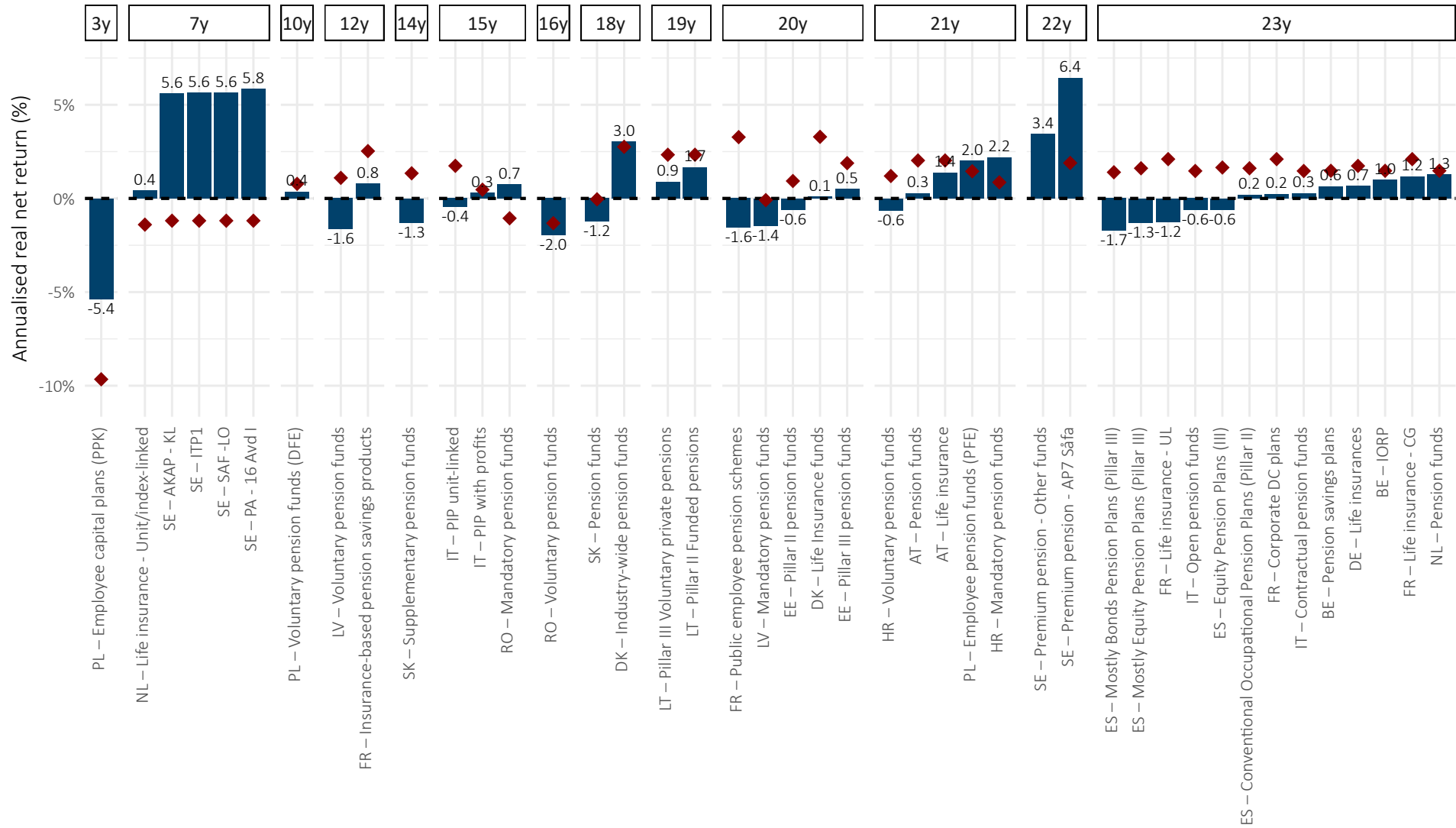
Figures GR.8 and GR.9 bring together our two benchmarks: inflation and capital markets. They display for each product category the annualised and cumulated real net return, respectively, achieved over the maximum reporting period, together with the return achieved by the product's benchmark over the same period.

27 product categories out of the 43 that we analyse offer a positive real net return over the longest reporting period (3 to 23 years), while 16 product categories offer, on average, returns that are insufficient to preserve the purchasing power of the savings entrusted to them.

Only 12 of the analysed product categories manage to beat the benchmark portfolio calculated for them. Considering annualised performance, the largest overperformance comes from the four Swedish Pillar II pension funds—between 6.79 and 7.03 percentage points (pps) over a 7 year period. They are closely followed by the Swedish default “Premium pension” fund, AP7 Såfa, which manages to overperform its benchmark by 4.53 percentage point in annualised performance, or 242 pps cumulated, over 22 years.

By contrast, 31 product categories fail to beat their respective benchmarks. The case of the Dutch pension funds may be considered “near misses”, with a 0.2 percentage point annualised underperformance. However, the general situation is preoccupying: the largest underperformance amounts to -5.30 percentage point per year, and the median underperformance reaches -1.44 percentage point.

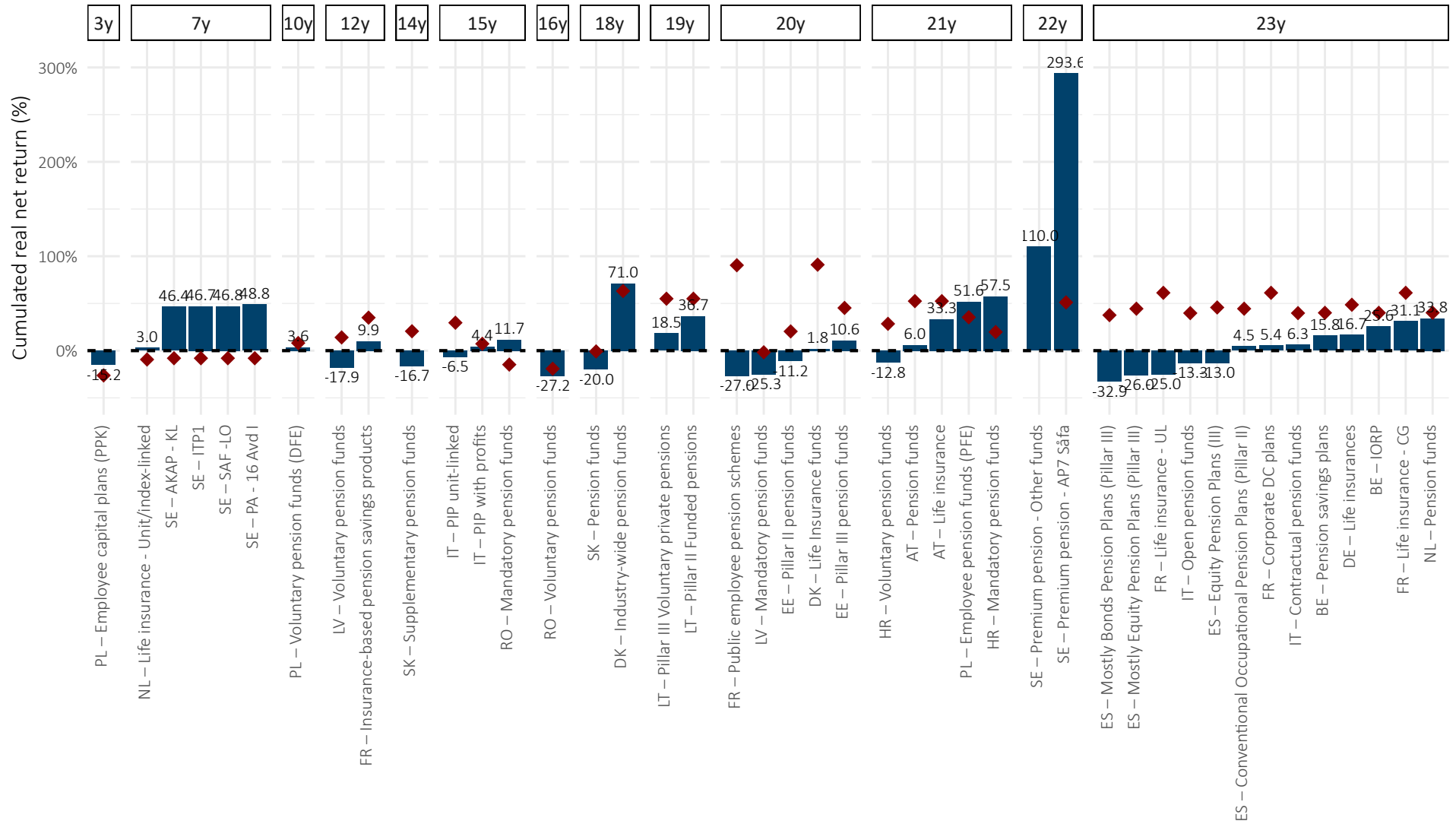
Figure GR.8 – Annual average real net return of long-term and pension saving products over the whole reporting period (% of AuM)



Product categories, ordered by increasing holding period length and increasing annualised real net returns

Data: Multiple sources (see country cases), Calculations: BETTER FINANCE.

Figure GR.9 – Annual average real net return of long-term and pension saving products over the whole reporting period (% of AuM)



Product categories, ordered by increasing holding period length and increasing cumulated real net returns

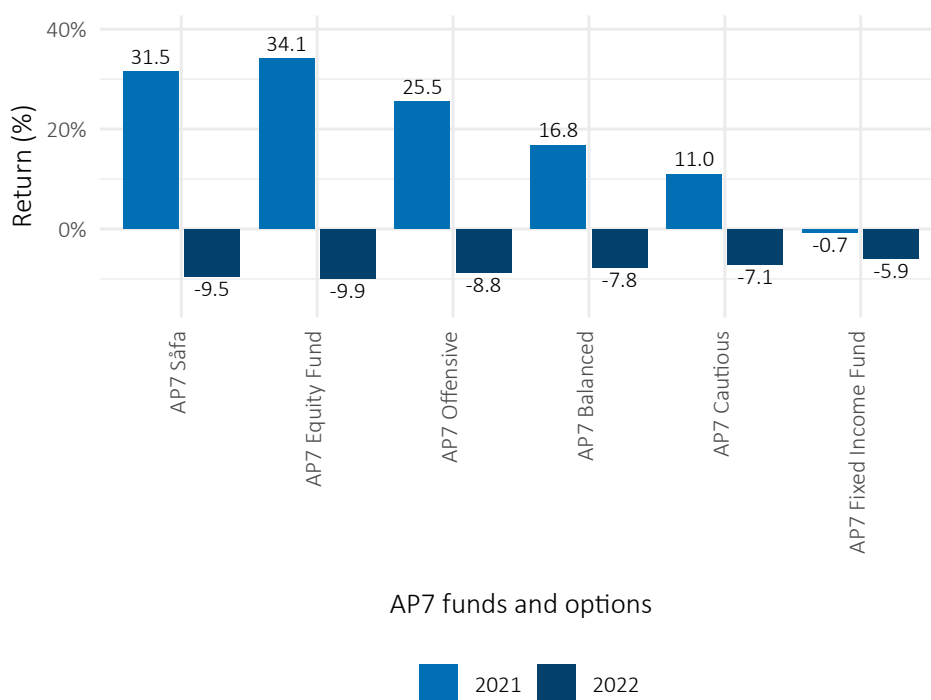
Data: Multiple sources (see country cases), Calculations: BETTER FINANCE.

Best in class: Sweden's AP7 S afa

The long-term performance of AP7 S afa—the publicly managed default fund of Sweden's premium pension—remains impressive: Since 2001 (the first year for which we have data), it has managed to offer to its participants an average annual return of 8.76% in nominal terms before charges, reduced to 8.63% after charges, and still 6.43% after charges and inflation. Over the 22 years of our reporting period, this amounts to a 293.6%, that is, an almost fourfold multiplication of participants' savings. None of the products for which we have similarly long time series reaches similar heights (see Figure GR.8).

Such a performance deserves a closer look. The AP7 offer relies on two "building block" funds: an equity fund, in which most of the AP7 assets are invested, and a fixed income fund. Based on those two building blocks, AP7 offers six investment options to the scheme's participants, ranging from a 100% equity formula to a 100% fixed income formula. Intermediate solutions include the "Offensive", "Balanced" and "Cautious" mixes—investing 75%, 50% and 25% of an individual's assets into the equity fund, respectively, and the remainder in the fixed-income fund—and the default option, AP7 S afa, which applies a life-cycle approach.

Figure GR.10 – Returns of AP7 funds and investment options 2021-2022

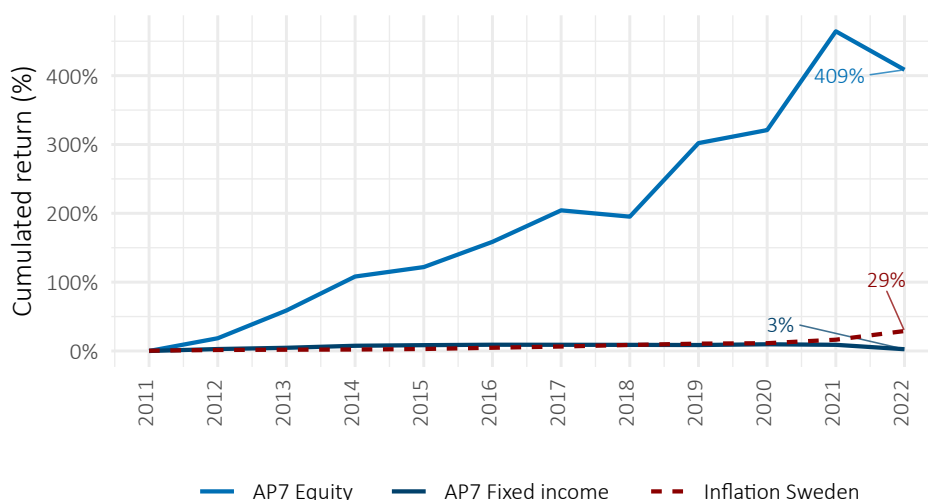


Data: AP7, Annual and Sustainability Report 2021, 2022

Figure GR.10 shows the annual returns of each of these AP7 options in 2021 (a good year for equity markets) and 2022. As we can see, the volatility of annual results increases in line with the proportion of assets invested in the equity fund, offering greater return opportunities, but also making the risk of financial losses more important. The closer one is from retirement age—and, therefore, from relying on the income generated by one's pension savings—the greater the

need for security, yet in the long run, the cost of extra security is significantly lower returns: As shown in Figure GR.11, the AP7 Equity fund managed a nominal return of +409% from 2011 to 2022, versus a meagre 3% return for the AP7 Fixed Income fund (i.e., a 406 pp difference). The conclusion is clear: fixed income preserves the nominal value of your investments, but since it does not beat inflation (dashed red line), you still lose purchasing power on that investment; by contrast, equity investment increases—dramatically in this case—the value of your savings.

Figure GR.11 – Cumulated returns of AP7 funds 2000–2022



Data: AP7 Annual and Sustainability Reports 2000–2022.

That might be why the Sâfa mix is the default option in the AP7 offer, itself the default option within the mandatory premium pension. Under the life-cycle approach in AP7 Sâfa, 100% of an individual's assets are invested into the equity fund until they reach the age of 55: it is assumed that until ten years before retirement age (currently set at 65 in Sweden), one's investment horizon is still sufficiently distant to bear the risk of short-term financial loss. Assets are then progressive transferred (at a pace of 3% to 4% per year) to the fixed income fund until reaching a 33% equity–67% fixed income mix that is maintained until the individual's death. In 2022, 5 302 361 of the 5 520 338 AP7 members—or 93.4% of Sweden's active labour force¹—were subscribed to the default Sâfa option.

Return attribution: The drivers of real net (under)performance

Beyond the performance of the underlying capital markets, the *real net* performance of long-term and pension savings is affected by several factors. In this section, we review the data available on four major performance drivers: the allocation of savings into different types of investment assets; the level of costs and charges levied by pension fund managers and other product providers; long-term inflation; and the fiscal regime applicable to pension savings.

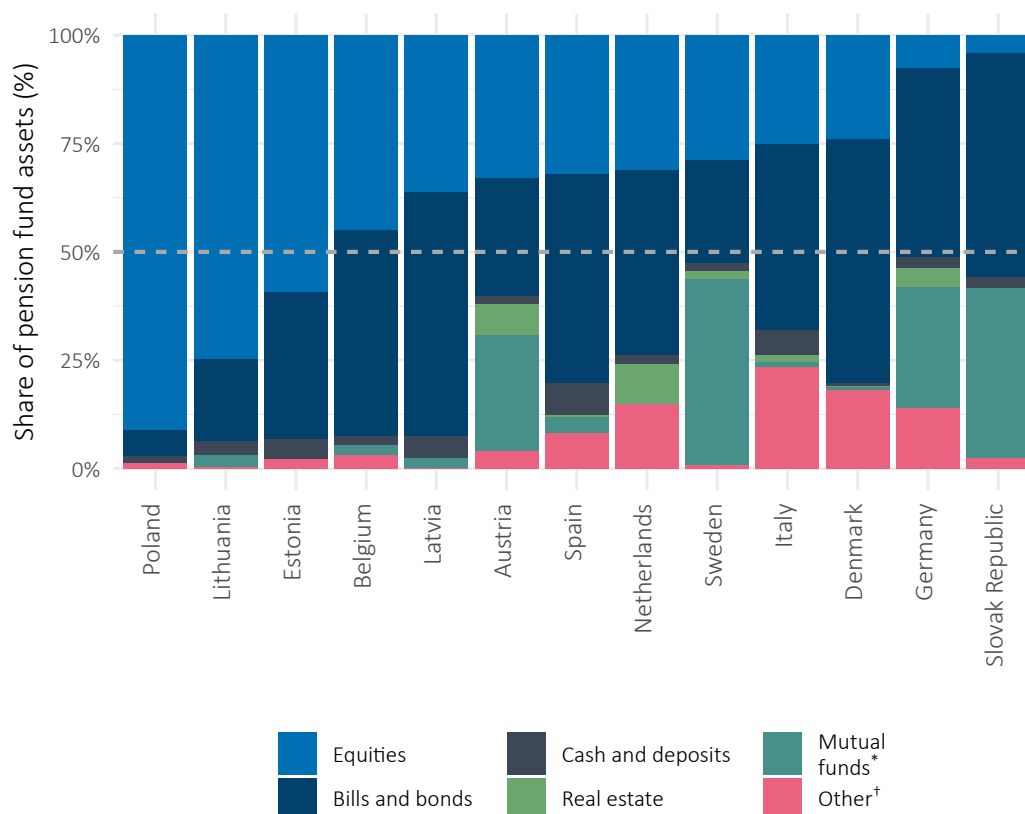
¹According to OECD data, Sweden's labour force numbered 5 675 275 persons in 2022.

Asset allocation

There are important differences across countries covered by our study in terms of asset allocation. Figure GR.12 shows the asset allocation of pension funds at country-level, based on OECD (2023a) data for 2021.² Pension funds generally implement a conservative investment strategy, investing a major part of their assets in fixed-income instruments rather than equity.

Only in three countries do pension funds invest a majority of the assets they have under management in equity markets: Poland, Lithuania and Estonia.³ In all the other countries of our group, equity investment—direct or indirect—constitutes a minority of the investment mix, with great variation from Belgium (44.8%) to Slovakia (4%).

Figure GR.12 – Average asset allocation of pension funds per country (% of total assets)



Data: OECD, *Funded Pensions Indicators*, 2023; * Where data are available, a look-through approach is applied and amounts invested in mutual funds are re-assigned to the category of the underlying assets; † Includes loans, unallocated insurance contracts, hedge funds, private equity funds, structured and other products.

Bonds constitute the main investment in three countries: Denmark (56.4%), Latvia (56.2%) and Slovakia (51.8%). Mutual funds other than cash, bonds, equity or real estate funds constitute

² the breakdown of investments into mutual funds is not available for all countries, therefore a look-through approach could not be applied systematically.

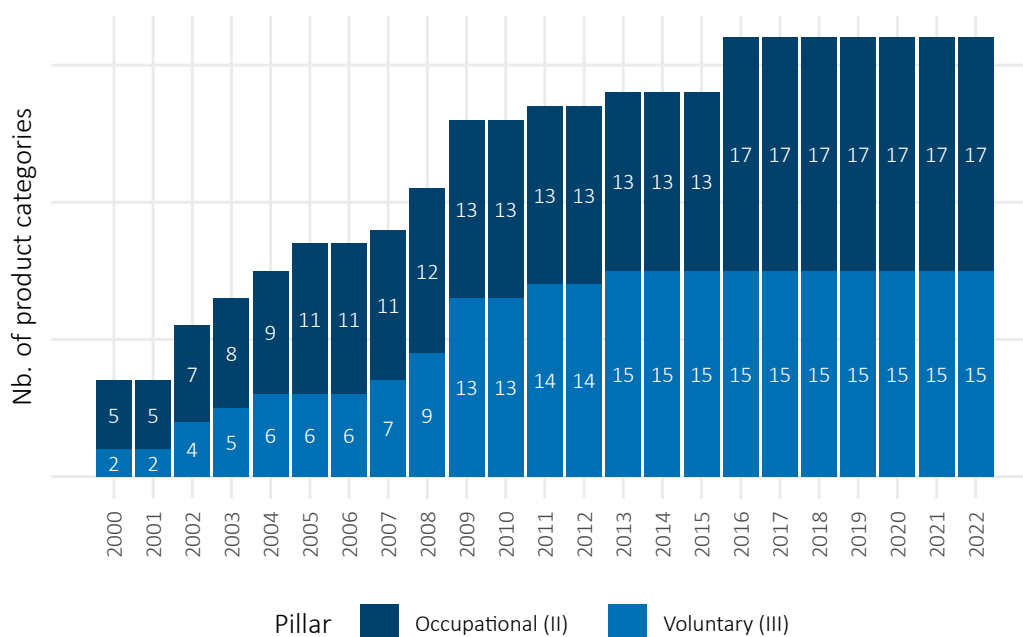
³ In the latter two countries, however, equity investments are mostly done through equity funds.

important investments in Germany and Austria.⁴ Cash and deposits are used only marginally, mostly for short-term liquidity purposes.

Costs and charges

Fees and commissions that are levied on pension savings for the management of investments and the administration of pensions are an important factor affecting the performance of these investments. However, charges are often complex, opaque and presented in a variety of formats, all of which deprives savers from information that is essential to assess and compare the performance of products. Overall fee caps have been introduced by certain countries on particular categories of pension saving products as a response to that opacity and the related high level of overall charges. In every annual edition of BETTER FINANCE's report on the return of long-term and pension savings, contributors have come to the same conclusion: data are in most cases too scarce to obtain a clear overview of costs. Figure GR.13 shows for each year in our reporting period and for each pension system pillar the number of analysed product categories for which comparable cost data could be obtained.

Figure GR.13 – Number of product categories with available cost data 2000-2022

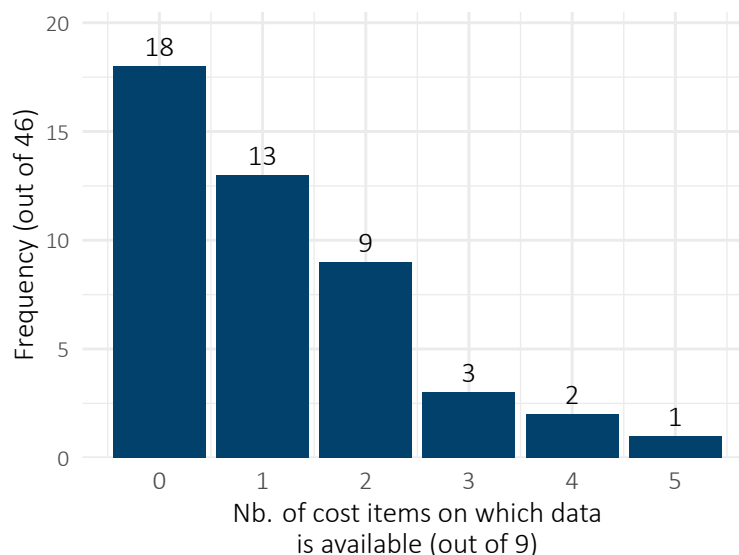


With few exceptions, available data only covers a portion of total charges, or where a cost metric such as TER or RiY is available, there is no breakdown by cost category. In many cases, individual level product providers may be showing data about their respective products in very different ways, making any kind of comparison—let alone aggregation—extremely difficult, when not outright impossible. In 2022, for only 15 out of the 46 product categories analysed in this report were the expert contributors able to obtain comparable data for more than one of the nine cost

⁴ Possibly also in Sweden and Slovakia, although there is no breakdown of investments per type of mutual funds is provided for these two countries.

data items listed in our methodology (see Page 6). For 13 product categories, only one metric is available (often but not always the TER), and for 18 product categories, no comparable cost data is available at all (see Figure GR.14).

Figure GR.14 – Availability of cost & charges data for 2022



In many cases, the return data that the contributors use to calculate inflation-adjusted returns are disclosed in *net* nominal terms. Where that is so *and* there is sufficient data available on costs, we can calculate nominal gross returns, but such cases are few. In 11 out of the 43 cases for which we analyse returns,⁵ we cannot assess the impact of costs and charges on investment performance.

Figure GR.15 shows, for each year in our reporting period, the distribution of product categories across levels of the costs that are deducted from nominal gross returns. Population varies across time, as shown in Figure GR.13: while we have cost data for 32 product categories in 2022, there are only 7 product categories for which average costs are available in 2000. The population is relatively stable from 2009 onwards, increasing from 26 to 32.

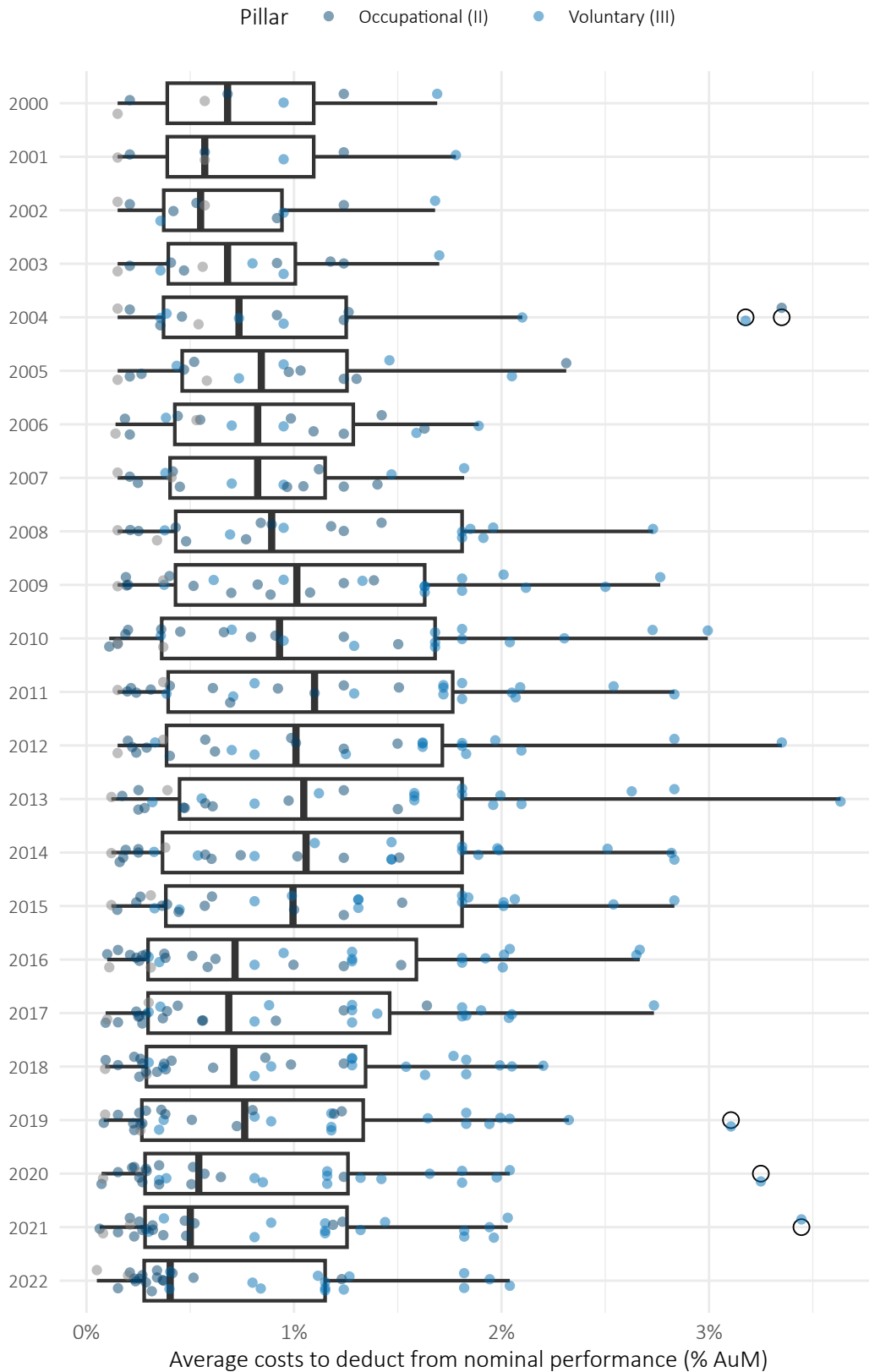
As we can see, the median average cost value (thick bar in the middle of each box) generally increased over the period 2000–2012, peaking in 2011–2012 at 1.24%, before it started to decline appreciably, reaching 0.47% in 2022.⁶ Despite some alarmingly high outliers (the worse cases are not displayed in Figure GR.15), this is a welcome sign of a general trend towards cost reduction within the European private pensions landscape generally.

Looking at Figure GR.15, we observe that the part of the graph above median values tend to be populated more densely by Pillar III pension products (voluntary) than by Pillar II schemes (occupational). That observation is confirmed by Figure GR.16, which shows for each year since

⁵Returns are not analysed for the three categories of Belgian life insurance, as data on the returns of these products is unavailable for the years 2015–2022.

⁶In box plots of the kind presented in Figure GR.15, the boundaries of the box represent the interquartile range of the distribution, i.e., where 75% of the data is located, while the range covered by the box plus the whiskers cover roughly 99% of the data, remaining outliers are displayed with a black circle.

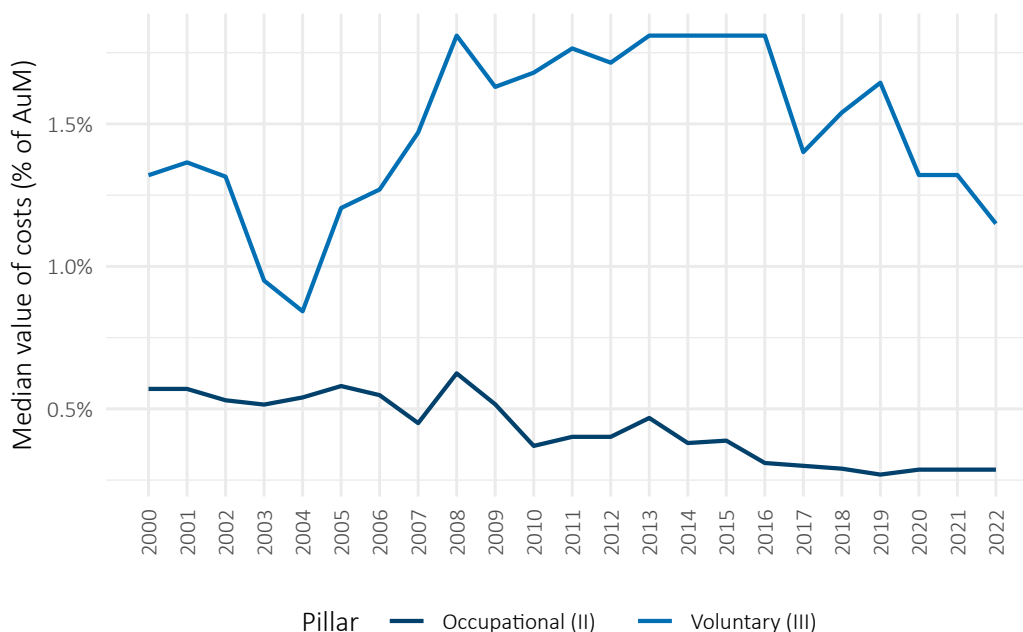
Figure GR.15 – Average costs of analysed product categories 2000–2022



Data: Multiple sources (see Country Cases); Calculations: BETTER FINANCE; Outliers with costs above 4% are not displayed.

2000 the median value of the average cost values of product categories, distinguishing between occupational pension products (Pillar II, dark blue) and voluntary pension products (Pillar III, light blue).

Figure GR.16 – Median value of the average costs of analysed product categories per pillar 2000–2022



Over 2000–2022, the median value for Pillar III remained consistently and significantly higher than the median value of Pillar II costs. Even though we observe a decrease in the Pillar III median since 2015, it remains above 1% (1.15% in 2022), way above the median for Pillar II. The latter, which started at 0.57% in 2000, rose momentarily above that level in 2005 and 2008 but otherwise decreased steadily (0.29% in 2022).

More data than what is available to us would be necessary to identify with precision the cause—or more likely, causes—of this cost differential. Two usual suspects immediately come to mind:

- First, many occupational pension schemes are mandatory and/or involve auto-enrolment, which generally increases the number of members and the financial surface of occupational pension schemes, thereby leading to economies of scale;
- Second, voluntary long-term and pension saving products tend to have higher distribution costs compared to occupational pensions—especially where the latter benefits from auto-enrolment and mandatory participation—and these higher distribution costs very often include “inducements”, i.e., selling commissions paid by product manufacturers to distributors for recommending their products to investors.

BETTER FINANCE has shown elsewhere the detrimental effect that inducements have on the general performance of retail investments, by contrast with fee-based, independent advice (BETTER FINANCE, 2022a, 2023a). The inducement-based distribution system, which is predominant in

most EU Member States, leads to conflicts of interest that may result in retail investors being led to buy the most expensive and, therefore least performing products, in direct opposition to their best interest. This indirect effect of selection bias on performance is in addition to the extra cost arising directly from the fact that the inducements are part of the recurring charges levied on the customer's savings, and not a fixed sum limited to the cost of providing investment advice (BETTER FINANCE, 2023a, pp. 4–10).

Inflation

Inflation describes an increase in the general level of prices in an economy, for the same amount of goods or services. The consumer price index (CPI) constitutes a common measure of inflation over all goods and services consumed by the general population (including food, energy, transport, etc.). In the EU, Eurostat calculated and published the harmonised index of consumer prices (HICP) for each of the Member States as well as an average HICP for the EU as a whole and one for the euro area.

Inflation reduces the value of money: A rise in prices means that the same amount of money can no longer buy the same amount of a given good or service. The purchasing power of savings made one year in the past is reduced by the inflation that occurred during that year. The ECB is the EU institution in charge of, inter alia, maintaining price stability—i.e., the opposite of inflation—in the euro area.⁷ The ECB translates this mandate into a quantitative target: to maintain price stability inflation in the medium term should be below but close to 2%. It is commonly admitted that inflation too close to 0% may lead to expectations of price decreases, starting a *deflationary* cycle with disastrous consequences on the economy, hence the above-zero target. There are however debates among economics as to the macroeconomic effects of inflation targeting (Ardakani et al., 2018).

A 2% inflation over a year means that a cookie that had cost you 1€ last year will now cost you 1.02€. As Figure GR.17 shows, in terms of average inflation in the EU, the years 2000–2022 can be divided into three phases: a “slightly above-target” phase from 2000 to 2012, followed by a dip in 2013–2014 and a short decade significantly below target, until inflation picked-up dramatically in 2021–2021.

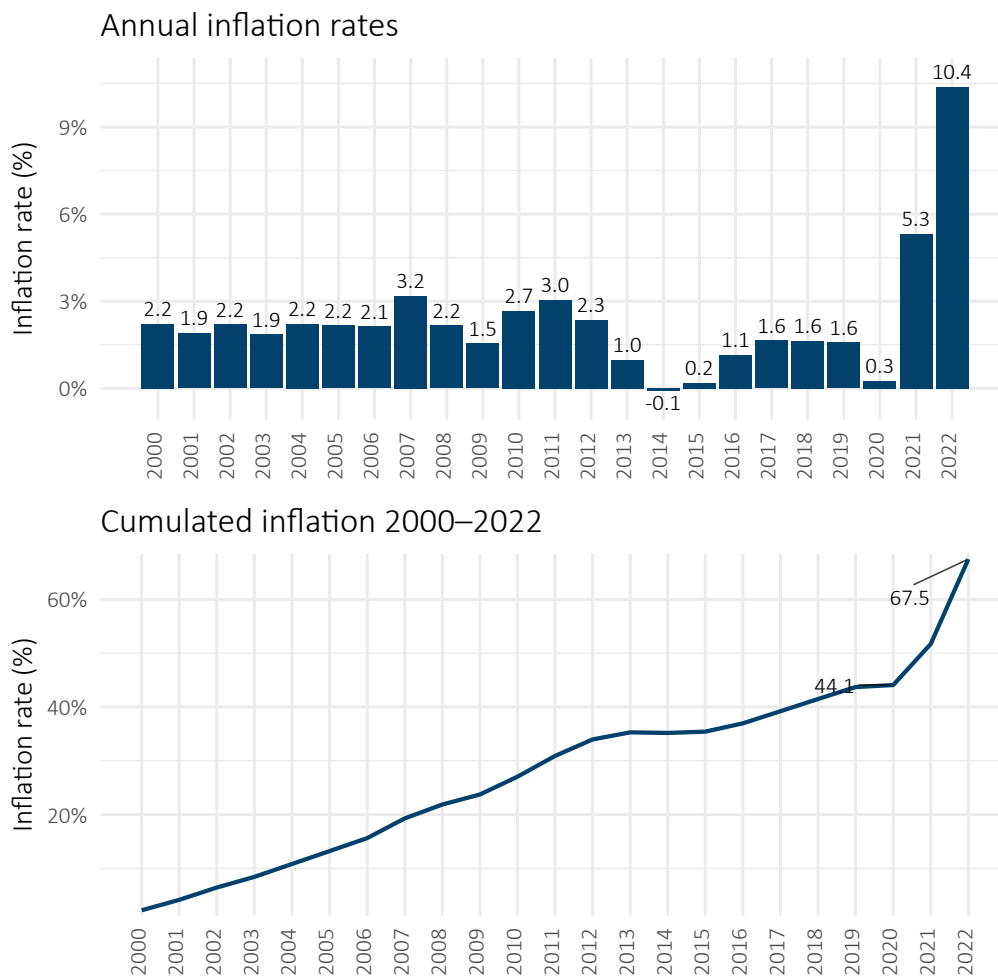
The ECB has been rather slow to respond to rising inflation in comparison to other major central banks, like the United States (US) Federal Reserve System (Fed) but did in the end increase its deposit facility rate—from 0.0% until September 14, 2022 to 4% on September 20, 2023—and is now seeing signs of inflation receding across the board (European Central Bank [ECB], 2023).

Nevertheless, even without the inflation rate hike of the past two years, cumulated inflation over the past two decades constituted a significant negative performance factor, which is too often forgotten. Cumulated average EU inflation over the years 2000-2020—by most accounts a period of *low* inflation—amounted to 44.1%.

As the term “average” implies, the situation has been better in some Member States, but also much worse in some others. Figure GR.18 displays the rates of inflation across the countries included in our studies, annualised (left-hand pane) and cumulated (right-hand pane). These maps generally show an East-West divide, with Western European countries having generally lower

⁷TFEU, Art. 127(1)

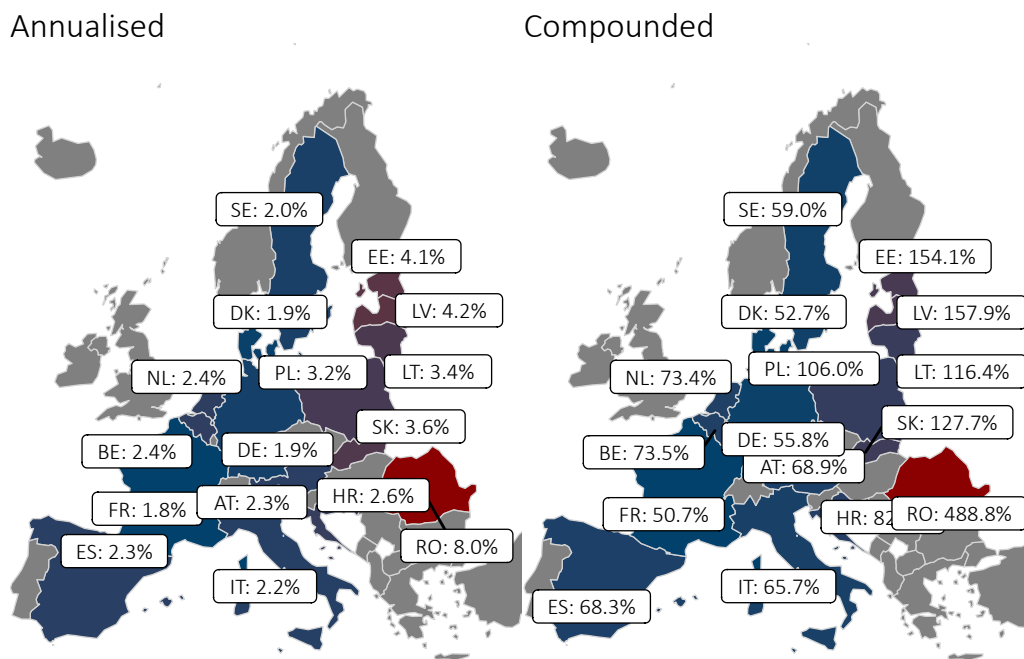
Figure GR.17 – Average EU annual and cumulated inflation 2000–2022



Data: Eurostat HICP monthly index EU (varying composition), Calculations: BETTER FINANCE.

inflation (from 50.7% for France over 2000–2022 to 73.5% in Belgium) than their Eastern European counterparts, most of which have triple-figure cumulated inflation figures. With 488.8%, Romania nevertheless is a clear outlier, even in this higher-inflation group.

Figure GR.18 – Inflation across country cases 2000–2022



Data: Eurostat HICP monthly index; Calculations: BETTER FINANCE

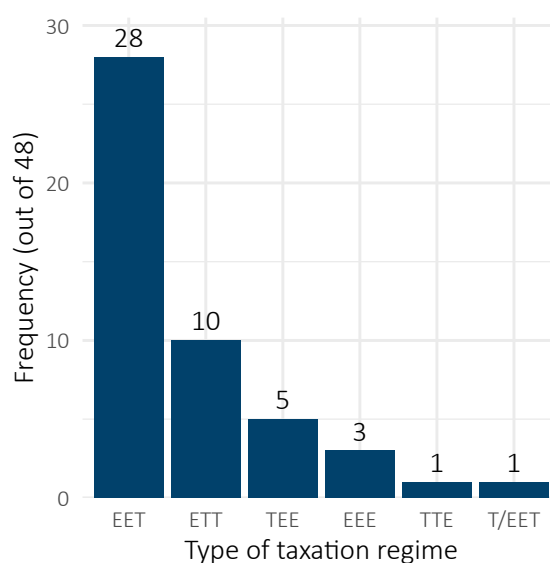
Causes of inflation are numerous, some structural, other related to short-term shocks induced by all sorts of crises. The 2021-2022 hike is generally presented as the result of the Russian attack on Ukraine, followed by renewed instability in the Middle East, all of which disturbs global supply chains—as well as human lives—in multiple ways. But inflation also has structural roots: since the early 2000s and the dotcom bubble, the Fed and other major central banks—including the ECB since the global financial crisis of 2008–2009—used so-called “unconventional” monetary policy to prevent the collapse of financial firms, States, or both. In doing so, they made entire financial systems and States’ budgets increasingly reliant on the cheap money they injected in capital markets, to the point that even limited increases in interest rates—the “price” of money—risked choking the most fragile parts of these financial systems and the States that borrow on them to fund their public deficits (see BETTER FINANCE, 2022b, pp. 40–44).

Taxation

Taxation is the last—though not the least—of the main performance factors to take into account. Taxes on pension savings may be applied at three different stages: on contributions, on investment returns, and on payouts. Tax regimes may vary across product categories within a same country. The multiple shades of taxation regimes are schematically summarised in the country cases under tax regime “types” defined by whether taxes are applied at each of the three stages.

In its conceptual framework on pensions, the World Bank highlights the important role that tax incentives can play in fostering private pension savings (World Bank, 1994, 2008). In line with the Bank's recommendations, a large majority of the long-term and pension saving products analysed in this report (41 out of 44) are subject to a "deferred taxation" model, whereby contributions are exempt from tax while pension payouts are taxed to various extents and in various ways. While lump-sum withdrawals at retirement age may be tax exempt, the amounts that can be withdrawn are also often limited; annuities, by contrast, are often subject to personal income tax.

Figure GR.19 – Distribution of product categories per types of tax regime



The EET—“exempt-exempt-taxed”—regime is the most common in our study (32 out of 44 product categories, see Figure GR.19). The EET regime 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 (World Bank, 1994).

The second most common regime, the ETT regime, differs from the former only in that investment returns are subject to tax. Three countries fully exempt (EEE regime) mandatory occupational pension savings (Pillar II) from tax: Lithuania, Romania and Slovakia.

Deferred taxation regimes work well with regard to incentivising savings. Many of the most popular pension saving products across Europe owe their popularity to the fact that people can deduct from their taxable income the amounts paid into their pension savings. And since retirement income is lower than working life income, the applicable income tax rate is often lower. The tax advantage is often the first argument put forward by distributors of these products to convince consumers, while they usually remain silent on the costs and performance.

However, deferred taxation applies to nominal pension payout amounts, which may work at the disadvantage of savers: between the time of contribution and the time of payout, inflation has significantly reduced the actual purchasing power of those contributions (cumulated inflation

reached 67.5%, on average in the EU between 2000 and 2022). Taxing the nominal value of pension payouts therefore implies an effective tax rate that is potentially much higher than the nominal tax rate.

Taking the reverse approach—taxing contributions—is much less common: Only 7 product categories are subject to either a TEE regime (French life insurance and Polish pension funds and PPKs), or a TTE one (Denmark's *Aldersopsparing*). Savings in French corporate DC plans are subject to either a TET or an EET regime, depending on whether contributions are made by the employer or not. Table GR.2 lists for each country the fiscal regime applicable to each long-term and pension savings product category.

Table GR.2 – Tax regimes applicable to pension contributions, returns and payouts

Country	Product category	Tax regime applicable
Austria	Pension funds	EET
	Life insurance	EET
Belgium	IORP	EET
	"Assurance Groupe": Branch 21	EET
	"Assurance Groupe": Branch 23	EET
	Pension savings plans	EET
	Long term insurance products (Branches 21 and 23)	EET
Croatia	Mandatory pension funds	EET
	Voluntary pension funds	EET
Denmark	Industry-wide pension funds	ETT
	Life Insurance funds	ETT
	"Aldersopsparing"	TTE
Estonia	Pillar II pension funds	EET
	Pillar III pension funds	EET
France	Life insurance - CG	TEE
	Life insurance - UL	TEE
	Corporate DC plans	T/EET
	Public employee pension schemes	EET
	Insurance-based pension savings products	EET
Germany	Life insurances	EET
Italy	Contractual pension funds	ETT
	Open pension funds	ETT
	PIP with profits	ETT
	PIP unit-linked	ETT
Latvia	Mandatory pension funds	EET
	Voluntary pension funds	EET
Lithuania	Pillar II Funded pensions	EEE
	Pillar III Voluntary private pensions	EET
Poland	Employee pension funds (PFE)	TEE
	Voluntary pension funds (DFE) as IKE	TEE
	Voluntary pension funds (DFE) as IKZE	EET
	Employee capital plans (PPK)	TEE
Romania	Mandatory pension funds	EEE
	Voluntary pension funds	EET
Slovakia	Pension funds	EEE
	Supplementary pension funds	EET
Spain	Conventional Occupational Pension Plans (Pillar II)	EET
	Mostly Bonds Pension Plans (Pillar III)	EET
	Mostly Equity Pension Plans (Pillar III)	EET
	Equity Pension Plans (III)	EET
Sweden	Premium pension - AP7 S�afa	EET
	Premium pension - Other funds	EET
	ITP1	ETT
	SAF -LO	ETT
	PA - 16 Avd I	ETT
	AKAP - KL	ETT
the Netherlands	Pension funds	EET
	Life insurance - Unit/index-linked	EET

Data: Multiple sources (see country cases).

Conclusions

In this chapter, we have summarised the main challenge facing European pension systems, and highlighted the need for private pension schemes to offer strongly positive real net returns on long-term and pension savings.

We have seen that the annual performance of long-term and pension savings in 2022 was, as expected, negative across in nominal terms across most product categories, due to the equity and bond market downturns. Correcting for inflation—which peaked in 2022—further depressed returns. Taking a long-term view, we have seen that the poor performance in 2022 is part of a series of ups and downs on the capital markets, resulting in a succession of gains and losses on savings invested in pension and long-term savings products. Investing more into equity markets tend to increase volatility. However, volatility risk is not a major concern for long-term savers, and can be adequately managed through life-cycle approaches such as that implemented in the best performing product among those covered by our study, Sweden’s AP7 Såfa.

Turning to performance factors, besides the importance of investment decisions and overall asset allocation, we have analysed the evolution of the costs and charges levied by pension fund managers and other product providers, highlighting an overall trend towards cost reduction. Unfortunately, we also show the enduring opacity of costs and charges data—which implies that our estimations of overall average costs are most probably underestimated—and a structural cost differential between occupational (Pillar II) and voluntary (Pillar III) products. Finally, we have discussed the impact of inflation and taxation on the purchasing power of long-term and pension savings.

These results, we believe, should be seen as a call for action addressed to product providers and policymakers to implement reforms that drastically improve the returns of long-term and pension saving products.

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Part II

Country cases

Country Case 1

Austria

Zusammenfassung

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 2022 war die Performance der Pensionskassen real und nach Abzug der Verwaltungskosten positiv. Die annualisierte Durchschnittsrendite lag bei 0,3% vor Steuern. Die Lebensversicherungsbranche verfolgt eine deutlich konservativere Anlagepolitik und erzielte eine durchschnittliche reale Nettorendite vor Steuern von 1,4% 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 2022, the performance of pension funds in real net terms has been positive, with an annualised average return of 0.3% before tax. The life insurance industry followed a distinctly more conservative investment policy and achieved an average annual net real return before tax of 1.4%.

Real returns 2022

Life insurance: -7.57%

Pension funds:
-18.47%

Introduction: The Austrian pension system

The main vehicles for old age provision within the second and third pillar are insurance companies and pension funds. The performance of pension funds in real terms remains positive over the whole period from 2002-2022, with an annualised average real return of 0.3% after service charges and before taxation. Especially the difficult years in 2002, 2007, 2008, 2011, 2018 and now 2022 dampened the investment performance considerably. The bad performance will result in pension cuts for 2023 for most of the beneficiaries.

The average real rate of return on investments by insurance companies benefits from the conservative asset allocation with strong holdings of government bonds. This allowed insurers to avoid large losses in years with a financial market crisis and to reach an average real rate of return of 1.4% annually after service charges and before taxation. Low nominal yields on government bond investments in combination with unexpectedly high interest rates depressed net real rates of return after 2015 and particularly in 2022.

Table AT.1 shows the categories of products for which real net returns are calculated in this chapter. The annualised nominal, net and real net rates of returns for the Austrian retirement provision vehicles are summarised in Table AT.2: They are based on different holding periods: 1 year, 3 years, 5 years, 7 years, 10 years and since inception (2002).

Table AT.1 – Long-term and pension savings vehicles analysed in Austria

Product	Pillar	Reporting period	
		Earliest data	Latest data
Pension funds	Occupational (II)	2002	2022
Life insurance	Voluntary (III)	2002	2022

Table AT.2 – Annualised real net returns of Austrian long-term and pension savings vehicles (before tax, % of AuM)

	Pension funds	Life insurance
Reporting period	2002-2022	2002-2022
1 year (2022)	-18.5%	-7.6%
3 years (2020–2022)	-5.1%	-2.5%
5 years (2018–2022)	-2.8%	-1.1%
7 years (2016–2022)	-1.2%	-0.4%
10 years (2013–2022)	0.1%	0.4%
Whole period	0.3%	1.4%

Data: Fachverband Pensionskassen, OECD Pension indicators, Financial Market Authority, Eurostat; *Calculations:* BETTER FINANCE.

Pension system in Austria: An overview

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 a separate mandatory system. The public pension system works as a PAYG scheme and was founded in 1945. The system covers 4.3 million people or 97.5% of the gainfully employed (2022). In 2022, 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%). If insured persons continue to work after their mandatory retirement age, the contribution rates will be halved. 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 2022 the ceiling was between € 5 850 and € 6 825, depending on the employment status. About 7% 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 74.1% of the average lifetime income while the net pension replacement rate is at 87.1% (OECD, 2021). 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 2022, only 0.9 million contracts were still active.

Table AT.3 – Overview of the Austrian pension system

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 0.9 mln. contracts
Pension level depends on life time 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 60.1 for women and 62.1 for men (2021, including invalidity pensions and early retirement schemes but excluding rehabilitation benefits).		
At 87.1% the theoretical net replacement rate in 2021 was considerably higher than the OECD average (62.4%).		
The mandatory public pension system covers 4.31 mln. insured persons and pays pensions to 2.47 mln. beneficiaries	The voluntary occupational pension system covers 1.7 mln. entitled persons and pays pensions to 0.26 mln. beneficiaries	Voluntary personal pension plans cover 3.30 mln. entitled persons and pay pensions to 0.21 mln. beneficiaries
The average pensioner receives 91% of his retirement income from public pensions	The average pensioner receives 4% of his retirement income from an occupational pension	The average pensioner receives 6% of his retirement income from a personal pension

¹ OECD data.

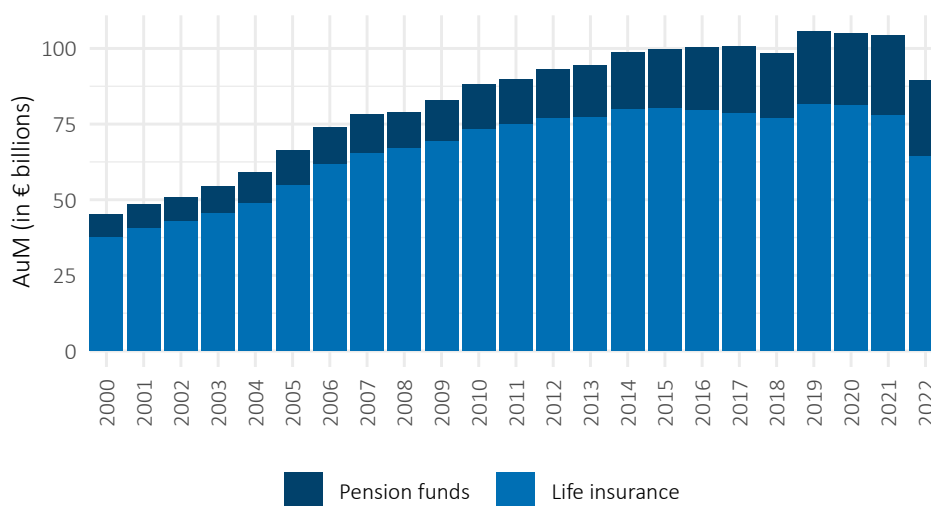
Long-term and pension savings vehicles in Austria

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 (Url & Pekanov, 2017). Given today's number 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.

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.

Figure AT.1 – AuM of Austrian long-term and pension savings vehicles



Data: Financial Market Authority; Calculations: WIFO.

Second pillar: Direct Commitments, pension funds and collective life insurance

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 made balance sheets shorter and cleaned them from items unknown to international investors.

Direct commitments (*Direktusage*)

Direct commitments are pension promises by the employer to the employee that are administered 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, 2003).

Pension funds may be either multi-employer pension funds, i.e. they are open to all firms, or alternatively, they may be firm-specific pension funds (single-employer pension funds) administering 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 by constructing independent risk and investment pools like undertaking for collective investment in transferable securities (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.

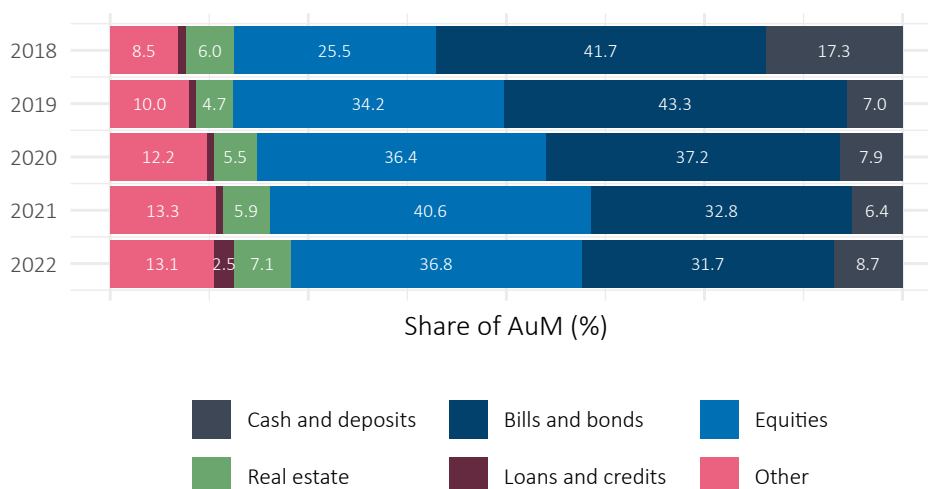
Pension funds offer primarily annuities because lump-sum payments are restricted to accounts with very small accumulated assets. Pension funds have to offer accounts with guaranteed long-term yields on investment linked to the market yield of Austrian government bonds, although this option lost attractiveness due to the high costs of guarantees and a substantial weakening of the extent of the guarantee. 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

Figure AT.2 – Allocation of Austrian pension funds' assets



Data: Financial Market Authority (FMA); Calculations: BETTER FINANCE.

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 are tax-exempt—as per § 3/1/15 of the *Einkommensteuergesetz* (EStG), the Income Tax Act—and as a result around 638 000 contracts have been signed until 2022. 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.

Third pillar: Classic and Unit-linked life insurance

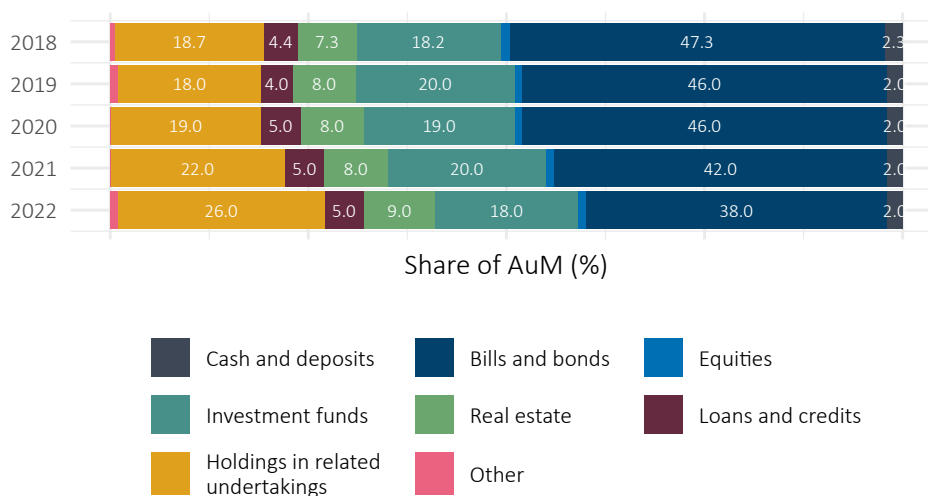
There are two types of insurance contracts available which can be distinguished according to who bears the investment risks. Insured persons with a unit-linked policy assume the investment risk and must choose their investment portfolio. Classic life insurance products, on the other hand, offer a minimum 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% per annum (since 1.7.2022; BGBl. II Nr. 354/2021). Investment returns in excess of the guaranteed level are distributed across insured persons 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. 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 listed on underdeveloped stock exchanges. This measure was targeted to foster investment at 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 of the equity exposure when the retirement date of entitled persons comes closer.

The halving of the subsidy premium in 2012 and substantial losses on stock exchanges during the years 2008 and 2022 reduced the demand for this 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. In 2022 the number of new contracts declined to 6 127; with 70 600 contracts expiring in that year, the number of active contributors declined to 0.9 million persons.

Figure AT.3 – Allocation of assets invested in Austrian life insurance contracts



Data: Financial Market Authority (FMA); Calculations: BETTER FINANCE.

Charges

Charges of pension funds

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 AT.4, 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. Since the year 2019, a substantial reduction in charges has been recorded by the OECD.

Table AT.4 – Costs and charges of Austrian pension funds (% of assets)

Year	Admin. and mgt. fees
2005	0.14%
2006	0.15%
2007	0.15%
2008	0.16%
2009	0.17%
2010	0.17%
2011	n.a.
2012	n.a.
2013	0.16%
2014	0.17%
2015	0.18%
2016	0.18%
2017	0.18%
2018	0.19%
2019	0.19%
2020	0.12%
2021	0.10%
2022	0.11%

Data: OECD Pension Indicators, WIFO calculations.

Charges of life insurance products

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 (see Table AT.5). 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 piece of short product information (KID) 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.

Table AT.5 – Costs and charges of Austrian life insurance contracts (% of assets unless otherwise specified)

Year	Acquisition fees*	Admin. and mgt. fees
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%
2021	10.91%	0.37%
2022	11.01%	0.40%

Data: Financial Market Authority, Austrian Insurance Association, WIFO calculations. * % of premiums

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. Url and Pekanov (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 amounts 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 advantage is associated with occupational life insurance policies subject to § 3/1/15 EStG. In this case, the subsidy amounts to 60% of lifetime contributions, however, payments into this vehicle are restricted to a negligible € 300 per year.

Table AT.6 – Taxation of pension savings in Austria

Product	Phase			Regime
	<i>Contributions</i>	<i>Investment returns</i>	<i>Payouts</i>	
Pension funds	Exempted	Exempted	Taxed	EET
Life insurance	Taxed	Exempted	Taxed	EET

Data: EStG.

Performance of Austrian long-term and pension savings

Real net returns of Austrian long-term and pension savings

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 (see Page 50). For this reason, we cannot compute a general after-tax return for Austria. Instead, we present the:

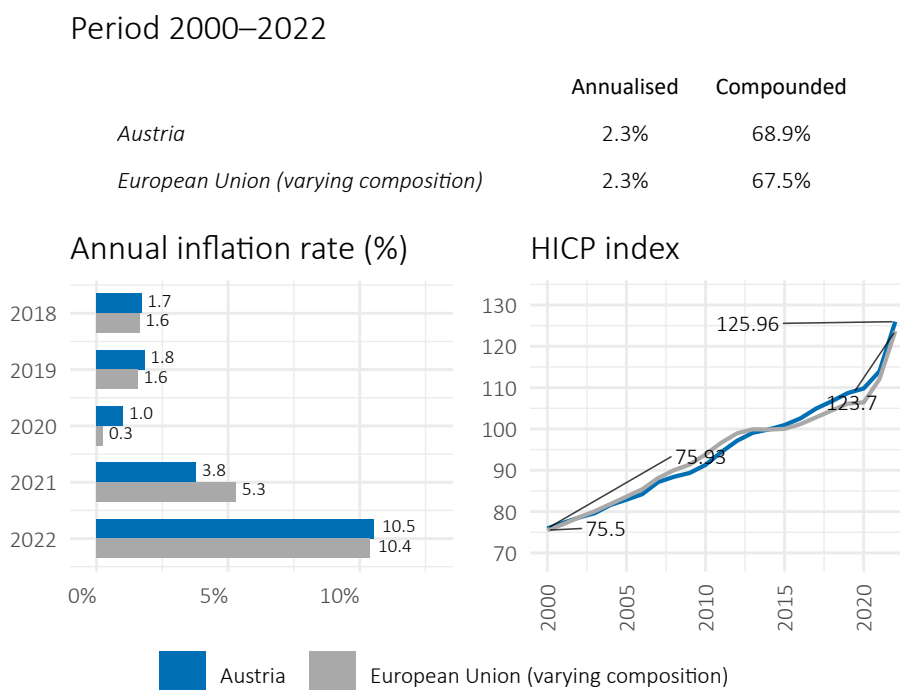
- nominal returns before charges, inflation, and tax;
- nominal returns after charges but before inflation and tax;
- real returns after charges and inflation but before tax

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*).

Inflation in Austria responded late to the energy price shock. In the first half of 2022 the inflation rate started to climb up but remained below the euro area average until May. Afterwards inflation accelerated in Austria because the Austrian government preferred to let energy prices clearly signal the scarcity in energy and consequently induce investment in alternative carbon-

free technologies. To alleviate losses in purchasing power, private households received compensating transfers. Other countries instead used price caps for energy or lowered energy taxes. Consequently, higher energy prices were then passed over from Austrian firms to customers, especially for energy-intensive goods like building materials but also for food. At year-end the inflation rate was at 10.5%.

Figure AT.4 – Inflation in Austria



Data: Eurostat, HICP monthly index (2015 = 100); Calculations: BETTER FINANCE

Pension funds

Figure AT.5 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 Kontrollbank*,¹ following a standardised procedure. Aggregate returns are available for pension funds and for multi- and single-employer pension funds. The long-term performance of firm-specific pension funds is about 0.4 percentage points higher as compared to multi-employer pension funds. The difference results probably from a less risk-oriented investment style implemented by multi-employer pension funds, due to the wider us-

¹<https://www.oekb.at/kapitalmarkt-services/unser-datenangebot/veranlagungsentwicklung-der-pensionskassen.html>

age 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 and investment charges of pension funds as presented in the chapter on charges (Page 48). Real returns are computed by adjusting for the HICP-inflation rate in Austria.

The Financial Market Authority publishes the asset allocation of pension funds as of year-end (Österreichische Finanzmarktaufsicht [FMA], 2023). Despite the drop in share prices, the portfolio in 2022 continues to be dominated by equity investments (36.8%) with debt securities ranking second (31.7%). The increase in bond yields and the high volatility on equity markets in 2022 led to an increase in the share of bank balances (8.7%) and real estate investments (7.1%). Pension funds also diversified into the banking business by issuing loans and credits (2.5%). The remainder was mixed throughout smaller asset categories (Figure AT.2). 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 dot-com bubble (2000), the international financial market crisis (2007), and the public debt crisis in the euro area (2011), but also in 2018 and 2022, when both bond and equity markets lost value. On top of negative nominal returns, the unexpected burst in inflation significantly reduced the real return in 2022. Nevertheless, pension funds achieved between 2002 and 2022 an annual average net real yield on investment of 0.3%. This corresponds to a nominal average excess return over Austrian government bonds of 1.1 percentage points.

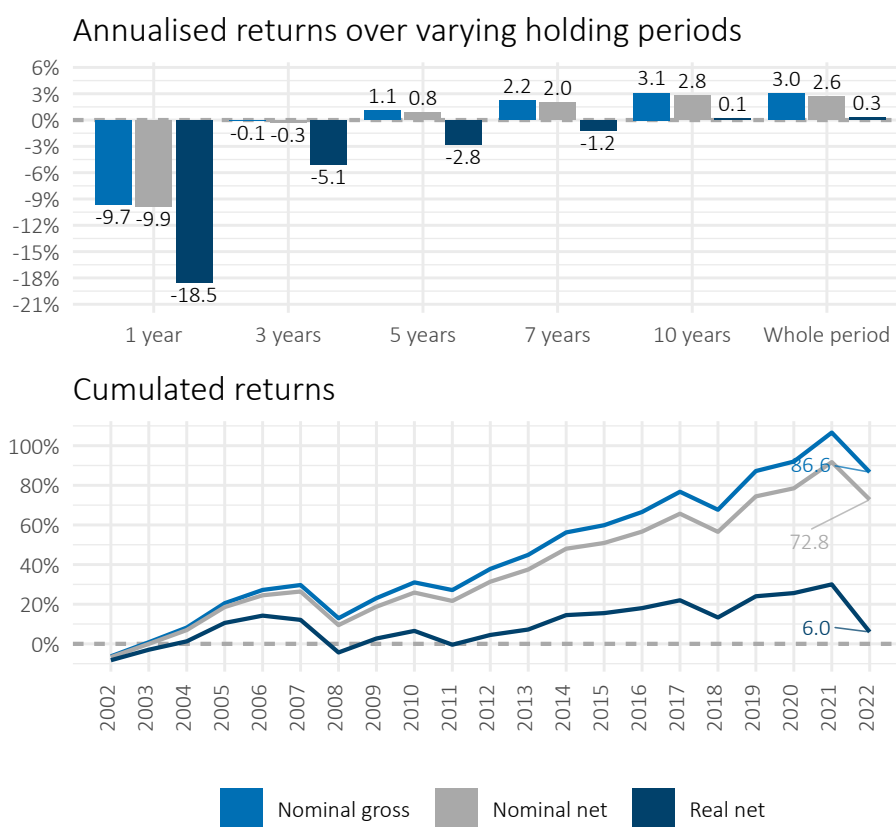
Life insurance contracts

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 AT.5. Real returns result from the adjustment of nominal returns using the HICP-inflation rate for Austria (Figure AT.4). Figure AT.6 shows the nominal gross, nominal net and real net returns of Austrian life insurance policies.

Obviously, nominal gross returns in the insurance industry are less volatile than in the pension fund industry. The main reason for this divergence is the more conservative asset allocation of insurance companies, i.e. they invest more heavily in bonds (38%) and the share of collective investments in their portfolio (18%) is also concentrated in bonds-oriented investment funds, creating a high exposure to fixed-interest securities (FMA, 2023). Another important asset class in the insurance industry are shareholdings in related undertakings (26%), which are usually not listed on a stock exchange. Property investments sum up to 9% of the assets, while equity holdings form just 1% of the portfolio (Figure AT.3). This gives insurance companies small exposure to volatile asset categories and consequently their investment performance is steadier.

The particular way of distributing investment returns in classic insurance policies makes their performance even more steady for beneficiaries. 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

Figure AT.5 – Returns of Austrian pension funds (before tax, % of AuM)

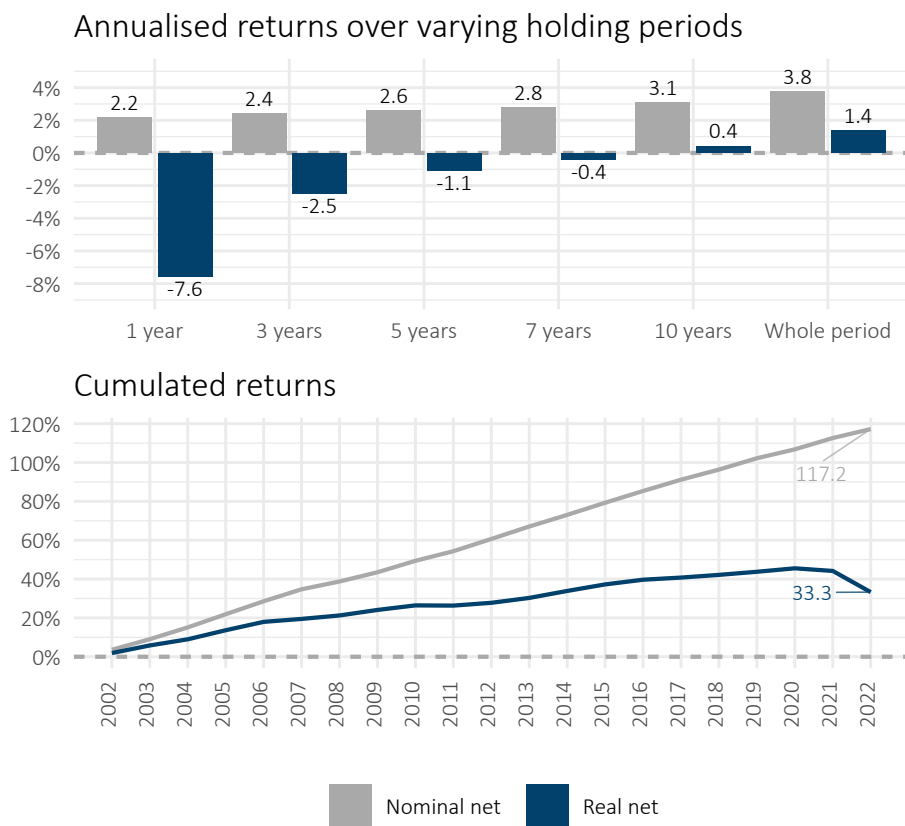


Data: Fachverband Pensionskassen, OECD Pension indicators, Eurostat; Calculations: BETTER FINANCE; Note: Charges estimated by mean value for the years 2002-2010 and 2013-2019..

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.

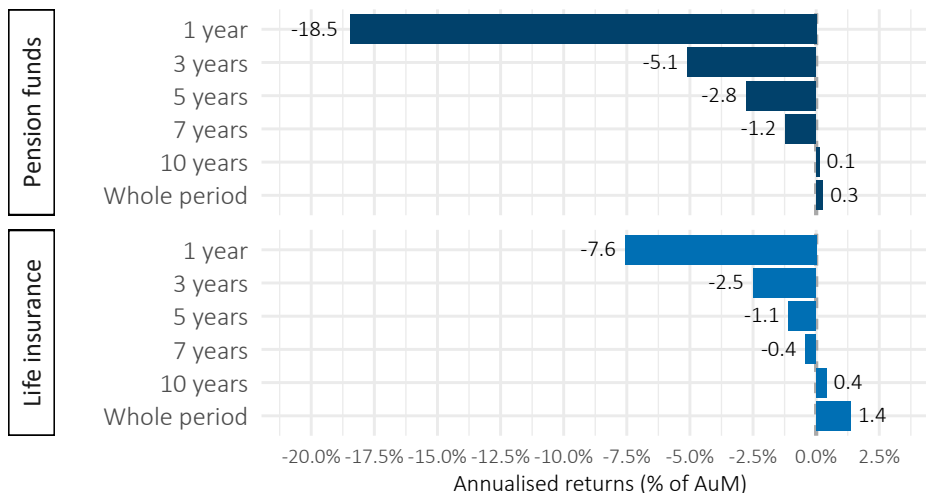
At the beginning of 2022 yields on fixed-interest securities from highly-rated debtors started to move from negative into positive territory. This development provides better opportunities for insurance companies to reinvest their expiring high-yield securities at more favourable returns, eventually stopping the prolonged decline recorded over the last years. The nominal return for the year 2022 continues to be in the lower range with double-digit inflation turning real returns negative. The long-run net real return on insurance investments declined to 1.4%. This corresponds to a nominal average excess return over Austrian government bonds of 2.3 percentage points. The performance continues to exceed that of pension funds.

Figure AT.6 – Returns of Austrian life insurance contracts (before tax, % of AuM)



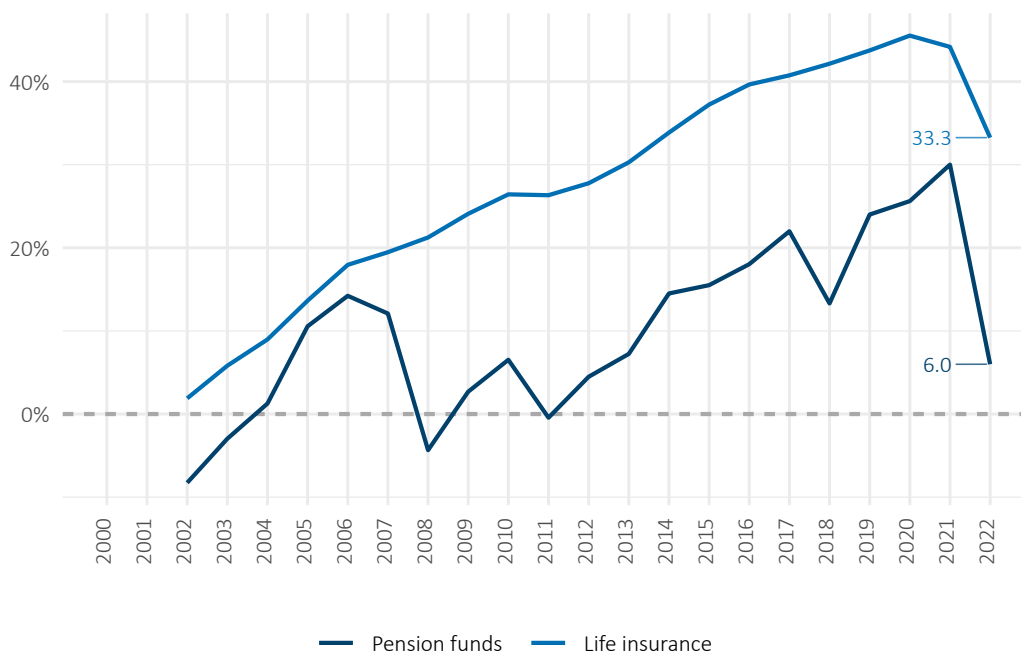
Data: Financial Market Authority, Eurostat; Calculations: BETTER FINANCE; Note: Charges estimated by mean value for the years 2002-2004..

Figure AT.7 – Annualised returns of Austrian long-term and pension vehicles over varying holding periods (before tax, % of AuM)



Data: Fachverband Pensionskassen, OECD Pension indicators, Financial Market Authority, Eurostat; Calculations: BETTER FINANCE.

Figure AT.8 – Cumulated returns of Austrian long-term and pension savings vehicles (2000–2022, before tax, % of AuM)



Data: Fachverband Pensionskassen, OECD Pension indicators, Financial Market Authority, Eurostat; Calculations: BETTER FINANCE.

Do Austrian savings products beat capital markets?

In the long run pension funds and life insurance products reached excess returns over the yield of Austrian government bonds in the size of 1.1 and 2.3 percentage points, respectively. Another possible yard stick are yields from benchmark portfolios with equal holdings of equity and bonds (see Table AT.7). The net real return of pension funds in 2022 was beating the benchmark portfolio by 5.1 percentage points. The real excess return of pension funds over the benchmark portfolio between 2002-2022 was -1.8 percentage points, i.e. the performance was lagging the benchmark portfolio (Figure AT.9).

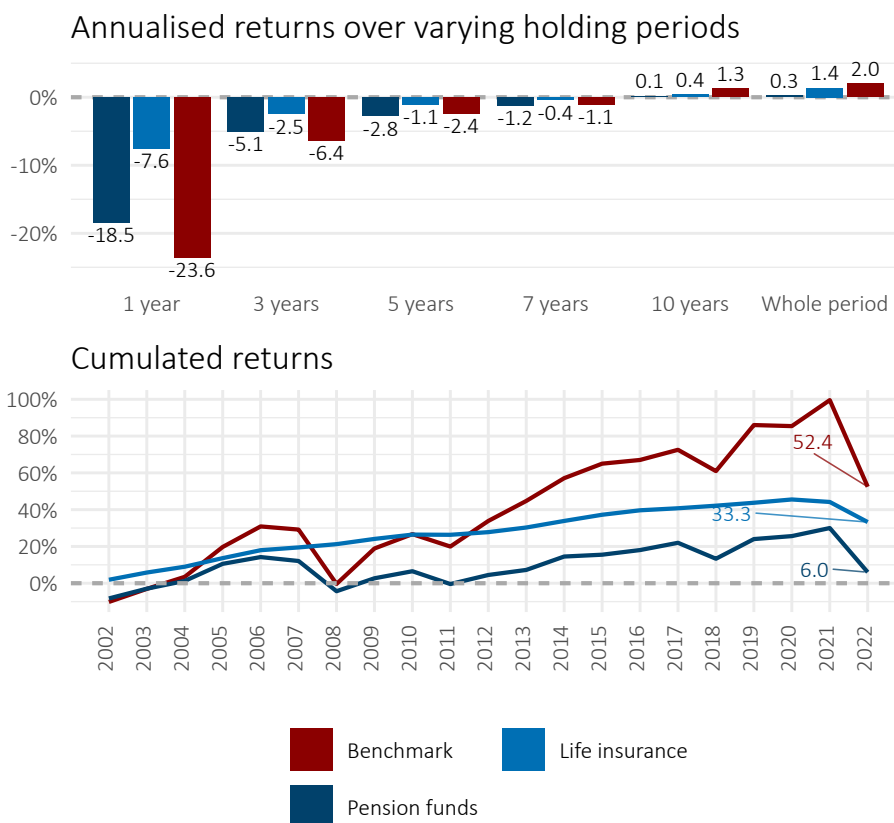
Table AT.7 – Capital market benchmarks to assess the performance of Austrian pension vehicles

Product	Equity index	Bonds index	Allocation
Pension funds	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	50.0%–50.0%
Life insurance	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	50.0%–50.0%

Note: Benchmark portfolios are rebalanced annually.

The more cautious investment strategy of the insurance industry goes along with a very small share of equity in their portfolio. Consequently, the real excess return of life insurance products was substantially better than the benchmark portfolio (+16 percentage points) in 2022. In the long run, the performance of life insurance products is almost identical to the benchmark portfolio. From 2002-2022, the nominal excess return of life insurance products was -0.7 percentage points, i.e. slightly lower than the benchmark portfolio.

Figure AT.9 – Performance of Austrian pension funds and life insurance against a capital market benchmark (returns before tax, after inflation, % of AuM)



Data: Fachverband Pensionskassen, OECD Pension indicators, Financial Market Authority, Eurostat; Calculations: BETTER FINANCE.

Conclusions

The performance of pension funds in real terms remains positive over the whole period from 2002-2022, with an annualised average real return of 0.3% after service charges and before taxation. Especially the difficult years in 2002, 2007, 2008, 2011, 2018 and now 2022 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 cuts in pensions levels due to investment losses after the dot-com bubble and the use of overly optimistic imputed interest rates, this group received an additional hit in 2022.

The average real rate of return on investments by insurance companies benefits from a conser-

vative asset allocation with strong government bond holdings. This allowed insurers to avoid large losses in years with a financial market crisis and to reach an average real rate of return of 1.4% annually after service charges and before taxation. Low nominal yields on government bond investments in combination with unexpectedly high inflation depressed net real return after 2015 and particularly in 2022. Insurance companies benefit from the long duration of their investment portfolio, i.e. they still own bonds featuring high interest coupons. With the ECB unwinding its Asset Purchase Program (APP) in 2023 and just rolling over its Pandemic Emergency Purchasing Program (PEPP), new investments can be expected to yield again higher returns. But the high liquidity preference by private households and still high inflation will depress demand for classic life insurance by individual households. Premium subsidised pension insurance is also in low demand because subsidies were halved in 2012 and investment losses continue, due to the concentrated investment in small and under-developed markets, which affected this vehicle disproportionately.

The opportunity to offer defined contribution plans has certainly boosted the spread of occupational pensions in Austria. Within pension funds 98% of the entitlements are now defined contributions plans, while occupational pensions based on insurance contracts are exclusively of the defined contribution type.

By now, the economic downturn in 2023 has proved to be more pronounced than expected. High inflation eroded the real disposable income of private households and rising interest rates dampened consumption. This delayed firms' investment decisions and lowered the demand for new housing. At this stage of the business cycle, firms will be reluctant to offer additional voluntary occupational pensions contracts, thus the number of beneficiaries is likely to stagnate in 2023, while private demand for life insurance products will remain low. The labour market, however, remains tightened. Large cohorts will reach the corridor that allows for early retirement, or they will pass the mandatory retirement age. Given the shortages for qualified labour, firms may still consider introducing or extending occupational pension plans to retain existing staff and to attract new employees.

All major stock exchanges have seen their valuation increase over the first half of 2023, offering a better outlook for earnings in the capital-based old-age provision. Currently, no measures to promote occupational and individual pension plans are discussed in Austria. Moreover, the establishment of the legal basis for the Pan-European Pension Product (PEPP) in Austria has not yet entailed any corresponding offers from the financial services industry.

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Country Case 2

Belgium

Résumé

Le système de retraite belge 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 61.9% en 2020. Les piliers 2 et 3 constituent 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 (respectivement 80% et 68% de la population active couverte). Les véhicules de placements du pilier 2 sont gérés par des IRP ou des sociétés d'assurance. Les belges ont accès à fonds d'investissement et à des produits d'assurance dans le cadre du pilier 3.

Sur une période de 22 ans (2000-2022), 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 1% et 0.64% respectivement. Depuis 2016, le rendement garanti offert sur les nouvelles cotisations versées sur les contrats d'assurance groupe Branche 21 du pilier 2 ont été revus à la baisse et sont devenus en moyenne inférieurs à 3%. En raison, du manque d'informations, il est plus difficile de fournir des informations sur les rendements des contrats d'assurance vie groupe et assurance vie individuelle.

Summary

The Belgian pension system is divided into three pillars. The first PAYG pillar is still important among the three pillar and provides on average a replacement rate of 61.9% in 2020. 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 80% and 68% 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 asset management companies 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 22-year period (2000-2022), occupational pension funds managed by IORPs (pillar II) and pension savings funds (pillar III) had annualised real performance after charges of 1% and 0.64% respectively. Since 2016, the average guaranteed return on "Assurance Groupe" Branch 21 contracts decreased and became on average 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.

Real returns 2022

IORP: -22.86%

Pension savings plans: -23.69%

Introduction: The Belgian pension system

There are four types of vehicles for old age provision within the second and third Belgium pillars: pension funds managed by IORPs, “Assurance groupe” contracts within the second pillar and pension savings plans and long-term insurance products within the third pillar.

Pension savings plans managed by IORPs and pension savings plans managed by asset management companies have similarities, notably in terms of returns. Their performance remains positive over the whole period from 2000 to 2022, with an annualised real net returns (after charges and before tax) of 1% and 0.64% respectively. These pension vehicles experienced 7 years of negative returns during the whole period (2000-2022, 2008, 2011, 2018 and 2022).

There is few information regarding regarding of “Assurance Groupe” contracts and long-term insurance products. For the whole period (2002-2014) for which the data is available, “Assurance Groupe” Branch 21 offered an average net return of 2.59%. On the same period, long-term insurance products had on average net return of 1.92%. Table BE.1 shows the categories of products for which real net returns are calculated in this chapter. The annualised nominal, net, and real net rates of returns for the Belgium retirement provision vehicles are summarised in Table BE.2 are based on different holding periods: 1 year, 3 years, 5 years, 7 years, 10 years and since inception (2000 for pension funds and 2002 for insurance products).

Table BE.1 – Long-term and pension savings vehicles analysed in Belgium

Product	Pillar	Reporting period	
		<i>Earliest data</i>	<i>Latest data</i>
IORP	Occupational (II)	2000	2022
“Assurance Groupe”: Branch 21	Occupational (II)	2002	2014
“Assurance Groupe”: Branch 23	Occupational (II)	2002	2014
Pension savings plans	Voluntary (III)	2000	2022
Long term insurance products (Branches 21 and 23)	Voluntary (III)	2002	2014

Pension system in Belgium: An overview

Table BE.2 – Annualised real net returns of Belgian long-term and pension savings vehicles (before tax, % of AuM)

	IORP	Pension savings plans
Reporting period	2000-2022	2000-2022
1 year (2022)	-22.9%	-23.7%
3 years (2020–2022)	-6.3%	-6.7%
5 years (2018–2022)	-2.3%	-3.5%
7 years (2016–2022)	-0.8%	-1.9%
10 years (2013–2022)	1.4%	1.1%
Whole period	1.0%	0.6%

Data: PensioPlus, Belgian Asset Managers Association (BEAMA), Eurostat; *Calculations:* BETTER FINANCE. *Note:* Annualised returns up to 2022 cannot be calculated for “Assurance Groupe” contracts and long-term life insurance products due to the absence of data on returns

Pillar I — State pension

The Belgian Pillar I is organised as a 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. In 2020, the net replacement rate from the PAYG system for both men and women (with an average working wage) was 61.9%. A guaranteed minimum pension and a maximum pension have been fixed. The amounts of these pension are often revised. The guaranteed minimum pension will increase up to € 1 500 for a single person in 2024.

Several measures for workers were voted in an amendment on July 19, 2022. The last year’s amendment aimed to make the payment of state pensions more financially sustainable. Unfortunately, this amendment was finally more costly for Belgian public finances. On July 9, 2023, a new amendment of the pension reform was voted and modified some decisions voted last year:

- In order to have the right to perceive the guaranteed minimum pension, a worker must have an effective working period of 20 years. Several periods are treated as periods of effective work, including maternity and breastfeeding leave, palliative care leave and periods of inactivity due to disability. The current agreement adds several periods including preventive separation from work, paternity leave, temporary unemployment, and cares for a child under 21 years old suffering from a disability. The consideration of these periods of work aims to consider differences between men and women’s careers.
- The method of calculating the minimum guaranteed pension was revised in 2022. This new

methodology was deleted in the new agreement. Only the modification regarding the consideration of part-time worker is maintained. This measure exists mainly for women who worked part-time before the existence of time credit. A 4/5-time job will be considered full-time for a maximum of 5 years.

- People who meet the conditions for access to early pension will be encouraged to work longer thanks to a pension bonus. A worker who, at 63, already has 42 years of career and decides to continue working when he could take his early pension, will not only continue to build up pension rights, but he will receive, in addition, a pension bonus. This bonus will be increased each year, reaching € 22 645 net after 3 years. The pension bonus will be not taxed.

Pillar II — Funded pensions

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 IORP or by an insurance company. Insurance companies predominantly manage them.

The Supplementary Pensions Act reform entered into force as of January 1, 2016. It amended the Act of April 28, 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 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 1,

2016, all these existing beneficial anticipation measures were abolished. Affiliates who reached the age of 55 years on or before December 31, 2016 can still benefit from these existing measures.

At January 1, 2022, approximately 4 174 million Belgians (83% of the active population) were covered by occupational pension plans:(Autorité des Services et Marchés Financiers [FSMA], 2022a).¹

- 3 558 million employees were covered either by their company or by their sector of activity;
- 351 896 self-employed individuals were covered by supplementary pension plans;
- 263 848 individuals were covered both by their company or by their sector of activity and by a supplementary pension plan dedicated to self-employed

The number of Belgian covers by occupational pension plans increased by 3% between 2021 and 2022.

Pillar III — Voluntary pension

The third pillar regroups 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 funds managed either by banks or asset management 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.² The third pillar covered more than two thirds of the active population of Belgium, with 34% of workers subscribing to a life insurance retirement savings product (1.7 million Belgians) and 34% being covered by pension savings funds (1.7 million Belgians).

Long-term and pension savings vehicles in Belgium

AuM in Belgium pension savings vehicles amounted to € 177.6 billion in 2021. Figure BE.1 represents the breakdown of assets under management of the different pension vehicles in Belgium from 2000 to 2022. In 2021, more than two thirds of assets are managed in the framework of the second pillar (€ 120.2 billion). “Assurance Groupe” contracts are predominant within the second pillar and represented 64% of outstanding amounts managed (€ 77 billion). AuM in IORPs amounted to € 43.2 billion. The weight of “Assurance Groupe” contracts has always been higher than that of IORPs. Nevertheless, this weight has tended to decrease slightly for the last five years. In the third pillar, pension vehicles are also managed either by a pension fund or either by an insurance company. The share of pension savings funds has increased to represent 45% of asset under management within the third pillar. Outstanding amounts of long-term pension savings, managed by insurance companies, amounted € 31.8 billion and represented almost a quarter of individual life insurance outstanding amounts.

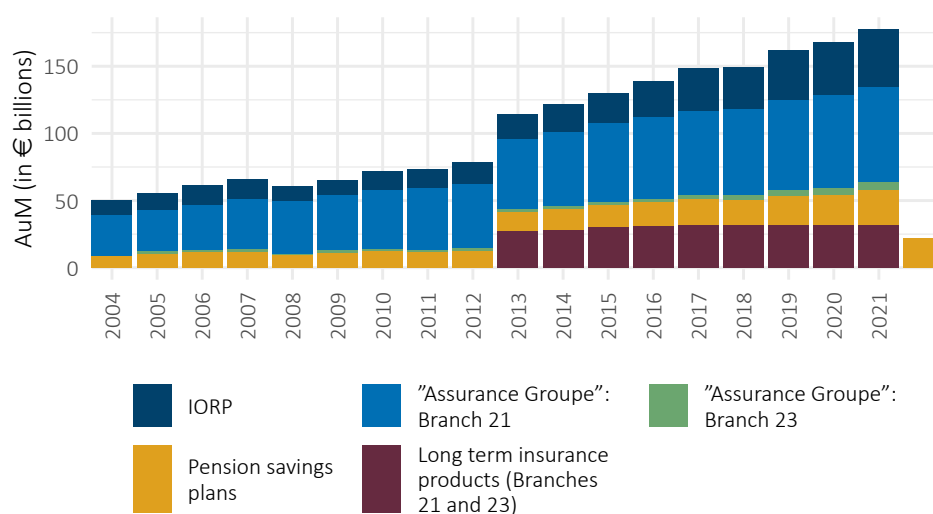
¹Data presented in this publication were provided by the DB2P who manages the supplementary pensions database. It collects data related to supplementary pension plans such as individualised acquired pension rights of employees, self-employed individuals, and civil servants.

²The lowering of the tax rate does not apply to long-term savings products.

Table BE.3 – Overview of the Belgian pension system

Pillar I	Pillar II	Pillar III
State Pension	Funded pension <i>The Supplementary Pension Law (the Vandebroucke Law) implemented in 2003</i>	Voluntary pension
SFPD (Federal Pensions Service)	IORPs 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 / DC Individual retirement accounts	
Quick facts		
Number of old-age pensioners (as of January 1, 2021): 2 267 868	IORPs: 184 Insurance companies: 27	Pension savings funds: 21 Life insurance retirement savings product
Average old-age pension: € 1 214	AuM: € 125.5 bn (in 2020)	AuM: € 53.29 bn (in 2021)
Average income (gross): € 3 758 (in 2019)	Participants: 4.030 million	Participants: 3.4 million
Men and women's average replacement ratio: 61.9% (2020)	Coverage ratio: 80% of active population is affiliated to a pension product, being active or dormant	Coverage ratio: 68%

Figure BE.1 – AuM of Belgian long-term and pension savings vehicles



Data: Assuralia, BEAMA; Calculations: BETTER FINANCE.

Second pillar: Occupational pension funds

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 four types of occupational pension plans in place, managed by two kinds of financial intermediaries (IORPs and insurance companies):

- 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).

The Financial Services and Markets Authority (FSMA) annually reports detailed information on institutions for occupational retirement provision (IORPs, the EU law term for non-insurance regulated occupational pension products provider)³. Every two years, the FSMA also reports detailed information on sector pension plans, company pension plans, supplementary pension plans for self-employed individuals company directors and an additional pension agreement for self-employed as individuals and supplementary pension plan for employees.

³Article 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.

Management of occupational pension plans

The management of occupational pension plans can be entrusted to an IORP or to an insurance company (Branch 21 and Branch 23 contracts).

Institutions for occupational retirement provision (IORPs):

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 IORPs in 2021 (as of January 1, 2022): 164 occupational pension plans in the framework of pillar II were managed by an IORP and the number of affiliates to IORPs increased to 2 135 785 against 2 026 017 in 2020. Based on the amount of reserves managed out of the total in Pillar II, IORPs had a market share of 36%, the rest being managed by insurance companies through Branch 21 and Branch 23 contracts.

“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 1, 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 1, 2016. In case of a shortfall on the individual account when paying a benefit or a transfer of reserves, the employer must 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. All Branch 23 contracts accumulated € 6 billion in reserves in 2021, representing 5.0% of the total outstanding amounts managed within “Assurance Groupe” contracts (see Table BE.4).

Description of occupational pension plans

The following sub-sections provide information and figures for the different occupational pension plans within Pillar II in Belgium (product are described by increasing market share in terms of individuals' accrued reserves):

Table BE.4 – Total balance sheet managed in Pillar II (in € billion)

Year	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	n.a.	n.a.	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	39.0	1.4	39.6	50.7
2009	11.2	41.2	1.8	43.0	54.2
2010	13.9	44.1	1.8	46.5	60.4
2011	14.0	46.7	1.6	50.2	64.2
2012	16.4	47.9	1.7	54.0	70.4
2013	18.0	52.7	1.9	58.6	76.6
2014	20.7	55.8	2.1	62.2	82.9
2015	21.9	58.9	2.1	66.3	88.2
2016	26.8	60.9	2.4	69.8	96.6
2017	32.0	62.6	3.2	73.5	105.5
2018	31.4	64.2	3.7	76.3	107.7
2019	36.9	66.8	4.7	81.3	118.2
2020	39.7	69.2	5.2	85.8	125.5
2021	43.2	70.9	6.0	77.0	120.2

Data: FSMA, National Bank of Belgium (NBB)

- company pension plans (€ 59.3 billion),
- supplementary pension plan for company directors (PLCDE) (€ 21.4 billion),
- supplementary pension plan for self-employed individuals (PLCI) (€ 9.9 billion),
- sector pension plans (CBAs) (€ 5.4 billion),
- additional pension agreement for self-employed as individuals (PLCIPP) (€ 152.2 million),
- supplementary pension plan for employees (PLCLS).

Company pension plans (€ 59.3 billion)

Company pension plans are prevalent within the second pillar. FSMA publishes a bi-annual report on company pension funds. The last edition provides information as of January 1, 2022 (FSMA, 2023b):

- The total individuals' accrued reserves amounted to € 59.3 billion against 55.6 at end-2020 and 53 billion at end-2019. 75% of these reserves were managed by 19 insurance companies through "Assurance Groupe" Branch 21 or 23 contract (€ 44.5 billion) and 25% were managed by 122 IORP (€ 14.8 billion).
- 2 117 139 employees were affiliated to a company pension plan. This is an increase of 4.3% from January 1, 2021.
- The total number of employers who implemented a collective pension commitment for the benefit of their workers was 60 762. This is an increase of 6% compared to January 1, 2020, when 57 800 employers set up a pension scheme (with one or more pension commitments). The number of company pension plans were 123 341. It increased from 116 595 on January 1, 2020. It represented an increase of 5.8%.

Private Supplementary Pensions for Company Director (PLCDE) (€ 21.4 billion)

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 IORPs). 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 2023, provides the following information at January 1, 2022 (FSMA, 2023a):

- 246 227 directors were affiliated to a PLCDE This is an increase of 5.9% from January 1, 2020.
- The total number of organisers who implemented an individual or collective pension commitment for the benefit of its director(s) was 223 913. This represented an increase of 7.3% compared to January 1, 2020.
- The total number of commitments dedicated to Director increased and reached 343 268. Most of commitments were DC (95%) and were dedicated for only one affiliate (98%).

- The management of the pension commitments were managed quasi-exclusively by insurance companies (99,9%).
- Total individuals' accrued reserves amounted to € 21.4 billion and the contributions amounted to 1 633 billion euros. These reserves increased by 9% when compared to January 1, 2020.

Private Supplementary Pensions for self-employed individuals (PLCI) (€ 9.9 billion)

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 company. They can switch from one provider to another during the accumulation period. Self-employed individuals can save up to 8.17% of their income, without exceeding a maximum annually indexed amount (€ 3 859.40 in 2023). These ceilings can be increased up to 9.40% and € 4 440.43 when a social convention is subscribed. FSMA provided the following information as of January 1, 2022:

- 531 376 self-employed individuals were covered by supplementary pension plans (PLCI convention).
- Total individuals' accrued reserves amounted to € 9.9 billion, which increased by 14.5% since January 1, 2020. 94.9% of these reserves were managed by insurance companies, predominantly by Branch 21 contracts.

Self-employed individuals can also supplement their PLCI with several solidarity benefits, called social conventions (INAMI convention). 176 068 self-employed individuals were affiliated to PLCI with a social convention at January 1, 2022. 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.

Sector pension plans (€ 5.4 billion)⁴

Sector pension plans are supplementary pension commitments set up on collective bargaining agreements and concluded by a joint committee or sub joint committee. In the joint committee/sub-committee, a sectoral organiser responsible for the pension commitment is appointed. At January 1, 2022, FSMA provides the following information:

- 57 joint or sub joint committees offered occupational pension schemes to employees. The number of employees covered by a sector pension plan reached 2 324 677. It represents an increase of 10% compare to January 1, 2020.
- There are 80 sector pension plans available for subscription. The total individuals' accrued reserves amounted to € 5.4 billion. It represents an increase of 1% when compared to January 1, 2020 Two third of these reserves were managed by 10 IORPs (€ 3.6 billion) and a third by 7 insurance companies through "Assurance Groupe" Branch 21 or 23 contracts (€ 1.8 billion).

Convention for self-employed as individuals (PLCIPP or CPTI) (€ 152.2 million)

⁴All data provided comes from plans for which information is available.

Since July 1, 2018, self-employed individuals without a company, can subscribe a pension agreement for self-employed individuals (CPTI), whether combined or not with a PLCI. FSMA provides information on this new type of pension agreement at January 1, 2022:

- There were 6 703 pension agreements which covered 6 601 self-employed individuals. The number of individuals covered by a PLCDE increased by 31% when compared to January 1, 2020.
- The total individuals' accrued reserves amounted to 152.2 million euros. 55.9% of reserves are managed by Branch 21 contracts, 32.5% by combined Branch 21 / Branch 23 contracts, 5.3% by Branch 23 contracts and 5.3% by IORPs
- The total amount of contributions amounted to 38.7 million euros in 2019

Supplementary pension for employees (PLCS) (€ 2.1 million)

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). FSMA publishes a bi-annual report on company pension funds. The last report provides information as of January 1, 2022:

- There were 1 118 pension agreements which covered 1 115 employees. The number of employees covered by a PLS was multiplied by 3,6 by two years. Most employees constituting pension rights under the PLCS signed only one agreement.
- The total accrued reserves amounted to € 2.1 million (against € 149 797 as of January 1, 2020).
- These pension agreements are managed by three insurance companies. 94% of reserves are managed by combined Branch 21/Branch 23 contracts and 6% by Branch 21 contracts.

Third pillar: pension savings products and long-term savings products (individual life insurance products)

The third pillar provides Belgians with individual private and voluntary pension products, which allow them to have tax reliefs from their contributions. Two types products are available for subscription:

- Pension saving funds managed by asset management companies,
- Pension savings insurance (Branch 21 contracts) and long-term savings products (Branch 23 contracts managed by insurance companies.

This pillar is significant in Belgium when compared to other European Union 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

Table BE.5 – Pillar III pension savings products (in € billion)

Year	Net AuM in pension savings funds	Reserves managed in long-term pension products
2003	7.4	n.a.
2004	8.7	n.a.
2005	10.3	n.a.
2006	11.5	n.a.
2007	11.8	n.a.
2008	9.0	n.a.
2009	11.1	n.a.
2010	12.0	n.a.
2011	11.2	n.a.
2012	12.6	n.a.
2013	14.4	27.0
2014	15.6	27.9
2015	16.9	29.8
2016	18.0	30.6
2017	19.6	31.3
2018	18.2	31.7
2019	21.3	32.0
2020	22.3	31.5
2021	25.6	31.8
2022	22.1	n.a.

Data: BeAma, Assuralia

pillar.⁵ The third pillar covered more than two thirds of the active population of Belgium, with 34% of workers subscribing to a life insurance retirement savings product (1.7 million Belgians) and 34% being covered by pension savings funds (1.7 million Belgians).

The Belgian pension savings funds market remains relatively concentrated since the launch of the first funds in 1987. The market grew significantly in the past few years. 21 products (18 UCITS and 3 alternative investment funds (AIFs)) were available for subscription at end-2022. The net assets under management reached €22.1 billion (-13.5% over a year). The net sales remained high and amounted to €511 million in 2022.

Charges

Information regarding costs applied to occupational pension funds in Belgium is only provided by FSMA in its biannual reports on the various products available for employees and self-employed individuals. FSMA provides information on management fees. There is no information regarding other costs and charges like entry fees. Assuralia provides some information on the administration and management fees and fees on commissions.

⁵The lowering of the tax rate does not apply to long-term savings products.

Charges of Pillar II products: Few data available

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 IORPs (FSMA, 2023b): Total operating expenses reached 0.15% of reserves in 2019 (see Table BE.6).

Table BE.6 – Costs and charges of Belgian IORPs (% of assets)

Year	Admin. and mgt. fees
2010	0.16%
2011	0.17%
2012	0.19%
2013	0.16%
2014	0.14%
2015	0.15%
2016	0.15%
2017	0.13%
2018	0.15%
2019	0.14%
2020	0.18%
2021	0.15%

Data: FSMA; *Note:* Average fees of sectoral plans managed by glspliorp.

Charges in “Assurance Groupe” (Branch 21 contracts)

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

In addition, FSMA publishes information regarding costs of sector pension plans. The level of fees varies considerably, ranging from 0.5% to 17.9% of premiums in 2021. Half of the sector plans managed by insurance companies levied charges lower than 2% of premiums in 2021. This proportion remained stable since 2015. The management fees levied by sector pension plans represented on average 0.19% of reserves. 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.

Charges of Pillar III products: More transparent than Pillar II products

Pension savings funds

Historical data on charges for pension savings funds is difficult to obtain for investors. KIDs 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.

Using the prospectus of the 21 available pension savings funds for subscription in the Belgian

market, the following average yearly charges were calculated in 2022:

- Entry fees: 2.24% of initial investment;
- Management fees: 1.02% of AuM;
- Total Expenses Ratio represented on average 1.38% of AuM;
- No exit fees.

Table BE.7 summarises the TER of 21 available funds for subscription in the Belgium market since 2017. After three years of stability in charges, only three funds did not increase their TER in 2022.

Table BE.7 – Costs and charges of Belgian pension savings plans (% of assets unless otherwise specified)

Year	Entry fees*	Admin. and mgt. fees	Total Expense Ratio
2012	2.20%	1.00%	n.a.
2013	2.20%	1.00%	1.24%
2014	2.20%	1.00%	1.25%
2015	2.20%	1.00%	1.29%
2016	2.81%	0.93%	1.27%
2017	2.21%	0.94%	1.26%
2018	2.32%	0.93%	1.24%
2019	2.37%	0.95%	1.28%
2020	2.38%	0.95%	1.28%
2021	2.29%	0.95%	1.29%
2022	2.24%	1.02%	1.38%

Data: Financial statements of individual pension savings funds.

* % of contributions

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).

Table BE.8 – Costs and charges of Belgian long term insurance products (branches 21 and 23) (% of assets unless otherwise specified)

Year	Acquisition fees*	Admin. and mgt. fees
2002	3.65%	1.20%
2003	3.35%	1.80%
2004	3.15%	1.40%
2005	2.65%	0.50%
2006	4.05%	0.50%
2007	4.40%	0.45%
2008	5.40%	0.55%
2009	5.70%	0.45%
2010	5.25%	0.40%
2011	5.30%	0.40%
2012	4.75%	0.40%
2013	6.80%	0.45%
2014	6.50%	0.50%
2015	7.00%	0.45%
2016	6.85%	0.45%
2017	7.10%	0.50%
2018	6.90%	0.50%
2019	6.85%	0.45%
2020	7.50%	0.45%
2021	7.80%	0.50%

Data: Assuralia. * % of premiums

Taxation

Table BE.9 – Taxation of pension savings in Belgium

Product	Phase			Regime
	Contributions	Investment returns	Payouts	
IORP	Exempted	Exempted	Taxed	EET
"Assurance Groupe": Branch 21	Exempted	Exempted	Taxed	EET
"Assurance Groupe": Branch 23	Exempted	Exempted	Taxed	EET
Pension savings plans	Exempted	Exempted	Taxed	EET
Long term insurance products (Branches 21 and 23)	Exempted	Exempted	Taxed	EET

Data: Assuralia, Wikifin.be.

Taxation of occupational pension plans (pillar II)

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 savings

via a pension scheme: contribution and accrued interests are not taxed. Employees are taxed during the third phase on the benefits' payment.

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;
- *Institut National d'Assurance Maladie-Invalidité* (INAMI) 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.

Table BE.10 – 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 contributions	Benefits from employer's contributions	Benefits from employee's contributions	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% 62-64 years old: 16.5%	10% for contributions made since 1993	
+ local tax	+ local tax	+ local tax	+ local tax

Source: Assuralia, Wikifin.be.

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

Periodic annuities ⁶ Periodic annuities are considered as an income and are taxed at the applicable progressive personal income tax rate.

⁶For 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.

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 must be paid according to the rules applied to the lump sum payment. Then the retiree must pay a withholding tax of 15% on the annuity each year.

Taxation of Personal pension savings products (pillar III)

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 (see below and Table BE.11).

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). This ceiling on contributions to benefit from tax relief was frozen from 2020, and thus despite high inflation, the next indexation will take place in 2024.

From 2012 to 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 contributions into 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 save 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.

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 January 1, 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 BE.11 – 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	8% of the accumulated capital is levied (excluding participation to annual earnings); The taxation is based on a theoretical return of 4.75%; The saver can continue investing and enjoying tax relief until the age of 64; The accumulated capital is no longer taxed after the 60th birthday of the beneficiary.
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 anniversary)	8% of the accumulated capital is levied (excluding participation to annual earnings); The taxation is based on a theoretical return of 4.75%; To benefit from this lower taxation, the beneficiary has to stay at least 10 years in the fund and make at least five contributions.

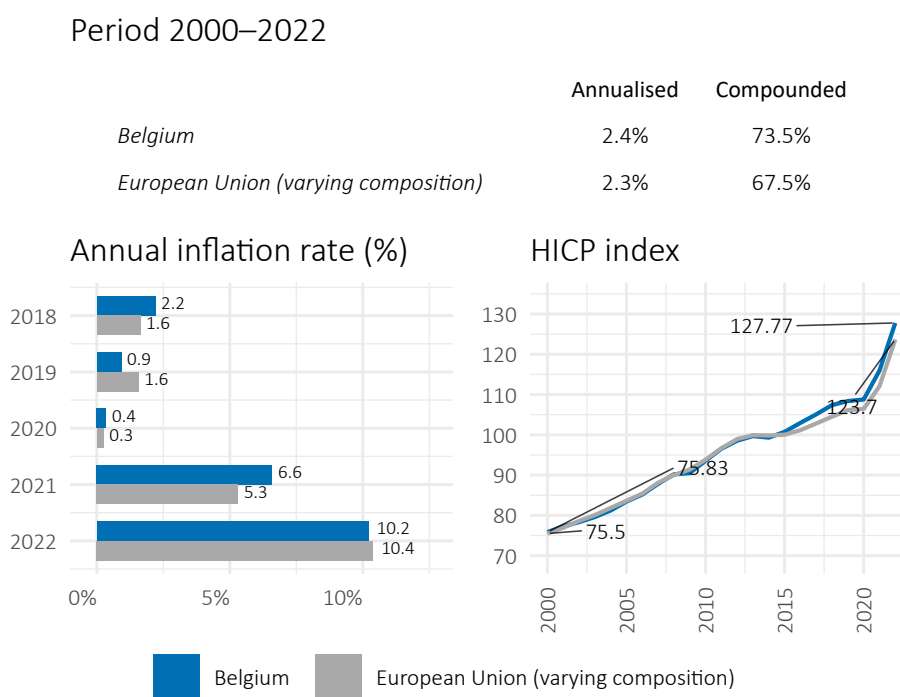
Source: Assuralia, Wikifin.be.

Performance of Belgian long-term and pension savings

Real net returns of Belgian long-term and pension savings

The evolution of inflation in Belgium used to follow the evolution of inflation in the EU. As in all European countries, the inflation started to increase in 2021 in Belgium, with the outbreak of the war between Ukraine and Russia. Then, the inflation continued to rise and sky-rocketed. The Belgian annual inflation rate became higher than the average EU inflation in 2021 (6.59% against 5.31%) and reached a similar level in 2022 (10.21% against 10.39%).

Figure BE.2 – Inflation in Belgium



Data: Eurostat, HICP monthly index (2015 = 100); Calculations: BETTER FINANCE

Pillar II: IORPs and “Assurances Groupe” contracts

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 IORPs 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 January 1, 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.

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 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 2022, the legal minimum guaranteed return remained steady at 1.75%.

Occupational pension plans managed by IORPs

In 2021, among the 169 pension plans managed by an IORP⁷, 142 had a promise of returns (DB plans) or were hybrid plans (Cash Balance, DC + rate), 27 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 -14.78% in 2022. 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 2022.⁸ PensioPlus reported the nominal and real net returns of IORP since 1985. These funds experienced 9 years of negative returns over 37 years. In 2022, the inflation impacted negatively the real net return and even in mid-term. The real net return becomes positive after 10 years of holding.

Over a 23-year period (2000-2023), occupational pension plans managed by IORPs experienced negative nominal returns before charges five times: in 2001, 2002, 2008, 2018 and in 2022. The annualised real net return is positive, but quite low (only 1%).

PensioPlus reported the average asset allocation of IORP at end-2022, as follows: 36% in equities, 48% in fixed-income securities (with the half invested in corporate bonds), 3% in real estate, 3% in cash and 10% in other asset classes. The proportion of fixed income assets still represented the largest part of assets and it increased while the proportion of equities decreased. The proportion of real estate increased significantly in 2022 (see Figure BE.4).

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

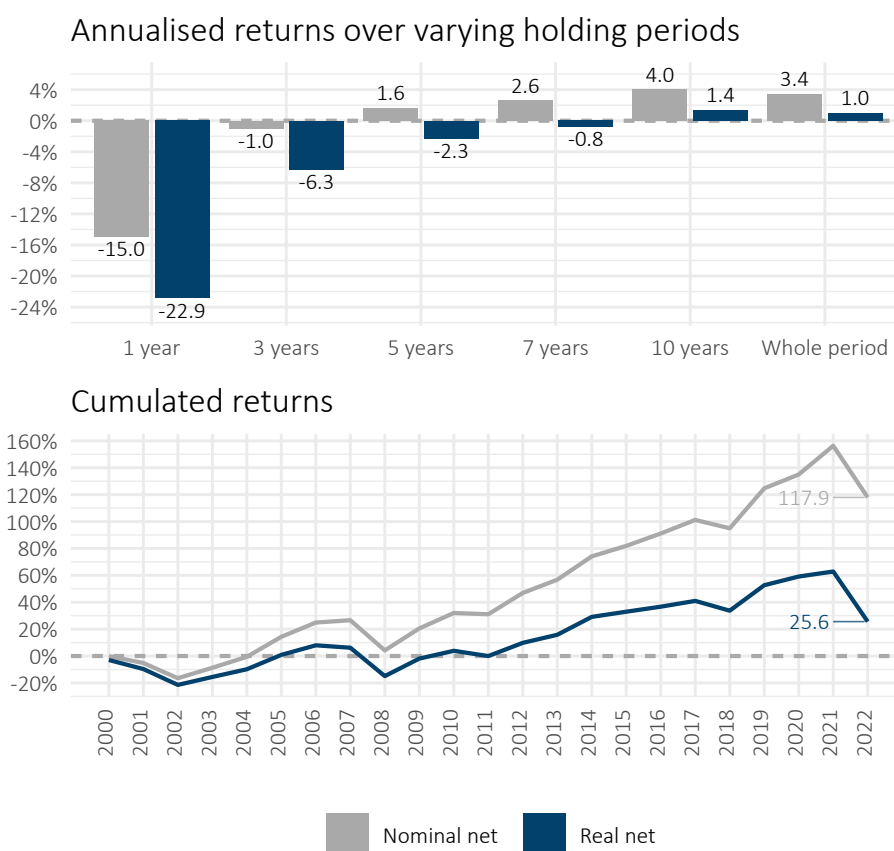
In the second pillar, most of pension products are managed by insurance companies through "Assurance Groupe" Branch 21 contracts. Since 2015, Assuralia no longer reports net returns after charges in percentage of the total reserves of "Assurance Groupe" Branch 21 contracts in its annual report this report.⁹ There is no information for years after 2014. "Assurance Groupe" Branch 21 occupational pension plans experienced a positive real net annual average return of 2.54% over 13 years (from 2002 to 2014) (see Figure BE.5).

⁷The 169 pension plans include both IORPs for the first and second pillars

⁸The participants to the annual Pensio's Plus survey represented 85% of the market share in terms of asset under management in 2022.

⁹In November 2022, Assuralia published its annual report including Statistics for the whole year 2021.

Figure BE.3 – Returns of Belgian IORPs (before tax, % of AuM)



Data: PensioPlus, Eurostat; Calculations: BETTER FINANCE.

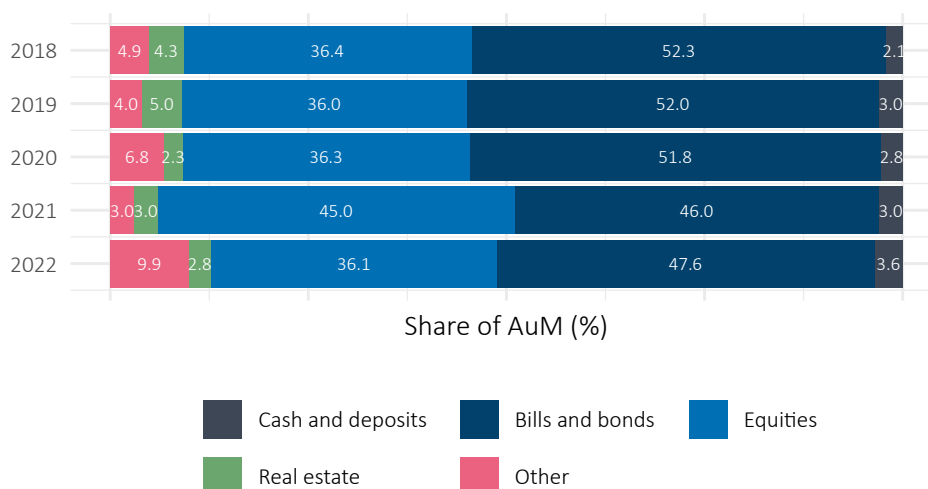
In May 2023, FSMA reported some information on returns in its bi-annual report on sector pension, company pension and PLCLS. It reported an average net return of 2.40% for sector pension funds managed through “Assurance Groupe” contracts in 2019 (against 1.66% in 2018, 2.63% in 2017, 2.91% in 2016 and 3.01% in 2015, see FSMA, 2023b). The downward trend that has been observed for several years is confirmed. One can observe the same assessment for PLCI conventions.

The minimum guaranteed return of PLCI varied between 0% and 4.75%. Some conventions subscribed before July 1, 1999, offer a guaranteed return of 4.75% on past and future premiums. A self-employed individual who subscribes to a PLCI convention had on average a return of 2.36% on his/her contracts in 2021 (against 2.5% in 2019, 2.64% in 2017 and 2.75% in 2015). It corresponded to an average guaranteed return of 1.53% and a participation to benefits equal to 0.48%.

Assuralia provided information on “Assurance Groupe” contracts with data at the end-2018. This information was not updated for years after 2018.

At the end-2018, “Assurance Groupe” contracts and individual contracts through Branch 21 con-

Figure BE.4 – Allocation of Belgian IORPs' assets



Data: PensioPlus; Calculations: BETTER FINANCE.

tracts¹⁰ 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.

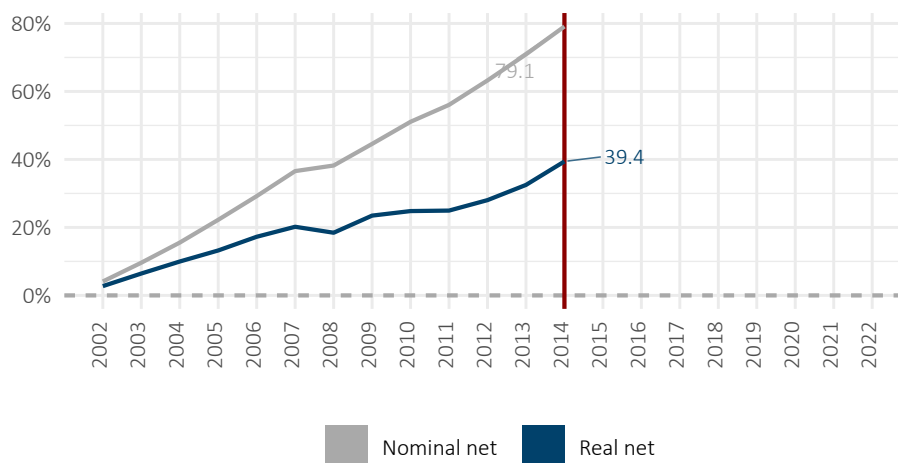
With the decline in the return on the Belgian 10-year government bonds since 2011, insurance companies were forced to decrease the guaranteed return offered to new contributions on “Assurance Groupe” Branch 21 contracts. However, insurance companies continue to guarantee the previous returns on the past 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.

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

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

¹⁰The insurance law of March 13, 2016 (Solvency II law) requires that investments relating to “Assurance group” contracts and individual life insurance must be managed together. In this way, the insurer benefits from economies of scale and more possibilities for diversification, which should benefit the return.

**Figure BE.5 – Cumulated returns of Belgian “Assurance Groupe”:
Branch 21 (before tax, % of AuM)**



Data: Assuralia, Eurostat; Calculations: BETTER FINANCE.

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 must pay the difference.

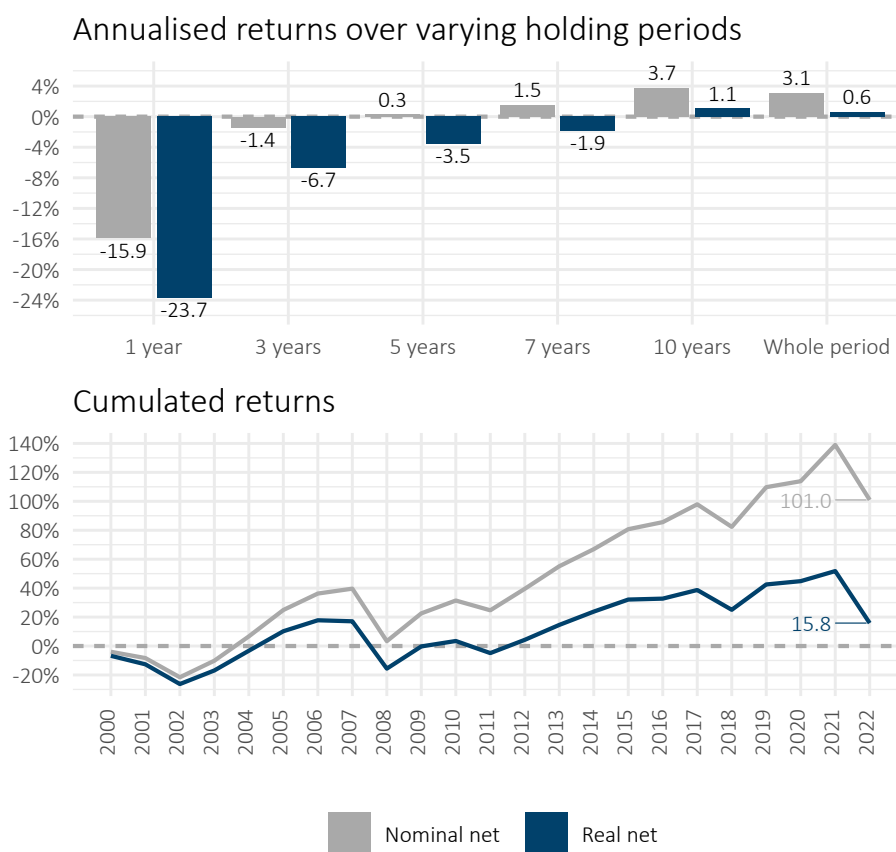
Pillar III: Personal pension savings products (pension savings plans and long-term insurance products)

Pension savings funds managed by asset management companies

The BEAMA provides quarterly data on pension savings funds. The most recent data regarding their returns was on an annual basis at end-2022. 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 figures (see Figure BE.6) show the average returns of all available funds for subscription in the Belgian market from 2000 to 2022. Pension savings plans and IORPs have a performance that evolved similarly. Pension savings plans experienced negative performance in the same years (2002, 2008, 2011, 2018 and 2022). High inflation impacted negatively the annualised real net returns which are positive after 10 years of holding like IORP. Unlike occupational pension plans, these pension savings funds are not obliged to pay a guaranteed return to retirees. Over the 22-year period (2000-2022), they delivered relatively similar nominal returns to occupational pension plans managed by IORPs, equal to 0.64%.

Figure BE.6 – Returns of Belgian Pillar III pension savings plans (before tax, % of AuM)



Data: BEAMA, Eurostat; Calculations: BETTER FINANCE.

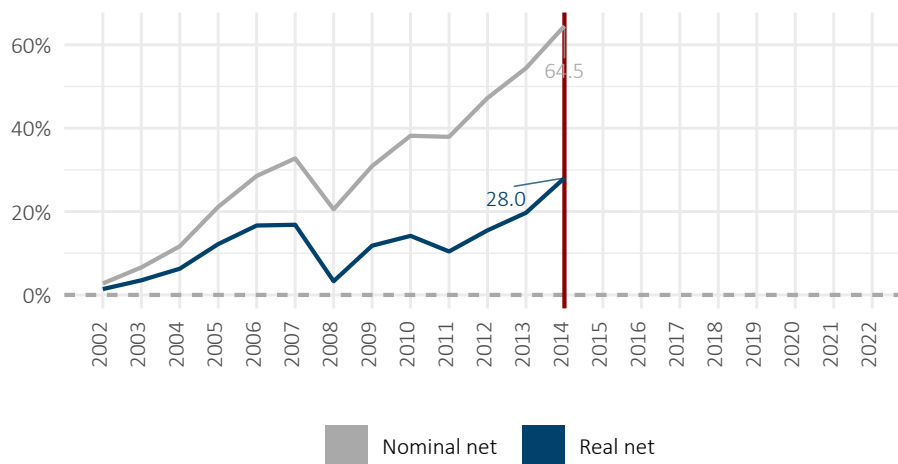
Pension savings insurance (Branch 21 contracts) and long-term savings products (Branch 23 contracts)

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, since 2015 Assuralia no longer provides on pension savings insurance and long-term savings products in its annual publication. Over the whole period from 2002-2014, the real annual average return after charges remained positive to 1.94% for Branch 21 contracts and to 1.57% 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.

Figure BE.7 represents the returns of Belgian insurance products (Branch 21 and 23) dedicated

to prepared retirement. It is the average nominal and real net returns of Branch 21 and Branch 23 contracts from 2002 to 2014.

Figure BE.7 – Cumulated returns of Belgian long-term insurance products (branches 21 and 23, before tax, % of AuM)



Data: Assuralia, Eurostat; Calculations: BETTER FINANCE.

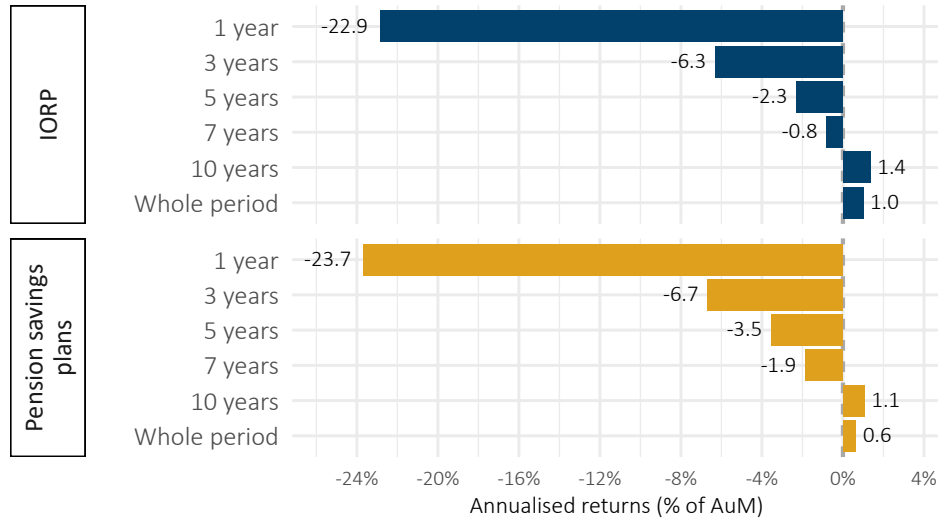
Returns in comparison

Figures BE.8 and BE.9 summarize annualised returns of Belgian long-term and pension vehicles over varying holding periods and show their cumulated returns.

Performance of IORPs and pension savings funds within the third pillar evolved similarly over the time. Despite some years with negative performance, these products offered a positive real net return in a long-term period (22 years) which are quite low, respectively 1% and 0.64%.

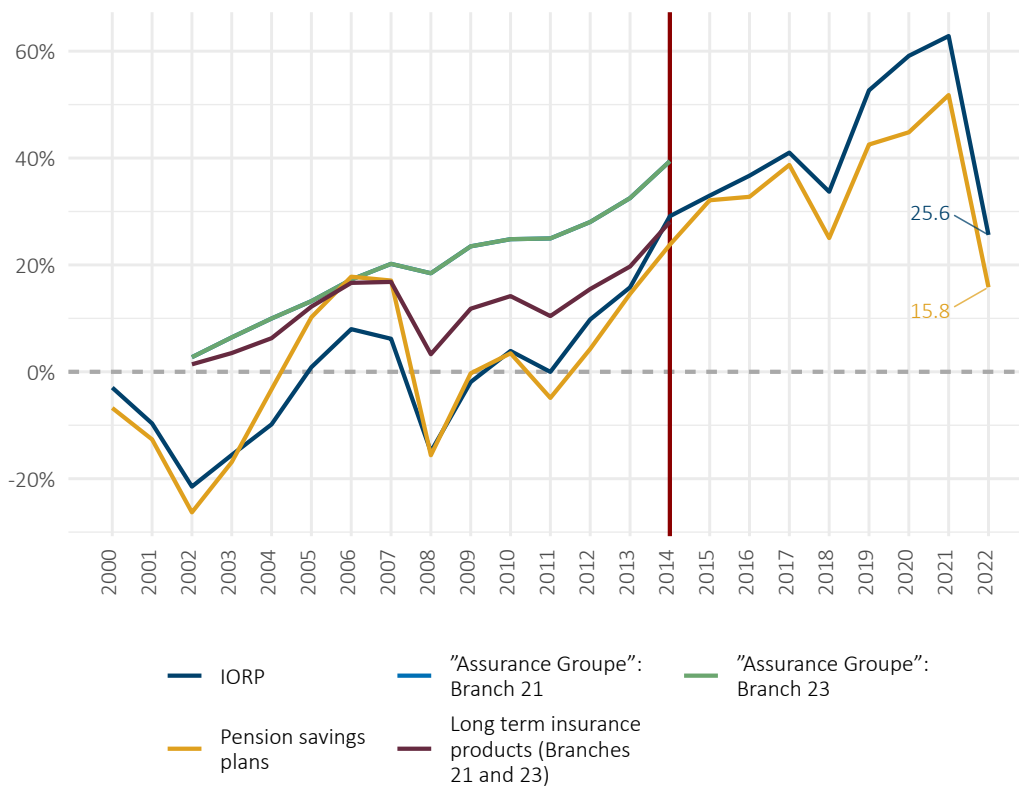
Information on returns of insurance products within the second and third pillar are fragmented. It is more difficult to see their real performance in the long run. It is interesting to remind that “Assurance Groupe” products offered a guaranteed minimum return (see returns of occupational plans managed by insurance companies on Page 81).

Figure BE.8 – Annualised returns of Belgian long-term and pension vehicles over varying holding periods (before tax, % of AuM)



Data: PensioPlus, BEAMA, Eurostat; Calculations: BETTER FINANCE.

Figure BE.9 – Cumulated returns of Belgian long-term and pension savings vehicles (2000–2022, before tax, % of AuM)



Data: PensioPlus, Assuralia, BEAMA, Eurostat; Calculations: BETTER FINANCE.

Do Belgian savings products beat capital markets?

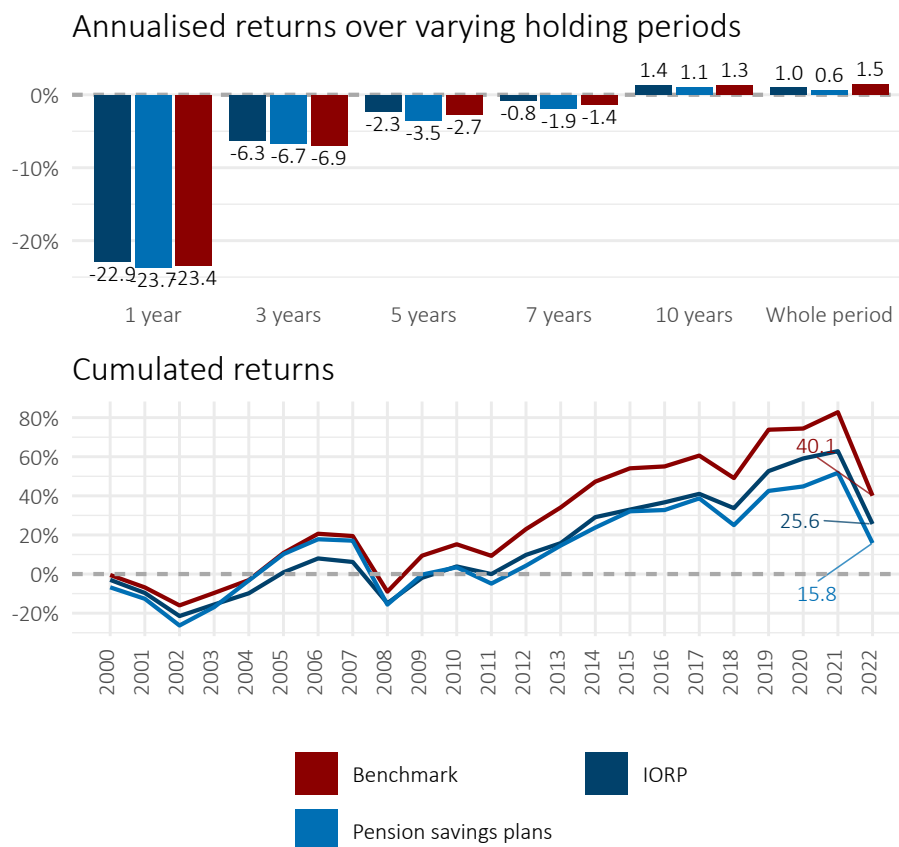
In the long run IORPs (pillar II) and pension savings plans (pillar III) evolved in the same way. Large parts of their assets are invested in equities and in bonds, it is interesting to compare their evolution with a benchmark portfolio with equal holdings of equity and bonds (see Table BE.12 and methodology on ?? for more details). Both IORPs and pension savings funds have the same trend as the benchmark over the period 2000-2022. Nevertheless, the benchmark and pension savings plans had almost the same performances from 2003 to 2007 (see Figure BE.10). Then, the gap of cumulative performance increased and it widened between 2018 and 2021, as the benchmark's performance increased faster over this period. Over the same period, the gap of cumulative performance between the IORPs and the benchmark is less important. Thus, the annualised returns of IORPs are higher than that of the benchmark over varying periods, except over the whole period. Over the period 2002-2022, the annualised return of IORPs is higher of 0.48 percentage point. While the annualised return of pension savings plans is lower of 0.84 percentage point.

Table BE.12 – Capital market benchmarks to assess the performance of Belgian pension vehicles

Product	Equity index	Bonds index	Allocation
IORP	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	50.0%–50.0%
Pension savings plans	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	50.0%–50.0%

Note: Benchmark portfolios are rebalanced annually.

Figure BE.10 – Performance of Belgian IORPs against a capital market benchmark (returns before tax, after inflation, % of AuM)



Data: PensioPlus, BEAMA, Eurostat; Calculations: BETTER FINANCE.

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 23-year period (2000-2023), occupational pension funds managed by IORPs (pillar II) and pension savings funds (pillar III) had a real annualised performance before taxation of 1% and 0.64% respectively. A benchmark composed of 50% of equities and 50% of bonds overperformed both IORPs and pension savings funds over the whole period. High inflation impacted negatively the performance of both products.

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%. Since 2016, guaranteed minimum return of new “Assurance Groupe” Branch 21 contracts decreased year after year and is now below 3%. Nevertheless, information on return for and individual life-insurance contracts within the third pillar are not publicly available since 2014.

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Country Case 3

Bulgaria

Резюме

В продължение на няколко поредни години Националният осигурителен институт (НОИ) не разкрива статистическите си данни за пенсионните трансфери, които са съществена част от информацията за изчисляване на нетната доходност на частните дългосрочни и пенсионни спестявания. Нашите експертни становища изискват тримесечни данни за трансферите от II стълб към българската държавна пенсионна система (I стълб). Тази информация обаче не само че не е публично достъпна, но и не се предоставя при поискване, въпреки твърденията на НОИ, че такава информация може да бъде получена чрез заявки чрез онлайн формуляри и специален портал за заявки за допълнителна информация на уебстраницата на НОИ.

BETTER FINANCE направи многократни опити да получи такава информация от НОИ чрез директна кореспонденция и онлайн запитвания, но продължаващата липса на прозрачност при публикуването на такава статистическа информация публично или при поискване принуди BETTER FINANCE да не направи оценка на настоящата реална нетна доходност на пенсионните спестявания в България. Дългосрочната реална възвръщаемост, която бъдещите пенсионери получават по сметките си в пенсионните схеми с дефинирани вноски, е от решаващо значение за способността на пенсиите им по II и III стълб реално да допълват техните пенсионни доходи. Надяваме се, че в бъдещите итерации на този доклад НОИ ще публикува такива данни и ще предостави така необходимата информация на нашите експерти за извършване на оценката на реалната нетна доходност на пенсионните спестявания в страната.

Summary

For a number of consecutive years, the Bulgarian National Social Security Institute (NSSI) does not disclose its statistical data on pension transfers, which is essential piece of information in calculating the net returns of private long-term and pension savings. Our expert contributions require quarterly data on the transfers from Pillar II to the Bulgarian State pension system (Pillar I). However, not only is this information not publicly available, it is also not shared upon request, despite claims by NSSI that such information can be obtained through requests via online forms and a dedicated portal for additional information requests on the NSSI webpage.

BETTER FINANCE has made multiple attempts at obtaining such information from the NSSI, through direct correspondence and online requests, but the continued lack of transparency in publishing such statistical information publicly or upon request has forced BETTER FINANCE not to assess the current real net returns of pension savings in Bulgaria. 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. We hope that in the future iterations of this report, the NSSI will publish such data and provide the much needed information for our experts to conduct the assessment of the real net return of pension savings in the country.

Real returns 2022

NA...

Country Case 4

Croatia

Sažetak

Hrvatska je stvorila tipični mirovinski sustav s 3 stupa, gdje je državno organizirani mirovinski stup temeljen na PAYG-u (preraspodjela doprinosa s radnog na stariju populaciju) nadopunjen obveznim kapitaliziranim mirovinskim sustavom (II. stup) i subvencioniranim (izravno i neizravno) dobrovoljna mirovinska štednja (III. stup).

Povećanje obuhvata radno aktivnog stanovništva do II. stupa nadoknađuje niska pokrivenost unutar III. stup. To bi moglo donijeti sve veći problem niskog životnog standarda za stanovništvo koje odlazi u mirovinu u budućnosti budući da I. stup osigurava samo 30% stope zamjene, a preostala dva stupa neće moći dodati značajne izvore za pojedince tijekom umirovljenja. Čak i ako je učinak oba kapitalizirana stupa prilično solidan, prilično mali doprinosi i nizak omjer pokrivenosti III. stupa postavlja pitanja o primjerenosti mirovinskog sustava u Hrvatskoj.

Sveukupno, stvarni neto prinosi mirovinskih fondova bili su negativni u 2022. Ako se uzme u obzir cijelo analizirano razdoblje od 21 godine, godišnji prinosi su u pozitivnom području za proizvode II. stupa, ali negativni za proizvode III. stupa, posebno zbog visokih naknada i naknade.

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 (pillar II) and by subsidized (directly as well as indirectly) voluntary pension saving scheme (pillar III).

Increasing coverage ratio of working population by the second pillar is offset by low coverage within the third pillar. This might bring up the increasing problem of low living standard for retiring population in future as the first 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 third pillar raises questions about the adequacy of the pension system in Croatia.

Overall, the real net returns of pension vehicles was negative in 2022. If the entire analysed period of 21 years is considered, the annualized returns are in positive territory for Pillar II products, but negative for Pillar III products especially due to the high fees and charges.

Real returns 2022

Mandatory pension funds: -16.09%

Voluntary pension funds: -17.34%

Introduction: The Croatian pension system

There have been no major changes in the pension system in Croatia in 2022. However, pension system is a subject of national Recovery and Resilience Plan where the overarching objective of the reform is to improve pension adequacy and sustainability by incentivising longer working lives, strengthening the second pension pillar and increasing the lowest pensions (Council of the European Union, 2021). In 2022, state pensions have increased due to the high inflation.

Table HR.1 – Long-term and pension savings vehicles analysed in Croatia

Product	Pillar	Reporting period	
		Earliest data	Latest data
Mandatory pension funds	Occupational (II)	2002	2022
Voluntary pension funds	Voluntary (III)	2002	2022

Table HR.2 – Annualised real net returns of Croatian long-term and pension savings vehicles (before tax, % of AuM)

	Mandatory pension funds	Voluntary pension funds
Reporting period	2002-2022	2002-2022
1 year (2022)	-16.1%	-17.3%
3 years (2020–2022)	-5.0%	-7.8%
5 years (2018–2022)	-1.4%	-4.5%
7 years (2016–2022)	1.0%	-3.9%
10 years (2013–2022)	2.2%	-1.4%
Whole period	2.2%	-0.6%

Data: HANFA, 2023; Calculations: BETTER FINANCE.

The performance of private pensions (mandatory as well as voluntary) was negative in 2022 both in nominal and real terms mainly due to the sell-off on the markets and levelled inflation.

Pension system in Croatia: An overview

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:

- First pillar — compulsory pension insurance based on generational solidarity;
- Second pillar — compulsory pension insurance based on individual capitalized savings;
- Third pillar — voluntary pension insurance based on individual capitalized savings.

Key facts on the design of the Croatian Pension system is presented in Table HR.3.

Table HR.3 – Overview of the Croatian pension system

Pillar I	Pillar II	Pillar III
Mandatory state pension	Mandatory funded pensions	Voluntary fully funded DC pensions
PAYG principle	Individual accounts	Individual accounts
Coverage: 89.6%	Coverage: 89.63%	Coverage: 22.02%
Managed by the Social Insurance Company	Managed by Pension Assets Management Companies (PAMCs)	
Quick facts		
Retirement age: 65 years for men; 63 years for woman (2022)		
A relatively high old-age dependency ratio of 35.6% in 2022		
Average gross replacement ratio = 28.59% / Average net replacement ratio = 39.00%		
Working population: 1 804 000		
Number of old-age beneficiaries: 1 804 000		
Gross average monthly salary: €1 427		
Net average monthly salary: €1 046		
Net average pension: €408		
Number of pension companies:	4	4
Number of pension funds:	12	28
Number of members (savers):	2 179 051	397 267

Data: Mirovinsko, 2023.

First pillar: PAYG scheme

The first pillar of pension insurance is called a pillar of generational solidarity based on PAYG (re-distributional) 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 Act, 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 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 Act¹ 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 first pillar amounts to 20% of gross salary, while the contribution rate for first pillar for insured persons who are insured in both compulsory pillars (first and second pillar) amounts to 15%.

The implementation of pension insurance based on generational solidarity falls within the competence of the *Hrvatski Zavod za Mirovinsko Osiguranje* (HZMO), the Croatian Pension Insurance Institute. The HZMO is the competent institution for exercising the right exclusively from pension insurance based on generational solidarity (first pillar).

The right to an old-age pension payable from the first 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 December 31, 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 January 1, 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 realized, 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

¹<https://zakon.hr/z/365/Zakon-o-doprinosima>

time after the age of 65, and have 35 years of qualifying periods, by 0.34% for each month 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.

Second pillar: Mandatory pension funds

The second pillar has been effectively introduced starting January 2002. The second 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.

The second pillar includes compulsory insured persons of up to 40 years of age. The rate of contributions for persons insured in the second 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 compulsory insured in the first and the second pillar and insured persons who voluntarily chose the second 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 favourable for them (opt-out system). Insured persons can:

- Leave the second pillar and get the pension exclusively from the first pillar;
- Stay in the second pillar and get the pension from both pillars (in this case, the pension from the first 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 second 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 Funds² or the phase of pension payouts regulated by the Act on Pension Insurance Companies.³ The Central Register of Insured Persons (REGOS) is the competent institution for insurance based on individual capitalized savings (second 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 – second pillar is realized based on the Decision on Retirement Benefits issued by the 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 first pillar or pension from both pillars through a personal statement to the REGOS.

For a member of the fund to choose a more favorable pension, REGOS will collect informative pension calculations from the 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 (first 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 the second 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 the first and second pillars, HZMO will determine the basic pension from compulsory 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 than 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 second 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

²<https://www.zakon.hr/z/708/Zakon-o-obveznim-mirovinskim-fondovima>

³<https://www.zakon.hr/z/712/Zakon-o-mirovinskim-osiguravaju%C4%87im-dru%C5%A1tvima>

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

Third pillar: Voluntary fully funded DC pensions

Voluntary pension funds were also introduced in 2002 and completed the three-pillar system. The third 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 capitalized 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 capitalized 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 third 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 Funds⁴ 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 distribu-

⁴<https://www.zakon.hr/z/709/Zakon-o-dobrovoljnim-mirovinskim-fondovima>

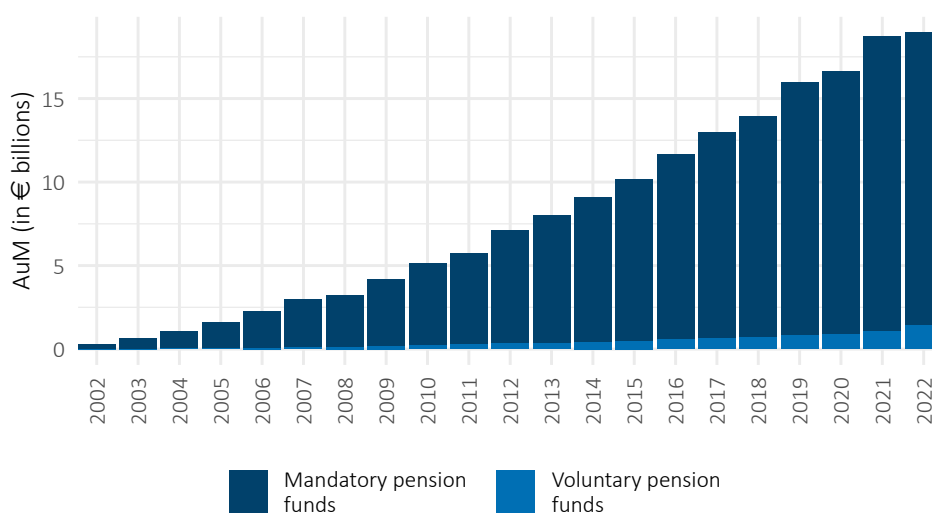
tion. The Croatian Financial Services Supervisory Agency (HANFA) provides supervision over the business of pension insurance companies.

Long-term and pension savings vehicles in Croatia

Croatian pension vehicle in Pillar II and Pillar III are very similar what is considering the design and operation. The differences are in the strictness of the regulation, while the Pillar III pension funds have more liberate regulation.

Figure HR.1 below presents the amount of savings under management for both pillars, in billion euros.

Figure HR.1 – AuM of Croatian long-term and pension savings vehicles



Data: HANFA and SeeCapitalMarkets, 2023; Calculations: BETTER FINANCE.

When inspecting the assets under management, Pillar II pension funds are clearly dominating the market as the contributions flow directly from the mandatory social insurance contributions and cover basically entire working population. Pillar III pension funds are significantly smaller than Pillar II peers, while covering only 20% of working population contributing smaller amounts regularly.

Mandatory pension funds

There have been 4 mandatory pension asset management companies operating in Croatia in 2022:⁵

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

⁵Source: HANFA, 2023.

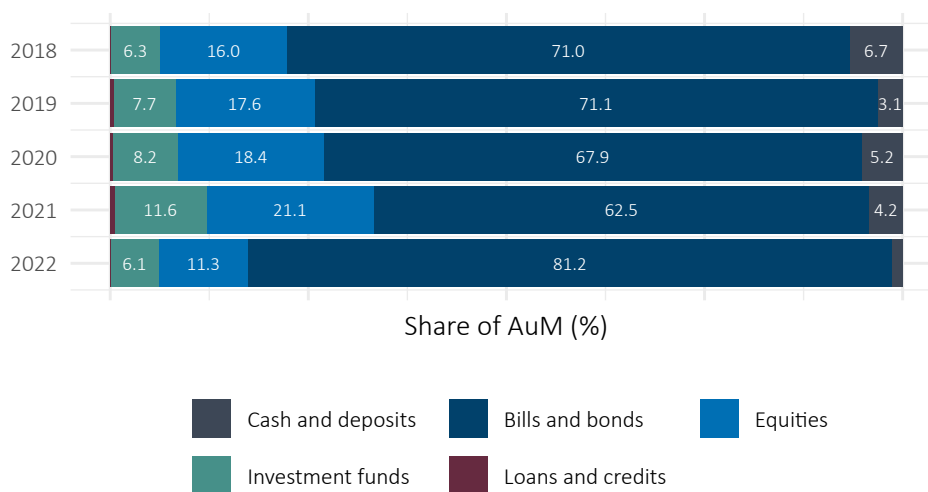
4. Raiffeisen društvo za upravljanje obveznim i dobrovoljnim mirovinskim fondovima dioničko društvo

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 in Figure HR.2.

Figure HR.2 – Allocation of Croatian mandatory pension funds’ assets



Data: HANFA, 2023; Calculations: BETTER FINANCE.

Considering the portfolio structure of all mandatory pension fund, most of the investments (almost 80%) are allocated in government and municipal bonds. This could also explain rather smaller, but still negative, nominal returns in 2022.

Third pillar: Voluntary pension funds

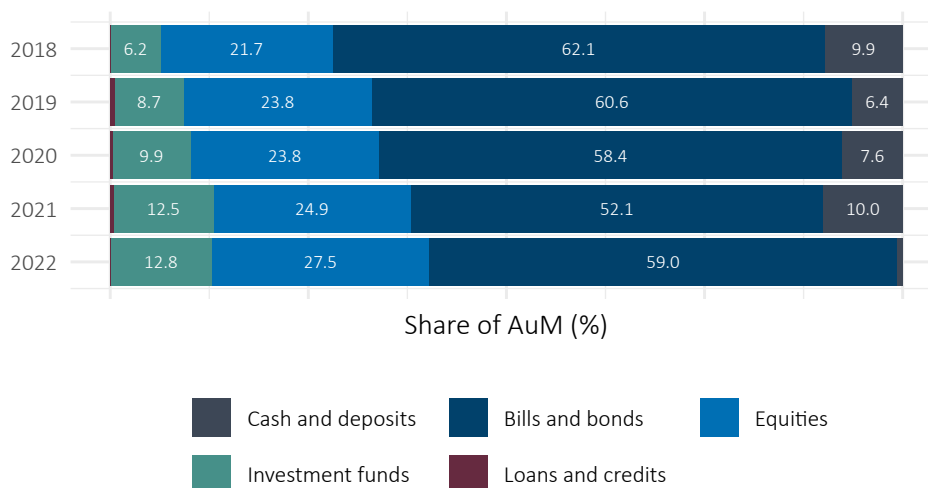
Voluntary pension savings scheme offers more flexibility for providers. There are 4 voluntary pension asset management companies in Croatia:

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 third 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, 2021), there have been available data for 17 closed-ended funds and 8 open-ended voluntary pension funds offered to savers. However, open-ended funds manage more than 80% of all pillar III assets.

The portfolio structure of Pillar III pension funds is presented in Figure HR.3.

Figure HR.3 – Allocation of Croatian voluntary pension funds' assets



Data: SeeCapitalMarkets, 2023; Calculations: BETTER FINANCE.

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

Charges

Charges of mandatory pension funds

Croatian pillar II 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 the second pillar is presented below.

Table HR.4 – Costs and charges of Croatian mandatory pension funds (% of assets)

Year	Total ongoing charges
2003	0.92%
2004	0.92%
2005	0.98%
2006	0.99%
2007	1.12%
2008	0.89%
2009	0.82%
2010	0.79%
2011	0.69%
2012	0.57%
2013	0.57%
2014	0.57%
2015	0.57%
2016	0.51%
2017	0.44%
2018	0.41%
2019	0.38%
2020	0.35%
2021	0.32%
2022	0.31%

Data: Funds' documentation.

Pillar II mandatory pension funds do exhibit rather complex fee structure, however the total cost indicator is presented in annual financial report of each pension fund. In 2022, mandatory pension fund providers charge management fee of 0.27% p.a., depository fee on average of 0.015% p.a. of total assets under management and entry fee of 0.5% of contributed amount. The exit fee is determined based on the duration of the agreement between the saver and provider. If the duration of the saving agreement is less than 1 year, usually the exit fee of 0.8% of savings is charged. If the duration of the agreement is more than 3 years, no exit fee can be charged.

The year 2022 brought further reduction and diversification of fees based on the fund's strategy. Introduction of low-cost passively managed pension funds has spurred price battle after 2018, however divergence between the fees started to emerge in 2021 with an average fee level of 0.54% p.a.

Charges of voluntary pension funds

Compared to the mandatory pension funds' level of fees, voluntary pension funds fees are significantly higher and amount on average more than 2% p.a. on assets under management.

Obtaining data for voluntary pension funds is quite challenging and only average cost ratio for all voluntary pension funds is available. 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. The average cost ratio has been calculated using the voluntary pension funds' financial statements.

**Table HR.5 – Costs and charges of Croatian voluntary pension funds
(% of assets)**

Year	Total ongoing charges
2003	7.69%
2004	3.18%
2005	2.05%
2006	1.89%
2007	1.82%
2008	1.96%
2009	2.01%
2010	2.04%
2011	2.05%
2012	1.97%
2013	1.96%
2014	1.98%
2015	2.01%
2016	2.04%
2017	2.05%
2018	2.05%
2019	2.04%
2020	2.04%
2021	2.03%
2022	2.04%

Data: Funds' prospectuses.

Pillar III costs and charges are significantly higher compared to the mandatory pension funds offered in Pillar II, when the fee structure is regulated and capped. Higher overall costs do negatively impact the overall performance of Pillar III pension funds.

Taxation

Taxation of the mandatory pension scheme (Pillar II) 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 al-

located to mandatory pension funds, 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 (Pillar III) 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 the third pillar in the amount of 15% of the annual payment, up to a maximum of HRK 5 000.00 (€672), that is, the highest state incentive can amount to HRK 750.00 (€101). Every resident can exercise the right to receive incentives only during the period that he/she pays compulsory pension insurance. 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 Pillar III of pension insurance up to the monthly amount of HRK 500 (67.2 Eur), that is, up to HRK 6 000 (€806.5) a year, are not considered a salary. That amount is considered a tax-recognized expense or employer's expense. During the pay-out phase, pension benefits are subject to personal income tax. Therefore, we can say that the taxation scheme for Pillar III pension savings is EET with exceptions.

Table HR.6 – Taxation of pension savings in Croatia

Product	Phase			Regime
	<i>Contributions</i>	<i>Investment returns</i>	<i>Payouts</i>	
Mandatory pension funds	Exempted	Exempted	Taxed	EET
Voluntary pension funds	Exempted	Exempted	Taxed	EET

Data: Own elaboration, 2023.

Performance of Croatian long-term and pension savings

Real net returns of Croatian long-term and pension savings

The ability of the pension vehicle to maintain the buying power is the key feature for savers. Especially in countries, where the historical inflation is higher, the pension providers must adjust the portfolio structure to be able to keep up with local inflationary pressures.

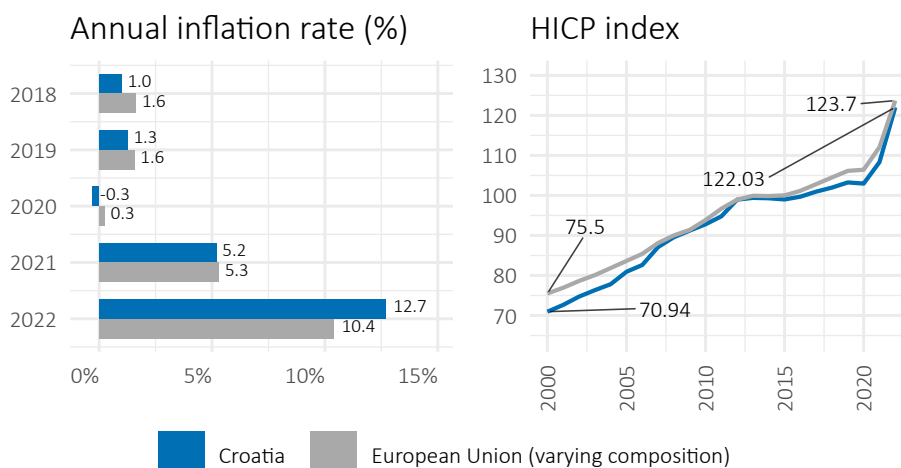
Croatian mandatory pension funds have been able to beat the inflation over the analysed period of 2002 – 2022. This is not the fact for the voluntary pension funds, where the overall cumulative performance after the inflation was negative.

Performance of mandatory and voluntary pension funds before fees and inflation is quite similar. However, when the charges and inflation is applied, the differences occur where the voluntary pension funds record lower returns.

Figure HR.4 – Inflation in Croatia

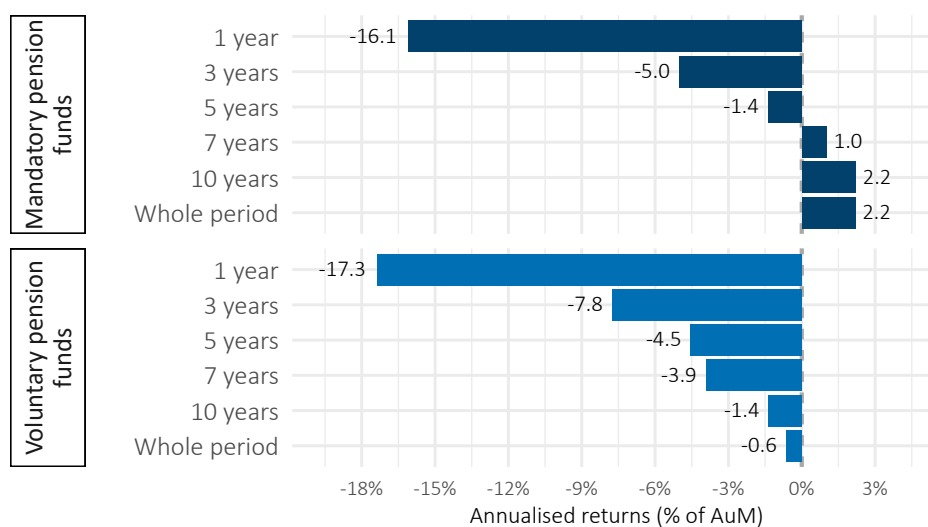
Period 2000–2022

	Annualised	Compounded
Croatia	2.6%	82.2%
European Union (varying composition)	2.3%	67.5%



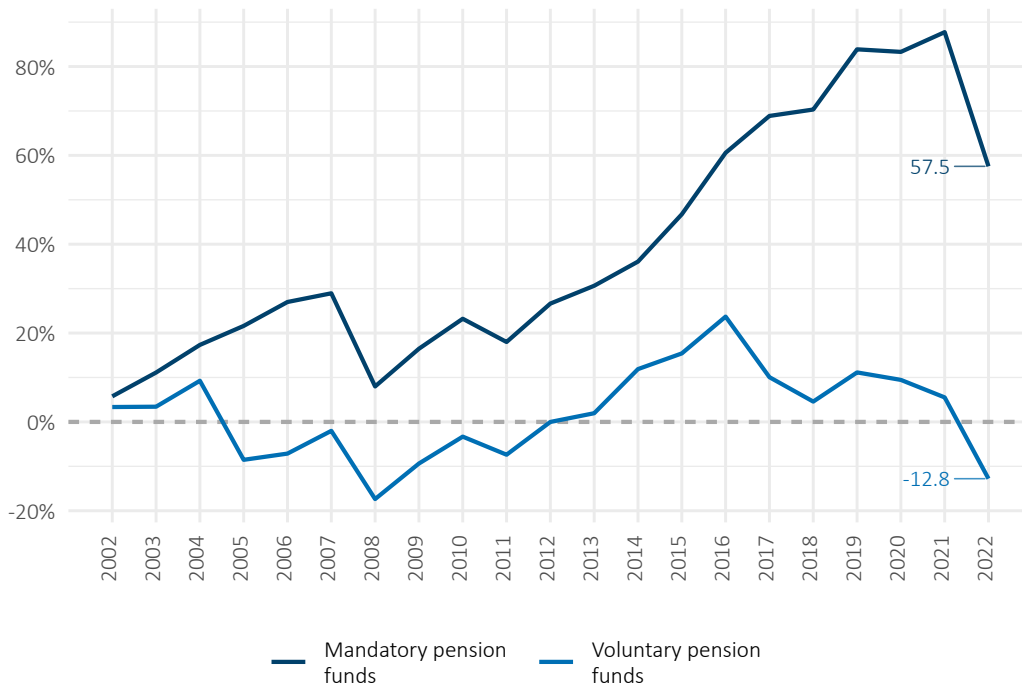
Data: Eurostat, HICP monthly index (2015 = 100); Calculations: BETTER FINANCE

Figure HR.5 – Annualised returns of Croatian long-term and pension vehicles over varying holding periods (before tax, % of AuM)



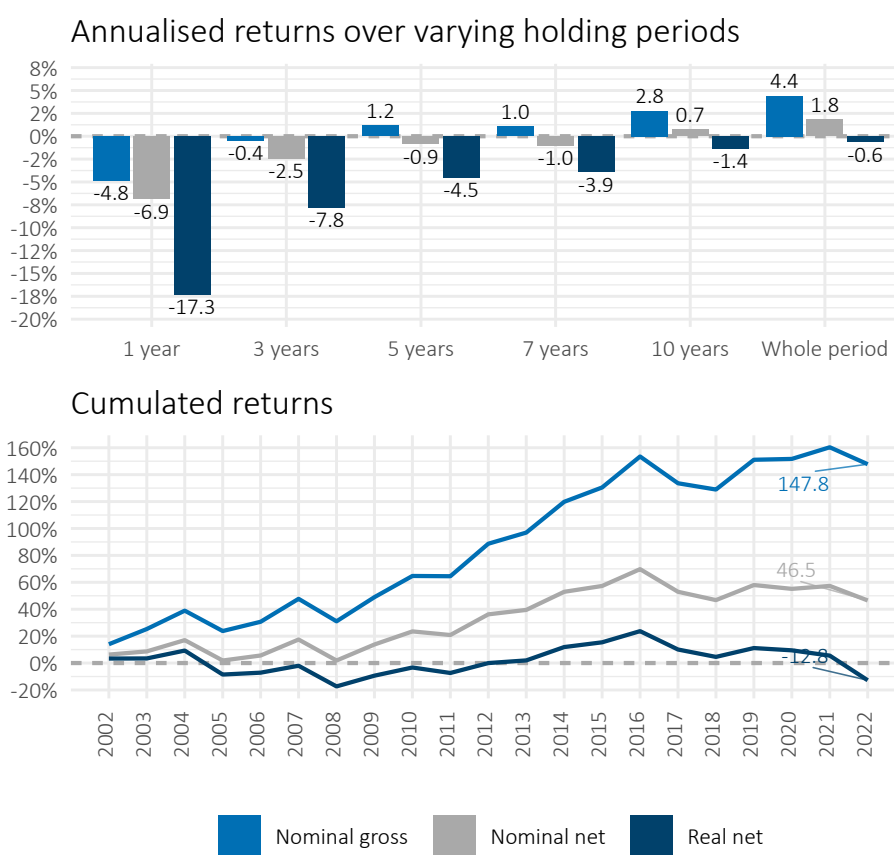
Data: HANFA, SeeCapitalMarkets, Eurostat; Calculations: BETTER FINANCE.

Figure HR.6 – Cumulated returns of Croatian long-term and pension savings vehicles (2002–2022, before tax, % of AuM)



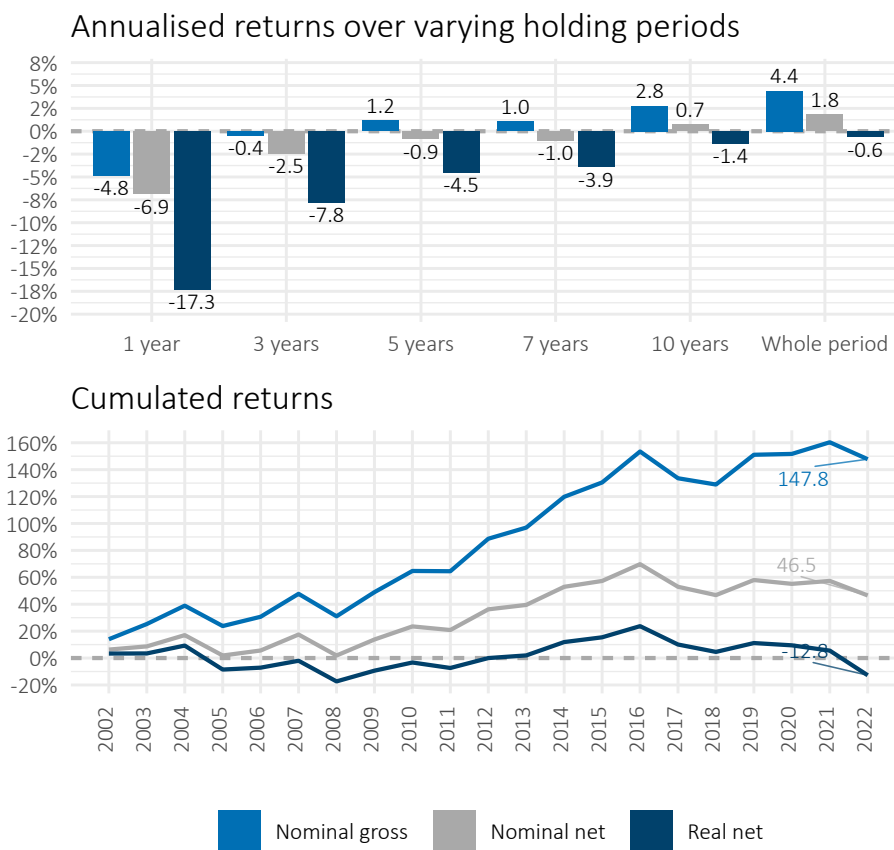
Data: HANFA, SeeCapitalMarkets, Eurostat; Calculations: BETTER FINANCE.

Figure HR.7 – Returns of Croatian mandatory pension funds (before tax, % of AuM)



Data: HANFA, Eurostat; Calculations: BETTER FINANCE.

Figure HR.8 – Returns of Croatian voluntary pension funds (before tax, % of AuM)



Data: SeeCapitalMarkets, Eurostat; Calculations: BETTER FINANCE.

Do Croatian savings products beat capital markets?

In this section, we compare the performance of the mandatory and voluntary pension funds in Croatia to the performance of relevant capital market benchmarks. By analysing the portfolio structure of pension funds, we have selected the a balanced benchmark portfolio (25% equity and 75% bonds) based on two pan-European indices.

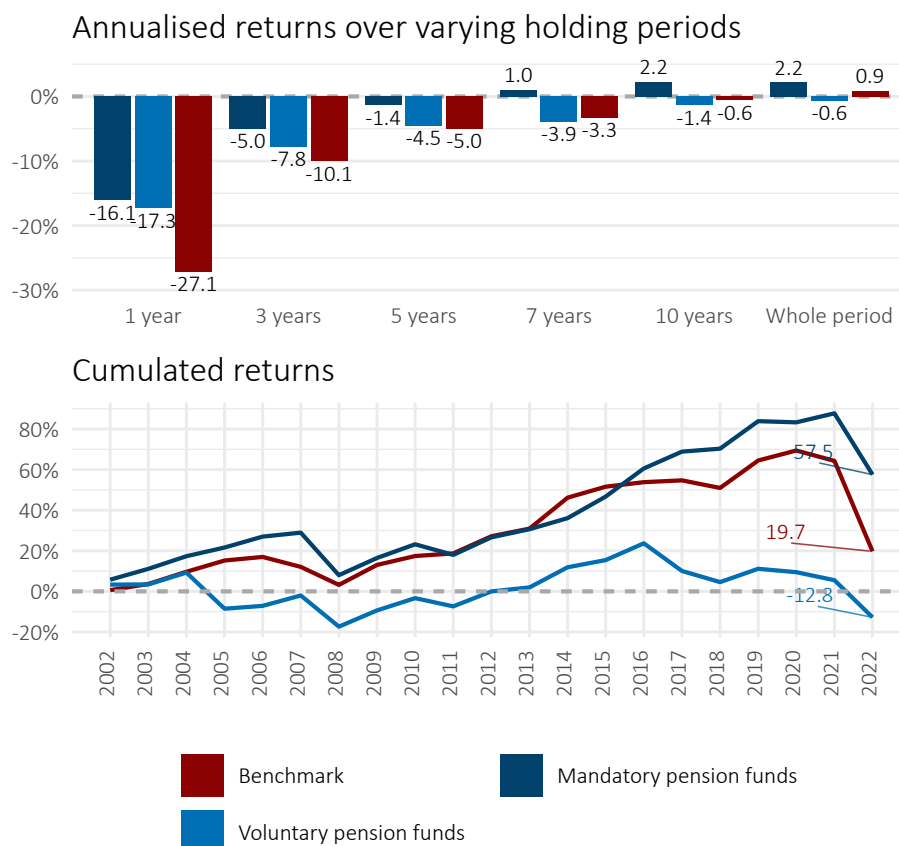
Table HR.7 – Capital market benchmarks to assess the performance of Croatian pension vehicles

Product	Equity index	Bonds index	Allocation
Mandatory pension funds	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	15.0%–85.0%
Voluntary pension funds	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	25.0%–75.0%

Note: Benchmark portfolios are rebalanced annually.

Croatian mandatory pension funds have been able to maintain the buying power of savings and beat the respective market benchmark. This is quite visible after the year 2015, when the charges started to drop below 0.5% p.a. and the portfolio structure of the funds became more stable and passively oriented. The opposite is true for the voluntary pension funds, which have not been able to keep up with the market benchmark and on top of it, they were below the inflation index. The main reason can be found in the quite conservative portfolio structure and really high fees compared to other pension vehicles.

Figure HR.9 – Performance of Croatian mandatory and voluntary pension funds against a capital market benchmark (returns before tax, after inflation, % of AuM)



Data: HANFA, SeeCapitalMarkets, Eurostat; Calculations: BETTER FINANCE.

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 20 years, however the last year (2022) did drag the real returns significantly lower.

Pillar II scheme is compulsory for the working population and thus the coverage ratio as well as benefit ratio will be expected to rise in future. The problem could be seen in rather low coverage ratio within the III. pillar, where only 20% of working population saves for retirement and the pension vehicle do not offer cost-effective way of securing the future income.

Understating the weak points of Croatian pension system (low coverage ratio and relatively low

contribution rates for funded schemes), the pension system could be improved by:

- 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;
- increase indirect state support and further enhance the tax exemption for III. pillar contributions in order to increase the coverage ratio;
- allow more open competition for voluntary pension funds from the side of PEPP products that would offer cost-effective and transparent products.

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.

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Country Case 5

Denmark

Resumé

Denmark har et stærkt og anerkendt pensionssystem. Formålet med pensionssystemet er først og fremmest at sikre et minimumskrav til og en fastholdelse af levestandarden for ældre medborgere. Systemet består af 3 søjler: de offentlige pensioner (folkepensionen—PAYG), de bidragsbaserede arbejdsmarkedspensioner samt øvrige private pensionsordninger. De 3 søjlers betydning har gradvist ændret sig gennem de seneste 30 år, hvor søjle 2 og 3 det vil sige arbejdsmarkedspensionerne og de private pensionsordninger har fået en stadig større betydning. I dag har ni ud af ti danskere en arbejdsmarkedspension, og hovedparten af arbejdsgiverne har enten via overenskomster eller firmaaftaler forpligtet sig til at indbetale til medarbejdernes pensionsordninger. Det danske system sikrer således den enkelte en rimelig pension på såvel kort som langt sigt, der er meget få økonomisk fattige pensionister og pensionernes dækningsgrader er høj. Danmark står dermed relativt godt nu, hvor de rigtigt store årgange når pensionsalderen. Den samlede danske pensionsopsparing er da også betydelig og har i flere år udgjort mere end 150 pct. af landets BNP. Den samlede pensionsformue faldt dog mærkbart i løbet af 2022 og det i en situation med høje pensionsindbetalinger. Faldet skyldes de hårde år på de finansielle markeder med store kursfald på aktier og endnu større kursfald på obligationer grundet bl.a. den stigende rente.

Summary

Denmark has a strong and well-established 3 pillar pension system. The main aim is to ensure a minimum requirement for and maintenance of the standard of living for older citizens. The first pillar—PAYG—still provides the basic income for most elderly, but occupational pensions (pillar II) and other private pension schemes (pillar III) have become increasingly important over the past 30 years. Today, nine out of ten Danes have an occupational pension, and the majority of employers have, either via collective agreements or company agreements, undertaken to pay into the employees' pension schemes. The Danish system thus ensures individuals a reasonable pension in both short and long term, there are very few economically poor pensioners, replacement rates are high and the system is financially viable and public finances satisfy sustainability criteria taking into account an ageing population. Denmark is therefore in a relatively good position and there is no urgent need for reforms.

The total Danish pension savings is therefore also considerable and has for several years accounted for more than 150 per cent of GDP. However, the total pension assets fell noticeably during 2022 despite higher pension contributions. All asset classes suffered losses due to the tough years on the financial markets primarily from the rising interest rate.

Real returns 2022

Industry-wide
pension funds:
-16.03%

Life Insurance funds:
-20.77%

Introduction: The Danish pension system

The Danish pension funds administer investments worth more than € 400 billion. The main aim of these investments is to give the pension savers the best possible rate of return. 2022 was challenging and the worst year since the 2008 financial crisis. The insurance and pension sector lost a total of 92-93 billion euro—primarily due to losses on bonds and interest rate derivatives from rising interest rates. The average nominal return of the pensions funds (Industry wide and Company pensions) is -21.5%. The real return is even weaker since inflation pushed losses deeper in the red down to -31.1%. Life Insurance did a little better turning out with -10.73% and in real terms -20,33%. During the first six month of 2023 the insurance and pension sector had a positive return of 12.3 billion euro due to earnings across all active classes including stocks, bonds and interest rate derivatives. The nominal returns for Industry wide and Company Pensions was in average at 2.37% and 3.69% for Life Insurance.

Despite the losses in 2022, the overall return since 2018 is 57 billion euro due to the high returns in 2019–2021.

Especially the Danish ATP suffered and experienced large investment losses in 2022. The real return of ATP, whose investment portfolio consisted mainly of long-term interest-bearing securities, was nearly -38% in 2022. The steep interest rate increased and large stock market declined thus resulted in extensive losses. The crash of ATP stands out and gave birth to lot of debate due to fact being a mandatory pension saving. However, the overall result for the year reflects the fact that the financial losses were greatest at the start of 2022 and that the year ended with positive returns and a positive result for the fourth quarter if viewed independently and ATP's return on 10-year term (2013-2022) is 1,7% per year and 20-year term (2003-2022) is 6,7% per year.

Table DK.1 – Long-term and pension savings vehicles analysed in Denmark

Product	Pillar	Reporting period	
		<i>Earliest data</i>	<i>Latest data</i>
Industry-wide pension funds	Occupational (II)	2005	2022
Life Insurance funds	Voluntary (III)	2003	2022

The Danish pension system is in a transition from being largely based on defined-benefit tax financed pensions to a larger role of defined contribution, funded occupational pensions. The latter have been expanded to most of the labour market in the 1990s and will mature in two decades. It is expected that in 2040 the pension payments will correspond to the contributions and we will see the first large cohorts of pensioners who have saved for their pension throughout their working lives. However, the payments from the labour market pension are expected to overtake the national pension as early as 2030.

The arrangement both serves to ensure decent pensions for all pensioners, and pension adequacy in terms of high replacement rates. It is essential to have a robust pension system to ensure the confidence of the financial markets in the long-term sustainability of the economy.

Table DK.2 – Annualised real net returns of Danish long-term and pension savings vehicles (before tax, % of AuM)

	Industry-wide pension funds	Life Insurance funds
Reporting period	2005-2022	2003-2022
1 year (2022)	-16.0%	-20.8%
3 years (2020–2022)	-1.8%	-6.1%
5 years (2018–2022)	1.0%	-2.5%
7 years (2016–2022)	2.3%	-0.6%
10 years (2013–2022)	2.8%	0.0%
Whole period	3.0%	0.1%

Data: Danmarks Nationalbank, Finanstilsynet, Eurostat;
Calculations: BETTER FINANCE.

The system is financially robust and prepared for an ageing population, which is absolutely essential to ensure confidence of the financial markets in the long-term sustainability of the economy. In international comparisons, the Danish pension system stands out by low poverty rates among the elderly and high replacement rates. The financial viability against the backdrop of large demographic shifts is ensured. This position is reflected by being ranked consistently in the top A-tier in the Melbourne Mercer Global Pension Index 2023 (Mercer & CFA Institute, 2023).

The challenges for the system include, however, how to ensure an incentive structure supporting savings and later retirement. The sustainability of the system depends critically on retirement ages increasing alongside increased longevity of life. The heterogeneity in work career and health has raised debates on more flexible exit routes from the labour market in order to get people to work for a longer time.

Moreover, it remains a challenge that still not all groups are covered by occupational pension arrangements just as the ongoing debate regarding work-contra-leisure requires attention.

Historically, the returns have been high, on average close to a real return of 5% after tax over the past 10-15 years (if we disregard 2022). The pension sector has been able to handle major crises such as the financial crisis, the period with low interest rates and the corona crisis. So although we have periodically seen declines, for example in connection with the corona crisis, the political situation with the trade war between the USA and China, Brexit (and currently with the war in Ukraine, where we do not yet know the effects), even significant losses have proven to be more than compensated. The largest investment losses are typically observed within the market interest-based pension schemes, while the guaranteed pension schemes typically achieved a result of just below zero. It illustrates a more cautious investment policy for the guaranteed products.

Pension system in Denmark: An overview

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 throughout life, and the size of the pension depends

on the individual pensioner's income and assets. In addition to the national pension, pillar I consists of ATP (labor market supplementary pension). ATP is legally binding for all wage earners. The contribution is the same for everyone and therefore not dependent on salary but dependent on one's working hours. The employer pays 2/3 and the employee 1/3. The pension benefit is a guaranteed annuity.

- 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.

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 political level. The effective retirement age has been gradually increasing over the years, and it is currently set at 67 years old. 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 old to reach 67 years old in 2022. Hereafter the statutory retirement age is indexed to the evolution of life expectancy. There is a "speed limit" stipulating that the statutory retirement 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 old in 2030, and in 2020 it was increased to 69 years old in 2035. The next decision comes up in 2025, and according to the evolution of longevity of life, the statutory retirement age will increase to 70 years old.

The sustainability of the system depends critically on this development in retirement ages (increasing alongside increases in longevity).

Nevertheless 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.

This can be a challenge, as many want to retire much earlier as they become richer due to the occupational pensions and debates has raised on more flexible exit routes from the labour market in order to get people working longer.

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. In 2020 the so-called senior pension was 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) and a sufficiently strong work record. A new scheme "early pension" (*tidlig* pension) was introduced January 2022 available for persons who at the age of 61 have worked at least 42 years in the labour market.

For the moment it is unclear whether the government still wants to keep the senior and the early pension or make a new "early pension plus".

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.

Pillar I

Pillar I basically consists of two pension plans: the tax financed public pension (*Folkepension*) and the ATP, a mandatory pension scheme including the larger part of the population. Both schemes are regulated by law. The state pension (*Folkepension*) includes a basic amount (flat-rate pension) and means-tested supplements (I: supplementary pension (*pensionstillægget*) and II: supplementary pension benefit (*ældrecheck*)). 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 threshold. Public pensions are indexed to wages. The state pension consists of a basic pension and a personal supplementary pension. For 2022 the base pension is DKK 78.500 a year (€ 10 500), and the maximum supplement (for a single) is DKK 89 600 (€ 12 000). The means-testing is relatively complicated depending on family situation and other sources of income.

ATP (The Labour Market Supplementary Pension Scheme)

ATP is part of the Danish welfare system for old-age pensioners (introduced in 1964). By law, all wage earners and recipients of transfer income contribute to the supplementary labour market pension. It is a contribution funded scheme to which all contribute the same monthly amount (depending on working hours) in 2022 DKK 3 408 (€ 458) The contribution has been unchanged nominally since 2016. The pension benefit is a guaranteed life-annuity. For a person with full-time employment, the pension benefit corresponds to about 1/3 of the base pension in the public pension system.

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 bargaining. 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.

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 (*Tjenestemandspension*). These schemes are being phased out.

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 and in shares.

Long-term and pension savings vehicles in Denmark

Private pension schemes are administered by pension funds, insurance companies or in banks. This goes for Pillar II as well as for Pillar III.

A Danish industry-wide pension fund (*pensionskasse*) is a legal entity owned and governed by its members. A *pensionskasse* can provide the same kind of products as a life insurance company and it is subject to the same kind of regulation as a life insurance company—specifically, the Solvency II Directive.

The first occupational schemes for civil servants were established in *pensionskasser*, which provided pension schemes for a specific profession, e.g. nurses, whereas 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 and choosing between a guaranteed or none-guaranteed scheme. 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.

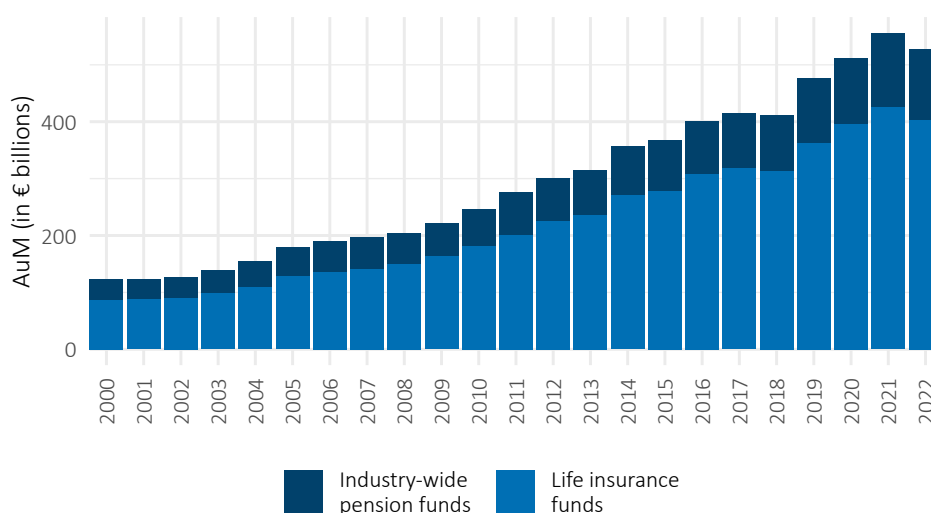
The supply of pension products is regulated partly by tax law and partly by the general regulation for insurance and banking. The regulation is the same for Pillar II and Pillar III. This means that insurance companies and pension funds on the one hand and banks on the other hand provide competing products 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 supplement-

tary to a saving product.

As can be seen from Figure DK.1 life Insurance has grown quite significantly over the past 20 years and today has by far the largest assets under management (due to the fact that many occupational pension schemes are administered by life insurance companies). Less and less is managed by Banks while the Industry wide pensions is more or less the same. Pensions company have throughout the years had the smallest share and today only manage around 1%.

ATP is not included in the table due to its special role being established by law with statutory pensions and being a pillar I pension. However, ATP is in fact today the largest pension and administration company. They have grown steadily and today have almost as much asset under management all the Industry wide pension companies together.

Figure DK.1 – AuM of Danish long-term and pension savings vehicles



Data: Danmarks Nationalbank; Calculations: BETTER FINANCE.

Pillar II: Occupational pension funds

Occupational pensions are an outcome of collective bargaining.¹ 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.

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

¹Collective 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)

pay-outs.

Total contributions to occupational pension schemes amounted to DKK 127 billion (€ 17 billion) in 2022 which is a new record, and more than double the amount from 20 years ago (Forskirings & Pension, 2023). The increase in 2022 is linked to the growth in employment of 60 000 people during 2022. This has caused contributions to occupational pension to grow. Payments to privately subscribed pension schemes fell slightly.

All private pension schemes are fully funded. The vast majority are DC schemes. Even in the very few 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.

Between 80 and 90% 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 to the problem. Pillar II schemes are established in either life insurance companies, in pension funds (*pensionskasser*) or—not very commonly—in banks (around 3,5%).

Pillar DC: 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 – Pensions company funds *firmapensionskasser*. Their importance has been decreasing for many years and so have their number of total assets and number of people insured. Today, only four *firmapensionskasser* hold assets of more than DKK 1 000 million (€ 134 million), and they only constitute around 1% of the total market, and most of the funds do not enrol new members anymore.

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.

As mentioned earlier the strong growth of Pillar II schemes has diminished the interest for individual savings in explicit pension schemes. While the number of occupational schemes increased by 34% from 2000 till 2022 individual schemes fell by 36%.

In 2000, 1 064 million persons contributed to an individual scheme, but this number has steadily declined until 2013 (0,574 million persons, and since then increased somewhat to about 676.000 persons in 2021. The huge fall in 2013 is due to a shift in the lump sum pension from *kapitalpension* to *alderopsparing*. It might take time to get acquainted with the new scheme, and upon that a cap on the contributions to the periodic instalments or fixed term annuities (ratepension) was introduced in 2012 which also explain the decline. 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 2022, contributions to individual schemes were nominally DKK 17 101 mln. (€ 2 280 mln). Tax rules have changed, 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 used to play more important role for individual schemes than for occupational schemes. Until 2013, when the tax regulation for lump sum pension was changed, 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.

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 until mid-2022.

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 0,19% of total provisions in 2017 and then raised a bit again. 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 customer representatives, and since their schemes are often very standardized, they are in general cheaper to run than company schemes.

Transparency of 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 allocated 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. 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. On the other hand 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 straightforward. Furthermore, the pension compa-

Table DK.3 – Comparative examples of charges between different pension products and types

	Pension Danmark			Danica Pension			PFA		
	I	II	III	I	II	III	I	II	III
Total costs %	1.5	0.5	0.4	4.3	1.3	1.1	2.1	0.9	0.7
Total costs €	57.1	375.0	1 189.9	161.9	994.1	3 076.9	77.9	708.4	2 151.5
Total costs DKK	425.0	2 790.0	8 854.0	1 205.0	7 397.0	22 895.0	580.0	5 271.0	16 009.0
Of which Administration	297.0	297.0	297.0	852.0	852.0	1 049.0	345.0	575.0	920.0
Of which Investment	128.0	2 493.0	8 557.0	353.0	6 545.0	21 846.0	235.0	4 696.0	15 089.0

Data: faktaompension.dk, 2023.

nies' 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 www.faktaompension.dk offers the possibility 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. Furthermore 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 comparisons, projections of future pension level are also presented using common return expectations determined by the Council for Return Expectations.²

Table DK.3 illustrates cost levels and costs structures for three typical different persons at different positions in the life-cycle (average for the 5 biggest companies).³ Costs in % (ÅOP) are relative 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. In general charges are lower in the industry-wide schemes (Pillar II companies) with the highest degree of standardization and with no acquisition costs. Charges in Life-Insurance (Pillar III) is about double the charges in Pension companies, see Tables DK.4 and DK.5.

²<https://www.afkastforventninger.dk/en/>

³Type 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.

**Table DK.4 – Costs and charges of Danish industry-wide pension funds
(% of assets)**

Year	Total ongoing charges	Contract mgt. fees
2005	0.27%	€131.34
2006	0.19%	€94.87
2007	0.25%	€107.64
2008	0.21%	€109.19
2009	0.20%	€122.05
2010	0.19%	€106.10
2011	0.21%	€122.21
2012	0.20%	€107.02
2013	0.17%	€103.43
2014	0.16%	€97.34
2015	0.15%	€95.20
2016	0.10%	€86.23
2017	0.09%	€77.76
2018	0.09%	€78.88
2019	0.08%	€63.31
2020	0.07%	€57.89
2021	0.06%	€57.76
2022	0.37%	€58.80

Data: Finanstilsynet.

Table DK.5 – Costs and charges of Danish life insurance funds (% of assets)

Year	Total ongoing charges	Contract mgt. fees
2003	0.80%	€139.83
2004	0.74%	€144.58
2005	0.74%	€144.16
2006	0.70%	€142.97
2007	0.70%	€149.77
2008	0.69%	€145.63
2009	0.61%	€152.79
2010	0.70%	€150.94
2011	0.71%	€182.27
2012	0.70%	€179.73
2013	0.56%	€145.59
2014	0.54%	€147.21
2015	0.45%	€157.99
2016	0.30%	€128.86
2017	0.30%	€107.72
2018	0.30%	€93.34
2019	0.35%	€76.02
2020	0.35%	€73.38
2021	0.30%	€52.04
2022	0.40%	€79.88

Data: Finanstilsynet.

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 currently 15.3% and lower than the general taxation of capital income. For example, the personal income tax rates on dividends and capital gains are both taxed at 42% for income above 7 853 euro and with 27% for income up till € 7 853 (which is well above the OECD averages of 24.2 percent).

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 was closed for contributions in 2013 and was 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 DK.6 – Taxation of pension savings in Denmark

Product	Phase			Regime
	<i>Contributions</i>	<i>Investment returns</i>	<i>Payouts</i>	
Industry-wide pension funds	Exempted	Taxed	Taxed	ETT
Life Insurance funds	Exempted	Taxed	Taxed	ETT
“Aldersopsparing”	Taxed	Taxed	Exempted	TTE

Data: Danish tax authority.

Performance of Danish long-term and pension savings

Real net returns of Danish long-term and pension savings

In this section, we analyse the returns obtained by the members and policyholders of Danish industry-wide pension funds—since 2005—and life insurance—since 2003. On the basis of firm-level nominal gross returns data and costs from the Danish FSA, we first calculate nominal net returns, that is, annual returns after deducting the average annual costs and charges. Returns are aggregated for each year at the level of the product category by computing the simple average of returns reported by individual firms for the year. An asset-weighted average would, of course, better reflect the aggregate performance, but firm-level data about AuM is unfortunately not available. For industry-wide pension funds, we deduct for each year the average value of costs as a percentage of AuM reported by individual pension funds. For life insurance companies, extreme outliers make the average an unreliable measure; we then opt for the median value of costs reported by life insurance companies.

Second, we correct these nominal net returns for inflation, thereby obtaining real net returns. The inflation rates that we use for this are calculated on the basis of Eurostat’s HICP index for Denmark, as per the methodology explained in the introductory chapter. As can be observed in Figure DK.2, in terms of inflation, Denmark ranks below the EU average, with an annualised inflation rate of 1.9% over the period 2000–2022, which amounts to a 52.7% inflation cumulated over the same period, vs. 67.5% for the EU.

Figure DK.3 displays the returns of industry-wide pension funds over the period 2005–2022. As we can see, despite the market downturn in 2022, which resulted in losses in nominal terms (-7.6%), the strong results of the previous years mean that for a holding period as short as 3 years, nominal annualised results are positive. The generally low fees levied by pension funds translate into nominal net returns that are very close to the nominal gross returns: As we can see, fees only reduce the annualised performance over 18 years by 0.2 pp, and the cumulated performance over the same period by only 7.1 pp.

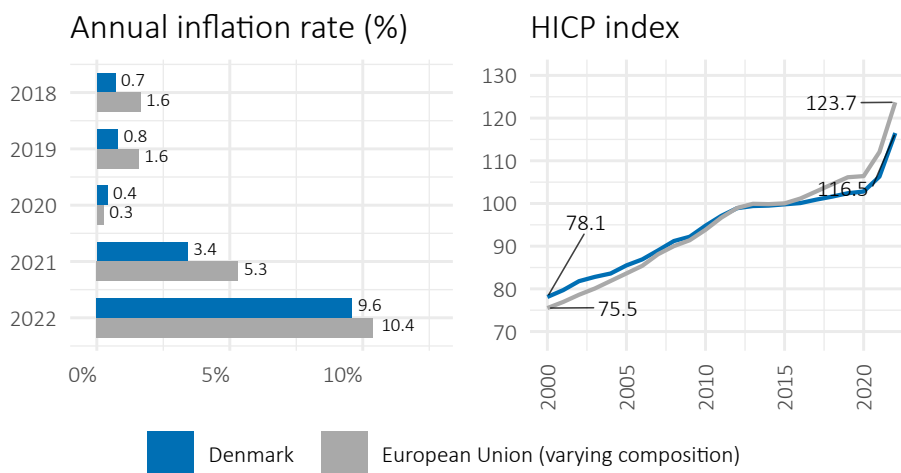
Inflation is the factor that most affect pension funds’ performance, as we can see in the annualised returns over all holding periods as well as in the cumulated returns in the lower pane of Figure DK.3. Inflation alone reduces the cumulated 18-year returns by 67.4 pp, almost half of the cumulated nominal net returns.

Figure DK.4 shows the returns obtained by life insurance policyholders over the period 2003–2023. The generally higher fees of life insurance policies translate into a slightly larger gap be-

Figure DK.2 – Inflation in Denmark

Period 2000–2022

	Annualised	Compounded
Denmark	1.9%	52.7%
European Union (varying composition)	2.3%	67.5%



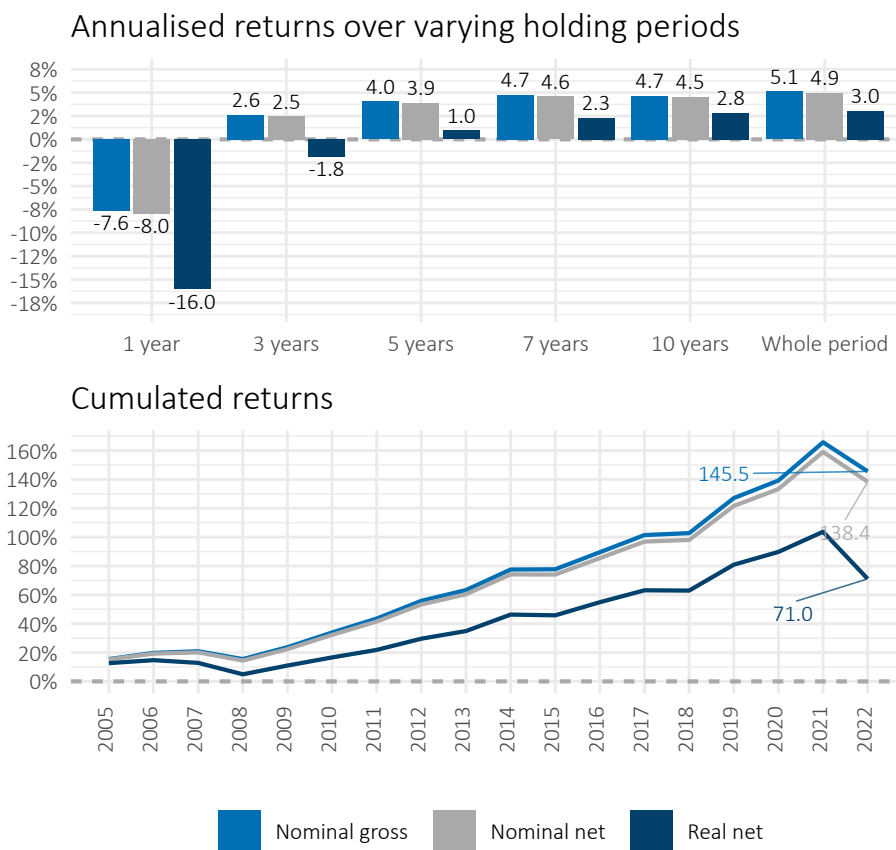
Data: Eurostat, HICP monthly index (2015 = 100); Calculations: BETTER FINANCE

tween nominal returns before and after charges. Over the 20 years of the reporting period, charges eat away 0.5 pp of average annual performance, which, in cumulated terms, amounts to a 16.4 pp reduction in returns.

Inflation, here again, the factor that most depresses long-term returns: Over the 20-year holding period, it reduces the 1.9% nominal net annual average to just 0.1%, a reduction in performance of 43.2 pp over the period.

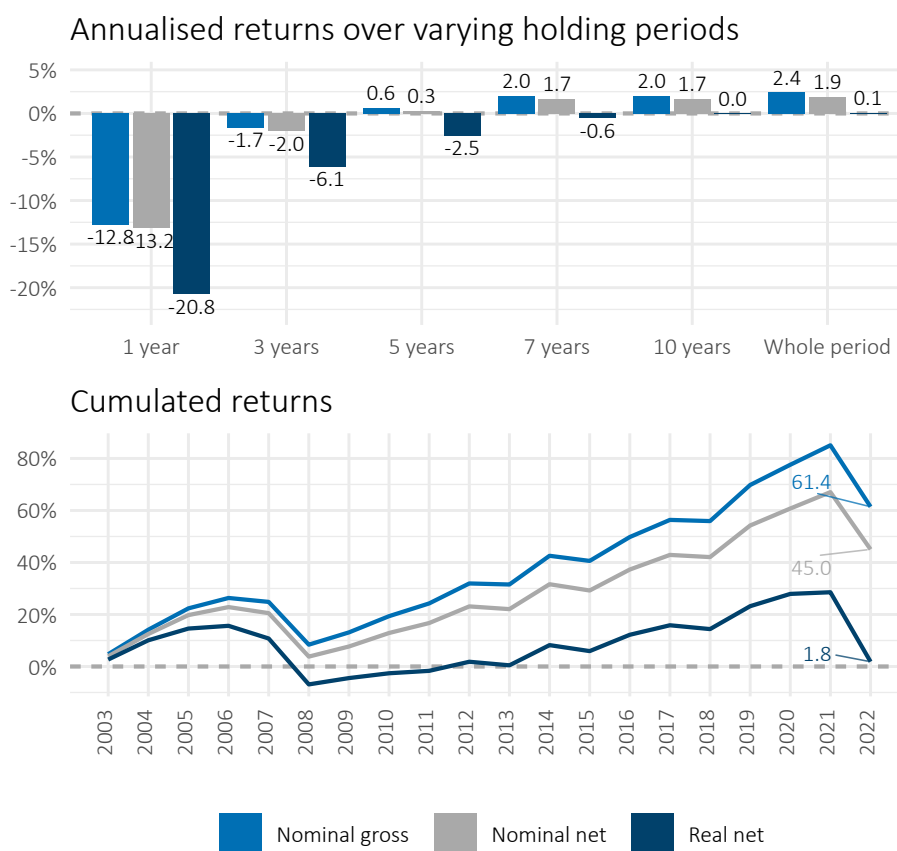
Figures DK.5 and DK.6 compare the annualised and cumulated returns of the two product categories. The comparison is cruel for life insurance, which barely manages to preserve the purchasing power of the initial investment, while the industry-wide pension funds sector on average manages to increase the wealth of its members by 71%.

Figure DK.3 – Returns of Danish industry-wide pension funds (before tax, % of AuM)



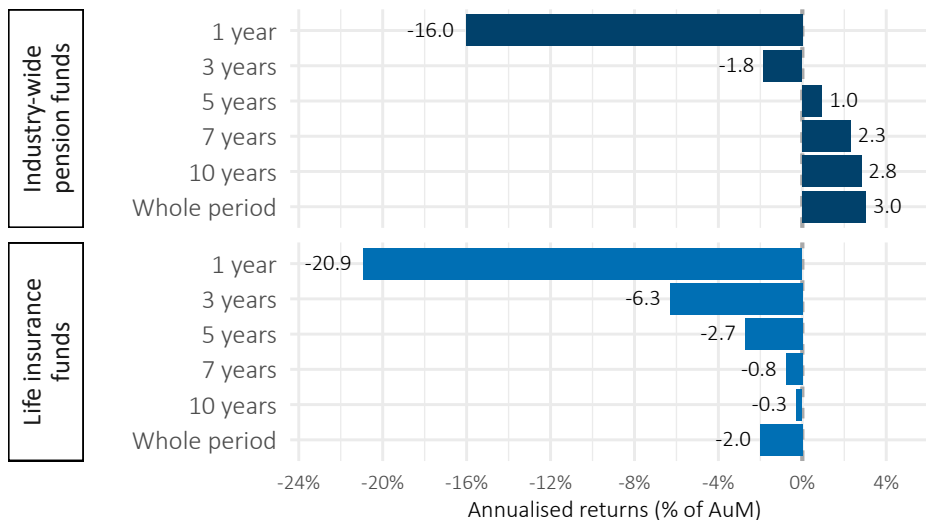
Data: Finanstilsynet, Eurostat; Calculations: BETTER FINANCE.

Figure DK.4 – Returns of Danish life insurance funds (before tax, % of AuM)



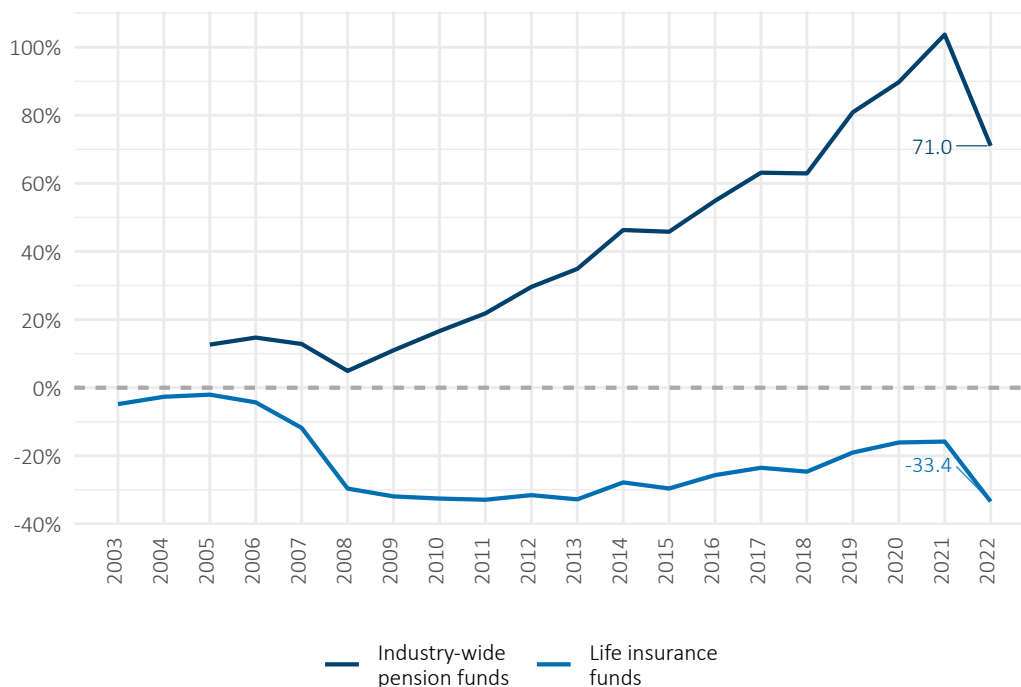
Data: Finanstilsynet, Eurostat; Calculations: BETTER FINANCE.

Figure DK.5 – Annualised returns of Danish long-term and pension vehicles over varying holding periods (before tax, % of AuM)



Data: Finanstilsynet, Eurostat; Calculations: BETTER FINANCE.

Figure DK.6 – Cumulated returns of Danish long-term and pension savings vehicles (2002–2022, before tax, % of AuM)



Data: Finanstilsynet, Eurostat; Calculations: BETTER FINANCE.

Do Danish savings products beat capital markets?

In this last section, we compare the computed returns to the “default” 50% equity–50% bond benchmark portfolio presented in the introductory chapter of the report.

Table DK.7 – Capital market benchmarks to assess the performance of Danish pension vehicles

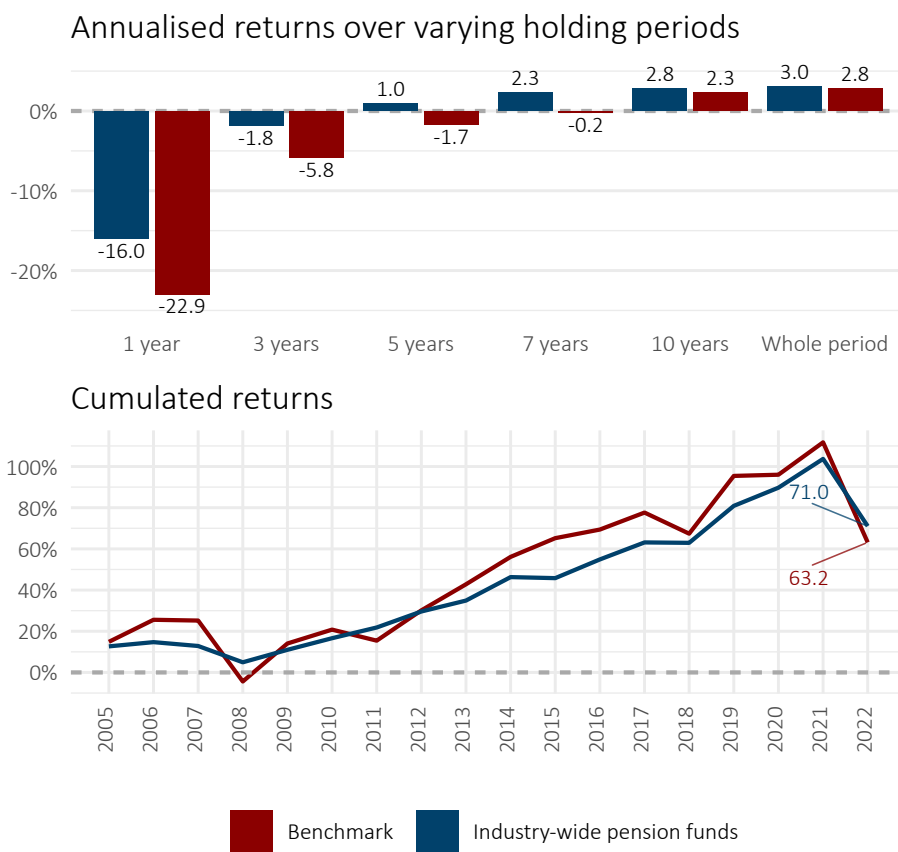
Product	Equity index	Bonds index	Allocation
Industry-wide pension funds	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	50.0%–50.0%
Life Insurance funds	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	50.0%–50.0%

Note: Benchmark portfolios are rebalanced annually.

The comparison is favourable for industry wide pension funds (Figure DK.7): Over all holding periods, these funds manage to beat the benchmark. Over 18 years, the funds return, in real net terms, 7.8 pp more than the capital market benchmark.

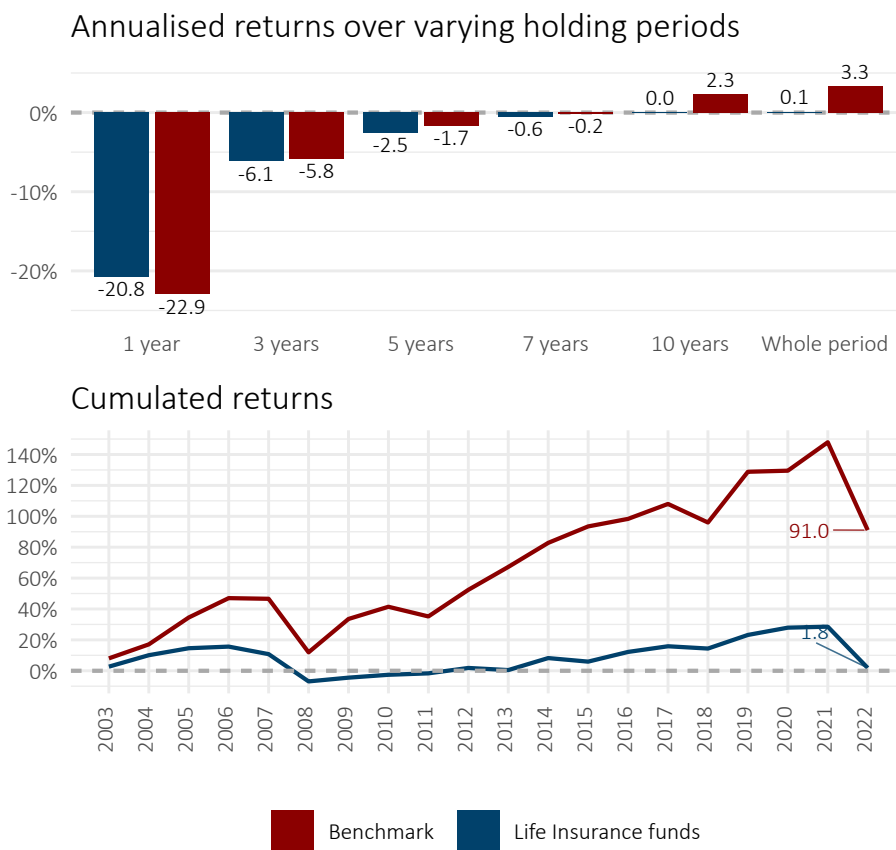
The comparison is much less flattering for life insurance funds, that fail to beat the benchmark by a wide margin: -3.2 pp in average annual performance, amounting to a 89.2 pp difference over 20 years.

Figure DK.7 – Performance of Danish industry-wide pension funds against a capital market benchmark (returns before tax, after inflation, % of AuM)



Data: Finanstilsynet, Eurostat; Calculations: BETTER FINANCE.

Figure DK.8 – Performance of Danish life insurance funds against a capital market benchmark (returns before tax, after inflation, % of AuM)



Data: Finanstilsynet, Eurostat; Calculations: BETTER FINANCE.

Conclusions

The Danish pension system has been strong and well-established for many years which has resulted in being ranked consistently in the top A-tier in the Melbourne Mercer Global Pension Index 2023

The system consists of 3 pillar and 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. The first pillar—PAYG—still provides the basic income for most elderly, but occupational pensions (Pillar II) and other private pension schemes (Pillar 3) have become increasingly important over the past 30 years. Today, nine out of ten Danes have an occupational pension, and the majority of employers have, either via collective agreements or company agreements, undertaken to pay into the employees' pension schemes. As early as 2030-2040 it is expected that the payments from the labour market pension will overtake the national pension.

The system is financially viable and public finances satisfy sustainability criteria taking into account an ageing population. Denmark is therefore in a relatively good position and there is no urgent need for reforms. However, the system despite the attractive track record, faces a number of challenges.

Combining public and private pensions addresses distributional objectives but also leaves important incentive problems. Having a goal of minimizing public pension spending creates high effective tax rates to the detriment of savings incentives and later retirement. Several reforms—especially tax reforms—have reduced this problem, but also significantly complicated an already complex system. Another challenge (or disadvantage) is the "remaining" groups of individuals who do not contribute (or not significantly) to an occupational pension scheme. This group is heterogeneous, but it is important to address the problem. The recently introduced compulsory pension scheme for transfer income recipients is a step in this direction, but it is not sufficient to solve the problem. Perhaps the biggest challenge is that the increased life expectancy requires a higher retirement age. Not only for the sustainability of public finances, but also to maintain high replacement rates. The formal statutory retirement age is indexed to life expectancy. This is key to the financial viability of the system, but there is an ongoing debate and a certain desire to retire earlier as well as not everyone is able to extend working life along with increased 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 and it is still unclear whether the government still wants to keep the senior and the early pension or make a new "early pension plus".

The total Danish pension saving is considerable and has for several years accounted for more than 150% of GDP. However, the total pension assets fell noticeably during 2022 despite higher pension contributions. 2022 was indeed challenging and the worst since 2008 financial crisis. The insurance and pension sector lost a total of € 92-93 billion. All asset classes simply suffered losses due to the tough years on the financial markets primarily from the rising interest rate.

In the first 6 months of 2023, the results looked better and were no longer in the red. Despite the losses in 2022, the overall return since 2018 is € 57 billion due to the high returns in 2019–2021

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 risks are accepted. However, it is not clear if 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 particularly 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 focusing on this aspect.

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Country Case 6

Estonia

Kokkuvõte

Eesti pensionisüsteem on tüüpiline Maailmapanga mitmesambaline süsteem, mis põhineb personaalsetel pensionikontodel. Aastat 2022 ilmestasid langevad aktsiaturud ja väga kiire hinnatõus, mille koosmõju Eesti pensionisäästude ostujõule oli sügavalt negatiivne.

Teise samba fondide kaalutud keskmine väärtuse langus oli nominaalselt -8,56% ja kolmanda samba sama näitaja oli -12,9%. Tulenevalt tarbijahindade kiirest tõusust, kujunes teise samba fondide inflatsiooniga korrigeeritud reaaltootluseks -22,17%. Kolmanda samba reaaltootlus oli -25,87%. Ainult 2008. aastal, kui valitses ülemaailmne majanduskriis, olid eelpool toodud näitajad hullemad.

Teise samba fondide pikaajaline kaalutud keskmine reaaltootlus aastatel 2003-2022 oli -0,59% aastas. Kolmanda samba fondide puhul oli see näitaja samal perioodil 0,51% aastas.

Aastal 2020 jõustunud vastuoluline pensionireform muutis Eesti II pensionisamba vabatahtlikuks ja võimaldas pensionikogujatel oma II samba säästude enne pensioniiga reliseerida. Selle tulemusena on alates 2021. aasta septembrist on 30% II sambasse säästajtest oma pensionivara enntetähtaegselt lunastanud.

Summary

The Estonian pension system is a typical World Bank multi-pillar system based on personal pension accounts. The year 2022 was characterised by falling stock markets and very rapid price increases, which in combination had a deeply negative impact on the purchasing power of Estonian pension savings.

The weighted average decline in the value of second pillar funds was -8.56% compared to a decline -12.9% in the third pillar, both in nominal returns. Due to the rapid increase in consumer prices, the inflation-adjusted real return on second pillar funds was -22.17%. The third pillar's real return was -25.87%. Only in 2008, during the global economic crisis, were the above figures worse.

The long-term weighted average real return for second pillar funds over the period 2003-2022 was -0.59% per annum. For third pillar funds, the figure was 0.51% per annum over the same period.

The controversial pension reform, which came into force in 2020, made the formerly mandatory Pillar II pension funds voluntary and allowed pension savers to liquidate their Pillar II savings before retirement. As a result, as of September 2021, 30% of Pillar II savers have redeemed their pension assets early.

Real returns 2022

Pillar II pension funds:
-22.17%

Pillar III pension
funds: -25.87%

Introduction: The Estonian pension system

This country case aims to present an overview of the Estonian pension system, with a particular emphasis on savings-based pensions products, especially pension funds that are part of the auto-enrolled (formerly mandatory) Pillar II pension funds and the voluntary Pillar III pension funds.

Table EE.1 – Long-term and pension savings vehicles analysed in Estonia

Product	Pillar	Reporting period	
		<i>Earliest data</i>	<i>Latest data</i>
Pillar II pension funds	Occupational (II)	2003	2022
Pillar III pension funds	Voluntary (III)	2003	2022

The year 2022 was the worst year for Estonian pension savings since the global financial crisis of 2008. A combination of extraordinarily high annual inflation and negative tendencies in the financial markets led to savings invested in Pillar II pension funds decline by more than 22% on average, when adjusted for purchasing power, while savings invested in Pillar III funds declined by over 25% on average by the same measure.

Table EE.2 – Annualised real net returns of Estonian long-term and pension savings vehicles (before tax, % of AuM)

	Pillar II pension funds	Pillar III pension funds
Reporting period	2003-2022	2003-2022
1 year (2022)	-22.2%	-25.9%
3 years (2020–2022)	-6.4%	-6.3%
5 years (2018–2022)	-3.7%	-3.3%
7 years (2016–2022)	-2.5%	-1.8%
10 years (2013–2022)	-0.9%	0.1%
Whole period	-0.6%	0.5%

Data: Pensionikeskuse Statistika (n.d.); *Calculations:* BETTER FINANCE.

As can be seen in Table EE.2, this sharply negative real (inflation-adjusted) returns of 2022 have led to the long-term real returns becoming negative. While -0.6% does not sound like a lot, then it is important to consider that pension savings are a very long-term investment. The period before first starting to work (and auto-enrolling in the Pillar II pension) and the first pension payment may be as long as 45 years.¹ Over that period, someone with a return of -0.6% will have less than half the money from their first year of savings as someone with a positive return of just 0.95%,

Since the introduction of the current pension system in the early 2000s, successive governments have made various changes to the laws governing the pension system in general and Pillar II pension funds in particular. Many of these changes have been to add additional flexibility and

¹For example, this would be the case for someone starting work at 20 years of age in 2003 and retiring at 65— which according to current regulation would be the minimum pension age for someone of that cohort.

fix issues in the early conservative design in the system with the aim of helping achieve better returns in the long run. However, the most recent reform which took place in 2021, proved also to be the most controversial.

The previously mandatory Pillar II, in effect, was changed into a voluntary pension fund with auto-enrolment. Pension savers who had been enrolled in the Pillar II could now take out any accumulated savings at any age and opt out of the Pillar II entirely.

About 30% of people with an Pillar II pension savings account had liquidated their assets between 2021 and end of August 2023. The amounts withdrawn equal approximately 4% of Estonia's GDP.²

Pension system in Estonia: An overview

The Estonian old-age pension system is based on the World Bank multi-pillar approach. This is the result of a fundamental pension reform which began in 1998 and became fully operational by 2003. Accordingly, this report analyses the returns from the first full year of operation (2003) until the last full year of data availability (2022).

The state pension (Pillar I) should guarantee the minimum income necessary for subsistence after retirement. It is based on the PAYG principle of redistribution, i.e. the social taxes paid by today's employees cover the pensions of today's pensioners.

The size of the first pillar old-age pension is determined by an annual index base part, which was € 318 per month as of April 2023, and various components individual to each pensioner, related to the years of pensionable service and the social security deductions during that pensionable service, which in turn depend on the salary of the person (Sotsiaalkindlustusamet, n.d.). There are also pension supplements for parents for each child raised. The average I pillar old-age pension in Estonia was € 710.7 in Q2 2023, which guaranteed a replacement ratio of 38% compared to the average gross salary (Statistikaamet, n.d.). Due to the progressive nature of the tax-free allowances, the replacement ratio would be 48.1% in net terms, assuming no additional annual income or deductions apply to the average pension and salary respectively.³

A person needs to have had at least 15 years of pensionable service to qualify for a old-age pension. However, those who have reached retirement age, but do not qualify for old-age pension are eligible for a minimum "national pension", provided they had legally resided in Estonia at least 5 years before applying and do not receive a pension from any other jurisdiction (Sotsiaalkindlustusamet, n.d.).

As of April 2023, this minimum national pension is € 336.39 per month and this amount is also indexed annually along with old-age pensions (Sotsiaalkindlustusamet, n.d.).

The statutory retirement age in Estonia was 64 years and 3 months in 2023 (for those born in 1958) and is set to rise to 65 years by 2026. From 2027 onward, the retirement age will be increased in line with increases in life expectancy, but not more than 3 months of increase in any calendar year (Sotsiaalkindlustusamet, n.d.).

²BETTER FINANCE calculation based on Pensionikeskus and Statistikaamet data.

³Own calculation, based on Statistikaamet data.

Table EE.3 – Overview of the Estonian pension system

Pillar I	Pillar II	Pillar III
State Pension	Funded pension	Supplementary pension
Mandatory	Formerly mandatory, voluntary with auto-enrollment from 2021	Voluntary
PAYG	Funded	
DB	DC – Individual pension accounts	
Publicly managed by Social Insurance Board (government entity)	Self-managed or investment fund	Investment fund or insurance contract
Retirement is possible up to 5 years earlier than the statutory retirement age, provided minimum requirements in terms of pensionable service are fulfilled ^a . It's also possible to retire later than the statutory pension age. Early or late retirement respectively lowers or increases later pension payments.	Funded by a combination of a formerly mandatory contribution (2% of gross salary) and a part of the person's Social Security deduction (4% of gross salary). Since 2021, early withdrawal is possible at fixed dates several times a year, regardless of the age of the person.	The supplementary III pillar has always been purely flexible and voluntary. The contribution amount can be freely chosen and is subject to a tax deduction up to certain limits ^b . Savings can be taken out at any time, but payouts other than post-retirement annuities will be subject to income tax.
Quick facts		
Number of old-age pensioners: 309 thousands	Administrators: 5	Administrators: 5 investment fund providers and 5 providers of unit-linked pension insurance ^e
Average old-age pension: € 710.7 ^c	Funds: 27	Funds: 17
Average salary (gross): € 1 873 ^c	AuM: € 4 043 mln.	AuM: € 670 mln.
Average replacement ratio: 38% gross ^d	Participants: 0.574 mln	Participants: 0.187 mln

^a To retire 1 year early, a person should have at least 20 years of pensionable service. For every additional year of early retirement, 5 additional years of pensionable service should be achieved. This means, that to use the maximum of 5 years of early retirement, at least 40 years of pensionable service has to have been achieved by that age.

^b A full income tax deduction is applicable to the annual total III pillar pay-in, up to 15% of the person's annual gross income or € 6 000 per year, whichever is lower.

^c Both as of Q2 2023, Average old-age pension based on I pillar only. However, less than 1.5% of current pensioners receive regular II or III pillar payments, so the impact of the other pillars would be minimal for now.

^d Assuming no other taxable income, the replacement ratio rises to 48.1% in net terms.

^e Two entities, SEB and Swedbank, offer both funds and insurance contracts.

Long-term and pension savings vehicles in Estonia

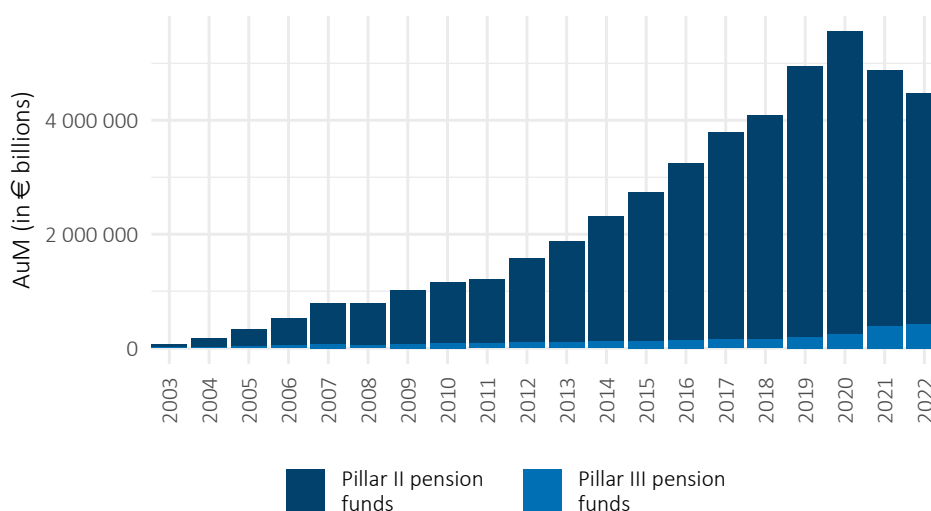
Second pillar: Formerly mandatory pension funds and personal Pension Investment Accounts

As can be seen from Figure EE.1, the vast majority of Estonian pension savings are collected in Pillar II pension funds.

The funded Pillar II pension is based on the accumulation of assets (savings) – a working person 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 salary linked “insurance element” of the I pillar 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 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, who are not already subscribed to the Pillar II pensions, will be able to apply to subscribe to pillar II pensions. Persons who have previously unsubscribed may re-apply after at least ten years from the date when they were unsubscribed.

Figure EE.1 – AuM of Estonian long-term and pension savings vehicles



Data: Finantsinspektsioon; Calculations: BETTER FINANCE.

From January 1, 2021, it became possible to opt-out of the second pillar pension and to liquidate any previous savings held under it. This has led to a large number of savers taking out their accrued savings before their statutory retirement age and significantly decreasing the coverage of the second pillar. At the time of writing of this report, about 491 000 people had assets in their second pillar pension account, while over 210 000 people had taken out their savings, totalling close to € 1.5 billion.

This was the reason for the significant reduction in AuM of Pillar II pension funds in 2021 and 2022, which can be seen in Figure EE.1. The withdrawals were largest in 2021. However, the impact was somewhat mitigated by high nominal returns on investment that year. In 2022, while the amounts being withdrawn early from the system decreased, the AuM still declined significantly from the combination of both early withdrawals and negative nominal performance of investments.

From 2021 onwards, it became possible for savers to manage their Pillar II pension assets themselves through personal Pension Investment Accounts. However, the penetration of this new form of pension savings remained insignificant in 2022, with only approx. 1% of Pillar II participants actively use this option in 2022–2023 (Pensionikeskuse Statistika, n.d.).

Third pillar: Supplementary Pension Funds and Pension Insurance accounts

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.

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.

Supplementary pension participation is voluntary for all persons who can decide to save either by contributing to a voluntary pension fund or by entering 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.

While Pillar III pension vehicles made up a relatively small 14.2% of total pension assets in 2022, as can be seen from Figure EE.1, this is a relatively large increase since 2020 when they made up only 9.2% of the total.

This has been in particular due to the large increase in AuM of Pillar III investment funds, which have grown by almost 70% from 2020 to 2022.

Subsequently, supplementary pension funds make up 63.7% of all AuM under the Estonian third pension pillar, share of pension insurance contracts has continually declined.

As there is unfortunately very little transparency regarding the charges and return of Pillar III pension insurance contracts, this report focuses only on supplementary pension funds as third pillar savings products.

Charges

Starting from the data year 2017, Estonian Pillar II investment funds are obliged to report the TER for a given year. This ratio is designed to present investors with a transparent and easily comparable summary of the annual costs and fees deducted from their pension savings, expressed as a percentage of invested assets.

The TER includes:

- 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);
- the fee paid to the depositary for the services provided (depositary's charge);
- the transfer fees and service charges directly related to transactions performed for the account of the fund and other fees, charges and expenses related to the management of the fund and specified in the basic documents of the fund;
- success fees.

In addition to the above fees, it is also possible for the pension funds to charge unit redemption fees, however these are capped by law at just 0.05% for conservative pension funds and 0.1% for all other Pillar II funds and in practice no redemption fees are usually charged by Pillar II investment funds on the Estonian market.

The option of applying a success fee became possible as of January 1, 2019 and intended to better align the interests of the investors and asset managers. 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 pension funds do not have the right to apply a success fee.

As of September 2, 2019, the management fees of Pillar II pension funds were legally capped at 1.2% for conservative pension funds and 2% for all other Pillar II funds. These funds are also legally required to reduce their management fees in line with the growth of assets of the fund. Namely, after an Pillar II pension fund reaches € 100 million of AuM, the fund manager is obliged by law to reduce the base management fee for each additional € 100 million of AuM by at least 15 per cent compared to the rate of the base management fee applicable to the previous € 100 million. Funds are no longer required to enforce this reduction when the yearly base management fee reaches 0.4% of AuM.

The idea of the obligatory reduction of management fees was to bring down the overall level of fees and charges when economies of scale are achieved, while allowing for higher initial fees to ensure sufficient competition between fund providers and more choice for consumers in Estonia's relatively small pension market.

As can be seen from Table EE.4, this decrease in charges was initially slow to materialise. This was likely due to a combination of factors:

- The fragmentation of the small market between relatively many investment funds — average fees even increased at times, due to the entrance of new funds with higher fees into

the market;

- Relatively slow initial asset accumulations — since the Pillar II was mandatory only to people who were at the beginning of their working life. As we saw in figure 1 in the previous section, only in 2014, more than a decade after the launch of the system, did total AuM reach € 2 billion, whereas already by the end of 2018 the € 4 billion limit was in sight.

However, between 2013 and 2020 a very significant decline in average management fees can be observed, with management fees falling from 1.5% to just 0.6%. Again, there were likely several contributing factors, including:

- Accelerating increases in AuM during those years;
- Consolidation in the market, with Danske Bank's Pillar II funds sold to LHV in 2016.

The entrance into the market of low-cost index funds from 2016 onwards, first by LHV and Tuleva (a new entrant offering only passively managed mutual funds), but eventually followed by all Pillar II market participants

Table EE.4 – Costs and charges of Estonian Pillar II pension funds (% of assets)

Year	Admin. and mgt. fees	Total Expense Ratio
2003	1.53%	n.a.
2004	1.54%	n.a.
2005	1.55%	n.a.
2006	1.55%	n.a.
2007	1.55%	n.a.
2008	1.56%	n.a.
2009	1.56%	n.a.
2010	1.48%	n.a.
2011	1.49%	n.a.
2012	1.47%	n.a.
2013	1.46%	n.a.
2014	1.45%	n.a.
2015	1.25%	n.a.
2016	1.22%	n.a.
2017	1.08%	1.19%
2018	1.01%	1.18%
2019	0.70%	0.86%
2020	0.60%	0.87%
2021	0.58%	0.97%
2022	0.57%	1.06%

Data: Finantsministeerium (n.d.).

While data regarding the TER is available only starting from 2017, it's likely this followed a similar trend overall. However, in 2021 and 2022, the TER of funds increase slightly, likely associated with a combination of decreasing economies of scale due to the partial dismantling of the Pillar II as well as success fees charged for the previous year. Here it's important to note that success

fees, which are inherently backward-looking, are charged based on the previous year's results and figure in the TER of the year following the one where the "success" was achieved.

Charges of Pillar III supplementary pension funds

The structure of charges that can be applied to Pillar III pension funds is similar to Pillar II funds, with the biggest difference being that caps on the various types of fees and charges (such as management fees or redemption fees) are higher in many instances. This combined with much smaller assets under management and the associated lack of economies of scale meant that the average fees were often higher in the third pillar compared to the second pillar.

However, in the last years, the proliferation of new index funds in the supplementary pension fund market — from 2021 onward every fund provider offered at least one index fund — and the relative success of these funds in attracting savings has led to the TER of Pillar III funds dropping slightly lower than Pillar II funds on average.

Unfortunately, due to changes in the way data on the charges of supplementary pension funds is presented in public databases, it was not possible to retrieve long-term comparable data series on the charges of Pillar III funds, but overall the dynamic has been fairly similar to that of Pillar II funds.

Table EE.5 – Costs and charges of Estonian Pillar III pension funds (% of assets)

Year	Admin. and mgt. fees	Total Expense Ratio
2021	0.80%	0.96%
2022	0.72%	0.87%

Data: Finantsministeerium (n.d.).

Taxation

Now that both second and third pillar pension funds are effectively voluntary savings products, their tax treatment remains perhaps the biggest attraction of saving under either or both Pillar II and III pension vehicles compared to other potential savings and investment products

Table EE.6 – Taxation of pension savings in Estonia

Product	Contributions	Phase Investment returns	Payouts	Regime
Pillar II pension funds	Exempted	Exempted	Taxed	EET
Pillar III pension funds	Exempted	Exempted	Taxed	EET

Data: Pensionikeskus (n.d.); *Note:* Taxation of payouts depends on the timing and method of payout.

As can be seen from the table EE.6, contributions to II and III pillar pension funds are exempted from all taxes, although in the case of the III pillar, the annual tax deductibility is limited to a

maximum of 15% of the savers' annual income or to € 6 000, whichever is lower.

The investment returns/capital gains of both II and III pillar pension products are also entirely exempted from tax in the accumulation phase. In the payout phase, the taxation depends on the pillar and specific circumstances.

The Pillar I pension is subject to income tax. Estonia had a maximum effective income tax rate of 20% in 2022, but the government which came to power after the March 2023 elections has agreed to raise the income tax rate to 22% in the next few years. However, basic exemptions (non-taxable amounts) apply to both the working population as well as pensioners.

There has long been a tacit political agreement under successive governments, regardless of their composition, that the amount of annual income tax exemption applying to pensioners be at least as high as the average state (Pillar I) old-age pension. This was the case in 2022 and is set to continue in the next few years.

For the Pillar II and Pillar III savings-based pension, the taxation regime depends on when and how the payout of savings is settled. For both Pillars, when a saver has less than 5 years left until pensionable age, it's possible to sign an agreement with a life insurance company for a lifetime annuity pension. Under this option, the pension payments are exempted from taxes (Pensionikeskus, n.d.).

Alternatively, it's possible to make a fixed duration agreement, either with an insurance company or directly with the pension fund – what is called a “fund pension”. As long as the fixed duration at the moment of the agreement is as long or longer as the average life expectancy of the person and the payments are monthly or quarterly, the payouts are also exempted from taxation.

For both Pillars II and III, in the case of either a one-time payout or a fixed-term pension contract that is shorter than the “recommended” duration, calculated based on life expectancy, a 10% tax rate applies, as long as the payout starts at less than 5 years before pensionable age.

However, if the pension savings are paid out more than 5 years before reaching the pensionable age, the full income tax rate is applied.

Units of Pillar II and III pension funds are also inheritable. Payments to successors are taxable with the income tax rate established by law. However, successors may also choose to transfer the inherited pension fund units to their own pension account, which would not be taxable.

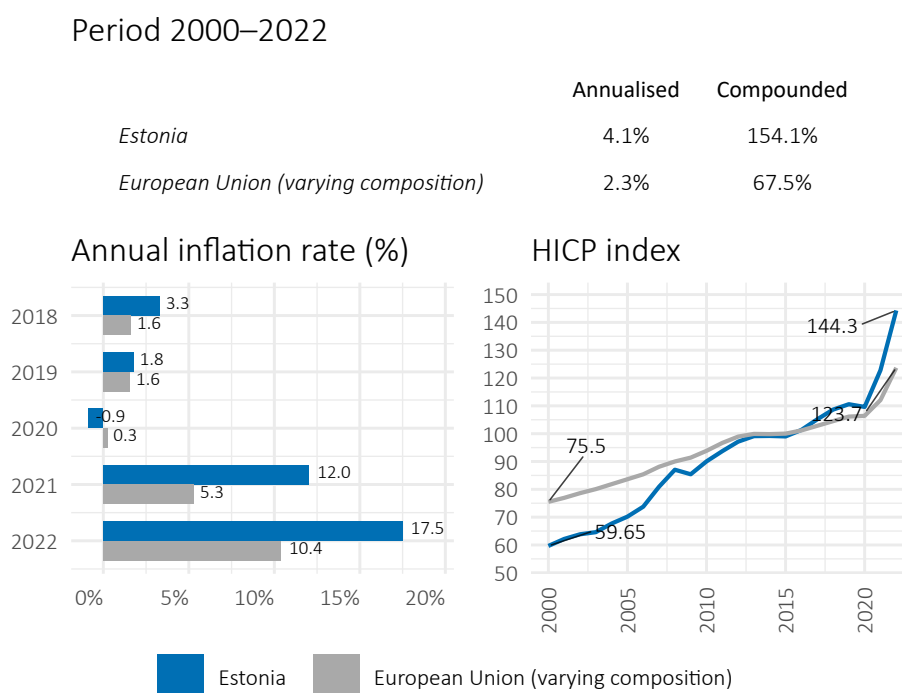
Performance of Estonian long-term and pension savings

Real net returns of Estonian long-term and pension savings

For the pension saver, the most important metric of the performance of a savings or investment product is how it helps to conserve and ideally increase the purchasing power of their savings over the long term to allow a more economically comfortable retirement. For this, the net investment returns of pension savings should exceed inflation.

As can be seen from Figure EE.2, inflation surged to very high levels in 2021 and 2022 in the European Union, but especially in Estonia. The main drivers of inflation in 2021–2022 are well-known

Figure EE.2 – Inflation in Estonia



Data: Eurostat, HICP monthly index (2015 = 100); Calculations: BETTER FINANCE

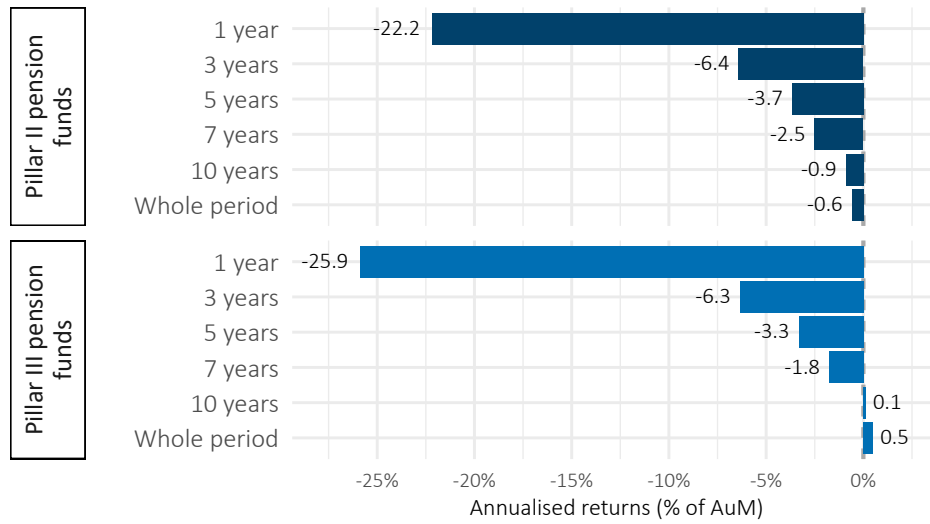
and much discussed: post-pandemic savings and supply chain issues, the invasion of Ukraine by the Russian Federation and the energy crisis this caused. The fact that inflation reached much higher levels in Estonia than in the EU on average can be attributed to both the comparatively small and open economy of Estonia as well as to the relatively closer proximity and stronger economic and social ties to Ukraine and Russia. The extraordinarily high inflation was mirrored in other Eastern European countries.

As can be seen from Figures EE.3 and EE.4, positive nominal returns in 2021 helped to offset the impact of high inflation on the purchasing power of pension savings. However, 2022 proved to be a “perfect” storm of high inflation and sharply negative nominal returns, leading to massive losses in the purchasing power of pension savings, with Pillar II funds declining approximately 22% on an inflation-adjusted basis while losses in the Pillar III exceeded 25%.

Of course, what matters most in pension savings is the long term. Unfortunately, as can be seen from the figures in Figure EE.5, the underwhelming past real returns combined with the disastrous results of 2022 led to the average (asset-weighted) annual returns of Pillar II pension savings to be negative across all time horizons observed, with a -0.9% negative return over 10 years and -0.6% since the launch of pension investment funds in 2003.

In the case of the supplementary Pillar III pension funds, 10-year returns fell effectively to 0, with returns for shorter periods being sharply negative and the long-term return since the introduction of the supplementary pension system being slightly positive at 0.5% on an annualised basis (see Figure EE.6).

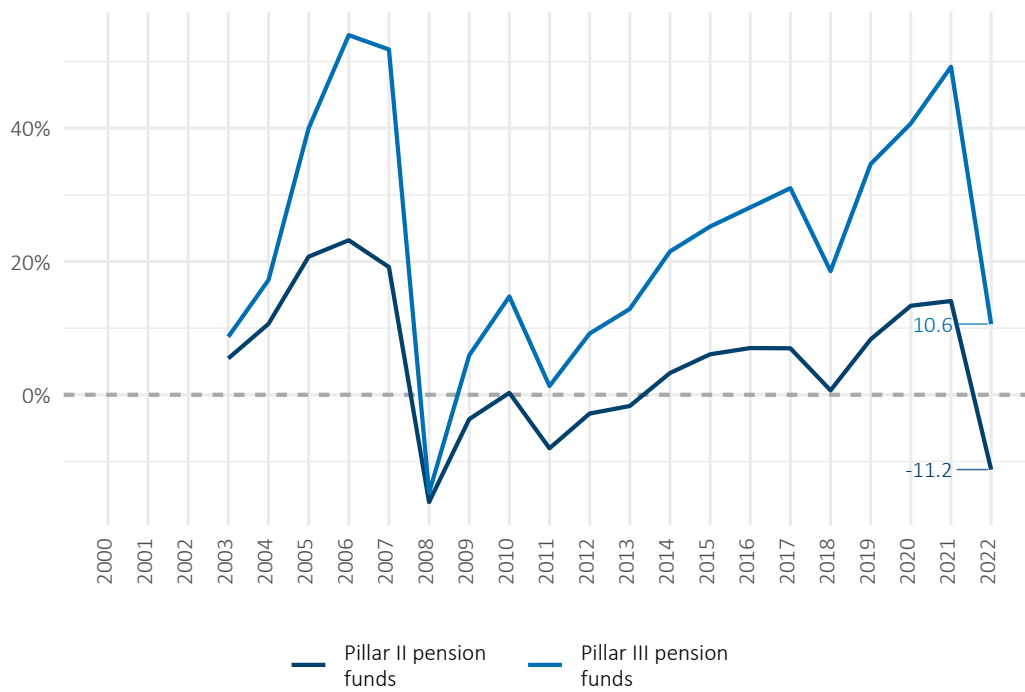
Figure EE.3 – Annualised returns of Estonian long-term and pension vehicles over varying holding periods (before tax, % of AuM)



Data: Pensionikeskuse statistika, Eurostat; Calculations: BETTER FINANCE.

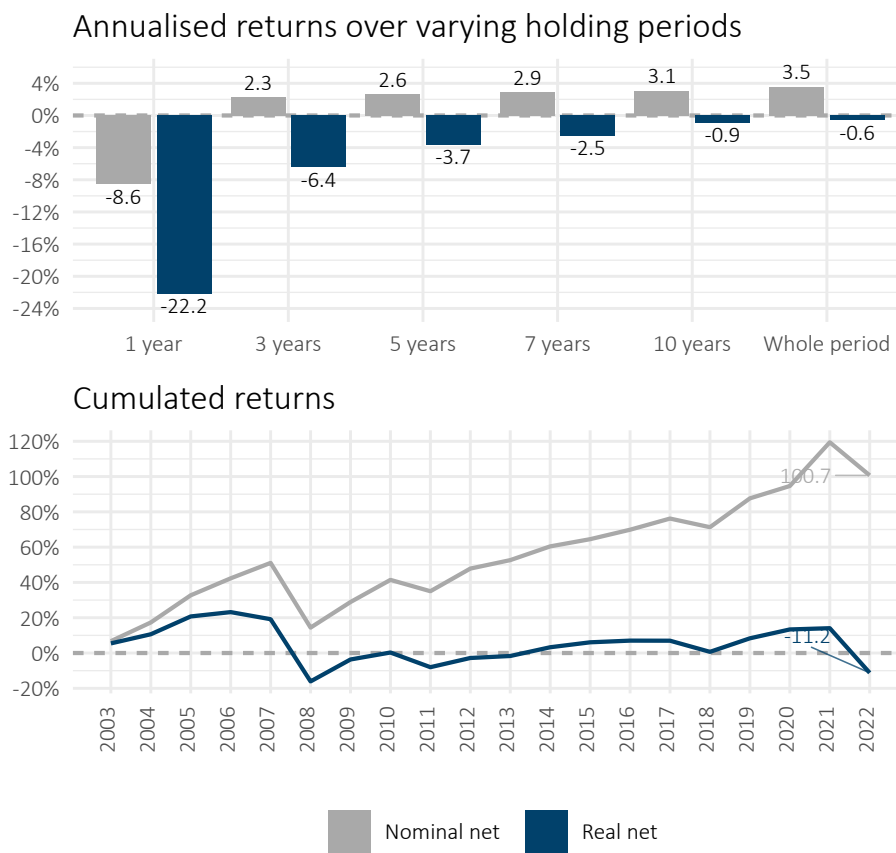
The cumulative effect of these long-term returns means that any savings deposited in a Pillar II fund at the inception of the system would have fallen in purchasing power by 11.2%, while the same amount invested in Pillar III funds would have increased by 10% over the same period.

Figure EE.4 – Cumulated returns of Estonian long-term and pension savings vehicles (2003–2022, before tax, % of AuM)



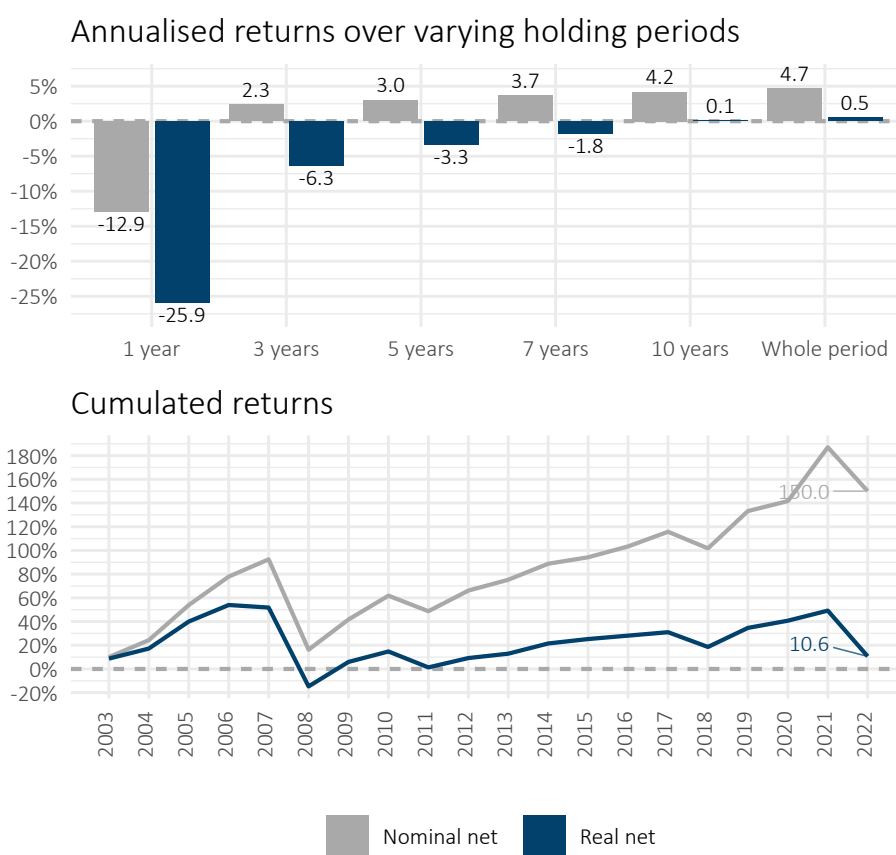
Data: Pensionikeskuse statistika, Eurostat; Calculations: BETTER FINANCE.

Figure EE.5 – Returns of Estonian Pillar II pension funds (before tax, % of AuM)



Data: Pensionikeskuse Statistika, Eurostat; Calculations: BETTER FINANCE.

Figure EE.6 – Returns of Estonian Pillar III pension funds (before tax, % of AuM)



Data: Pensionikeskuse Statistika, Eurostat; Calculations: BETTER FINANCE.

Do Estonian savings products beat capital markets?

To put the performance of Estonian Pillar II and III investment funds into context and draw conclusions, it is important to compare the performance with capital-market benchmarks.

Table EE.7 shows the chosen benchmark. Two benchmark indexes are used as a basis, of which the first is a broad European equities index and the second is a similarly broad European bond index.

Table EE.7 – Capital market benchmarks to assess the performance of Estonian pension vehicles

Product	Equity index	Bonds index	Allocation
Pillar II pension funds	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	50.0%–50.0%
Pillar III pension funds	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	75.0%–25.0%

Note: Benchmark portfolios are rebalanced annually.

For Pillar II funds, the benchmark is a 50-50 split between the two indexes, while for Pillar III a more “aggressive” allocation, with the bond index counting for 25% and the equity index counting for 75% of the Pillar II benchmark.

The equity exposure of the chosen benchmarks (50% and 75% respectively) were chosen because they roughly reflect the equity exposure of Estonian Pillar II and Pillar III investment funds in the last 3 years, based on Finantsintspektsioon data. For both pillars, the equity exposure was lower on average historically compared to recent years.⁴ However, the Author considers the more recent allocation the best benchmark since it reflects the direction of travel of the Estonian pension system where successive reforms have allowed for and encouraged higher equity allocations, with the objective of increasing long-term returns.

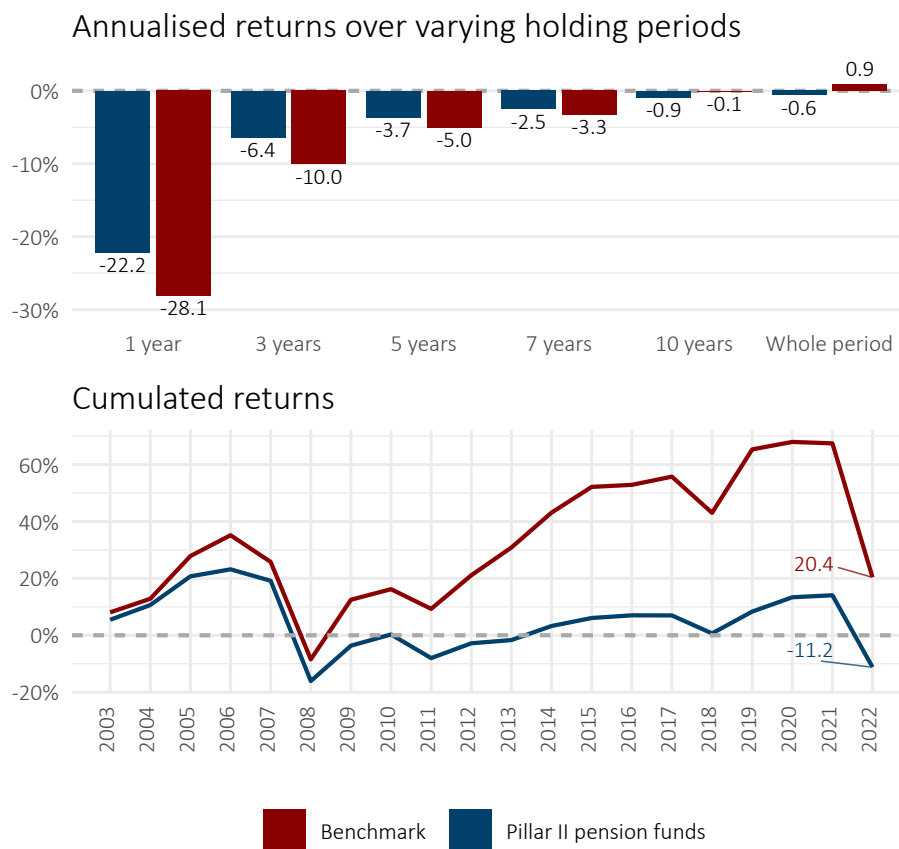
As can be seen in Figures EE.7 and EE.8, when discounted for the Estonian inflation rate, the real performance of the benchmarks correlates significantly with the performances of both Pillars II and III. However, in the long term, both pillars significantly underperform their benchmarks by close to 1.5% annually. Due to the nature of compound interest over long periods, this leads to the benchmark achieving a positive real return of 20.4% over the whole period, compared to a negative 11.2% actual return of Pillar II funds.

The Pillar III benchmark has achieved a 45.3% return since 2003, compared to only a 10.6% actual return of Pillar III funds.

There are two likely causes for this significant underperformance: fees and asset allocation. The

⁴Estonian pension funds invest a large proportion of their Assets in other investment funds and while the available data does provide a breakdown between “equity funds” and “other investment funds”, there is no data for exactly how much equity exposure these two types of funds have. I.e. if “equity funds” might have 100%, 90% or 75% invested in equities while “other investment funds” may also have some degree of equity exposure. References to the current or historic equity exposure of Estonian pension funds reflect the Author’s best estimate given the limitations in data, but have a large and uncertain margin of error.

Figure EE.7 – Performance of Estonian IORPs against a capital market benchmark (returns before tax, after inflation, % of AuM)



Data: Pensionikeskuse Statistika, Eurostat; Calculations: BETTER FINANCE.

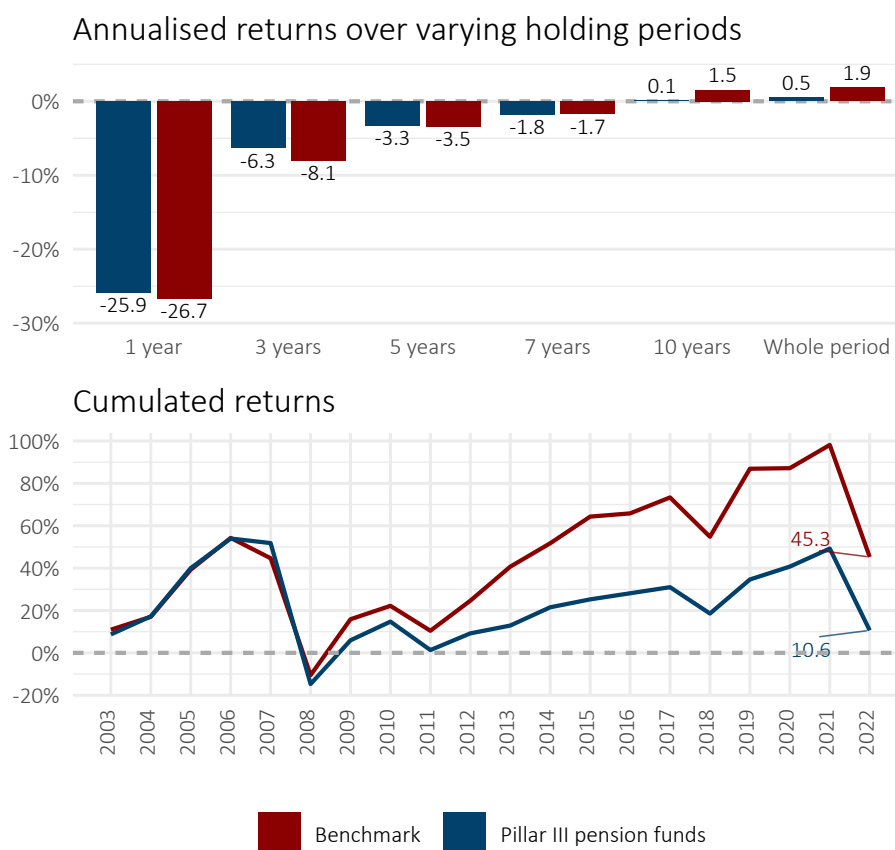
benchmarks show the change in the value of the underlying assets, assuming all dividends and interest payments are reinvested in the same index with no fees or charges deducted.

This contrasts with the investment funds, which incur various expenses, including management fees charged by the company managing the funds. As explained in the charges section of this report, while average expenses in both pillars have fallen to relatively low levels in recent years, relatively high administration and management fees were charged for most of the period since the inception of the system, with fees starting to significantly decline only after 2013.

Thus it can be assumed that eliminating the effect of charges would eliminate most of the difference between the benchmark and actual returns.

In addition, as referenced before, it seems to be the case that the asset allocation for most of the period in both pillars included less equity and more exposure to bonds and other asset classes such as cash deposits and money market funds, which generally yield less in the long-term compared to equities.

Figure EE.8 – Performance of Estonian IORPs against a capital market benchmark (returns before tax, after inflation, % of AuM)



Data: Pensionikeskuse Statistika, Eurostat; Calculations: BETTER FINANCE.

Conclusions

Estonia is an early pension system reformer among the formerly communist countries of Central and Eastern Europe. The system which came fully into effect in 2003, is a typical multi-pillar pension system that combines an unfunded, defined contribution state pension (Pillar I), as well as an auto-enrolled second pillar and voluntary pillars, the latter two of which are fully funded. Different types of pension vehicles in Pillars II & 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, which is why this relatively least used pension vehicle was not examined in this report.

The 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.

A new trend emerged in 2016 and continued into 2021 – the introduction of low-cost indexed

pension funds for both funded 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 both Pillar II and Pillar II funds, which should increase the ability of the funds to deliver performances closer to capital-market benchmarks in future years.

The increasing tendency for larger equity exposure on average in both pillars should also boost real returns in the long term.

Overall, achieving an adequate gross salary replacement ratio in retirement remains a challenge in Estonia, especially due to high inflation, which led to Pillar II real (purchasing power adjusted) returns turning negative over all time horizons in 2022.

The challenge has only become greater since 2021 after about 30% of all Pillar II pension savers withdrew their savings before retirement. This was enabled by a controversial change to the Pension system, which BETTER FINANCE strongly criticised in the past.

It is a sad irony that this partial dismantling of the formerly mandatory II pension pillar was undertaken just as a combination of successive reforms and market tendencies had well-positioned Pillar II investment funds to achieve significantly higher long-term investment returns in the future.

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Country Case 7

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 48% en 2020, et une valeur totale des actifs représentant 11.1% du PIB en 2021 (assurance vie et immobilier exclus). Malgré une allocation d'actifs plutôt dynamique, les plans d'épargne-retraite entreprise ont eu un rendement réel de -14.6% en 2022 et +0.2% en 23 ans entre 2000-2022 (+5.4% en cumulé). L'assurance vie—le produit individuel de loin le plus utilisé pour l'épargne retraite par les Français—a eu une performance réelle très contrastée : +31% pour les fonds en euros (à capital garanti) encore dominants sur les 23 dernières années, mais -25% 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 (PER, produits dédiés aux employés publics, etc.) sont moins développés, ont des performances plus opaques et souvent plus mauvaises. 2022 a été une année terrible pour tous les épargnants retraite.

Summary

The French pension system continues to rely heavily on the mandatory PAYG Pillar I and Pillar II income streams, with an aggregate replacement ratio for pensions of 48%, and a total value of retirement assets of 11.1% of the French GDP in 2021 (excluding life insurance and real estate). Despite a rather dynamic asset allocation, corporate pension plans had an annual real net return of -14.6% in 2022 and +0.2% average annual for the 23 years between 2000-2022 (+5.4% 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: +31% over the last 23 years for the still dominant capital guaranteed ones, but -25% for the more promoted and faster growing unit-linked ones, despite very positive listed stocks and bonds returns. The personal products specifically dedicated to pensions (PER, Public employee schemes, etc.) are much smaller, and their performances are less transparent and often poorer than those of life insurance. The last year, 2022, has been terrible to all pension savers.

Real returns 2022

Life insurance - CG:
-4.51%

Life insurance - UL:
-18.18%

Insurance-based
pension savings
products: -4.24%

Public employee
pension schemes:
-4.82%*

Corporate DC plans:
-14.56%

* The evolution of the purchasing power of annuities is adopted as proxy for the real net return of public employee pension schemes.

Introduction: The French pension system

Over a 23-year period, from the end of 1999 to the end of 2022, capital-guaranteed life-insurance contracts show on average a positive yearly real pre-tax performance of +1.2% in real terms, while the unit-linked contracts show a negative yearly real return of -1.2%. The worst performing schemes over the long term seem to be the Public Employee ones. Corporate DC plans delivered +0.2% on an annual basis before tax. After-tax returns for corporate DC plans would typically be close for the latter due to a favourable tax treatment.

Table FR.1 – Long-term and pension savings vehicles analysed in France

Product	Pillar	Reporting period	
		Earliest data	Latest data
Life insurance - CG	Voluntary (III)	2000	2022
Life insurance - UL	Voluntary (III)	2000	2022
Insurance-based pension savings products	Mixed (II/III)	2011	2022
Public employee pension schemes	Voluntary (III)	2003	2022
Corporate DC plans	Occupational (II)	2000	2022

Table FR.2 – Annualised real net returns of French long-term and pension savings vehicles (before tax, % of AuM)

	Life insurance - CG	Life insurance - UL	Insurance-based pension savings products	Public employee pension schemes	Corporate DC plans
Reporting period	2000-2022	2000-2022	2011-2022	2003-2022	2000-2022
1 year (2022)	-4.5%	-18.2%	-4.2%	-4.8%	-14.6%
3 years (2020–2022)	-1.9%	-4.4%	-1.3%	-2.5%	-3.4%
5 years (2018–2022)	-1.2%	-2.8%	-0.6%	-1.9%	-2.0%
7 years (2016–2022)	-0.6%	-1.3%	0.0%	-2.3%	-1.0%
10 years (2013–2022)	0.2%	0.5%	0.7%	-1.9%	0.6%
Whole period	1.2%	-1.2%	0.8%	-1.6%	0.2%

Data: France Assureurs, Good Value for Money (GVfM), Préfon, *Union Mutualiste Retraite* (UMR), *Association française de la gestion financière* (AFG), Eurostat; *Calculations:* BETTER FINANCE.

Pension savings have been a political issue in 2018-2019 with the *PACTE* reform which created a new Pillar II/Pillar III pension product called *Plan d'Épargne Retraite* (PER) (Pension savings plan). In 2022-2023, the reform of Pillar I pensions has been a much hotter political issue with a very strong opposition of trade unions. The project has been adopted in a watered-down version in May 2023 with the minimum legal age to get full pension rights increased from 62 to 64.

Pension system in France: An overview

Using the World Bank multi-pillar structure, the French pension system mainly relies on:

- **Pillar I** — the public pension, a DB 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), *but via saver associations*.
- **But also life insurance (its main purpose is retirement) and real estate.**

Table FR.3 – Overview of the French pension system

Pillar I	Pillar II	Pillar III
Mandatory State Pension	Private Occupational Pension	Voluntary Personal Pension ¹
Basic pension insurance	Supplement of the 50% pre-retirement income target of Pillar I	Divided into different financial retirement savings 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 DC
DB PAYG	DB PAYG and small DC (PERCO)	DC
Quick facts		
A relatively high old-age dependency ratio of 34.3% (2021) ²		
An average pre-retirement income replacement ratio of 48% (2020) ²		

² Including life insurance contracts that are not pension products *per se* but are mostly used in France for retirement purposes;

¹ OECD data.

Pillar I — Mandatory State pensions

The French state pension system (Pillar I) is divided it 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 DB 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.¹ The 2023 pension reform was very difficult to achieve politically and increased the legal retirement age from 62 to 64.

The full pension entitlement from Pillar I is calculated by multiplying the mean annual gross income,² by the correction coefficient,³ 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).⁴

Pillar II — Mandatory occupational pensions

Most of the French Pillar II is a mandatory DB, PAYG and privately managed pension scheme, designed to supplement the 50% pre-retirement income target of Pillar I.⁵

The mandatory 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.

In France, Pillar I and Pillar II should cover 100% of all employees receiving a salary.

There is also a small but growing voluntary occupational DC Pillar II (see next sections).

Pillar II/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 *Plan d'Epargne Retraite* (PER) or "Pension Savings Plan" divided into:

A. Occupational PERs, which are:

¹The 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 January 1, 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..>

²Which is the average of the highest 25 annual gross salaries.

³The correction coefficient, in fact, referred to as a rate which can represent a maximum of 50% of the social security income limit.

⁴*Caisse Nationale d'Assurance Vieillesse* (CNAV), "Elements de calcul de la pension", <https://www.statistiques-recherches.cnnav.fr/les-elements-de-calcul-de-la-pension.html>.

⁵This 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%.

- 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 *Plans d'Épargne Retraite Collectifs* (PERCOs); employee participation is voluntary;
- “Mandatory” collective corporate PERs are insurance-regulated PERs which are mandatory for employees, or categories of employees, once the employer has set it up. They are replacing the existing *PERs Entreprises* (PEREs), also called “Article 83”.
- Existing professional or sector-specific personal plans, such as the *Contrats Madelin* (for self-employed), *Madelin Agricole* (for the agricultural sector) or the *Complémentaire Retraite des Hospitaliers* (CRH) for Public Health sector workers, and Préfon (mainly accessible to public employees) have or will be converted into individual PERs.⁶

B. Personal PERs, unrelated to occupation:

- Individual PERs (“People’s Retirement Savings Plans”), sub-divided into insurance-regulated contracts with capital guarantee (including Préfon and Corem, see below) or linked to units in UCITSs or AIFs, and into securities accounts. The insurance regulated individual PERs are progressively replacing the *Plans d'Épargne Retraite Populaire* (PERPs) “People pension savings plan” and *Contrats Madelin* for self-employed workers: the existing balances can be transferred to PERs, and no such new plans can be opened since October 1, 2020.

The PER can be offered both by insurers and by banks/asset management companies, and beneficiaries are free to choose between the two pay-out options: annuities or capital withdrawals. Individual PERs must be subscribed and governed by independent representative saver associations. 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. The French saver organisation *Fédération des Associations Indépendantes de Défense des Épargnants pour la Retraite* (FAIDER) estimates that this will cost pension savers at the very least €20 billion over the average life of the PER contract.⁷

Long-term and pension savings vehicles in France

Figure FR.1 details the AuM for life insurance (mostly used for retirement) and public employee pension schemes.⁸

Second pillar

Collective occupational pension products are limited in size in France, despite the development of the DC long term and pension corporate plans.

⁶“Fonpel”, “Carel-Mudel” and “RMC” are pension vehicles dedicated to very specific occupational categories and not covered by this report.

⁷faider.org, June 6, 2019.

⁸As of yet, data are not available for corporate DC plans and insurance-based pension savings products.

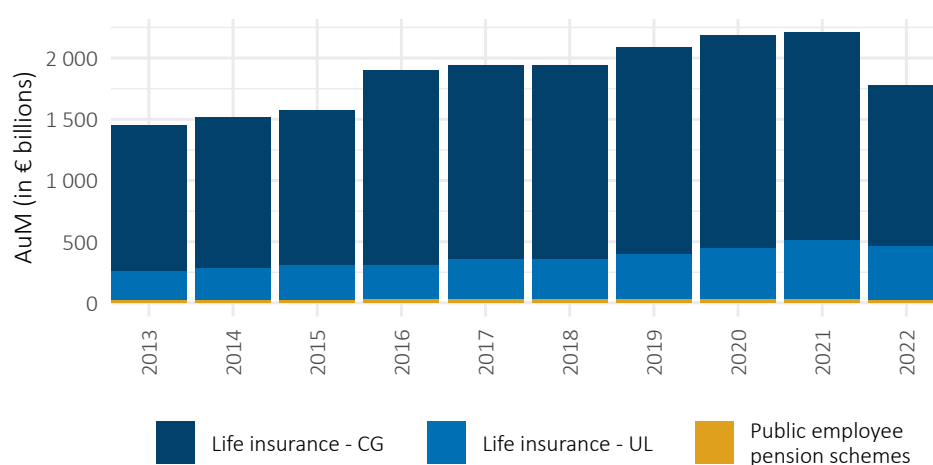
Table FR.4 – Financial assets of French households at the end of 2022

	% of total	2022/2021
Currency and bank deposits	35.3%	9.0%
Investment funds*	4.8%	10.1%
Life insurance and pension funds	33.2%	-8.1%
Direct investments (direct holdings of bonds and stocks)	26.8%	-1.5%
<i>Total</i>	<i>100.0%</i>	

Data: Banque de France;

* 10.2% when including “units” of insurance-regulated products

Figure FR.1 – AuM of French long-term and pension savings vehicles



Data: France Assureurs, Préfon, UMR; Calculations: BETTER FINANCE; Note: AuM of Corporate long-term and pension savings plans, amounting to €162.2 billion in 2022 are not shown in the graph due to lack of historical data.

Collective occupational insurance-based pension saving products

In total, mathematical reserves grew a little, from €118.8 billion to €134.9 billion from the end of 2017 to the end of 2021. For insurance-regulated corporate DC plans under “Article 83” of the French tax code (PERE), mathematical reserves stood at €65 billion at the end of 2020.

As many “Article 83” contracts are progressively transferred into mandatory collective occupational PERs, they are less and less tracked by the national supervisor—the *Autorité de Contrôle Prudentiel et de Résolution* (ACPR)—and by the national trade association. For insurance-regulated DB plans (“Article 39” of the French tax code), mathematical reserves stood at €40.5 billion at the end of 2021.

Corporate long-term and pension savings plans

The total assets of French DC corporate savings plans (PEE + PERCO + collective PER)⁹ decreased by 3% in 2022 to €162.2 billion. The number of members in those plans increased to 11.2 million

⁹Plan d’Epargne Entreprise (PEE) is a corporate savings plan where savings are typically blocked for a minimum of five years.

people in 2020.

The PERCO, exclusively dedicated to pension investments, is still less “mature” than other pension plans, since 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 €25 billion at the end of 2022 (-2.3% over 2021). Close to 3.4 million employees had a PERCO or collective PER at the end of 2021 and 189 000 companies propose this type of plans to their employees.

PERCO and collective corporate PER are quite similar to the US Corporate pension plans (“401k”) in their design. However, they are generally not invested in general purpose investment funds like UCITs, but mostly in specifically dedicated French-domiciled AIFs called *Fonds Communs de Placement d’Entreprise* (FCPEs).

Third pillar

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 2016 to 2022, contributions to unit-linked contracts rose more than those to *contrats en euros* (capital guaranteed contracts, or misleadingly called “with profit policies” in the United Kingdom (UK)) and their share in total mathematical reserves increased from 15% to 25% (see Table FR.5).¹⁰ This increase is partially due to capital gains, but can be mostly attributed to net in-flows (contributions minus benefits).¹¹ Unit-linked contracts accounted for 21% of contributions to life insurance in France in 2012 and 39% in 2021.¹²

Table FR.5 – Mathematical provisions of French life insurance (in € billion)

	2016	2017	2018	2019	2020	2021	2022	2022/2021
Capital-guaranteed	1 586	1 590	1 589	1 684	1 747	1 694	1 318	-22.2%
Unit-Linked	284	328	328	372	416	488	437	-10.5%
All contracts	1 870	1 918	1 917	2 056	2 163	2 182	1 755	-19.6%

Data: ACPR; *Calculations:* BETTER FINANCE.

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 is intended to encourage savers to accept a higher level of risk in the short-term for potential better long-term returns, for example by investing more on equity markets. By the end of June 2022, those contracts amounted to only €5.4 billion of mathematical provisions,¹³ probably at least partly due to the ultra-low interest rates, making it challenging to

¹⁰Source: ACPR.

¹¹Source: France Assureurs, 2022.

¹²Source: France Assureurs, 2022.

¹³Source: France Assureurs.

generate a decent return. Since 2016, insurers are allowed to transfer unrealised capital gains from their general assets covering capital guaranteed contracts to the *Eurocroissance* contracts to boost returns.

Insurance-based pension saving products (IBPPs)

Plans d'Épargne Retraite (PERs):

Launched in October 2019, PERs reached €48.5 billion in assets and 4.3 million participants by September 2021.

***Plans d'Épargne Retraite Populaire* (PERPs):** 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. New PERP contracts are not allowed since October 2020. The number of subscribers increased slowly from 2011 to 2019 from 2.1 to 2.5 million, (+18%), and flattened out in 2018 and 2019 due to an exceptional ban on tax deductibility and to the launch of the PER that year, as many PERPs have collectively transferred into PERs, or individual participants have transferred their rights to PERs as well.

***Contrats Madelin* (for self-employed individuals):** Mathematical provisions related to *contrats retraite Madelin* decreased by 3.8% to 39 billion in 2020.¹⁴ 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. New Madelin contracts are not allowed since October 2020.

***Contrats Madelin agricole*:** Mathematical provisions of *contrats Madelin agricole* (plans for persons working in the agricultural sector) decreased by 1.6% in 2020 to €6 billion. 326 000 farmers had an open contract at the end of 2018.

Public employee pension savings products

These schemes have all adopted the new (2019) legal framework of the individual PER, but they have very specific features:

- They are mostly (*Corem*) or entirely dedicated to public employees (*Préfon* and CRH);
- They are not subscribed and governed by independent associations representing the pension savers (a legal exception to the governance rules of all other individual PERs);¹⁵
- Their pension rights are accounted for in “points”, not in euros or in units;
- The French NCA—ACPR—excludes them from its statistics on IBPPs.

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, and have the right to propose resolutions to the general assembly. However

¹⁴Source: France Assureurs.

¹⁵*Corem* just set up an independent subscribing and governing saver association in 2022.

French Law still 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 they would for any other pension savings product.

Préfon: *Préfon* is a deferred annuity plan open to all current and former public employees and their spouses that had 398 500 participants at the end of 2022. It had €13.5 billion in AuM (market value) at the end of 2022, down from €17.6 billion at the end of 2021 (Association PREFON, 2022b).

Corem: *Corem* is also a deferred annuity plan open to everyone but so far mainly subscribed to by civil servants. It had 322 635 participants at the end of 2022 (down from 397 515 in 2016). Its assets under management went from €10.6 billion (market value) at the end of 2021 to €9.5 billion at the end of 2022.¹⁶

Complémentaire Retraite des Hospitaliers (CRH): CRH, a deferred annuity plan¹⁷ open to all public employees from the public health sector and their spouses, had about 350 000 participants in 2021. Its technical reserves amount to €3.3 billion in 2018.¹⁸ We could not find more precise publicly available information.

Charges: Often opaque, high and rising

Available data on average annual charges for savings products are scarce in France.

Investment funds

According to the Autorité des Marchés Financiers (AMF, 2022b), overall annual fees for equity funds were 1.51% on assets, and 1.25% overall in 2020, and they would have gone down slightly from previous years. However, these averages are not asset-weighted, and include 2 374 funds, both "retail" and "institutional" ones. Moreover, they only include French-domiciled funds and leave out other UCITS funds sold to French individuals. Even more important is the fact that the *Autorité des Marchés Financiers* (AMF) data do not take into account the fact that two thirds of investment funds offered to French retail investors are via insurance contracts' "units".

- For French equity funds offered via those, annual total charges of the funds themselves reached 2,17% on average in 2021 and 1,96% for the now most offered mixed funds:¹⁹ much more expensive than the overall French fund market estimated by AMF;
- But the full "units" cost was even higher: respectively 2.98% and 2.77%, when including the annual contract 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, Financial Conduct Authority [FCA], 2016).

¹⁶ Combined participants and assets of *Corem* (9.5 billion) and another smaller pension plan (*R1*) managed by the same provider UMR.

¹⁷ Rights acquired before mid-2008 do not provide annuities guaranteed for life, but only for 10 to 15 years.

¹⁸ Règlement intérieur CRH 2020 article 18

¹⁹ Source: GVfM

Capital-guaranteed insurance contracts (*fonds en euros*)

Since 2018, the national supervisor ACPR publishes their annual average charge, based on a sample of 100 insurers. The published average charge decreased from 0.65% in 2021 to 0.62% of assets in 2022,²⁰ but doesn't include:

- the profit sharing taken by insurers (0.31% in 2019),²¹
- the 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 the total charges of unit-linked insurance, which cumulates at least two annual asset-based fees: the units' (investment funds) charges plus those of the wrapper contract itself. Contract fees alone account for 0.80% to 0.95% in fees on average per annum on assets according to private surveys.²² Overall, for unit-linked insurance contracts invested in French equity funds, the total average fees are estimated at 2.98% per annum, 2.08% when invested in bond funds, and 2.77% when invested in mixed funds (Good Value for Money [GVfM], 2022). Mixed funds and equity funds combined account for 71% of all funds in French unit-linked contracts (AMF, 2022a, p. 106). Two thirds 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 no aggregate data on the amount of these additional asset-based fees, but it often represents an additional 0,30% or more every year taken on assets.

The total average fees of around 3% per year or more don't seem to go down, although ACPR has recently (2023) asked insurers to eradicate the most egregious cases. For example, the biggest life insurance subscribing association announced an increase of its unit-linked contract annual fees by 35 basis points in 2019.²³

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 charges 0.60% on assets plus 2% on net investment income for asset management plus a 3.90% entry fee in 2020; lowered to 2,05% in 2022. This does not include the underlying investment fund fees. 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 significantly increases their net charges to pension savers. FAIDER estimates the cost impact for

²⁰ ACPR, 2023

²¹ Source: ACPR, 2020 (did not publish more recent data).

²² Dossiers de l'épargne n°152, 2014. A more recent evaluation from Goodvalueformoney.eu (2023) mentions 0,80% but could be on the rise as newer contracts tend to charge 1,00% or more

²³ Afer.fr, 2019.

French pension savers to represent a minimum of €20 billion over the life of these personal pension plans²⁴. A recent study of the National Public Advisory Committee CCSF estimates that the annual ongoing costs of the new equity “units” alone are close to 3%, of which close to 0.90% result from commissions (“inducements”).²⁵ 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 fee of around 3% compares very unfavourably with the annual 1% fee cap of the basic option of the future PEPP created by the EU, and with the annual total charges of US individual retirement accounts (IRAs), which are very often well below 1%.

The CCSF report also points to the opacity of these total annual charges and recommends the public disclosure of total annual charges of unit-linked PERs, i.e., the sum of the underlying “units’ costs and the wrapper fee”. This was obtained by FAIDER back in 2005, but this disclosure rule was repealed two years later by the French Authorities. The French Government then reinstated the mandatory disclosure of the total annual charges in February 2022 but only on a per unit basis, not at the insurance contract level, so it would still be up to the saver to try to compute the overall cost of his unit-linked contract.²⁶ This also applies to all unit-linked life insurance contracts.

Since 2018, the ACPR estimates the average annual charges for the capital guaranteed funds in the personal and occupational insurance regulated pension products and puts it at 0.39% for 2022. 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 or the impact of entry and exit fees. Exit fees can be very heavy on annuities, typically 1 to 3% of their amounts.

Neither ACPR nor the national trade association disclose any data on the costs of unit-linked personal and occupational pension products, although they are now a major part of the individual PERs.

Taxation

For PERs, PERPs and Public Employee schemes (Préfon, Corem, CRH), contributions are deductible from taxable income with a minimum of €4 113 and up to 10% of total professional income with a tax deduction ceiling (€32 909 in 2022). 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 standing at 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 amounts to 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 DB 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% , and again in 2018 to 17.2%.

²⁴FAIDER.org, June 2019

²⁵CCSF – Rapport sur les nouveaux plans d’épargne retraite, July 2021

²⁶Arrêté du 24 février 2022 portant renforcement de la transparence sur les frais du plan d’épargne retraite et de l’assurance-vie.

The overall taxation of all long-term financial savings was again globally increased from 2018 onwards, with the creation of the “PFU” or “flat tax”. It amounts to 30% for most nominal 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 and income is no longer taken into account except for real estate investments.

On the other hand, the wealth tax on all financial assets was abrogated from 2018 on (but not on real estate).

Table FR.6 – Taxation of pension savings in France

Product	Phase			Regime
	<i>Contributions</i>	<i>Investment returns</i>	<i>Payouts</i>	
Life insurance - CG	Taxed	Exempted	Exempted	TEE
Life insurance - UL	Taxed	Exempted	Exempted	TEE
Corporate DC plans	Taxed/Exempted	Exempted	Taxed/Exempted	Variable
Public employee pension schemes	Exempted	Exempted	Taxed	EET
Insurance-based pension savings products	Exempted	Exempted	Taxed	EET

Data: French tax code.

Performance of French long-term and pension savings

Real net returns of French long-term and pension savings

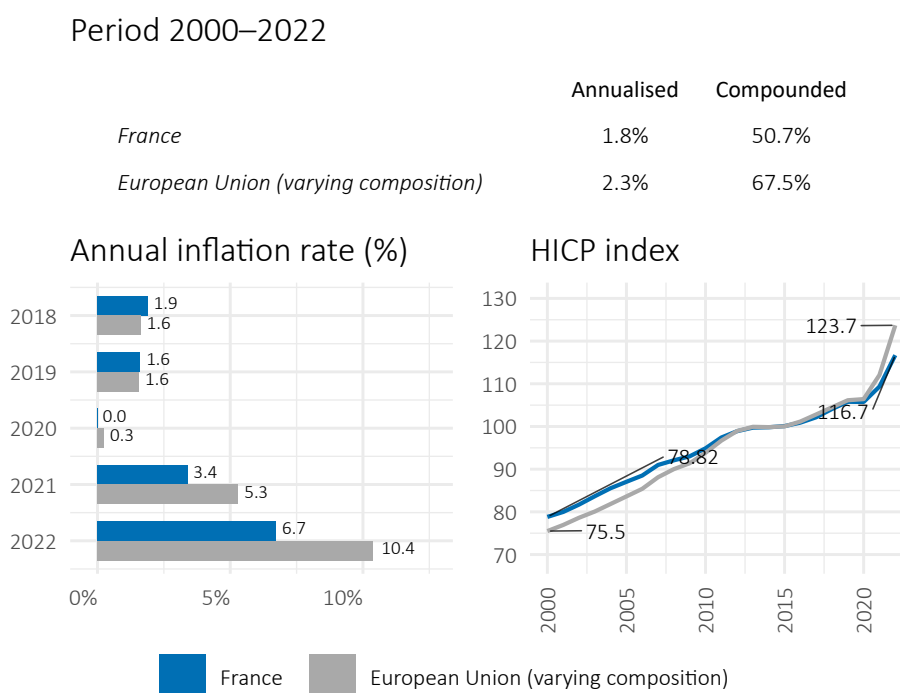
Equities and bonds

In 2022, the French equity market (dividends reinvested) dropped by 7.7% (CAC all tradable GR index) after a gain of 29% in 2021, in line with European equity markets overall (see Figure GR.6). Over the last 23 years (end 1999 to end 2022), it returned a total of +157%, while large capitalisations (CAC 40 index, dividends reinvested as well) returned notably less, +125%, demonstrating the very strong long-term over-performance of small and mid-cap equities. Inflation over the same period was +51%. So, despite two sharp downturns (2000-2002 and 2007-2008) plus other drops in 2011, 2018, 2020 and 2022, French equities delivered positive nominal and real returns over the whole period. However, the real (after inflation) performance of the largest stocks (CAC 40) started to be positive only since 2015.

Packaged long-term and pension products in France are also invested in other European equities. Therefore the European equity universe is also an appropriate benchmark for their equity returns.

The same applies to bond where the most appropriate general benchmark is European bonds.

Figure FR.2 – Inflation in France



Data: Eurostat, HICP monthly index (2015 = 100); Calculations: BETTER FINANCE

Life insurance

Life insurance – Capital-guaranteed contracts

The *after-tax* real returns of guaranteed life insurance contracts plunged back deeply into negative territory in 2021: -2.5% and even more in 2022 to -4.5%, mainly due to the rise of inflation, while nominal returns rose in 2022. 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 12 years on average. These contracts – although of a long-term nature – are invested only 9% in equities.²⁷

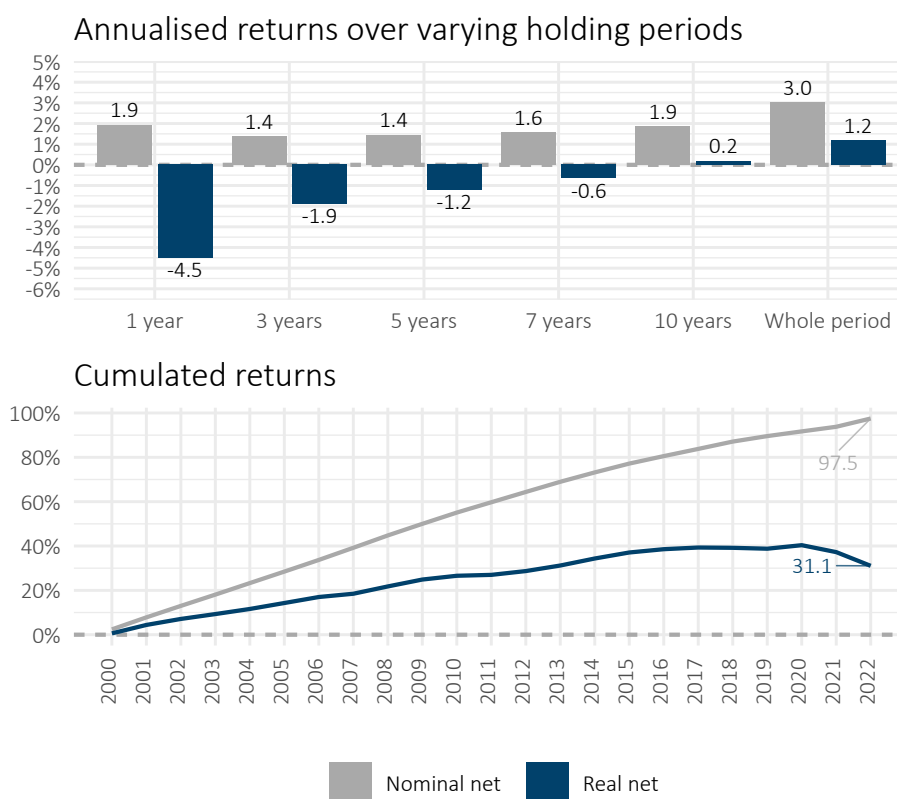
Over a 23-year period, cumulated pre-tax real returns of guaranteed life-insurance contracts totalled +31%, and varied from a maximum annual performance of +3.8% in 2001 to a negative performance of -4.5% in 2022 (see Figure FR.3).

After-tax real returns are presented in Table FR.7. In the most favourable case, where savers do not redeem more than €4 600 per annum for at least eight years after the first subscription (see section on taxation, Page 164), real returns after tax are slightly better.

These returns do not take into account the changes in the insurers' reserves for profit sharing ("Provisions de participation aux bénéfices" or PPB), which are legally required and are credited with the capital gains on sales of non-fixed income assets. They must be returned to the life insured within 8 years of their inception. They are then included in the annual return. French

²⁷ Source: goodvalueformoney.eu, 2021.

Figure FR.3 – Returns of French capital-guaranteed life insurance contracts (% of AuM, before tax)



Data: France assureurs (up to 2018), Gvfm since 2019, Eurostat;
 Calculations: BETTER FINANCE; Note: * Reduced by the average entry fee of 2.76% for the year 2000.

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.²⁸ Indeed, the outstanding amounts of these reserves stood at 1.9% of total mathematical reserves at the end of 2013 and have increased again since then to reach 5.4% in 2022.²⁹

Following capital-guaranteed life insurance reporting rules, capital gains or losses are not accounted for in the disclosed returns in Table FR.7.

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, 2019, 2021 and 2022 since the real income before tax was negative (loss of purchasing power), taxing nominal income had the effect of deepening the real

²⁸“The persisting accruals to the PPB could be also helped by the evolution of rules, which allow insurers since 2019 to include part of it in the computation of own funds eligible to cover capital requirements” (ACPR)

²⁹Source: ACPR, 2023

loss for life insurance savers further.

Table FR.7 – Returns of French life insurance contracts - capital guaranteed (% of AuM)

Year	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	4.0%	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%	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%	1.7%
2016	1.9%	1.1%	0.6%	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%	0.9%	1.0%
2021	1.1%	-2.2%	-2.5%	-2.4%
2022	1.9%	-4.5%	-5.0%	-4.8%

Data: France Assureurs (up to 2018), GVfM since 2019; *Calculations:* BETTER FINANCE.

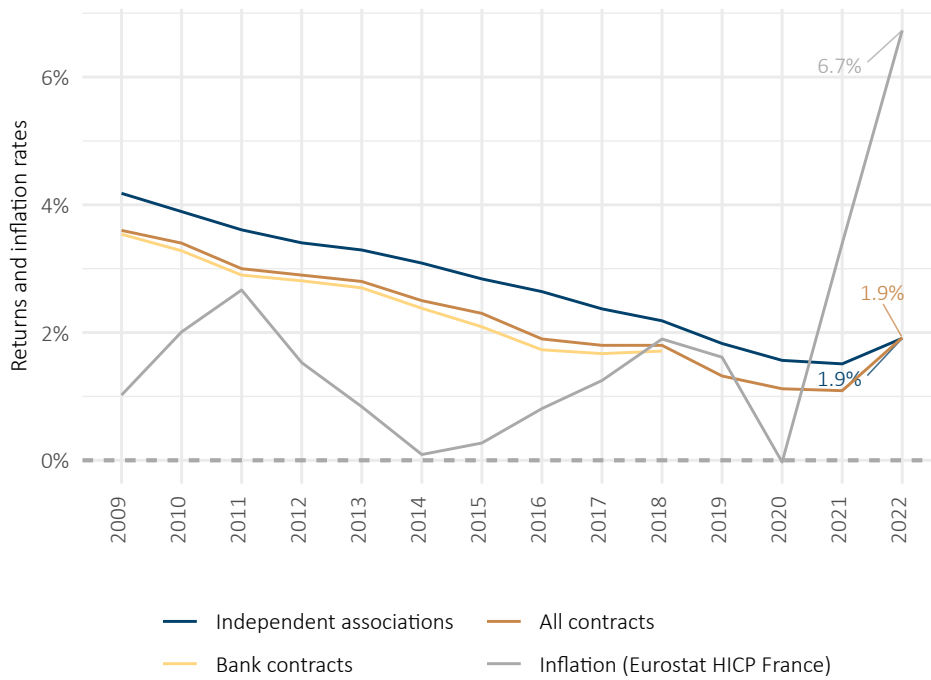
* for redemptions below € 4 600 per annum.

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%,³⁰ whereas the return for contracts subscribed by independent associations was 1.56% (see Figure FR.4.³¹ 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 about 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.

³⁰FAIDER estimates that it may have fallen below 1%, as, according to ACPR, the 2020 return of all types of capital guaranteed contracts run by Bancassureurs was 10 bps below the market average, and the average return for standard contracts was 1.09% according to GoodValueforMoney.eu

³¹Source: FAIDER. Independent associations representing life insurance contracts holders included AGIPI, AMIREP, ANCRE, ASAC-FAPES and GAIPARE in 2020 FAIDER is a member organisation of BETTER FINANCE.

Figure FR.4 – Nominal returns – All contracts vs. independent life insurance associations (% of AuM, before tax)



Data: FAIDER, France Assureurs, GVfM, Eurostat.

Table FR.8 – French nominal and real tax rates on capital-guaranteed life insurance returns

Year	Inflation	Return		Tax rate	
		Nominal	Real	Nominal	Real*
2000	1.8%	2.4%	0.6%	13.4%	53.4%
2001	1.5%	5.3%	3.8%	13.4%	18.8%
2002	2.2%	4.8%	2.6%	13.4%	24.8%
2003	2.4%	4.5%	2.1%	13.4%	29.4%
2004	2.2%	4.4%	2.1%	13.7%	28.6%
2005	1.8%	4.2%	2.4%	18.5%	32.3%
2006	1.7%	4.1%	2.4%	18.5%	32.0%
2007	2.8%	4.1%	1.3%	18.5%	60.1%
2008	1.2%	4.0%	2.8%	18.5%	26.6%
2009	1.0%	3.6%	2.6%	19.6%	27.6%
2010	2.0%	3.4%	1.4%	19.6%	48.9%
2011	2.7%	3.0%	0.3%	21.0%	194.0%
2012	1.5%	2.9%	1.3%	23.0%	49.4%
2013	0.8%	2.8%	1.9%	23.0%	33.1%
2014	0.1%	2.5%	2.4%	23.0%	23.9%
2015	0.3%	2.3%	2.0%	23.0%	26.1%
2016	0.8%	1.9%	1.1%	23.0%	40.4%
2017	1.2%	1.8%	0.5%	23.0%	76.0%
2018	1.9%	1.8%	-0.1%	24.7%	-457.7%
2019	1.6%	1.3%	-0.3%	24.7%	-112.8%
2020	0.0%	1.1%	1.1%	24.7%	24.1%
2021	3.4%	1.1%	-2.2%	24.7%	-12.1%
2022	6.7%	1.9%	-4.5%	24.7%	-10.5%

Data: France Assureurs until 2018, GVfM since 2019, French tax code, Eurostat, GVfM since 2019; *Calculations:* BETTER FINANCE.

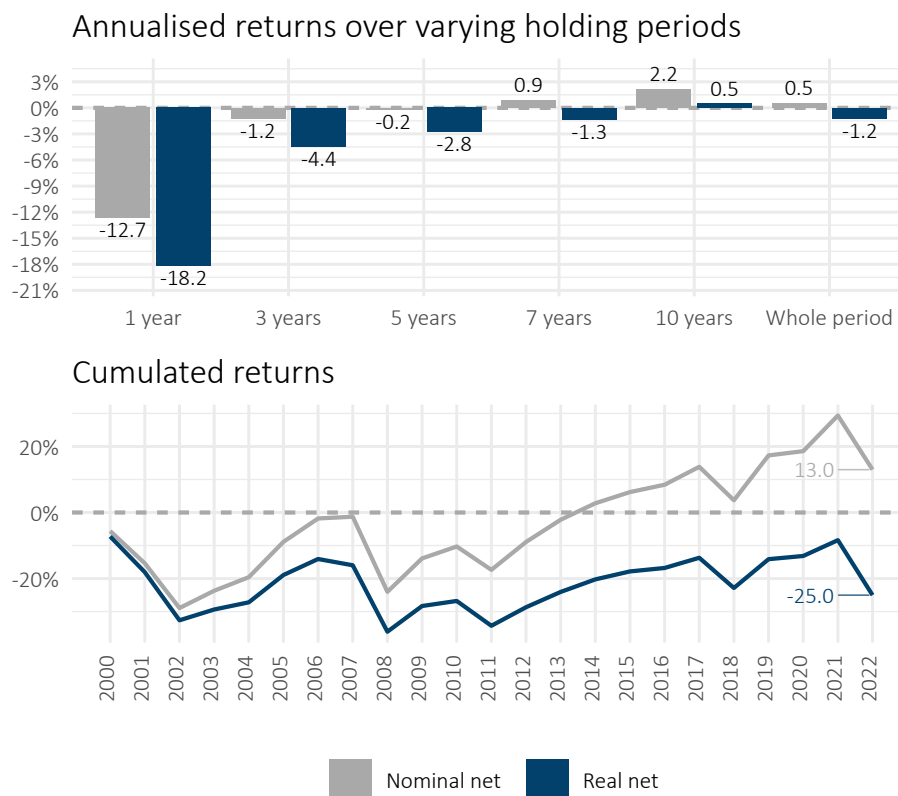
* tax / real (net of inflation) income. When negative, the real "income" tax rate only increases the real pre-tax loss by the percentage indicated.

Life insurance – Unit-linked contracts

Nominal returns were pushed upwards by the rise in stock prices from 2012 to 2017 and from 2019 to 2021. Despite the 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 Figure FR.6).

Over a 23-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).

Figure FR.5 – Returns of French unit-linked life insurance contracts (% of AuM, before tax)



Data: France assureurs (up to 2018), Gvfm since 2019, Eurostat;
 Calculations: BETTER FINANCE; Note: * Reduced by the average entry fee of 2.76% for the year 2000.

Life insurance – All contracts

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 23 years later, one has to subtract the entry costs paid in 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 average of the investment,³² 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 (France Assureurs), but not for unit-linked ones in its annual “key figures” until 2021 (and from then on restated nominal net returns back to 2012).

An average saver has thus received a cumulated net real pre-tax return of 31% for this 23-year period of investment on guaranteed contracts,³³ and a negative one of -25% on unit-linked contracts. On a yearly basis, the rates of returns would be +1.2% and -1.2% respectively. It is worth noting that, although unit-linked contracts are riskier for subscribers, they also provided cumu-

³²Source: OEE

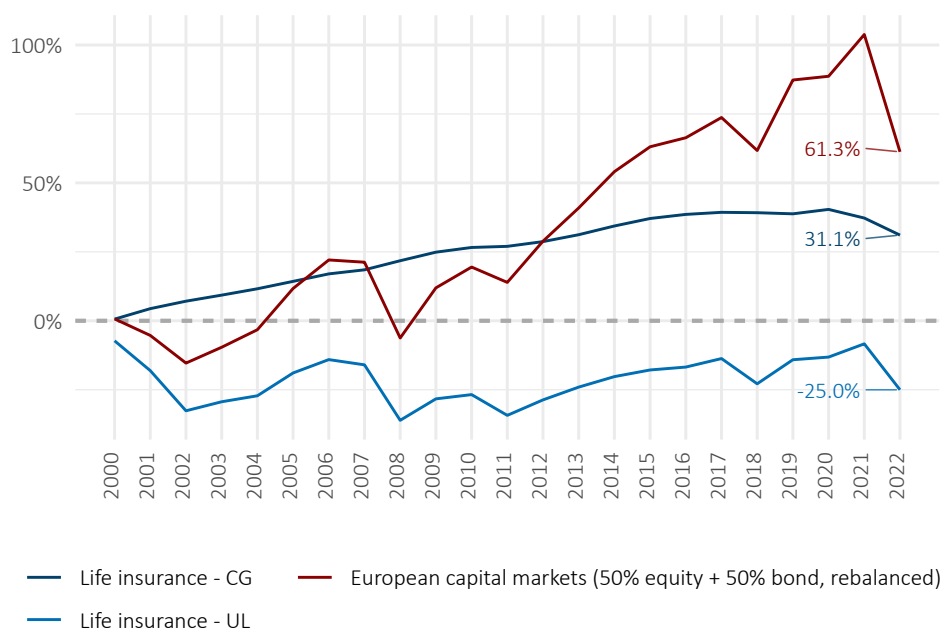
³³+ 28% with the most favourable tax treatment and minimum 8-year-old contracts, see table FR 5 above

lated returns that were much lower than those of the guaranteed contracts. Such a lower—and negative—real performance over 23 years is primarily due to:

- much higher fees (see the fees and charges section above): about five times higher for the dominant equity and mixed asset “units”,
- and to the fact that mostly expensive retail share class actively managed funds are offered and promoted and very few, low-cost funds such as index exchange-traded funds (ETFs) or institutional or “clean” share classes of actively managed funds.³⁴ Independent research determined that over the mid and long-term, high charges hurt net performance on average. 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 strong positive real performance over the same period. Figure FR.6 shows that the pre-tax real performance of unit-linked contracts is well correlated to that of capital markets, but massively below those over time (minus percentage points over the last 22 years), making unit-linked a high-risk and low-return offer.

Figure FR.6 – Long-term life insurance real returns vs. capital markets



Data: France Assureurs, GVfM, Eurostat; *Calculations:* BETTER FINANCE;

Details regarding the calculations of the European capital markets benchmark are provided in the introductory chapter of this report.

³⁴The institutional share class of an investment fund bears lower annual fees than the retail share class, but requires a higher minimum initial investment. The “clean” share class of an investment fund bears no sales commissions and therefore also enjoys lower overall annual fees.

Insurance-based pension saving products (IBPPs)

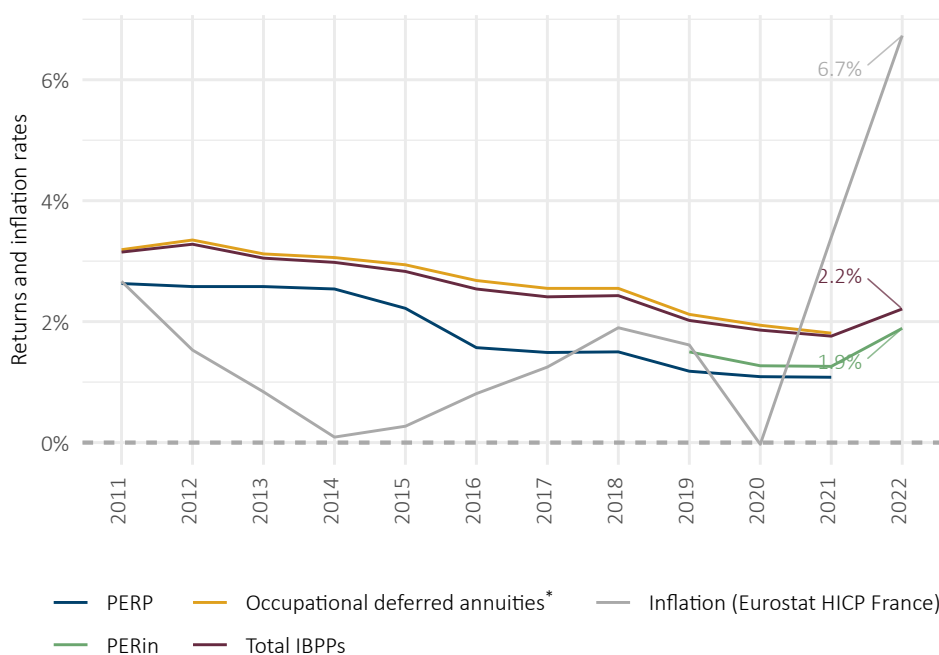
Individual PER (PERin)

According to GoodValueforMoney.eu, aggregate nominal performance for the new PERs' "fonds en euros" (capital guaranteed investment option) launched at the end of 2019 has been better than for ordinary life insurance contracts between 2019 and 2021, but was similar in 2022 (1,89% versus 1,92%) and very much below inflation.

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).

Figure FR.7 – Nominal returns of insurance-based pension savings products (2011–2022, % of AuM, before tax)



Data: ACPR, GVfM for PERin, Eurostat;

* Occupational deferred annuities include PERE, Madelin and Article 83 contracts

It was impossible to find global long-term return data on PERPs before 2011 and after 2021. The insurance industry body 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 and PERs. Based on the disclosed nominal returns of a majority of PERPs collected by the French Supervisor ACPR only from 2011 to 2021, the weighted average nominal return of the capital guaranteed PERPs ("fonds en euros") was 1.08% in 2021, similar to the average return of ordinary capital guaranteed life insurance contracts. This can be surprising, since 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 2021, pre-tax real returns of French personal pensions (PERP) became very negative; on average -2.2%.

Occupational deferred annuities (Madelin, PERE and Article 39)

The nominal returns of occupational deferred annuities were higher (1.81% in 2021) 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 (0.39% in 2022) but that is for the capital-guaranteed option of all IBPPs combined. Again, no cost and performance data on unit-linked and schemes in “points” are disclosed by the French NCA.

Unfortunately, it also did not identify separately the historical returns and costs of the pension 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) or DB plans (“article 39”). And ACPR stopped disclosing their average return in 2022. Following the European Commission (EC)’s request for the ESAs to improve the transparency of past performances and fees, it is urgent to collect, analyse and disclose these data.

Public employee pension schemes

It is challenging to evaluate the real returns of these deferred annuity plans to the participants. To start with, 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 Law made this a legal requirement from 2011 onward.³⁵ 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.

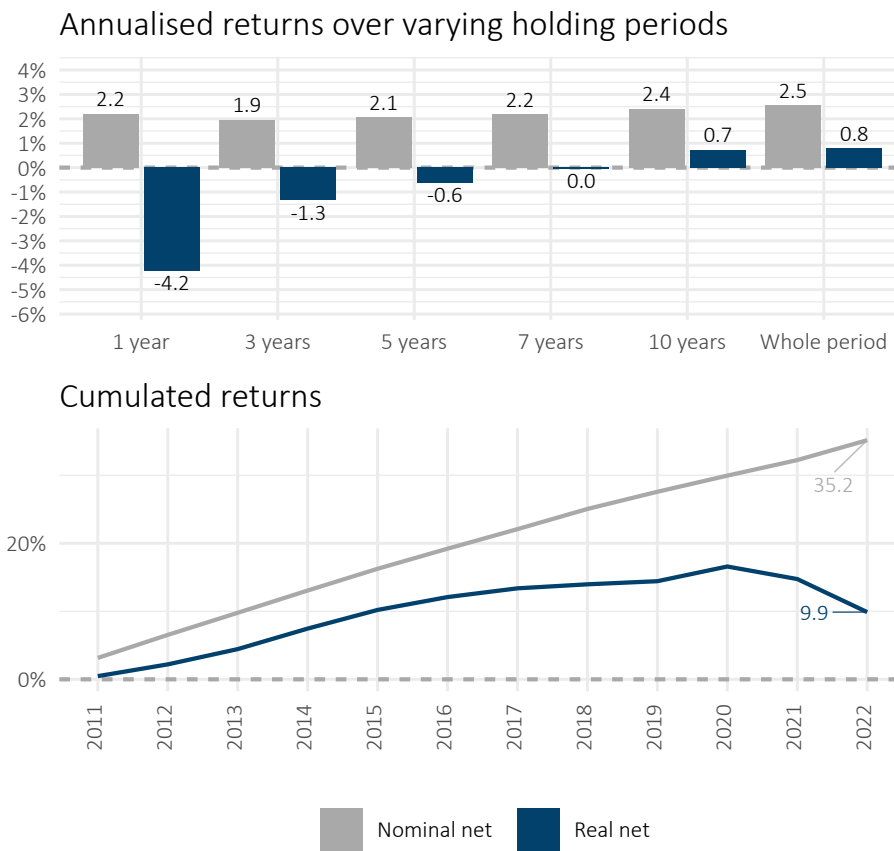
Then, these schemes disclose the pension rights in “points”, not in euros or in units. The evolution of the value of the points does not permit to compute the annual return to participants on their pension savings. This data can only help compute the real evolution of the pension rights, or, in other words the evolution of the purchasing power of the annuities paid to the participants.

Préfon

Préfon published an accounting return (net of fees) on its investment portfolio of +3.05% (excluding real estate and private equity) versus -0.9% in 2021. However, as mentioned above, the accounting return does not take into account the changes in the market value of assets (the market value of the portfolio dropped by 20.6% in 2022). Préfon’s investment portfolio is still heavily tilted towards fixed income (79% of total in 2022, and equity weighing only 12%, in accounting,

³⁵Law n° 2010-737 of July 1, 2010—art. 35 (V), which modified Article L441-3 of the French Insurance Code.

Figure FR.8 – Returns of French IBPPs (before tax, % of AuM)



Data: ACPR, GvFM; Calculations: BETTER FINANCE.

not market value terms). This seems an inadequate asset allocation for the long-time horizon of the pension plan, and an inadequate reporting as the accounting value has little relevance to assess its performance.

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 December 31, 2013) to help Préfon balance its assets and liabilities³⁶. At the end of 2016, this contribution from the insurers amounted to € 333 million (Association PREFON, 2022a) despite the massive cuts in pension rights for those who retire after age 60 decided in 2014 and 2017 (see Figure FR.9).

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. But from then to the end of 2021, despite these increases, the real value (purchasing power) of its participants pensions rights (for those who retire at the age of 60) shrank again by 5.5% (+2.4% nominal increase for a +8.4% inflation). It will be even worse in 2022.

In addition, only since 2012 is the value of the participants' accumulated savings communicated individually to them, 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 annual rate of pension rights' and annuities' increases before tax for several years (see Figure FR.9).³⁷ Préfon participants who contributed in 2002 and who will retire at the age of 60 have lost 22% of the real value of their pensions (before tax³⁸). The advertised objective of Préfon to maintain the purchasing power of pensions has not been fulfilled since 2002 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 disclosed.³⁹

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

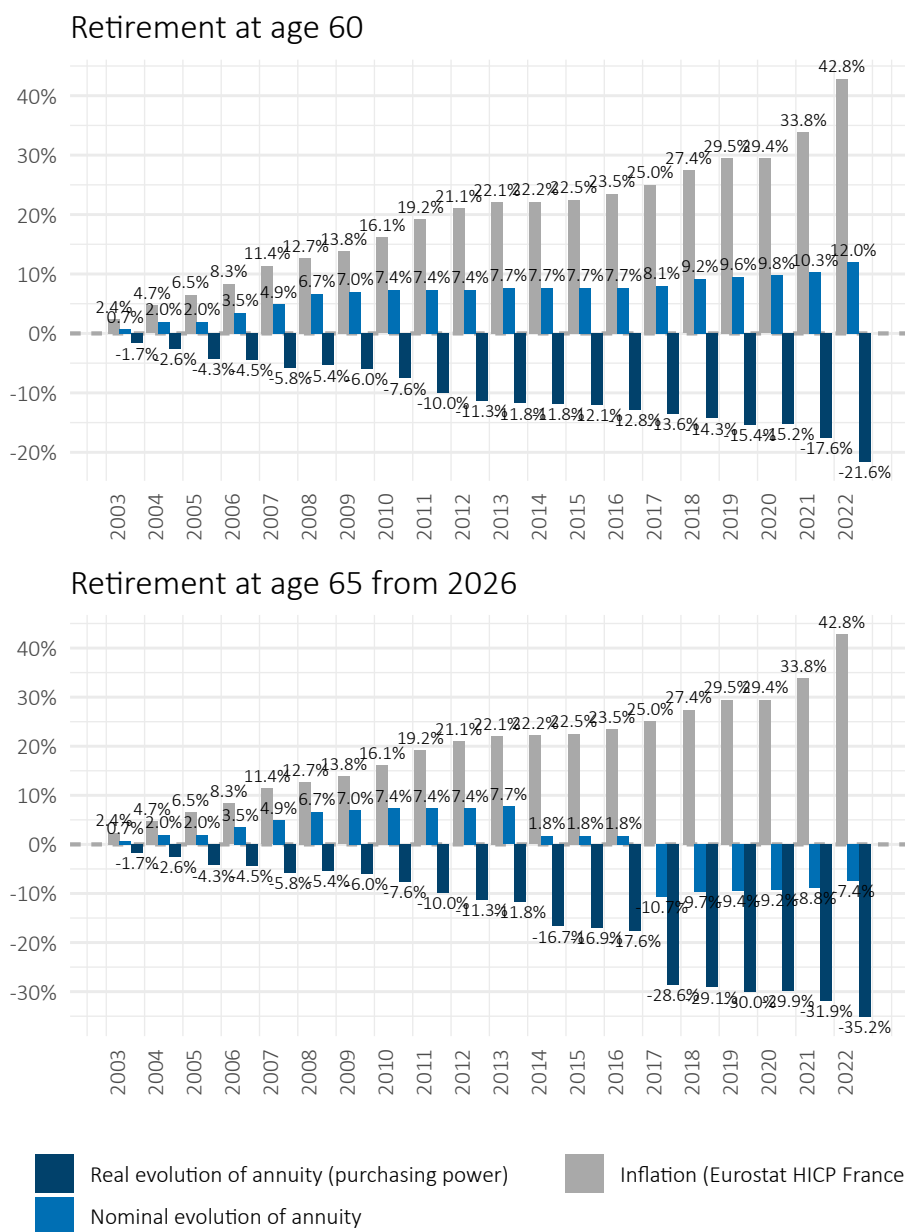
³⁶"Les Echos" 27 December 2010. This information was not disclosed by Préfon to the participants.

³⁷This key data is very difficult to find, but recently Préfon has been making significant efforts to improve its transparency and disclosures.

³⁸Savings 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").

³⁹ARCAF, 2019

Figure FR.9 – Préfon annuities real value: Compounded evolution



Data: Préfon, Eurostat; Calculations: BETTER FINANCE.

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), even though Préfon always guaranteed its participants at subscription that its pension annuities could never be reduced in nominal terms. In real terms it is much worse (-35% lost since 2002 to 2021), as shown by the lower plot in Figure FR.9.

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 2020 annual report, 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 Figure FR.3), and far 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). And this type of disclosures was not pursued in its latest report (2021).

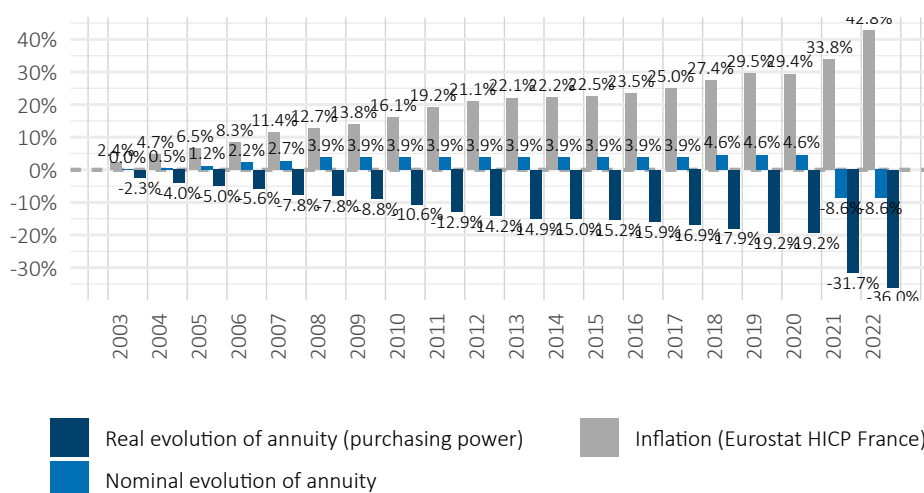
Corem

Corem publishes the annual accounting return on its investments but does not specify whether these are gross or net of fees. The accounting return for 2022 was +3.88% up from +3.37% in 2021. Its asset allocation is less inadequate than Préfon's for a long duration pension plan: 19% in equities. However, this accounting return does not take into account the changes in the market value of assets either. In addition, and more importantly, all the investment return of the Corem assets has been 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 (Figure FR.10). 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 36% of their real value before tax (purchasing power) over the last 20 years, since Corem has not increased them for many years, pocketing the return on its portfolio for other purposes, and has announced in April 2021 to its participants that the nominal value of their pension rights as of January 1, 2022 will be reduced by 12.6%. These figures are before tax. This key performance information is not clearly disclosed to the public and to new participants.

The reality is even worse since, 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 (thus losing 2 years of pensions), and the minimum guaranteed return on pension contributions was lowered from 2.3% to 1.5% from 2015 on.

Figure FR.10 – COREM annuities real value: Compounded evolution



Data: UMR, Eurostat; Calculations: BETTER FINANCE.

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 time.⁴⁰ 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. Thanks to the massive cut in pension rights as of 1/1/2022, the coverage has jumped to +119%, again at the sole expense of participants.

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 2023, despite complaints to the ACPR, the product is still actively distributed and without any visible and intelligible warning about its catastrophic performances and about its massive recent cut in its pension rights.

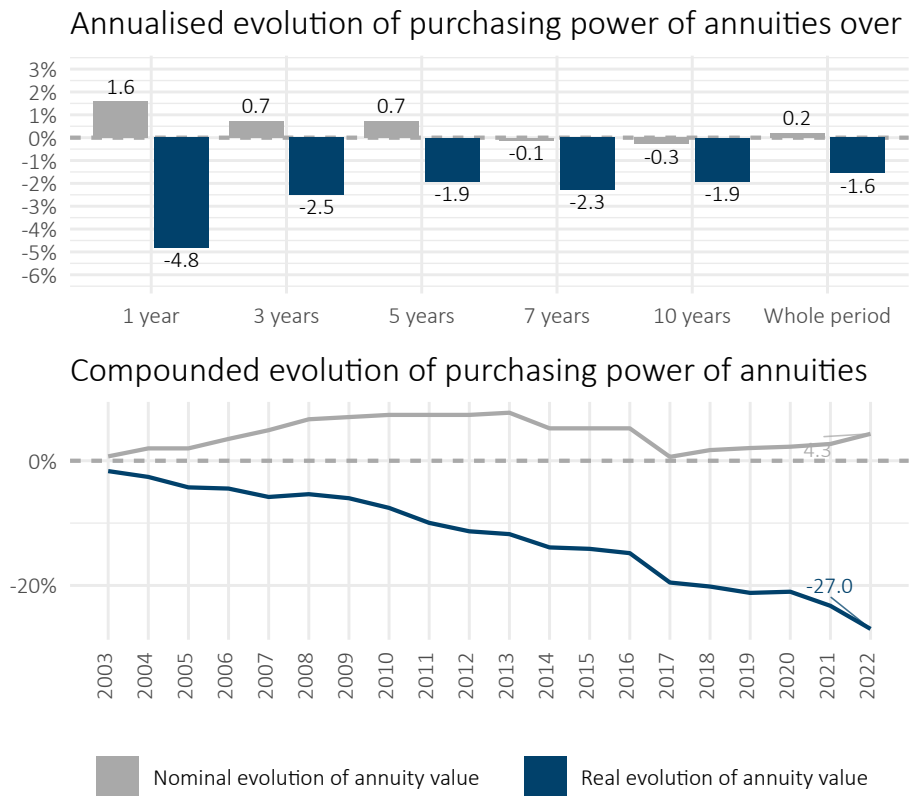
⁴⁰Until 2017, Corem's recovery plan allowed it to exceptionally use a discount rate of 3% and an older mortality table to compute the present value of its pension liabilities instead of the regulatory 0.78% at the end of 2014 and 1.5% end of 2015. Using the 3% discount rate, Corem assets cover 107.5% of its liabilities at the end of 2015.

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 ongoing restructuring that started in 2008, the real returns of this plan are probably low and below inflation. For the last six years (2015-2021), CRH annuities’ nominal value has increased by 2.7%, against an inflation of 9.2%; representing a loss in the real value of the outcome of participants’ savings of 6%.

Overall, BETTER FINANCE estimates the loss of purchasing power over the last eighteen years (2002-2020) of participants to the French Public Employee Pension Schemes (Préfon + Corem) to be at -26.97% (-1.56% per annum, see Figure FR.11), 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.

Figure FR.11 – Evolution of the purchasing power of French public employee pension schemes annuities (before tax)



Data: Préfon, UMR; Calculations: BETTER FINANCE; Note: Purchasing power of annuities is adopted as a proxy for returns; Figures represent the asset-weighted average evolution of Préfon and COREM pension annuities.

Corporate DC plans

With the precious help of AFG, the French asset management industry association, we combine information provided by SIX on the performance of each category of funds (FCPE) with data on

their total outstanding relative weight to estimate the overall returns of corporate savings (PEEs, PERCOs and the new collective PERs).⁴¹

Table FR.9 – Performance of French DC corporate plans — PEE (% of AuM, before tax), 23 years to 2022

	Equity	Bond	Money market	Diversified	All funds
Cumulated nominal	58.4%	58.4%	29.6%	57.9%	58.8%
Annualised nominal	2.0%	2.0%	1.1%	2.0%	2.0%
Cumulated real	5.1%	5.1%	-14.0%	4.8%	5.4%
Annualised real	0.2%	0.2%	-0.7%	0.2%	0.2%

Data: AFG; Calculations: BETTER FINANCE.

Real returns of corporate DC-based plans before tax over a 23-year period, from the end of 1999 to the end of 2022, were overall positive: the yearly average real performance before tax of the aggregate of all funds was +0,2%, which makes French DC plans the second-best performing pension savings product after capital-guaranteed life insurance contracts (before tax). This regards PEEs (€137 billion of assets) and PERCOs and collective PERs (€25 billion). PERCOs and collective PERs only had a slightly higher return (+0,3% per annum) due to a slightly lower allocation to money market funds.

The overall real returns of PEEs before tax of PEEs are:

- positively influenced by the positive real return of DC equity funds (with a positive cumulated real return of +5,1%). However, equity funds, which account for about 22% of total outstanding assets (excluding company stock), largely underperformed equity markets over the last 23 years: +58% in nominal terms versus +114% for European equities,⁴²
- negatively influenced predominantly by the negative return and surprisingly heavy weight of money market funds (-6,3% real return in 2022 and 25% of assets, more than equities!).
- Also, DC Bond funds (around 2% of total assets) returned +58% in nominal terms over the period versus +102% for the European bond market (see Figure GR.6).

A primary factor for this underperformance of DC equity and bond funds relative to capital markets could be the level of fees charged. Unlike corporate DC pension plans (“401k”) in the US, the French ones do not invest in general purpose mutual funds, but in special purpose AIFs called FCPEs, specifically dedicated to these plans. Consequently, French savers are faced with an additional offering of investment funds (about 1 100 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

⁴¹Data published by AFG relate to “FCPE L214-164”. 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 L214-165” 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 L214-165” funds. The “FCPE L214-164” assets represented 62% of all FCPE assets at the end of 2022.

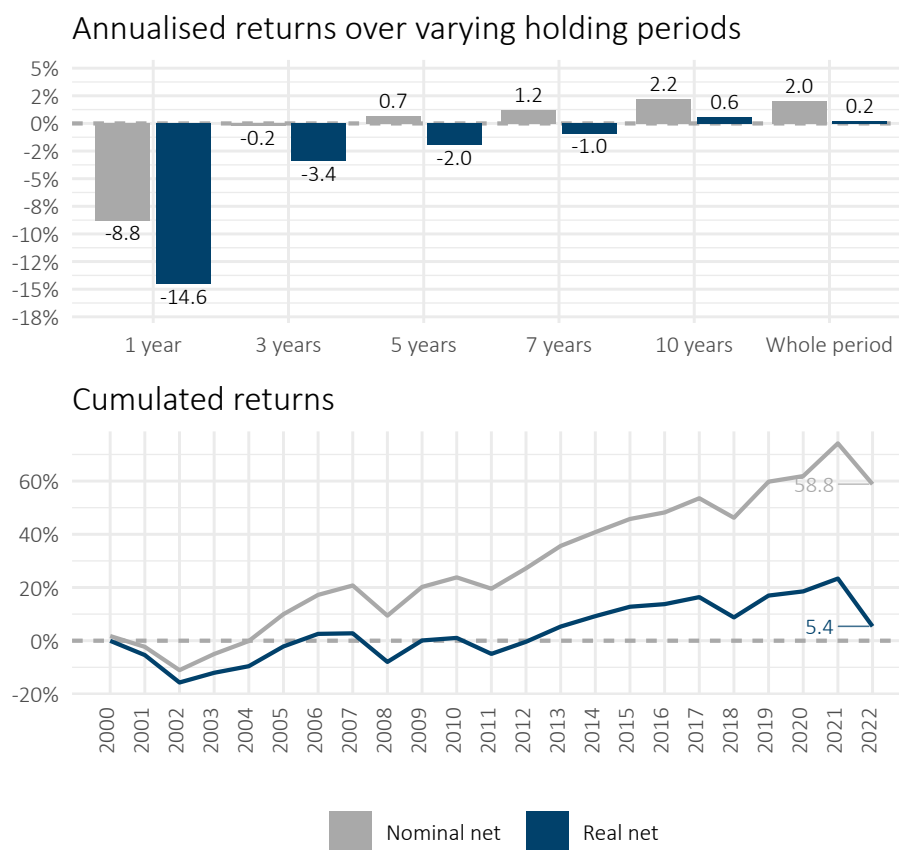
⁴²STOXX All Europe Total Market TR index in euros

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 French-domiciled general-purpose funds: 1.31% in 2019 for the 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 funds(Autorite des Marches Financiers, 2021).

As mentioned above in the costs & charges section (Page 162), these estimates are unfortunately not asset-weighted. Still, 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 sometimes be 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.

Figure FR.12 – Returns of French corporate DC plans (before tax, % of AuM)



Data: AFG; Calculations: BETTER FINANCE.

A limitation of such computations is that performance indices provided by SIX only relate to di-

verified 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 plan sponsor company (“company stock”), accounting for 38% (€60.6 billion end of 2022) of all corporate savings plans.

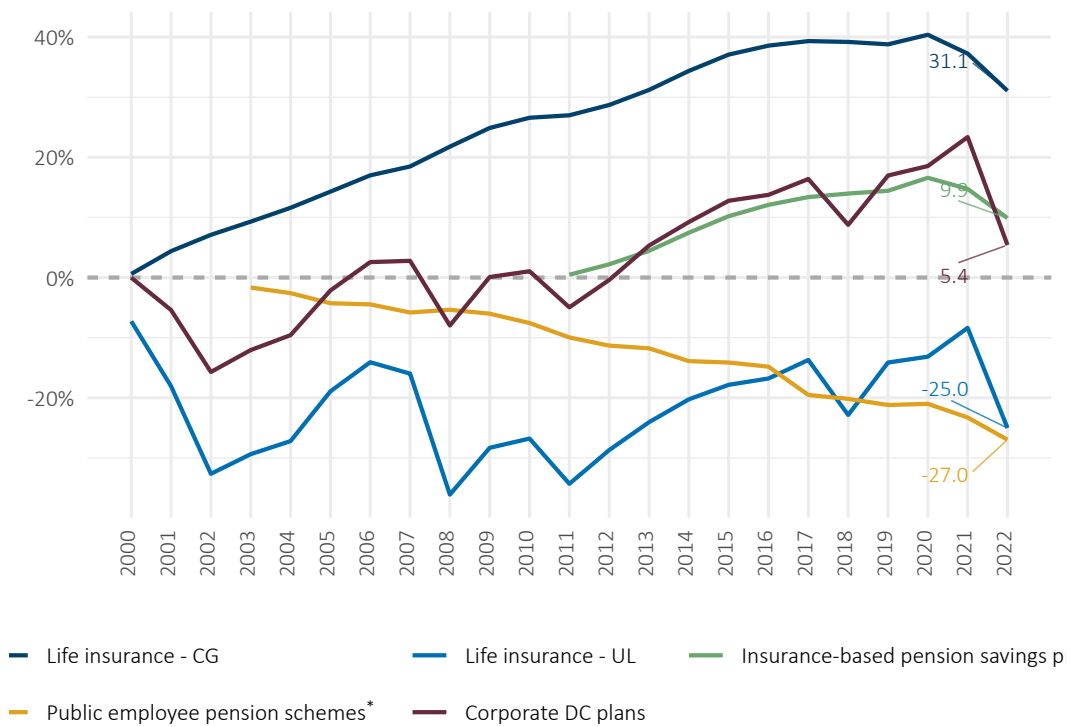
Return of regular identical investments over 23 years

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 to the end of 2022. Many pension savers will tend to invest regularly every year or every month. AFG computed the annualised returns from 2000 to 2022 for the same amount invested every year over the last 23 years. This generated a similar before-tax real return of 3.14% instead of 5.4%. This return becomes less volatile with time, as it is spread over many years instead of only one.

After-tax returns are often higher

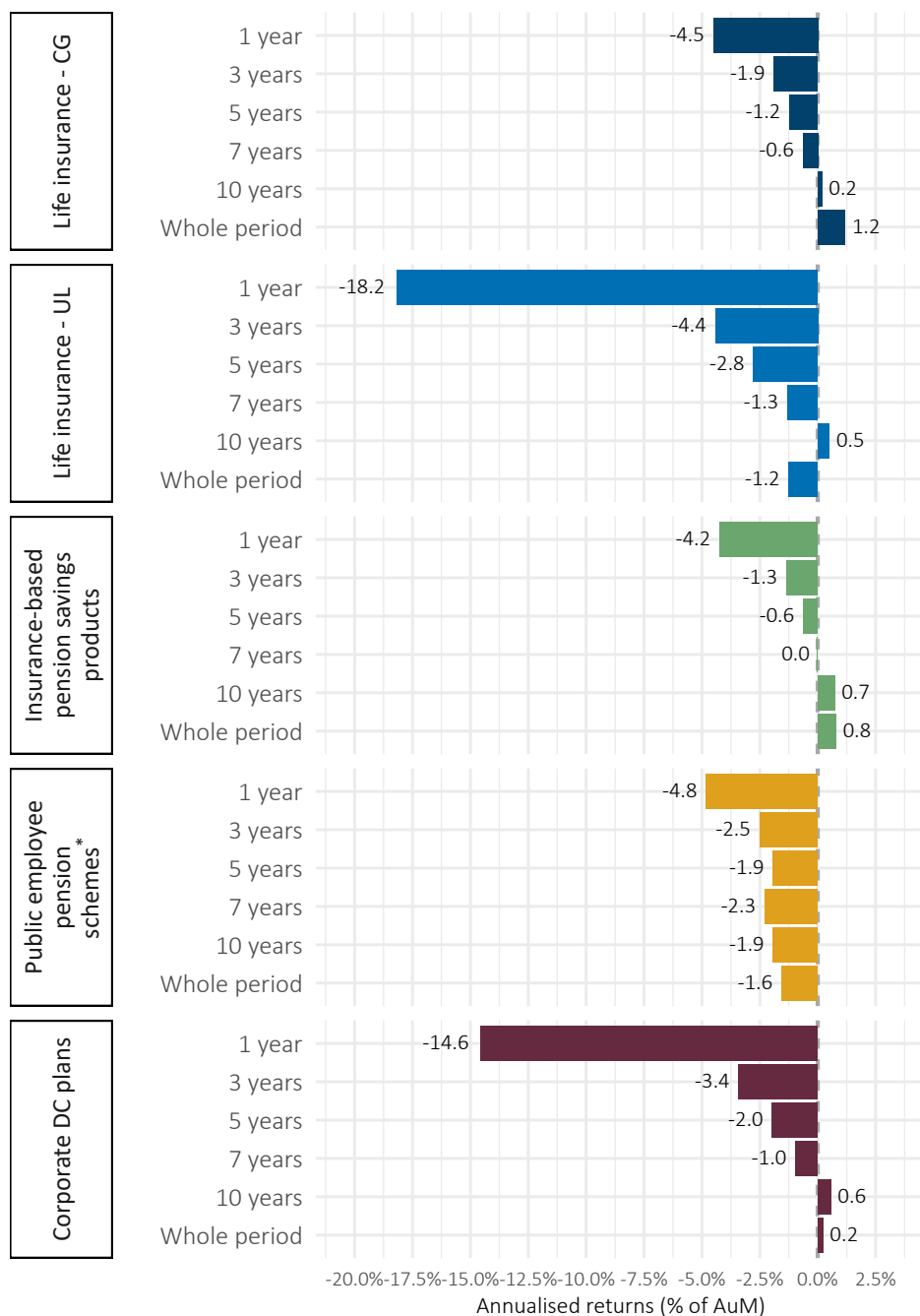
Finally, after-tax returns of French corporate long-term savings plans are difficult to compute globally, but they can often be very close to—or higher than—before-tax ones since their taxation is the most favourable of all long-term and pension savings products in France (redemptions are exempt from income tax and are only subject to “social” levies of 17.2% of net gains). Also, a majority of these savings come from non-taxable profit-sharing income contributed by employees (“intéressement” and “participation”) and by employers’ matching contributions.

Figure FR.13 – Cumulated returns of French long-term and pension vehicles (2000–2022, % of AuM, before tax)



Data: France Assureurs, Préfon, UMR, AFG, Eurostat; Calculations: BETTER FINANCE; *Purchasing power of annuities used as proxy for returns of public employee pension schemes.

Figure FR.14 – Annualised returns of French long-term and pension vehicles over varying holding periods (% of AuM, before tax)



Data: France Assureurs, Préfon, UMR, AFG, Eurostat; Calculations: BETTER FINANCE; *Purchasing power of annuities used as proxy for returns of public employee pension schemes.

Conclusions

Unsurprisingly all packaged long term and pension saving products have recorded severe real losses in 2022, due to the conjunction of bearish stock markets, exceptionally bearish bond markets (due to the increase in interest rates) and to “financial repression” at all-time high (as simply measured by the positive difference between inflation and money policy interest rates).

Over the long term though, charges and selection biases (due mostly to conflicts of interests in the retail distribution, but also—to a lesser extent—solvency policies of insurers generating an asset allocation very tilted towards fixed income) are most to blame for the real cumulated losses in unit linked insurance, in personal pension products, and in Public Employee schemes.

The outlook for 2023 and 2024 is not as gloomy as 2022, but unfortunately still not positive in real terms. Indeed financial repression is still enforced by central bankers although not with the magnitude of 2022, and still aggravated by national tax policies which most often use the largely fictitious nominal investment income as a tax basis, resulting more and more in taxing the purchasing power losses of pension savers increasing those losses. And recent statistics do not show any significant trend of fee reduction.

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Country Case 8

Germany

Zusammenfassung

In Deutschland verfügen die Lebensversicherer bei der privaten und betrieblichen Altersvorsorge über eine dominante Position. Pensionskassen und Pensionsfonds als Einrichtungen betrieblicher Altersvorsorge spielen eine weniger wichtige Rolle im Vergleich zu anderen EU-Mitgliedsstaaten. Durch die Niedrigzinsphase der 2010er Jahre hat ein tiefgreifender Wandel von Garantieprodukten zu Kapitalmarkt näheren Produkten stattgefunden. Dieser Trend dürfte auch durch die Zinswende seit 2021/22 nicht wieder rückgängig gemacht werden.

Nachdem über Jahre die Inflation in Deutschland häufig unter dem EU-Durchschnitt gelegen hatte, wird die nun besonders hohe Inflation für die Altersvorsorgesparer für einen dramatischen Verlust an langfristiger Kaufkraft sorgen, falls sie nicht eingedämmt werden kann. Als besonders problematisch müssen die hohen Kostenbelastungen der Lebensversicherer, insbesondere durch die Vertriebsvergütungen, angesehen werden.

In den letzten Jahren hat es intensive öffentliche Debatten über die Reform der staatlich geförderten Altersvorsorge, namentlich der Riester-Rente, gegeben. Deren Neugeschäft ist seit einigen Jahren praktisch zusammengebrochen, ihr Bestand nimmt sogar ab. Endgültige Entscheidungen für diese notwendige Reform durch die aktuelle "Ampel-Koalition" in Berlin fehlen aber bisher.

In der Gesetzlichen Rentenversicherung besteht ein massives Problem der langfristigen Finanzierbarkeit auf Grund des fortschreitenden demographischen Wandels und sozialpolitisch motivierter Rentenerhöhungen der letzten Jahre. Der Konflikt zwischen Schuldenbegrenzung der öffentlichen Finanzen und sozialpolitischen Zielen dürfte sich in Zukunft immer weiter verschärfen...

Summary In Germany life insurers play a dominant role in the private and occupational retirement provision sectors. Amongst occupational pensions, "Pensionskassen" and "Pensionsfonds" (IORPs) are less prominent compared to other EU member states. Due to the low interest rate environment of the 2010s, a significant shift occurred from pension products with guarantees to those with reduced guarantees or hybrid investments. The reversal of the Euro key interest rates in 2021/22 is unlikely to reverse this trend.

For years, inflation in Germany was lower than the EU average. However, the current significantly higher inflation rate will result in a dramatic loss of long-term purchasing power for policyholders if inflation cannot be reduced. It is particularly concerning to consider the impact of distribution costs of life insurers on the real return.

In recent years, there have been intensive public debates, especially regarding the Riester Pension, which is a state-subsidised private pension product. Their new business has significantly declined, and their portfolio has even decreased. Yet, final decisions on the necessary reforms have not yet been taken by the current Federal Government.

The mandatory First Pillar Pension System faces a significant challenge in maintaining its long-term financial balance due to demographic change and socially favourable increase of payouts. The conflict between limiting public debt and pursuing social policy objectives will become increasingly pronounced in the future...

Real returns 2022

Life insurances:
-7.58%

Introduction: The German pension system

German life-insurers publish rather detailed figures on new business and their portfolios, both in terms of the number of contracts and the gross written premiums (GWPs) for various sub-categories of life and pension products. Their association, *Gesamtverband der Versicherer* (GDV) only publishes aggregate figures on costs and net returns of their assets under management. Average figures for gross returns of life-insurance products are published by the NCA, the *Bundesanstalt für Finanzdienstleistungsaufsicht* (BaFin). Therefore, calculations following the methodology of this report can only be done in aggregate for life-insurers. However, more detailed figures on other occupational pension product providers (mainly IORPs) will be outlined based on additional sources.

At the product level, policyholders have access to detailed information on costs and performance scenarios. This information is provided through various pre-contractual information documents based on EU regulation—for insurance-based investment products (IBIPs)—and/or national law—for occupational and state-subsidised pension products.

With the end of the low-interest-rate phase, primarily in the 2010s, the following main developments can be confirmed for the German life insurance and pension products market:

- Continuously growing GWP (with the exception of the year 2022);
- Continuously growing market share of products with reduced guarantees, hybrid or unit-linked products (instead of classical guarantees during the accumulation phase);
- Continuously growing market share of pension products replacing traditional life-insurance. However, at the same time, we need to consider these two additional assessments:
- Ongoing high level of costs (especially for distribution channels);
- Constant decrease of gross average returns (*Gesamtverzinsung*).

The basis for these statements will be outlined in the following paragraphs and tables.

Table DE.1 – Long-term and pension savings vehicles analysed in Germany

Product	Pillar	Reporting period	
		<i>Earliest data</i>	<i>Latest data</i>
Life insurances	Voluntary (III)	2000	2022

One of the major issues in the public debate on the reform of the pension system as a whole was the rise and subsequent stagnation of new business of the so-called *Riester* Pension. This particular state-subsidised private pension product was introduced in 2001 by the Federal Minister of Labour at the time to equalize some restrictions in the First Pension Pillar System established by the Federal Government. After a modest start, the *Riester* Pension experienced significant growth starting in 2005, primarily due to increased state allocations and changes in distribution remuneration rules. Another boost occurred in 2008 when not only annuity insurances, invest-

Table DE.2 – Annualised real net returns of German long-term and pension savings vehicles (before tax, % of AuM)

Life insurances	
Reporting period	2000-2022
1 year (2022)	-7.6%
3 years (2020–2022)	-3.3%
5 years (2018–2022)	-2.0%
7 years (2016–2022)	-1.4%
10 years (2013–2022)	-0.4%
Whole period	0.7%

Data: GDV, Eurostat; *Calculations:* BET-
TER FINANCE.

ment funds, and bank saving plans were admitted as pension products, but also a form of home loan savings plan known as *Wohn-Riester*.

By 2013, the threshold of 16 million contracts for all four categories of the Riester Pension had been reached, with approximately half of eligible employees participating and over 10 million insurance contracts issued. However, it soon became evident that there was no further growth in new business.

On the one hand, the increasingly persistent low-interest-rate environment of the 2010s was undoubtedly a major factor contributing to this stagnation, because the Riester Pension included a 100% minimum return guarantee on the gross premiums paid until the start of the payout phase. As a result, all product providers had to allocate a significant portion of their investments to fixed-income securities during the contribution phase, limiting their ability to fully capitalise on the booming stock markets during that period. On the other hand, there was an ongoing discussion on high costs, particularly concerning commissions for distributors, which did not stop.

All in all, it is fair to conclude that the Riester Pension was successful in terms of its social policy objectives. Low-income earners and families with children mostly benefited from direct state allocations, while high-income earners could profit from tax returns. However, neither the state authorities nor the different product providers and their distributors could dispel the widespread public scepticism regarding the real returns, with low benefits and high distribution costs during the accumulation phase, and lower amounts in the payout phase.

The result of these various contradictory developments was clear: the peak was reached in 2017 with 16.6 million contracts concluded, and from that year onwards, not only did new business stagnate, but there was a real loss in GWP and contracts.¹ The proportion of contracts with premium exemptions increased to nearly 20%, and by 2022, the total number of contracts had once again fallen below the threshold of 16 million (exactly 15.89 million contracts). The public debate was increasingly dominated by the question “reform or abolishment” of the Riester Pension, and below, we will explore possible solutions that could be implemented.

¹The exact figures are provided in the next section.

Pension system in Germany: An overview

Germany belongs to those EU member states where the mandatory first pillar state pension system *Gesetzliche Rentenversicherung* (GRV) constitutes the most important part of the retirement provision. Therefore, occupational and private pension products primarily serve as additional retirement income sources. Besides these explicit pension products, for decades, home ownership (*Immobilienbesitz*) and asset allocation in securities, bank deposits, and so on (*Vermögensbildung*), have constituted the other non-insurance-based pillars of retirement provision (*Altersvorsorge*).

Table DE.3 – Overview of the German pension system

Pillar I	Pillar II	Pillar III
Mandatory State Pension System (GRV)	Mostly voluntary occupational pension schemes	Voluntary individual annuities
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 have the right to choose the scheme	Mainly supplement of Pillars I and II Pension Plans
Additional special pension regimes for self-employed and employees of the public administrations on local, regional and federal levels.	Occupational Pensions are offered by five different “implementation vehicles” (<i>Durchführungswege</i>), partly supervised by the NCA, BaFin.	<i>Riester</i> pensions or <i>Rürup</i> pensions (state-subsidized) and life-long annuities provided by life insurers.
Mandatory for all employees who are subject to social security contributions	Voluntary or by collective agreement (employers / trade unions)	Voluntary
PAYG (<i>Umlagefinanzierung</i>)	DB, DC, hybrid	Annuities with classical or reduced guarantees, unit-linked or hybrid products
Quick facts		
Coverage (active population): 90% Gross replacement rate: 41.5% ¹	16.5 million contracts in 2022, ² i.e. a little bit more than 50% of employees have an occupational pension plan.	About 16 million <i>Riester</i> contracts, 2.5 million <i>Rürup</i> contracts plus more than 20 million private annuity contracts in 2022.

¹ OECD data.

² GDV data.

The GRV is supplemented by other pension regimes designed for specific professional groups (mostly self-employed) and employees of public administrations at the local, regional, and federal levels (first pillar bis pension systems). In 2005, through the reforms of the so-called *Rürup-*

*Kommission*² certain mechanism for adjusting the levels of mandatory contributions and payouts were introduced in order to cope with the impending long-term demographic changes.

But in the following years – regardless of the party collation in power at the federal level – additional social welfare legislation (including pension “add-ons” for mothers, the low-income sector, individuals with lengthy contribution histories, etc.) has led to nearly 25% of necessary contributions for first pillar pensions being funded by tax payers, amounting to nearly 100 billion Euros annually. The overall expenditure of the First Pillar Pension Scheme reached approximately 340 billion Euros in 2021. This places a significant financial burden on all taxpayers, and a financially sustainable solution has yet to be found, as the main demographic challenges are expected to have an increasingly significant impact from the mid-2020s onwards (Bundesministerium für Arbeit und Soziales [BMAS], 2022, and earlier editions; German Council of Economic Experts, n.d., especially in 2016, chapter 7 and 2020, chapter 6, for a detailed analysis of the reforms and counter-reforms of the GRV see).

With over 16 million occupational pension contracts, more than 18 million contracts for state-subsidised private pensions (*Riester* and *Rürup* pensions) and over 20 million private annuities in 2022 (for a total population of more than 80 million inhabitants) it is obvious that the insurance and pension sectors play a dominant role in voluntary retirement provision in Germany. This will be analysed more in detail in the following paragraphs, especially taking into consideration the strongly negative impacts of the low-interest-rate phase, mainly in the 2010s, and the risks of inflation from 2021/22 onward for the real returns of the future retirees and beneficiaries (Deutsche Rentenversicherung, 2021, for a general overview of state-subsidized and private pension plans; and Deutsches Institut für Altersvorsorge, n.d., for current analysis of private retirement provision, asset allocation and retail investor behaviour).

As a consequence of the federal elections in September 2021, the new so-called “traffic light” coalition was formed in Berlin (red: Social Democrats, yellow: Liberal Party, and the Greens). The Liberal Party, led by Mr Christian Lindner, who now serves as the Federal Minister of Finance, had proposed to introduce a so-called *Aktien-Rente* (“Pension by Shares”). This proposal bore similarities to the Swedish State Pension Fund Model, where individual contributors have the option to directly invest in shares or other capital market products within the framework of this public fund.

However, due to ongoing negotiations within the government coalition, a new committee of experts from the government and external stakeholder groups, including insurers, investment companies, state consumer representatives and academics, was finally established in December 2022. The final report of this expert committee was published in July 2023 (see Bundesministerium für Finanzen [BMF], 2023).

One of major recommendations from this expert committee is not to abolish the *Riester* Pension, but to reform it through several measures, some of which include the following:

- Extension of eligibility to include self-employed individuals.
- Greater flexibility for product providers and policyholders during the contribution phase, by reducing the impact of the minimum return guarantee.

²see section on taxation on Page 204.

- Authorization of not only lifelong annuities but also temporary annuities during the payout phase.

Every citizen should have the possibility to establish a “private retirement account” into which they can consolidate all pension contracts eligible for state subsidies. Independent comparison websites should be created to provide pre-contractual information on aspects such as risk diversification, guarantee models, costs, real returns, etc. These measures are intended to encourage the development of basic, simplified pension products, with limitations placed on fees for changing product providers during the accumulation phase.

Additionally, in February 2021, the law for the new national digital pension tracking system (PTS)—*Digitale Rentenübersicht*—entered into force. This innovation aligns with similar initiatives in other EU member states that aim to provide citizens with an overview of all entitlements in the three basic pension pillars. After an initial trial phase, the PTS officially launched in June 2023 with a reduced number of participating institutions and companies, with plans for further continuous expansion.³

Only in subsequent Pension Reports will it be possible to analyse which of the recommendations from the expert committee for the reform of the Riester and other pension plans will be adopted, and to what extent the new digital pension tracking system is welcomed and used by the future retirees and current beneficiaries.

Long-term and pension savings vehicles in Germany

With regard to occupational and private pension products, life-insurers are the most important institutional investors when compared to IORPs and investment funds companies. For 2021, the following total AuM figures for these institutional investors had been published (Gesamtverband der Deutschen Versicherungswirtschaft [GDV], 2022, p. 35):

- Life-insurers: € 1 811 bn;
- *Pensionskassen* (IORPs): € 195 bn;
- *Pensionsfonds* (IORPs): € 58 bn;
- Retail Investment Funds: € 1 471 bn.

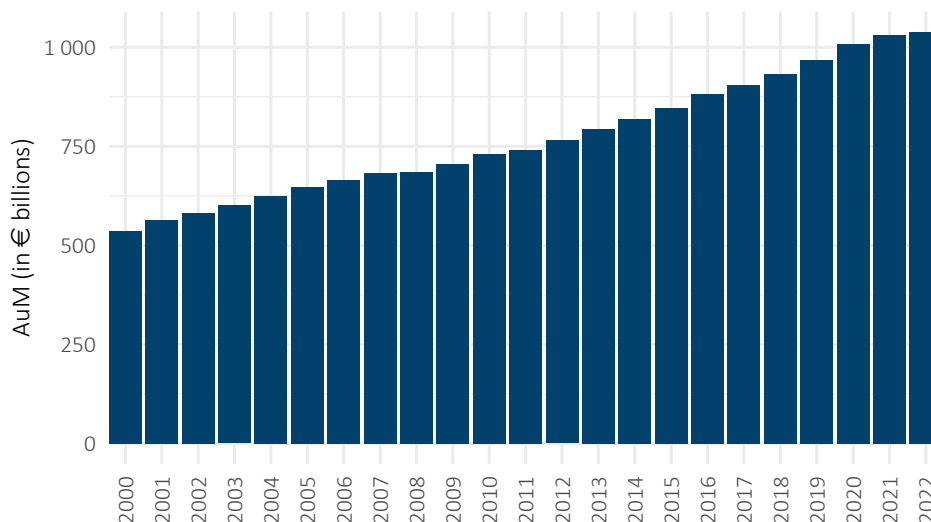
The figure for life insurers includes “direct insurances” (pillar II), state subsidised private pension plans (*Riester* and *Rürup* pensions), and private annuities (pillar III). The main reason for this particularity is that German life insurers are not only authorised to consolidate all their assets under one common investment portfolio, notwithstanding the source of capital (premiums from policyholders, loans, credits, bonds, dividends, etc.) to build their technical reserves. Additionally separate compartments for technical reserves are obligatory only for partially or fully unit-linked products, one-off contribution products or purely biometrical products.⁴ Figure DE.1 illustrate

³Cf. Website of the national Digital Pension Tracking System (*Digitale Rentenübersicht*): https://www.rentenuebersicht.de/DE/01_startseite/home_node.html

⁴For more details on the specific legislation on investments (*Kapitalanlagen*) and technical reserves (*Sicherungsvermögen*) go to the BaFin website: https://www.bafin.de/EN/Aufsicht/VersichererPensionsfonds/Kapitalanlagen/kapitalanlagen_node_en.html

the development of total AuM for life-insurers from 2000 to 2022:

Figure DE.1 – AuM in German life insurance contracts



Data: GDV.

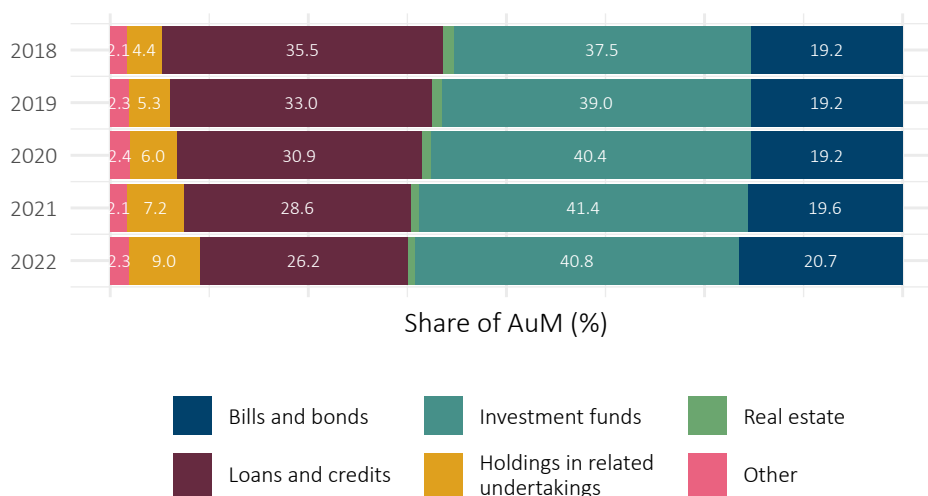
These figures clearly show that despite two global financial market crises (in 2008/09 and in 2020), life insurers have been able to slowly but consistently grow their assets under management. This is partly due to the fact that many retail investors or policyholders still equate “security” with “guarantees”. In times of significant stock market downturns this may be an “experienced” attitude. However, it is also true that the “low for long” interest rate phase in the 2010s had a significant impact on the life insurers as well, as Table DE.4 shows.

Table DE.4 – Net interest rates of German life-insurers’ AuM from (2000—2022)

Year	Net interest rate
2000	7.51%
2005	5.18%
2010	4.27%
2011	4.13%
2012	4.59%
2013	4.68%
2014	4.63%
2015	4.52%
2016	4.36%
2017	4.49%
2018	3.59%
2019	3.92%
2020	3.74%
2021	3.57%
2022	2.16%

Data: GDV

Figure DE.2 – Allocation of assets invested in German life insurance contracts



Data: GDV; Calculations: BETTER FINANCE.

These tables show a strong ambiguity. On the one hand, life insurers achieved a constant growth of their AuM which can be interpreted as a success of their reputation as institutional investors among retail investors and policyholders. Despite the gradual decline in net returns on their AuM, they have managed to maintain positive returns. From a consumer's perspective, this may not seem highly detrimental, as long as inflation rates remained lower, but such a purely "nominal" view neglects the danger of "missed opportunities" for returns compared to stock markets.

This ambiguity has not gone unnoticed by an increasing part of retail policyholders, as evidenced by the fact that traditional life-insurance products based on guarantees lost their dominant position. Instead hybrid and unit-linked products, as well as products with reduced capital guarantees, have become more prominent important in new business. Of course, this shift was driven by life insurers themselves, because during the very low-interest-rate phase, especially in the second half of the 2010s, they sought to reduce the obligatory capital requirements linked to guarantees. This will be outlined more in detail in the next paragraph.

Second pillar: Implementation Types of Occupational Pension Plans

The main distinction of the German occupational pension system, in contrast to that of most other EU member states, is that the so-called institutions for occupational retirement provision (IORPs) do not play a dominant role. In the Netherlands, for example, IORPs like pension funds command a market share in occupational pensions of at least 70%, while the German IORPs (*Pensionskassen* and *Pensionsfonds*) together only reach a market share of about 25% in this pillar of retirement provision.

The reason for this difference is that three other "implementation types" of occupational pension plans have been dominant in the past and continue to play a significant role today: "book reserves" (or "direct pension commitments" / *Direktzusagen*) offered by employers, "support funds" (the oldest type of occupational pension saving institutions, often founded by the em-

ployers / *Unterstützungskassen*) and so-called “direct insurances” (*Direktversicherungen*) offered by life insurers and supported by a special tax regime for both employers and employees. IORPs such as *Pensionskassen* (PK) and *Pensionsfonds* (PF) only began to gain momentum from 2002 onward, following favourable changes to the tax regime. “Book Reserves” and “Support Funds” are not subject to the supervision of BaFin, but most of them reinsure their pension savings, and reinsurers are supervised by the NCA (for more details on the five “implementation types” of occupational pensions, see Bundesanstalt für Finanzdienstleistungsaufsicht [BaFin], 2012).

Table DE.5 – Total numbers of occupational pensions in Germany (million contracts, 2000–2022)

Year	Direct insurances	Reinsured occ. Pensions	<i>Pensionskassen</i>	<i>Pensionsfonds</i>	Total
2002	5.83	1.80	0.45	0.02	8.10
2005	5.85	2.27	2.67	0.08	10.87
2010	6.75	2.76	3.38	0.32	13.21
2015	7.74	3.28	3.75	0.53	15.30
2016	7.89	3.34	3.74	0.47	15.44
2017	8.11	3.47	3.71	0.49	15.78
2018	8.37	3.52	3.69	0.52	16.10
2019	8.49	3.52	3.68	0.56	16.25
2020	8.57	3.58	3.63	0.60	16.38
2021	8.69	3.63	3.57	0.56	16.45
2022	8.80	3.66	3.51	0.60	16.57

Data: GDV.

A little more than 50% of all employed persons in Germany are members of an occupational pension scheme (for more details, see BMAS, 2020, 2022).

Table DE.6 – GWP of *Pensionskassen* and *Pensionsfonds* (million €, 2015-2022)

Year	<i>Pensionskassen</i>	<i>Pensionsfonds</i>
2015	2 818.7	1 836.5
2016	2 724.3	1 367.6
2017	2 623.0	1 515.5
2018	2 495.2	756.4
2019	2 406.4	1 329.3
2020	2 294.5	1 038.3
2021	2 237.9	1 296.6
2022	2 073.0	2 230.7

Data: GDV.

GWP of Direct Insurances are not disclosed separately.

Figures are sometimes rectified in the following year.

To some extent, the five different financing methods compete with each other,⁵ although it is also possible to combine two or more types. Both employers’ and employee’s contributions

⁵Just one example: surprisingly in October 2020 Allianz announced that its “Pensionskasse” will go into run-

to occupational pensions are usually voluntary, often through a mechanism known as “salary conversion” or *Entgeltumwandlung*. However, employers have to offer at least a direct insurance pension contract, so that employees may benefit from tax advantages (deferred taxation) and savings on social security contributions if they choose to contribute. When there is a binding labour agreement, occupational pensions are generally organised for entire industrial sectors, and employees do not have the right to demand different occupational pension provisions. Many collective agreements also oblige employers to participate financially in occupational pension plans and restrict the employer’s ability to choose a different scheme. Occupational pensions are structured as deferred compensation, and contributions are subsequently exempt from taxation and social security contributions up to certain limits. This, in turn, reduces claims on the statutory first pillar pension system.

Table DE.7 – Assets under Management by *Pensionskassen* and *Pensionsfonds* (billion €, 2005–2022)

Year	<i>Pensionskassen</i> ¹	<i>Pensionsfonds</i> ²
2005	86.2	n.a.
2006	92.6	n.a.
2007	98.9	13.4
2008	104.2	12.7
2009	107.9	16.3
2010	109.6	24.0
2011	115.8	25.0
2012	123.3	26.5
2013	131.0	26.6
2014	139.1	29.5
2015	147.7	29.4
2016	154.1	31.7
2017	162.2	32.4
2018	168.5	40.8
2019	176.9	45.5
2020	184.5	51.1
2021	192.9	54.0
2022	200.3	50.5

Data: ADD SOURCES.

¹ Mostly the rectified figures in the Annual Report of BaFin of the following year were taken.

² AuM on behalf of employees and employers.

Pensionskassen and *Pensionsfonds* fall under the category of institutions for occupational retirement provision (IORPs) and are regulated under Directive EU/2016/2341 (the “IORP Directive”). However, there is a unique aspect in the national supervisory insurance law: *Pensionskassen* (PK) have the option to choose a different purely national supervisory regime, a choice mainly exercised by those PKs considered competitive IORPs (*Wettbewerbs-Pensionskassen*). This allows

off and will offer only “Direct Insurances” from 2022 on. It was the second biggest PK in Germany with more than 838 000 future beneficiaries and more than 27 500 current beneficiaries (balance sheet: € 12.8 billion) in 2018. The main reason for this decision was the ongoing low interest rate phase and the problem of guarantees given. If one of the biggest players in the national market takes such a step, it was interpreted as a sign that other smaller IORPs could follow. Cf. comment in Bazzazi (2020).

them to offer their pension plans to an unlimited number of employers, similar to specialised occupational pension insurers. Somewhat misleadingly, this option is called “deregulated” IORPs.

Table DE.8 – Amounts of net pay-outs (after obligatory social contributions, before taxes) of occupational pensions in Germany in 2019

Amount (€)	Men (%)	Women (%)
1000>	17	3
500-1000	17	11
200-500	25	23
<200	41	63

Data: Arbeitsgemeinschaft für betriebliche Altersversorgung e. V. (aba); Calculations: BETTER FINANCE.

These figures show that for nearly half of men and nearly two thirds of women, payouts from occupational pensions do not represent more than a small “add-on” to their first pillar pensions. Unfortunately, it is the national legislator itself that plays a significantly negative role in determining the effective payout amounts (cf. next section on charges on Page 201).

Similar to private annuities offered by life-insurers, occupational pensions, too, were largely dominated by pension schemes based on guarantees,⁶ and only the “low for long” interest rate phase of the 2010s could break this dogma at least partly. From 2018 onwards, a new law authorised so-called “Pure Defined-Contribution” pension schemes (*Reine Beitragszusage*), but it took another four years for collective agreements to be reached to implement at least two of these new pension plans, which can be offered by *Pensionskassen* (PK), *Pensionsfonds* (PF), or “direct insurances”.⁷

The persistent challenge of shifting away from the traditional mindset of equating “security” with “guarantees”, both among employers and trade unions as well as employees, remains a crucial task for broader financial education efforts aimed at promoting an “investment” or “shareholder culture” (*Aktienkultur*).

Third pillar: Private life-long annuities with and without state subsidies

In contrast to private lifelong annuities offered by life insurers, there are two categories of private pension products that are “certified” as eligible for specific state subsidies and which are therefore classified differently from a purely legal point of view:

- *Rürup* Pensions (which can be offered by life insurers and investment companies): Pillar I.
- *Riester* Pensions (which can be offered by life insurers, investment companies, banks and real estate loan and savings institutions): Pillar II.

For the sake of simplicity, we have included them in the chapter on the third pillar private pensions, which can be justified because the main contributors are retail investors and policyholders.

⁶For more details on the different options to offer occupational pensions (*Versorgungszusagen*) with and without certain minimum payouts or guarantees (similar to life-insurers) and the importance of the sponsors, see Arbeitsgemeinschaft für betriebliche Altersversorgung (aba, 2021).

⁷For more details on the “Law strengthening occupational pensions”, cf. BaFin (2017) and aba (2017).

The main reason *Rürup* Pensions are legally classified as belonging to Pillar I pensions is the stringent framework they operate within, especially with regard to the payouts. Contributions are allocated for monthly life-long 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 of or converted into capital.

Rürup pensions, specifically designed for self-employed individuals and freelancers who were not eligible for state-supported pension savings before its establishment, are advantageous for those with higher revenues because of the high tax-exempt savings amount. They take the form of annuity contracts that are, in contrast with *Riester*, non-redeemable. It is also possible to subscribe to *Rürup* pension contracts that invest in investment funds through savings plans. Such contracts can be designed with or without capital guarantees.

Rürup Pensions were introduced in 2005. Table DE.9 shows the number of concluded contracts from inception to the present day.

Table DE.9 – Number of *Rürup* pensions (or *Basisrente*, million contracts)

Year	Nb. of contracts
2005	0.148
2010	1.277
2015	1.975
2020	2.396
2021	2.477
2022	2.574

Data: GDV.

Rürup pensions receive subsidies from the state exclusively through broad tax exemptions during the contribution phase. For more details on these particular provisions, please refer to the chapter on taxation below.

In contrast to *Rürup* Pensions subscribers of *Riester* pension plans receive state subsidies through both direct allocations and tax reimbursements when certain thresholds are met. The amount received depends on personally invested contributions. Allocations are at their maximised when the total contributions to a *Riester* product (that is, personally invested contributions plus allocations) reach at least 4% of the individual's previous year's income, up to a maximum of € 2 100.

The allocations 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 allocations 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 nevertheless be paid in order to receive full support. If an individual contributes less than their minimum requirement (4% of the previous year's income, with a maximum of € 2 100, minus any applicable allocation, but at least € 60 per year), their subsidies are reduced proportionately.

Riester pension benefits can be paid out starting at the age of 62, or at the age of 60 for contracts concluded before 2012. Subscribers have the option to convert the invested capital into a life annuity, or choose a programmed withdrawal, where up to 30% of the accumulated savings can be paid out as a lump-sum. Furthermore, at least one fifth of the accumulated savings is reserved for life annuities starting at the age of 85. For more details on all these specific provisions, please refer to the chapter on taxation below, with additional references.

As already pointed out in the Introduction, four types of pension products are allowed for *Riester* pension plans:

- Bank savings plan (*Banksparplan*): These contracts are typical long-term bank savings plans with fixed or variable interest rates.
- Annuity contract (*Rentenversicherung*): These *Riester* plans, offered by insurance companies, come in three forms. There are traditional annuity contracts with guaranteed returns and additional bonuses. Additionally, there are hybrid contracts where a part 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 and invested in investment funds chosen by the subscriber from a pool of funds proposed by a financial intermediary or the investment company. The intermediary or the investment company has to at least guarantee that the invested money, along with the state's subsidies, are available at the time 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 is the most recent type of *Riester* scheme and is based on the notion that rent-free housing at old age is a sort of individual retirement provision comparable to regular monetary payments.

Riester pension plans were introduced in 2001. Table DE.10 shows the number of concluded contracts from inception to the present day.

These figures clearly demonstrate what was already outlined in the Introduction: the most important “breakthrough” in *Riester* pension plans took place from 2005 to 2011, when allocations had reached their final highest levels, and additional real estate savings plans were introduced. Subsequently, the public debate on costs and low returns intensified,⁸ resulting in a decline in new business, which nearly came to a complete stop from 2018 onwards. The future of *Riester* pension plans will hinge on the implementation of innovations recommended by the new expert commission of the Federal Ministry of Finance in July 2023.

Besides these state subsidised private pension plans, there is a substantial market for life insurances and private annuities that have benefited from special tax regimes established for decades. In the following chapter on taxation, we will delve into the significant impacts of the fundamental change in the tax regime to deferred taxation for all pension pillars since 2005. First, however, we will focus on the quantitative changes amongst the various categories, differentiating between

⁸One of the first criticisms was published by German Institute for Economic Research (DIW Berlin) in 2012, see Deutsches Institut für Wirtschaftsforschung (2012).

Table DE.10 – Number of *Riester* pensions (million contracts)

Year	Annuity contracts	Bank savings plans	Investment fund savings plans	Home loan and savings contracts	Total
2001	1 400	n.a.	n.a.	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	10 773	627	3 313	1 818	16 531
2020	10 687	592	3 297	1 793	16 369
2021	10 672	546	3 263	1 730	16 211
2022	10 514	529	3 200	1 650	15 893

Data: Bundesministerium für Arbeit und Soziales (BMAS).

traditional life insurance and life-long annuities, as already indicated in the Introduction.

In Germany the main distinction between life insurances and “annuity insurance” (*Rentenversicherungen*) lies in their coverage of different biometric risks: Life insurance covers the death risk (with a fixed insured sum) while annuities cover the risk of longevity (through a life-long pension). Of course, it is possible to combine the two biometric risks: life insurances usually offer (at the end of the accumulation phase) the choice between a lump sum payout or a life-long pension (*Kapitalwahlrecht*), and the same applies to deferred annuity contracts, that include the accumulation phase (in contrast to “immediate annuities” [*Sofortrenten*]) based on a lump sum contribution). When a policyholder of an annuity chooses the life-long pension option, it is mostly possible to include a period during which the pension will be paid to another person fixed in the contract, in case the policyholders dies shortly after the beginning of pension payouts (usually this period is limited to ten years: *Rentengarantiezeit*).⁹ As the inclusion of a *Rentengarantiezeit* will increase the calculated costs of the biometric risk coverage, in consequence the payouts for the annuity will be reduced proportionately.

⁹For more details on these basic differences, go to the Information Sheet (“Private Rentenversicherung”) of the German Association of Insured (BdV): <https://versicherungscheck.bundderversicherten.de/de/hilfe-und-informationen/alterssicherung-bav-kapitallebensversicherung-rentenversicherung.html>.

Additionally, there are pure risk or term life insurances (*Risiko-Lebensversicherungen*) that solely cover the risk of death without including an investment component in the premium. Usually these contracts are concluded for a fixed period, and if the insured loss (i.e. the death risk) does not occur, there are no payouts either during the term or at the end of the contract period.

Table DE.11 displays, based on statistics from GDV, long-term trends in the number of contracts among life insurances, annuities, and term life insurances.

Table DE.11 – Number of life insurance, annuities and term life insurance contracts

Year	Life-insurances (%)	Annuities (%)	Term life-insurances (%)	Total number of contracts (mill.)
2000	72%	12%	16%	87.6
2005	58.6%	26.1%	15.3%	94.2
2010	47.5%	38.9%	13.6%	90.5
2015	38.1%	46.7%	15.2%	86.7
2020	28.2%	55.1%	16.7%	83.4
2021	26.7%	56.8%	16.5%	82.7
2022	25.2%	58.4%	16.4%	81.8

Data: GDV.

The most notable change that can be observed is the slow, but constant loss of market share of traditional “capital life-insurance”. Their market share of new business (in terms of the number of contracts) was only 7.0% in 2022, the lowest figure ever recorded. This is in stark contrast to annuities which grew up to represent 48.3% of all life-insurance categories. Within the annuities category, unit-linked products had a market share of 14.1%, hybrid products or those with reduced guarantees accounted for 28.2% and products with classical guarantees constituted 6.0%. In contrast to these growing figures, pure unit-linked life-insurances reached a market share of only 1.5% in 2022. These figures clearly show that German policyholders shifted away from traditional 100% capital guarantees whilst also avoiding full capital market risks without any guarantees (Gesamtverband der Deutschen Versicherungswirtschaft, 2023, pp. 10-11, Tabelle: Lebensversicherung – Zeitreihe eingelöster Neuzugang, Anzahl in Tausend, Anteile in Prozent).

Charges

Germany belongs to those EU member states in which the commission-based distribution channels for life-insurances as well as for all other insurance classes are the most important ones. Unfortunately the publicly available figures do not show the real impact of these charges on pensions on the level of the product category in a transparent way. Prospective policyholders or beneficiaries are, of course, informed about the total distribution costs through various pre-contractual information documents when they have selected a particular pension product from pillar II or III.

Charges of life insurances: The burden of commissions

Acquisition fees are only relevant for “direct insurances” and so-called “competitive” IORPs. Since “direct insurances” are offered by life-insurers, costs are usually lower than the average figures for life-insurers outlined in this paragraph below (mainly due to collective contracts with the employer, which differ in each particular case). In contrast to most *Pensionskassen*, so-called “competitive” IORPs (*Wettbewerbs-Pensionskassen*) may offer their contracts to an unlimited number of employers or sponsors. According to BaFin in 2021, there were about 20 “competitive” out of a total of 134 *Pensionskassen*. BaFin does not publish figures on this specific cost category.

While the lack of comparability at the level of product categories is a concern, this does not mean that prospective and ongoing members and beneficiaries of these IORPs are not informed about acquisition and administration costs by the product providers. The national legislator has established strict provisions regarding the disclosure of costs based on EU regulations (IORP II Directive) and additional national supervisory laws (as well in the pre-contractual information documents such as the Pension Benefit Statements during the contribution and/or pay-out phases, as well as in the annual business reports).

Unfortunately, the most important burden on beneficiaries of occupational pensions is imposed by the national legislator: in 2004, the Social Democrat Minister of Health introduced mandatory contributions from beneficiaries of occupational pensions to public health insurance. These mandatory contributions reduce the payouts by about 15% (only monthly payouts up to € 169.75 in 2023 are exempted). Many actions have been taken against this law, but no federal government, regardless of the party coalition in power, has revised this law until now. This conflict can be considered a fundamental conflict between two pillars of the social security system (health versus pensions), with health as the “winner” over pensions.

Charges of life insurances: The burden of commissions

Table DE.12 shows that there seems to be—in total—a slow, but constant decrease of the burden of acquisition and administration fees over the last 20 years

But this impression of a slow but constant decrease in the total sum of charges is somewhat misleading from a consumer perspective, because, unlike retail investment funds, life insurers do not rely solely on the ongoing premiums of policy holders. As shown in Figure DE.2, life insurers have access to a wide range of diverse sources of income (for example, life insurers are issuers of their own corporate bonds), which are all included in the total amount of AuM.

Therefore, usually, acquisition fees of life insurers are calculated in relation to the GWP for new business each year, while ongoing administrative fees are determined based on the total premiums earned each year. These percentage figures are shown in Table DE.12. But these percentage figures do not disclose the real cost problem of life-insurers. By looking at the absolute amounts of these costs, displayed in Table DE.13, it becomes obvious that over the last 20 years, acquisition fees have consistently been three to four times higher than administration fees.

The conclusion is clear: the commission-based distribution channels are the real cost drivers for life-insurers. For 2022, the reduction of the total amount of acquisition costs is simply due to the fact that new business sharply declined. It must be strongly criticised that in the 2023 edition of the yearly report on life-insurances by GDV, the historical data on the evolution of acquisition

Table DE.12 – Costs and charges of German life insurance contracts (% of assets unless otherwise specified)

Year	Acquisition fees*	Admin. and mgt. fees
2000	5.60%	3.50%
2001	5.50%	3.50%
2002	5.40%	3.50%
2003	5.00%	3.40%
2004	4.50%	3.30%
2005	5.60%	3.20%
2006	4.90%	3.00%
2007	5.20%	2.90%
2008	4.90%	2.80%
2009	5.20%	2.70%
2010	5.10%	2.40%
2011	5.00%	2.40%
2012	5.00%	2.40%
2013	5.10%	2.30%
2014	5.00%	2.20%
2015	4.90%	2.30%
2016	4.80%	2.30%
2017	4.70%	2.30%
2018	4.60%	2.30%
2019	4.40%	2.10%
2020	4.50%	2.10%
2021	4.50%	2.10%
2022	4.70%	2.40%

Data: GDV; Calculations: BETTER FINANCE.

* % of premiums

and administration costs are no longer disclosed, except for the data from the previous year. In previous years this information was usually shown in a table.

Additionally, it is worth noting that GDV only discloses the total sums for these costs, rather than detailed figures for the various product categories such as occupational direct insurances, state-subsidised *Riester* and *Rürup* pensions, or private classical, unit-linked and hybrid annuities. While there are many costs and returns analyses conducted by scientific institutes, private rating agencies, economic and financial magazines, and BaFin (2022b), these figures are not regularly published. To compare calculated costs, one must rely on pre-contractual KIDs (based on EU regulations for private life insurances and annuities), or the pre-contractual “Product Information Sheets” (PIB, based on national legislation) for *Riester* and *Rürup* pension contracts, similar to occupational pensions.

Table DE.13 – Absolute amounts of acquisition and administration costs of life-insurers (billion €)

Year	Acquisition costs (€ bln.)	Administration costs (€ bln.)
2000	6.696	2.143
2005	7.323	2.305
2010	7.987	2.100
2015	7.162	2.040
2016	7.055	1.989
2017	6.840	1.995
2018	7.037	2.027
2019	7.540	2.035
2020	7.720	2.075
2021	8.349	2.107
2022	8.000	2.200

Data: GDV.

Taxation

In 2002, the Federal Constitutional Court (*Bundesverfassungsgericht*) took the fundamental decision to force the legislator to introduce “deferred taxation” as the new system for pension taxation. This new system exempts contributions from taxation and taxes only the pay-outs (from TEE, *vorgelagerte Besteuerung*, to EET, *nachgelagerte Besteuerung*). This fundamental change had to be applied to all three pillars of the pension system. As a result, the federal government established a scientific committee under the leadership of Finance Professor Bert Rürup (*Rürup-Kommission*). This commission worked out the details and presented its report in 2003. Due to this crucial reform, which entered into force in 2005, life insurances lost their unique privilege of non-taxed lump sum payouts, which constituted one of the major reasons for their overwhelming success in distribution practices up to that year.

Table DE.14 – Taxation of pension savings in Germany

Product	Phase			Regime
	<i>Contributions</i>	<i>Investment returns</i>	<i>Payouts</i>	
Life insurances	Exempted	Exempted	Taxed	EET

Data: German tax authority.

First pillar pensions

Following the proposals of the *Rürup-Kommission*, a transitional period of 35 years began in 2005 to implement the shift from the TEE to the EET regime. In 2005, for all pensions which started that year, 50% of the total payout amount was taxed at the individual tax rate. This percentage of the total payout amount subject to taxation increased by 2% each year until 2020, and from 2020 onwards by 1% per year, in order to reach 100% of the payouts in 2040 for new pension recipients each year. For reasons of social justice, there is a downward cap to exempt low pensions from any taxation (*Rentenfreibetrag*). At the same time there is an algorithm to reduce the taxation

of mandatory contributions to the pensions system over time (for more details on the taxation system, see Deutsche Rentenversicherung, n.d.).

Occupational pensions (Pillar II)

Payouts from *Pensionskassen* and Direct Insurances which started before 2005 typically remain exempt from any taxation (at least five years of contributions and a twelve-year contract duration). Payouts from any kind of implementation type of occupational pension plans that started in 2005 or later are fully taxed based on the individual tax rate.

Contributions to all five “implementation types” of occupational pensions are exempt from mandatory contributions to the social security system up to a certain limit (in 2023, this limit is set at € 3 504 as *Beitragsbemessungsgrenze*: this limit represents 4% of the income up to which employees have to pay mandatory contributions to the First Pillar Pension System). The double of this amount, which in 2023 is € 7 008, is exempt from taxes when making contributions to PK, PF and Direct Insurances. Additionally, there is even a full exemption from taxes without any limit for contributions, if these are made for book reserves or support funds (for more information, see Deutsche Rentenversicherung, n.d.).

Private Pension Plans state subsidised (“Riester” and “Rürup” Pensions)

Following the principle of deferred taxation (EET) contributions are exempt from taxes up to certain limits. For *Riester* pension plans, the maximum limit is € 2 100 per year (or 4% of the personal gross income / year for lower incomes). For *Rürup* pension plans this maximum limit is much higher (in 2023 up to € 26 528, which is linked to a special regulation of the first pillar pension system).

In the payout phase both types of these state subsidised private pension plans are fully subject to the individual taxation rate (for more information see Bund der Versicherten [BdV], n.d.).

Life-insurances and private annuities

Contributions are no longer tax-deductible as special expenses and have to be made from taxed income. The benefits of life insurances (i.e. the difference between contributions and total payouts) are taxed during the retirement phase at the general tax rate of 25% (like for all investment returns), but there are some limited possibilities to recover a portion of these taxes through the individual yearly tax declaration.

Furthermore, it is important to differentiate between whether the insurance benefit is provided as a one-time lump-sum payment or if a lifetime annuity payment is chosen. In the case of lump-sum payouts, if the contract has been in force 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 (*Halbeinkünfteverfahren*). If these conditions are not met, the full earnings are taxed.

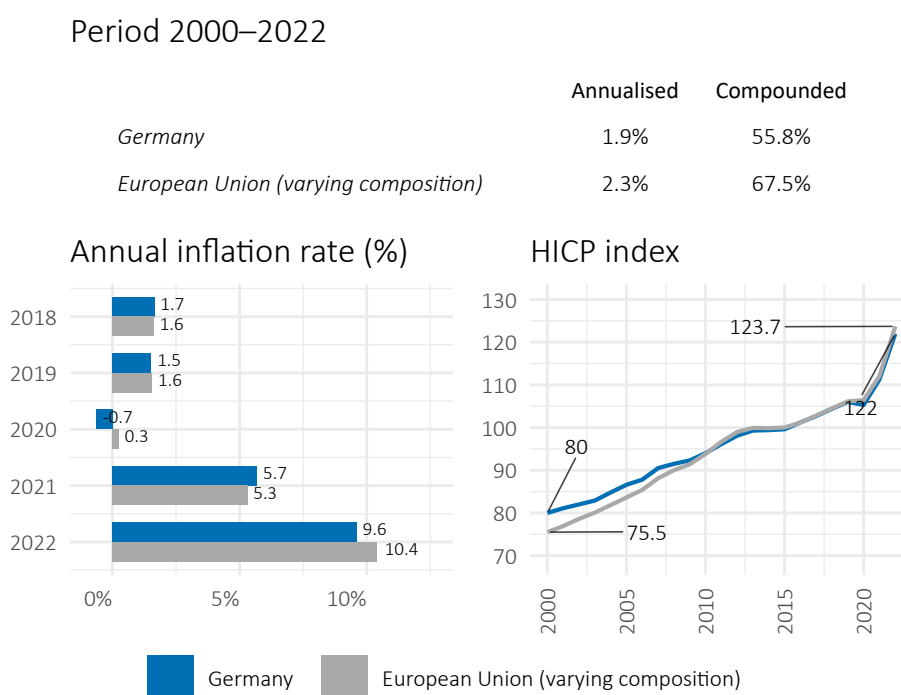
In the case of private life-long annuities, additional tax relief is possible, depending on the age of the first retirement payout, as outlined in the tax table. For instance, if the retiree is 60 years old, 22% of the earnings are subject to taxation, and at the age of 65 only 18% (*Ertragsanteilbesteuerung*, for more information on the tax regime for life insurance and private annuities, see Leine, 2023).

Performance of German long-term and pension savings

Real net returns of German long-term and pension savings

When examining the inflation figures in Germany (see Figure DE.3), it is obvious that for a very long time—especially during the first decade after 2000—inflation rates were at most as high as the EU average, often even lower. However, a dramatic change started in 2021. Germany does not belong to those EU member states most severely affected by the sudden and sharp rise in inflation rates (like the Baltic countries for example), but there are specific national reasons for the inflation increase exceeding the EU average. In 2021/22, the main reason was the full impact of the rise of energy prices caused by the strong dependency on petrol and gas from Russia, which had to be replaced after the onset of the Russian war against Ukraine in February 2022. In response, the Federal Government decided to help private households with substantial additional allocations in order to mitigate the direct impacts of this sudden price “attack” on family finances. In 2023, the main driver of inflation shifted to food costs. In second place, the increasing salaries of employees in certain industry and artisan sectors, partly supported by trade union demands, are additional drivers of inflation (Siedenbiedel, 2023; Statistisches Bundesamt [DESTATIS], n.d.).

Figure DE.3 – Inflation in Germany

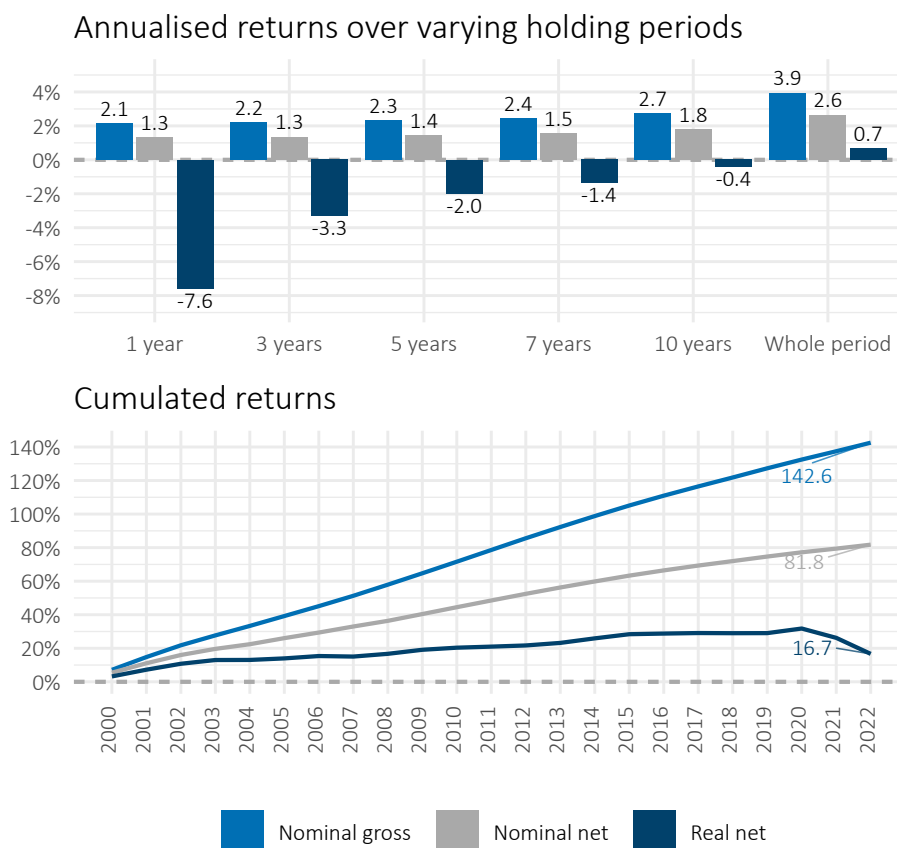


Data: Eurostat, HICP monthly index (2015 = 100); Calculations: BETTER FINANCE

Regarding life insurances and pensions, the opposing effects of inflation and rising interest rates on assets are clear: with regard to fixed-income securities, “hidden reserves” may diminish or even reach negative market values, while new investments will yield higher returns but only in the very long run. This perspective was clearly outlined by Frank Grund, the BaFin Executive Director for Insurances, in a public speech in November 2022 (BaFin, 2022a). However, by December

2022, it became obvious that some of the major life insurers reversed their approach and began increasing the bonuses for their products for the first time since the early 2010s (Assekurata Ratings, 2022; VersicherungsJournal Deutschland, 2022). This newest development is not yet reflected in Figure DE.4.

Figure DE.4 – Returns of German life insurance contracts (before tax, % of AuM)



Data: GDV; Calculations: BETTER FINANCE.

Looking at the annual performance of the life insurances displayed in Figure DE.4, it is clear that charges alone have consistently reduced the nominal return by a quarter to a third over the last twenty years. This fact can only be described as having a severe detrimental impact on the policyholders' stakes. It supports the conclusions already outlined in the chapter on charges, especially distribution charges, above.

Additionally, in contrast to former periods of inflation (for ex. in the 1970s), there is now an ongoing strongly negative difference between the level of inflation in Germany and the level of the ECB Key Interest Rate, even though the latter has been raised up to 4,5% in September 2023. Some economists refer to this situation as "financial repression" (on this topic, see, e.g., BETTER FINANCE, 2022).

As a consequence, as long as fixed-income securities remain a major part of the asset allocation

for life insurers and pension funds, there is a substantial risk of a substantial loss of purchasing power for policyholders over the long term, even though some life insurers have made minor increases in bonuses. This long-term erosion of purchasing power will persist, even if inflation does not remain at its current very high levels.

The negative effects of inflation may be mitigated for certain beneficiaries of occupational pensions provided by *Pensionskassen* and *Pensionsfonds*. Some of these pensions scheme include a clause that obliges sponsors to increase their contributions in response to the ongoing inflation rate. Unfortunately, BaFin does not publish any figures regarding the number of IORPs that offer this contractual clause.

Do German savings products beat capital markets?

Figure DE.5 shows the comparison of the performance of life insurers with a balanced benchmark portfolio, the composition of which is presented in Table DE.15. Since capital guarantees during the accumulation phase play a dominant role in the German life-insurance market, we have selected a benchmark portfolio comprising 30% equities and 70% bonds.

Table DE.15 – Capital market benchmarks to assess the performance of German pension vehicles

Product	Equity index	Bonds index	Allocation
Life insurances	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	30.0%–70.0%

Note: Benchmark portfolios are rebalanced annually.

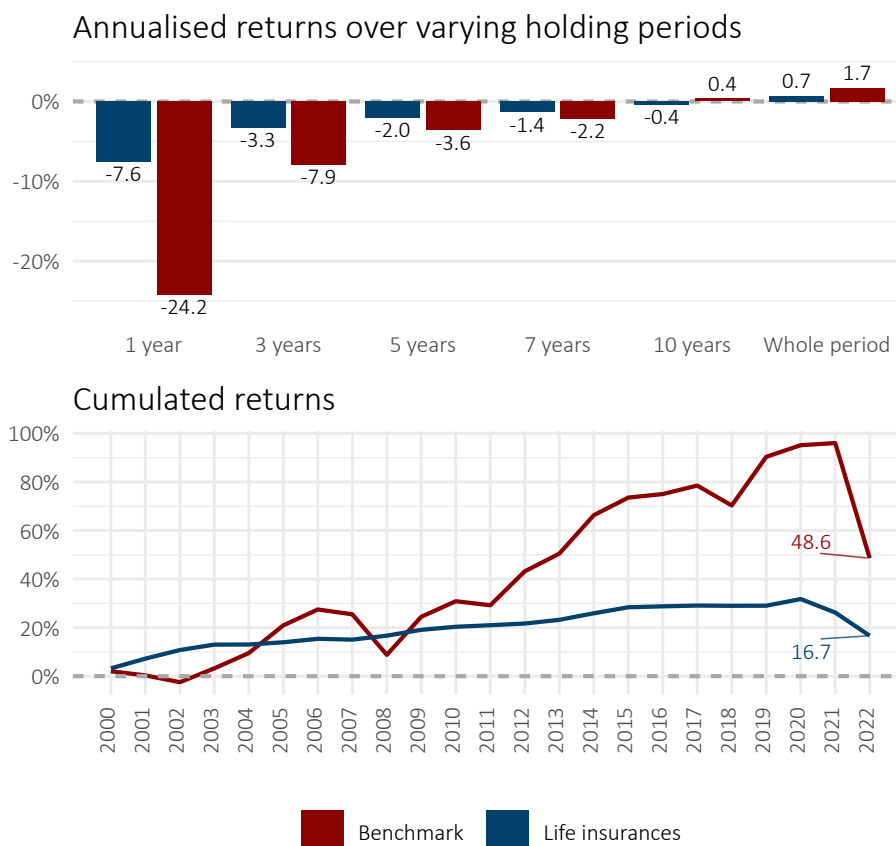
If this portion is changed by increasing the proportion of equities, the results are less favourable for the life insurers due to the higher “risk benefit” of the benchmark:

- 30/70: Cumulated returns of the benchmark 2000-2022: 48.60% (i.e., 7.36 pp below the 50/50 benchmark), 31.94 pp above the cumulated returns of life insurance contracts.
- 40/60: Cumulated returns of the benchmark 2000-2022: 52.89% (i.e., 3.07 pp below the 50/50 benchmark), 36.24 pp above returns of life insurance contracts.
- 50/50: Cumulated returns of the benchmark 2000-2022: 55.96%, 39.31 pp above the cumulated returns of life insurance contracts.

When assessing the return comparison, it’s important to consider not only guarantees but also other specific insurance factors. We will outline some fundamental aspects such as life insurance as a “complex” product in itself, the emerging trade-off between “guarantees” and “security”, and the necessary combination of the accumulation phase and decumulation phase for payouts.

When stating that life insurances are “complex” products in themselves, this implies that the “complexity” is not only linked to the mechanisms of the investment part of the premium but also with the “insurance wrapper” (EIOPA, 2022, pp. 90–106). In terms of costs that reduce the investment component of the total gross premium, it is essential to consider not only distribution and administration costs, but also biometric costs (for example, whether death risk is included

Figure DE.5 – Performance of German life insurance contracts against a capital market benchmark (returns before tax, after inflation, % of AuM)



Data: GDV, Eurostat; Calculations: BETTER FINANCE.

or not).

The death risk can be covered both during the accumulation phase and the decumulation phase, whereas coverage for the risk of longevity is relevant only for the decumulation phase. We will come back on this second point later.

It is important to emphasise that any comparison of returns for life insurances can only be related to the investment part of the premium, not to the gross premium paid by the policyholder.¹⁰ Therefore the transparent disclosure of the investment part of the gross premium by life insurers constitutes one of the fundamental “classical” demands by German consumer protectors (*Prämientrennung*—differentiation of gross premium into three parts: investment part, distribution and administration costs, and costs of biometric risk coverage).

The issue of a potential conflict between the “guaranteed interest rate” (*Garantiezins*) included in

¹⁰For more details on biometric risk coverage, cf. BaFin website on life-insurances: https://www.bafin.de/EN/Verbraucher/Versicherung/Produkte/LebenRente/leben_rente_sterbegeld_node_en.html.

a life insurance contract and the general promise of “security”, especially during the accumulation phase, only emerged during the “low for long” interest rate phase. As long as the “guaranteed interest rates” were between 4% (in 2000) and 2,25% (in 2010) in the first decade after 2000, and the total benefits (*Gesamtverzinsung* including capital guarantees and bonuses) averaged around 7% in 2000 and 4% in 2010, life insurance could be considered as a “security” against the turbulences of global capital markets (especially during the two global financial crises in 2000/01 and in 2008/09).

However, this perception changed dramatically during the “low for long” interest rate phase throughout the 2010s, when the authorised maximum “guaranteed interest rate” dropped to 0,9% in 2017 and further to only 0,25% in 2022 (and the average total benefits of life insurers to 2,23% in 2020, see Deutsche Aktuarvereinigung [DAV], 2023; Walz, 2020).

As already outlined in the previous chapter the consequences were clear: life insurers as well as policyholders broadly said “good-bye” to guarantees and accepted the fundamental change to products with more or less strongly reduced guarantees during to accumulation phase. It was shown by actuarial studies that reduced guarantees could help to increase at least nominal returns, even though the real results were and are still rather modest...

Even though it is a statistically proven general factor that life-expectancy and in consequence longevity are increasing slowly but constantly, in Germany there is the particular constellation that neither the average life-expectancy of the total population nor even the mortality tables of the association of actuaries are legally binding for the payouts of annuities, but only the particular calculation of longevity based on the actual annuity portfolio of each life insurer. This judicial condition explains why life-insurers make intense public relation work with regard to a possible underestimation of life-expectancy by the “average” policyholders (GDV, 2023).

Right now German policyholders cannot do much more than having “thrust” in the ongoing work of the supervisory authorities and their control of the actuarial calculations of longevity by each life-insurer separately (including the legal obligation to transfer any possible gains due to an over-calculation of biometric risks—be it death or longevity—back to the policyholders).

Admitted that a pure real return observation might not be sufficient for the total evaluation of the “suitability” especially of a pension product due to the longevity aspect, it should have become evident that German life insurers have a lot of legal discretion for “adjusting” the returns and benefits of their products by using factors like administration and distribution costs, reduced guarantees, longevity, etc. The situation becomes even more complex when taking into account the “turn-around” of key interest rates (*Zinswende*) in the Eurozone since 2021/22.

Conclusions

Like policyholders and insurers in other EU member states, German policyholders and insurers were also confronted with a phenomenon from mid-2022 onwards that they hadn’t experienced for 14 years: within a little more than one year key interest rates set by the European Central Bank rose from 0,0% in July 2022 to 4,5% in September 2023. From March 2016 to July 2022, this key interest rate was fixed at 0,0% (“low for long” period), and only in July 2008, the rate had reached 4,25% before, after which a gradual but constant decline began. The crucial question now is whether this increase in the key interest rate will lead to a revival of the classical life

insurance with strong guarantees or not. Of course, it is much too early for any definitive answer, nevertheless some assessments can be made.

- Life-insurers: most of them are increasing their bonuses but have not yet raised the “guaranteed interest rate” (only possible with authorization of BaFin). Given the ongoing high volatility in stock and real estate markets on the one hand and the Solvency II rules on the other, it does not seem very likely that they will make a significant shift in their distribution practices. So, as product providers, they will surely continue to focus on products with hybrid or reduced guarantees.
- Policyholders: The transition for German policyholders from full guarantees to hybrid or reduced guarantees represented a profound “learning process” that reshaped long-held attitudes. As a result, it’s less likely that they will undergo another major change, especially considering that the younger generation, on average, is more inclined to act as retail investors using digital tools
- NCA, BaFin: it appears to be too early to make any announcements regarding a possible “turn-around” of the “guaranteed interest rate” authorised for life-insurers, because former “hidden reserves” have now turned into “hidden losses”. However, there is at least some relief in the form of refunds from the obligatory “additional capital reserve” (*Zinssatzreserve*) introduced in 2011 to secure the long-term payment obligations of the life insurers which started in 2023. Additionally, BaFin is closely monitoring whether the total number of early cancellations is rising due to the competition from new saving offers by banks, but as of now, this does not seem to be the case on a significant scale (with the exception of one-off contribution products).

As a result, as of 2023, the only assessments that can be made are that the “turn-around” of the key interest rates (*Zinswende*) has not (yet) led to a resurgence of classical life insurance contracts with full “minimum guarantees”, nor does there appear to be an effective mitigation of the “financial repression” caused by ongoing high inflation rates.

Life insurers (like banks) are not increasing the interest rates for their savings products in the line with the rise in key interest rates (and even if they did, this would not be enough to stop the long-term loss of purchasing power). So long-term “real” protection against inflation does not seem to be in place—a bitter truth just for German consumers.

Taking into consideration the inevitable conflict between long-term loss of purchasing power primarily associated with insurance-based pension products like annuities on one hand, and the desire and necessity for coverage of the biometric risk of longevity by many consumers on the other hand, there appears to be only one reasonable compromise: depending on the risk awareness or “risk appetite” policyholders should allocate only a proportionate part of their total retirement savings into an annuity (either deferred or immediate) and invest the larger part in various other financial products such as bank saving plans, investment funds, shares, bonds, etc. By doing so, the best solution should consist of a diversified portfolio of financial products designed to strike a balance between “free” asset allocation and long-term retirement provision that aligns with the individual’s risk tolerance. A long-standing principle of consumer protection in Germany related to retirement provision has always been the clear separation of the “saving process” (by capital accumulation) and of the “risk coverage” (by insurance).

This kind of solution requires “best advice”, which can only be developed and implemented for each individual case by genuinely “independent” financial advisors. The enforcement of “independent advice” for both retail investors and policyholders is part of the proposal outlined in the EU Commission’s Retail Investment Package of May 24, 2023 (European Commission, 2023). From the perspective of German consumers, this initiative should be strongly supported.

In particular, “independent” advice needs full pre-contractual and ongoing information on costs, performance scenarios, and real returns. In the occupational pensions’ sector this can only partly be achieved, since, for example, distribution costs of “direction insurances” and “competitive” IORPs are only disclosed at the product level, with no average figures available. The NCA should take the necessary steps to provide this data separately. Nevertheless, it is obvious that the final real return of any “implementation type” of occupational pension largely depends on the actual contributions from the sponsor company, which can vary widely.

With regard to third pillar private pensions—state subsidised or not—publicly available data indicates that two major factors influence the final real return of these products: costs, especially distribution costs, during the accumulation phase, and biometric costs of longevity during the decumulation phase.

Given the current situation, where no additional legal amendments are expected at least until the forthcoming implementation of the EU Retail Investor Package of May 2023, German consumers have little choice but to rely on the NCA, BaFin. BaFin has announced its intention to strengthen its supervision of the conduct of business by life-insurers. In May 2023, BaFin (2023) published an “Information Sheet” (*Merkblatt*) aimed at enhancing the supervision of the “appropriate benefit for clients”, which must be secured mainly by enforcing the product approval process already stipulated by the Insurance Distribution Directive (IDD). Particularly relevant are the precise determination of target markets, realistic performance scenarios, disclosure of returns in nominal and real figures (the latter after accounting for costs and inflation), prohibition of possible conflicts of interest due to inducements, and BaFin’s focus on distributors with particularly high commissions.

In fact, it can be said that nearly all the relevant factors that could have a significantly detrimental impact on the real return of private life and annuity insurances (“value for money”) are included in this supervisory approach. Additionally, we emphasize the importance of controlling annuity factors and their correlation with the assumed life expectancy, which should not deviate significantly from general statistics. Consequently, it is up to the BaFin itself to prove to the German consumers that it will effectively implement its own supervisory objectives and should not be considered as a “toothless tiger” in the long run. An exciting story that will be followed as closely as possible...

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Country Case 9

Italy

Sintesi

Il sistema pensionistico italiano rimane essenzialmente organizzato attorno al suo pilastro pubblico: la pensione statale costituisce il reddito pensionistico primario e spesso l'unico; i fondi pensione complementari coprono solo una minoranza della forza lavoro italiana. Tuttavia, l'invecchiamento della popolazione e i livelli strutturalmente elevati di debito e deficit pubblico mettono a dura prova il sistema pensionistico pubblico: Una serie di riforme ha cercato di limitare l'aumento delle passività pensionistiche dello Stato e di sviluppare schemi pensionistici professionali e individuali a capitalizzazione come alternativa credibile. Queste riforme, tuttavia, non sembrano convincere gli italiani, che investono ancora relativamente poco dei loro risparmi nei fondi pensione contrattuali o aperti, o nei PIP "nuovi", i principali strumenti di risparmio previdenziale che analizziamo in questo capitolo. L'analisi della performance di lungo periodo di questi prodotti sembra dar loro ragione: Su un periodo di 23 anni (2000–2022), i fondi pensione contrattuali e i fondi pensione aperti riescono a offrire solo un rendimento reale netto dello 0,3 e dello 0,6 per cento, mentre le due principali categorie di PIP, i piani "with profit" e i piani unit-linked, mostrano un rendimento reale netto rispettivamente dello 0,3 e dello 0,4 per cento su 15 anni (2008–2023). Un'allocation eccessivamente conservativa degli asset e—con la relativa eccezione dei fondi pensione contrattuali—costi elevati appaiono come i principali fattori di sottoperformance in termini nominali. L'inflazione a lungo termine si ripercuote poi su ciò che resta delle pensioni private italiane.

Summary

The Italian pension system remains essentially organised around its public pillar: the State pension constitutes the primary and often the only retirement income; complementary pension funds only cover a minority of the Italian labour force. However an ageing population and structurally high levels of public debt and deficit put an increasingly unbearable strain on the public pension system: A series of reform have sought to limit the increase in State pension liabilities and develop funded occupational and individual pension schemes as a credible alternative. These, however, do not seem to convince the Italians, who still invest relatively little of their savings into contractual or open pension funds, or "new" PIP, the main pension saving vehicles that we analyse in this chapter. The analysis of the long-term performance of these products seems to prove them right: Over a 23 year period (2000–2022), contractual pension funds and open pension funds only manage to offer a 0.3% and -0.6% real net return, and the two main categories of PIP, the "with profit" and unit-linked plans, show a real net performance of 0.3% and -0.4%, respectively, over 15 years (2008–2023). An excessively conservative allocation of assets and—with the relative exception of contractual pension funds—high costs appear as the main drivers of underperformance in nominal terms. Long-term inflation then takes its toll on what remains of Italian private pensions.

Real returns 2022

Contractual pension funds: -19.71%

Open pension funds: -20.51%

Introduction: The Italian pension system

In this chapter about Italian private pensions, we will analyse the four product categories listed in Table IT.1. Within the occupational pillar, we will analyse separately the returns obtained by contractual pension funds and open pension funds over 23 years (2000–2022). Our reporting period will be shorter for *Piani Individuali Pensionistici* (PIP), the individual pension plans constituting the third pillar of the Italian pension system: we will analyse performance since 2008, distinguishing between PIP “with profit” and unit-linked PIP.

Table IT.1 – Long-term and pension savings vehicles analysed in Italy

Product	Pillar	Reporting period	
		Earliest data	Latest data
Contractual pension funds	Occupational (II)	2000	2022
Open pension funds	Occupational (II)	2000	2022
PIP with profits	Voluntary (III)	2008	2022
PIP unit-linked	Voluntary (III)	2008	2022

Like for most European savers, 2022 was a terrible year for Italians. As shown in Table IT.2, the 1-year returns after charges and inflation of three of the four product categories constituting the Italian private pension system fell close to or below -20%. The long-term performance of Italian private pensions, while less catastrophic, is still disappointing, with two product categories in negative territory.

Table IT.2 – Annualised real net returns of Italian long-term and pension savings vehicles (before tax, % of AuM)

	Contractual pension funds	Open pension funds	PIP with profits	PIP unit-linked
Reporting period	2000-2022	2000-2022	2008-2022	2008-2022
1 year (2022)	-19.7%	-20.5%	-9.9%	-21.2%
3 years (2020–2022)	-5.8%	-5.7%	-3.8%	-5.6%
5 years (2018–2022)	-3.0%	-3.1%	-2.0%	-2.8%
7 years (2016–2022)	-1.6%	-1.7%	-1.1%	-1.4%
10 years (2013–2022)	0.3%	0.5%	0.0%	0.9%
Whole period	0.3%	-0.6%	0.3%	-0.4%

Data: COVIP; *Calculations:* BETTER FINANCE.

In the remainder of this section, we will briefly present the Italian pension system, including its Pillar I State pension, before delving into our analysis of the four private pension categories. We will then report on the costs and charges levied on savings accumulated in these products, the fiscal regime applicable to them, before analysing their performance over the reporting period.

Pension system in Italy: An overview

The Italian pension system is organised around the classic three-pillar World Bank model:

- Pillar I is a public pension scheme managed by the Italian State;

- Pillar II is composed of occupational pension arrangements, to which enrolment is mandatory;
- Pillar III is composed of individual pension saving products, subscribed on a voluntary basis.

Both Pillar II and Pillar III pension funds and plans are supervised by *Commissione di Vigilanza sui Fondi Pensione* (COVIP), whose data constitutes the basis of our analysis of costs and performance.

Pillar I: The State pension

The first pillar remains the main pension vehicle in Italy. It is composed of two tiers: zero and first. The zero tier consists of a social pension ensuring a minimum level of income for the elderly. The first tier covers employed individuals and for those who entered the labour market before 1995, functions as a DB system. The “Dini reform” of 1995 however changed the nature of the first tier for all those who entered the labour market after 1995: the system is now organised as a notional defined contribution (NDC) system and pension entitlements are no longer computed according to an earnings-related system (Riforma del sistema pensionistico obbligatorio e complementare (legge 335/1995), 1995).

Further reforms and adjustments of the Italian public pension system were adopted in the 2010s, in order to restore sustainability, in the context of an ageing population and massive pension expenditure. In 2011, Esla Fornero, minister for Welfare and Social Policy under Mario Monti’s “technical” government, implemented a reform intended to bring the system close to equilibrium. The main eligibility criterion became the number of years worked rather than one’s age, with early retirement legally possible but subject to penalties. 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 was estimated to add € 500 millions to the costs of the State pension.

This judicial reversal was succeeded by the adoption of measures facilitating early retirement, such as the “Ape Sociale”, “Opzione Donna” and, most notably, the “Quota 100” measure, effective from January 1, 2019. This measure enables employees with a minimum of 38 years of service to retire early if the combined total of their age and years of service reaches 100. The “Quota 100” has since been reviewed, becoming “Quota 102” in 2022 and may be revamped again as “Quota 103” or even “Quota 104” (41 years of contributions and 63 years of age) in the reform announced by Giorgia Meloni’s government for 2024. The government—under the pressure of a high public debt and deficit as well as inflation—seeks to reduce the opportunities for early retirement, but faces the opposition of trade unions, supported on this occasion by the right-wing *Lega Nord* party (Rogari, 2022).

Pillar II: Occupational pensions

The second pillar of Italian pensions is composed of collective complementary pension plans. These can be contractual occupational pension funds—managed by social partners under collective bargaining agreements (CBAs)—or “open” pension funds constituted by various types of financial institutions, which welcome members on an individual or collective basis (Commissione di Vigilanza sui Fondi Pensione [COVIP], 2022).

Besides pension funds, the *Trattamento di Fine Rapporto* (TFR) is also part of the second pillar. The TFR is a deferred indemnity: each year the employer is required to set aside a portion of the employee's salary, to be accumulated and returned to the employee upon termination of the employment contract.

Pillar III: Voluntary individual pensions

The third pillar is composed of voluntary contributions to individual complementary pension schemes, 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.

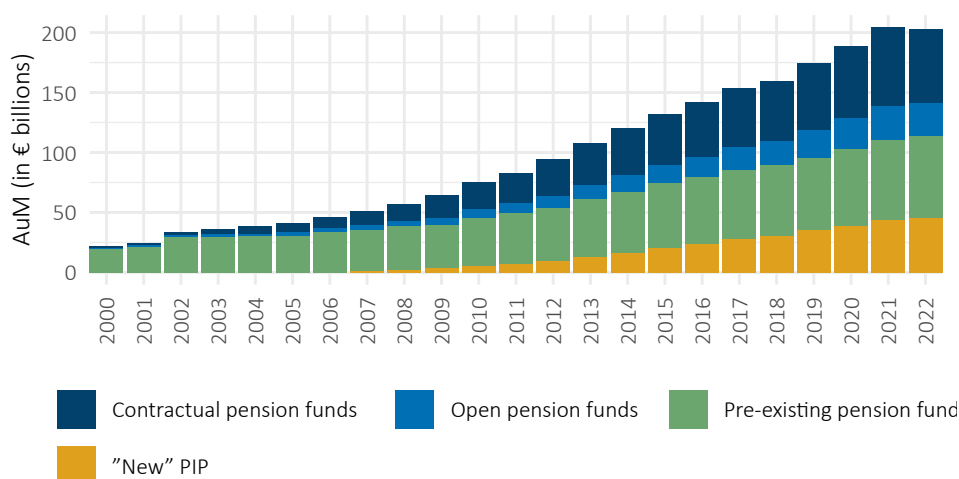
To summarise the information of the pension system set-up and to obtain a basic overview of the pension system in Italy, the table below presents key data on the multi-pillar pension system.

Long-term and pension savings vehicles in Italy

At the end of 2022, 9.1 million Italians were enrolled into at least one collective or individual pension plan (Pillar II or III), covering 36.2% of the working population (COVIP, 2023). This represents an increase of 650 thousand employees from end-2021. The contractual pension funds had the strongest increase in members (+9.9%) as well as in net contribution collection (+17.44%).

As shown in Figure IT.1, the share of "pre-existing" funds in the total AuM of Italian private pension vehicles shrinks over time, while contractual pension funds and "new" PIP are becoming the main pension savings vehicles.

Figure IT.1 – AuM of Italian long-term and pension savings vehicles



Data: COVIP; Calculations: BETTER FINANCE; Note: Available AuM data for "new" PIP does not differentiate between with-profit and unit-linked contracts.

Table IT.3 – Overview of the Italian pension system

Pillar I	Pillar II	Pillar III
State pension	Occupational funded pension	Individual funded pension
“Dini law” (1995) and “Fornero law” (2011)	Legislative Decree 124/93 on complementary pension plans implemented in 1993, and Reform on complementary pension (Legislative Decree 252/2005)	
<i>Instituto Nazionale Previdenza Sociale</i> (INPS)	Pension accumulation companies	Insurance companies and other financial institutions
Mandatory	Voluntary	Voluntary
Publicly managed	Privately managed	Privately managed
PAYG	Partially or fully funded	Fully funded
notional defined contribution (NDC)	DC	DC
Quick facts		
Number of old-age pensioners: 10.7 mln. ^a	Funds: 264	Funds (new PIP only): 68
Average old-age pension: € 1 393	AuM: € 89.14 bln.	AuM (old and new PIP): € 51.3 bln.
Monthly household average income (net): € 2 492	Participants in 2022: 6.1 mln.	Participants in 2022: 3.8 mln.
Aggregate replacement ratio (2022):75% ^a	Coverage ratio: 24.4%	Coverage ratio: 15.0%

Data: (COVIP, 2023);

^a Eurostat data (the number of old-age pensioners excludes pension survivors and anticipated old-age pensions).

Over the past twenty-three years covered in our report, the number of pension funds and plans on offer in Italy was reduced dramatically: From 739 funds and plans in operation in 1999, only 332 remained active in 2022. As the supervisor, COVIP explains:

The reduction in the number of pension forms operating in the system, especially for pre-existing funds, is primarily driven by concentration in the financial sector, which led to the formation of banking and insurance groups within which several supplementary pension schemes dedicated to employees of individual banks coexisted. Schemes dedicated to the employees of individual banks and insurance companies later merged into these groups. In many cases, the ensuing reorganisation process led to the concentration of the pension schemes of individual companies in one or two group funds, separated according to the type of scheme. (COVIP, 2023, p. 16)

The concentration trend particularly affected the “pre-existing” funds, and to a lesser extent contractual and open pension funds. The number of “new” PIP, individual pension plans introduced in 2007, remained relatively stable.

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:

- Membership is voluntary;
- Pensions are funded;
- Schemes are managed by banks, insurance companies or specialised financial institutions;
- Their supervision is ensured by COVIP.

Following the signature of a CBA, 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 DC basis, as this is the only permitted type of pension plan.

DB plans are restricted to older funds, that existed before the transition to the DC model (“pre-existing” funds). The budget law of December 11, 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 whole or in part; the scheme is called *Rendita Integrativa Temporanea Anticipata* (RITA). Eligible employees are those who benefit from a similar provision in the first pillar, the *APE Sociale*. To be eligible for RITA, an individual must:

- cease their 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 their official retirement. The RITA is also offered to people who have been unemployed for at least two years before their

request for withdrawal and are within ten years of the statutory retirement age.

In 2022, a total of € 1 643 million was paid out of Italian private pensions under RITA, € 357 million more than in 2021. The average withdrawal amounted to € 57 000, over a total of 28 800 withdrawals (only 6 100 people withdrew the entire amount).

Second pillar: Contractual and open pension funds

Three types of funds exist within the occupational pillar:

- “Contractual”, also called “closed” funds, membership in which is restricted to specific groups of workers;
- “Open” funds, which are open to all;
- “Pre-existing” funds—that is, funds that existed before the Italian legislator regulated the form of Italian private pensions—are still operating and can accept as new members the employees of the firm(s) or economic sector for which they have been established, although no new such fund can be created.

Contractual funds are also called **closed funds** due to their restrictive membership criteria: only firms of the specific firm, firms or economic sector for which the fund was established can join in. Generally, contractual funds are established for employees whose contract is regulated by a CBA; for the self-employed, contractual funds are usually provided by professional associations, and consequently reserved to their members. At the end of 2022, contractual funds had 3.6 million members, 133 619 of whom were also members of at least one contractual fund, and 297 856 had a “new” PIP.

Contractual funds’ assets are legally separated from those of the sponsor company or association, being therefore protected from creditors’ claims in case of bankruptcy of the employer. A contractual fund must place its assets under the custody of an authorised depository (bank or investment firm). The fund’s Board of Directors is responsible for defining the investment strategy and choosing the investment manager, the depository bank and the entity designated to administer the pensions. The fund must report at least on an annual basis. Managers’ mandates usually last five years or more, in line with the long-term orientation of funds.

Open funds, by contrast, do not restrict membership: they are set up by banks, insurance companies, asset management companies and stock brokerage firms for anyone to join on a collective or individual basis. Employees of the public sector, as well as self-employed and liberal professions can only join on an individual basis; other employees can join individually, but collective membership is also possible where provided for by a company or sectoral agreement. At the end of 2022, open funds had 1.8 million members, 32 298 of which were also members of at least one other open fund and 107 255 had a “new” PIP.

The assets of open pension funds are legally separated from those of the financial companies that set them up and are thus protected, in case of the company’s bankruptcy, from the claims of any creditors. Like contractual pension funds, open funds must have an authorised depository bank and can outsource administration.

Italians benefit since 1982 from the TFR, a severance payment system whereby the employer pays

a portion—6.91%—of the employee’s annual salary into a specific vehicle for asset accumulation, the TFR. If an employee decides to opt-out of complementary pension funds and belongs to a company with more than 50 employees, their accumulated amount of severance payments is transferred to INPS, the national social security institute, which, by law, manages the severance payment. For an employee who works in a firm with less than 50 employees and who does not opt for complementary pension funds, their TFR remains with the firm they work at and represents a debt for the company.

The accumulated amounts are mandatorily saved and can only be paid upon termination of the work contract (whatever the reason of the termination). In exceptional cases (health issues, first-house purchases, parental leave), the TFR can be partially drawn, up to 70% of the accumulated amount. The TFR is revalued annually at a rate of 1.5% plus a variable part indexed on the national inflation rate calculated by the national statistics office (Istat). In 2022, as a positive side effect of soaring inflation, the TFR’s rate rose to 8.3%,

As an alternative, since 2007 and entry into force of Legislative Decree 252/2005, each employee can individually opt to have their TFR paid into a complementary pension fund. For specific sectors where a contractual pension fund exists, tacit consent applies for the TFR to be transferred to the fund instead of remaining with the company.

The introduction of contractual and open funds, and the possibility to place one’s TFR with them was a significant novelty in the Italian pension landscape, which had been thus far almost exclusively organised around the State pension. Workers now had to make decisions regarding where and how to invest the portion of their income they wish—or, rather, must—save for future retirement income.

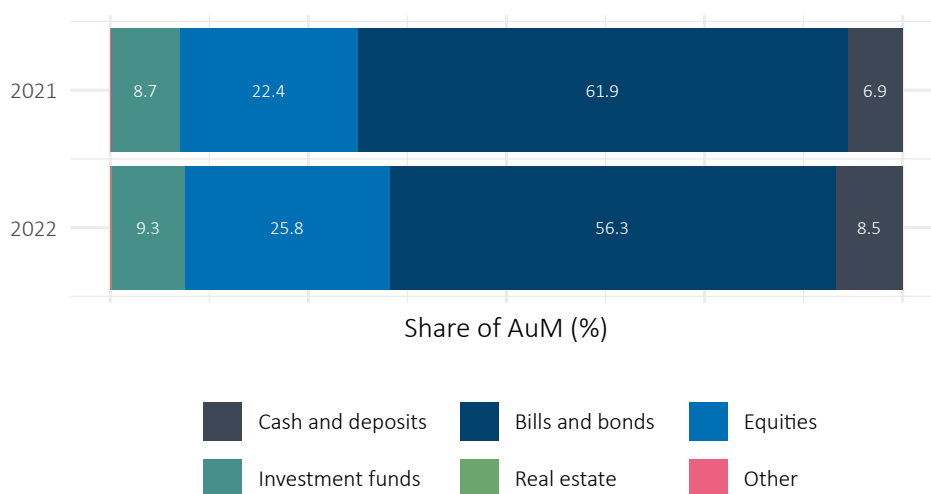
The coverage of public employees by specific retirement products is very limited, as the law introducing pension funds excluded them. Contractual pension funds are only possible for individuals working in National Education (Espero), in the National Health system and in a regional or local authority (Perseo and Sirio). These contractual pension funds were implemented in 1993.

In terms of allocation of pension savers’ assets, both contractual and open pension funds implement conservative investment policies, as shown in Figures IT.2 and IT.3 for the years 2021 and 2022. Contractual pension funds invest only a quarter of their assets into equity vs. over 50% in debt securities. Open pension funds are only slightly less conservative, with 30.1% invested in equity and “only” 43.3% in bills and bonds.

Third pillar:

Piani Individuali Pensionistici (PIP) are individual pension plans offered by insurance companies. Their main purpose, according to the Italian committee for financial education includes but is not limited to pension savings: they can also be used to accumulate savings for major projects or unforeseen events. Anticipated withdrawals are therefore possible in case to pay for extraordinary health expenses, for first-home purchase and renovation, or for “personal and family motives”, the latter two only after an 8-year holding period (Comitato per la programmazione e il coordinamento delle attività di educazione finanziaria, 2023). An anticipated pension may also be requested as per the RITA framework. Full withdrawals are also possible in case of permanent invalidity, unemployment longer than 48 months, resignation or dismissal and, of course, death of the investor.

Figure IT.2 – Allocation of Italian contractual pension funds' assets



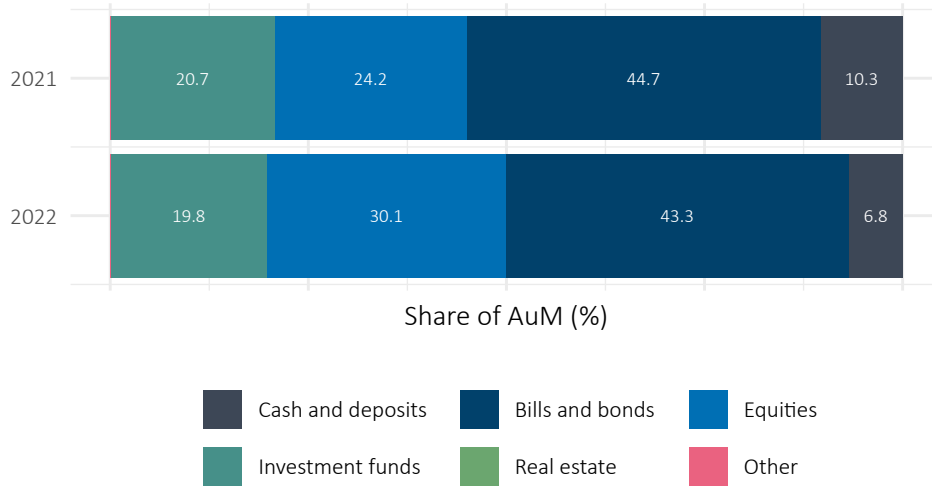
Data: COVIP; Calculations: BETTER FINANCE.

Two main types of contracts are offered: *gestione separata* (“with profit”, 74.9% of AuM in “new” PIP in 2022) or unit-linked (25.1%). 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.

Assets are allocated very differently under the two types of PIP, as shown in Figures IT.4 and IT.5. PIP with are massively invested in debt securities (84% in 2022, of which 38.3% in Italian government bonds) and virtually do not invest in equities (2.4%). By contrast, in PIP unit-linked, equity represents more than a third of investments, while debt securities only account for a fourth of AuM.

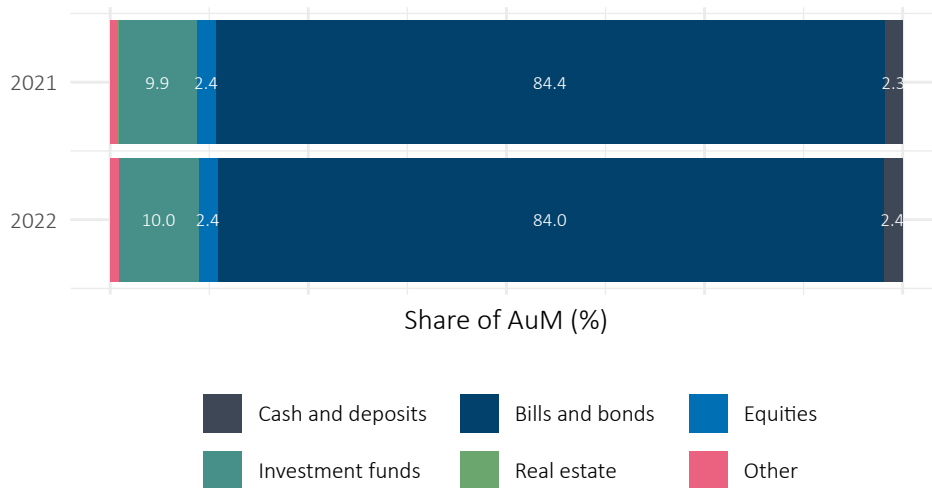
We should further note that the allocation of assets varies within the unit-linked category, where there exists three main sub-types: the *obbligazionaria*, the *bilanciata* and the *azionaria*. The *obbligazionaria* invests close to 70% of assets in government bonds (68.7% in 2022) and nothing in equity. By contrast, in the *azionaria* type, assets are invested for more than 70% in direct equity holdings (71.7% in 2022) and only a tiny fraction of assets are invested in debt securities (4.4% in 2022).

Figure IT.3 – Allocation of Italian open pension funds’ assets



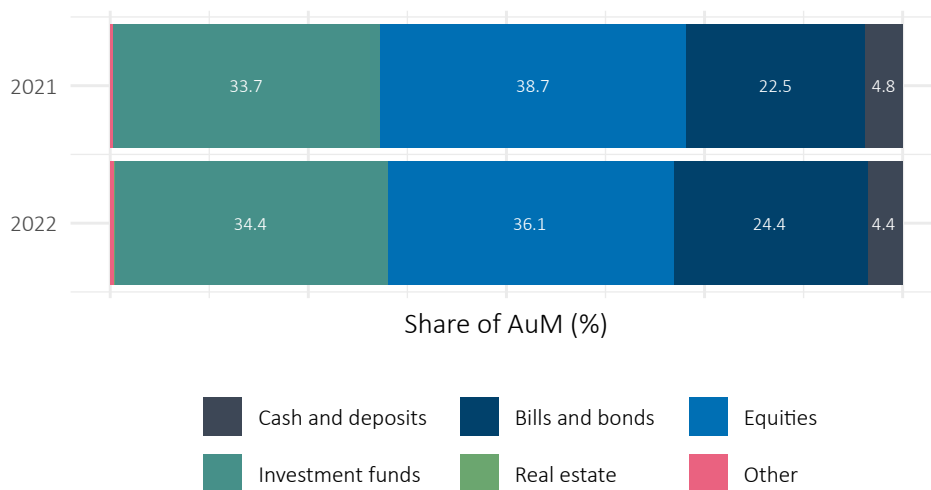
Data: COVIP; Calculations: BETTER FINANCE.

Figure IT.4 – Asset allocation of Italian PIP with profits



Data: COVIP; Calculations: BETTER FINANCE.

Figure IT.5 – Asset allocation of Italian PIP unit-linked



Data: COVIP; Calculations: BETTER FINANCE.

Charges

COVIP calculates a synthetic indicator of costs for a member who contributes € 2 500 every year with a theoretical annual return of 4%, over increasing periods of 2 to 35 years. 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. Table IT.4 shows the average, maximum and minimum values of this synthetic cost indicator in 2022.

Table IT.4 – COVIP’s Synthetic Cost Indicator

Statistic	Synthetic Cost Indicator			
	2 years	5 years	10 years	35 years
Contractual pension fund				
Mean	1.13%	0.64%	0.47%	0.34%
Minimum	0.21%	0.15%	0.13%	0.07%
Maximum	2.99%	1.52%	1.29%	1.14%
Open pension funds				
Mean	2.32%	1.56%	1.35%	1.23%
Minimum	0.55%	0.55%	0.55%	0.55%
Maximum	4.73%	3.20%	2.58%	2.31%
“New” PIP				
Mean	3.77%	2.62%	2.17%	1.82%
Minimum	1.04%	0.85%	0.58%	0.38%
Maximum	6.44%	4.82%	4.07%	3.44%

Data: COVIP, Relazione annuale 2022.

As we can see, there is a great variation among pension funds in terms of costs, both between and within categories of funds. Savers should therefore be very attentive to the cost information provided by fund managers before making investment decisions.

The cost indicator decreases significantly with the membership period, as initial fixed costs are progressively amortised: the drop in average costs between 2 years and 35 years is 0.79 pp for contractual funds, 1.09 pp for open funds, and even 1.95 pp for “new” PIP. In line with the long-term orientation of this report and of pension savers, the cost figures that we retain to calculate net returns of each of the four product categories analysed in this report is therefore the mean value of the synthetic cost indicator for 35 years.

In 2022, the cost indicator for open pension funds remained remarkably stable, equal to the second decimal place to the value for 2021. The average indicator for contractual pension funds increased across all holding periods (+0.02 pp for 2, 10 and 35 years, +0.01 pp for 5 years). The costs of “new” PIP—the most expensive of the three categories—decreased for the shorter periods (-0.02 pp for 2 years) but remained stable for the long-term.

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 to 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.

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. Employees can deduct their own contributions from their 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. Since January 1, 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 December 31, 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 ranging between 9% and 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.

Table IT.5 – Taxation of pension savings in Italy

Product	Phase			Regime
	<i>Contributions</i>	<i>Investment returns</i>	<i>Payouts</i>	
Contractual pension funds	Exempted	Taxed	Taxed	ETT
Open pension funds	Exempted	Taxed	Taxed	ETT
PIP with profits	Exempted	Taxed	Taxed	ETT
PIP unit-linked	Exempted	Taxed	Taxed	ETT

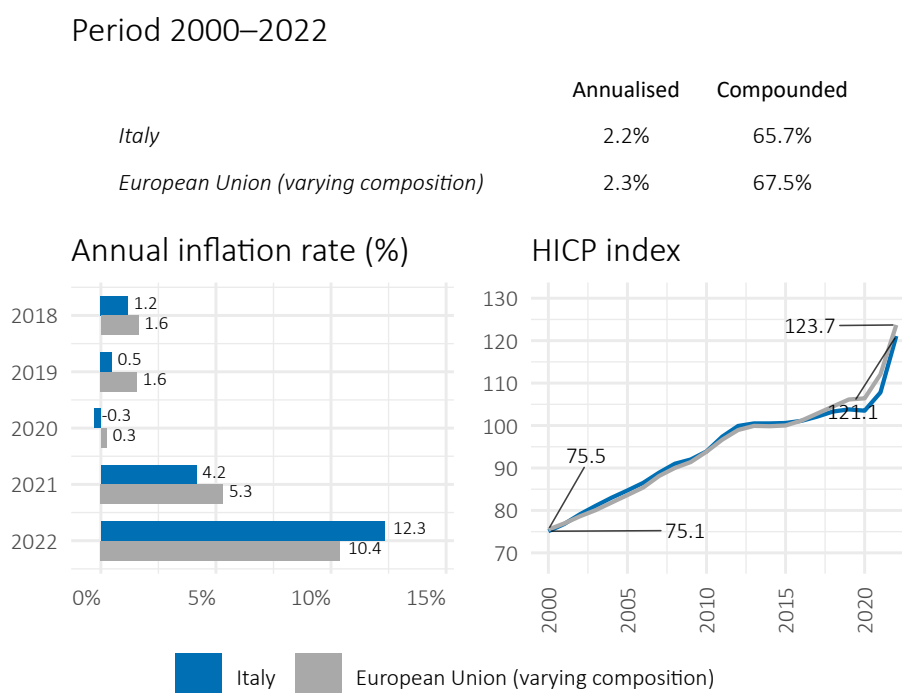
Data: Comitato per la programmazione e il coordinamento delle attività di educazione finanziaria (2023).

Performance of Italian long-term and pension savings

Real net returns of Italian long-term and pension savings

In this section, based on data from COVIP (2023) we analyse the nominal returns obtained by contractual pension funds and open pension funds since 2000 and the two main types of “new” PIP since 2008 (the first full year of operation for these products), and compute *real net returns*, that is, after charges and inflation, over these periods.

Figure IT.6 – Inflation in Italy



Data: Eurostat, HICP monthly index (2015 = 100); Calculations: BETTER FINANCE

As already mentioned, in order to calculate the long-term net returns, we deduct annual costs from each year’s nominal gross return figure. For that operation in the Italian case, we take for each year and each product category the average value of COVIP’s synthetic cost indicator for a 35 year period (see Table IT.4).

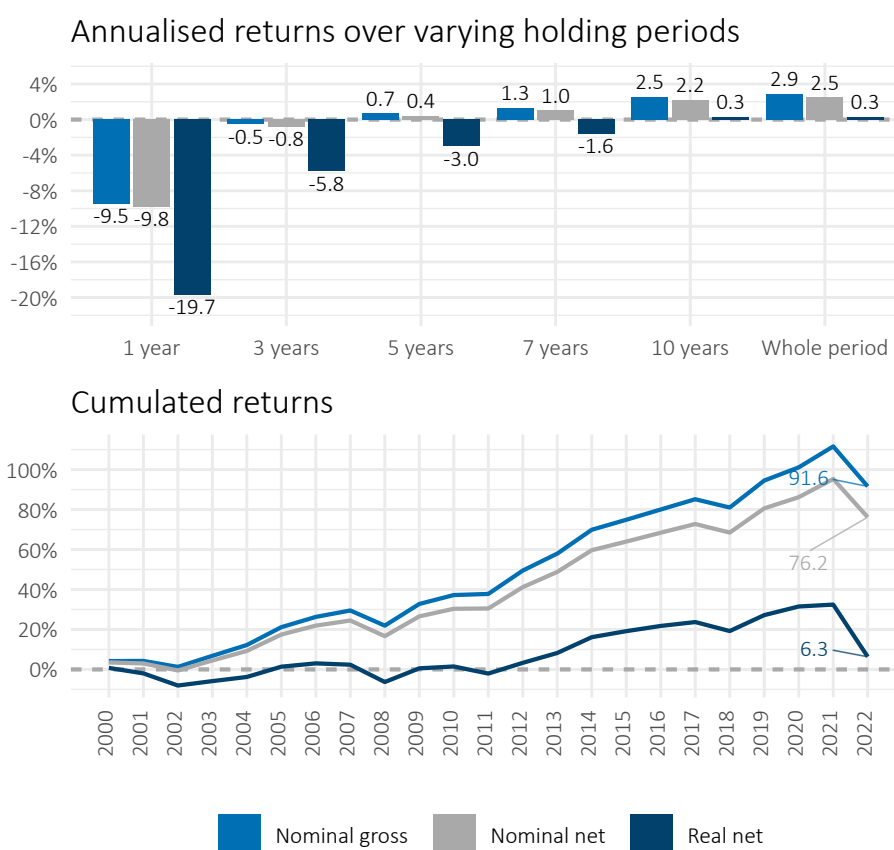
In order to correct the nominal net returns for inflation, we calculated the annual inflation rate in Italy since 2000, based on Eurostat’s HICP (see methodology on Page 6). As can be seen from Figure IT.6, in terms of inflation, Italy was slightly below the EU average over the period 2000-2022, with a 2.2% annual average and a 65.7% cumulated. In 2022, however, inflation climbed to 12.3%, 1.9 pp above the EU average (10.4%).

Performance of contractual and open pension funds

Figures IT.7 and IT.8 show the nominal gross, nominal net and real net returns of contractual and open pension funds. Even before the inflation hike of 2021-2022, the long-term real performance

of these products attests to the eroding effect of inflation on investment returns: over 23 years, inflation reduced the cumulated performance of contractual pension funds by 69.9 pp, and that of open pension funds by 56.9 pp, turning the later negative at -13.3%. Therefore, Italian workers who may be under the illusion that the value of their pension savings almost doubled over the past two decades have actually barely gained purchasing power if investing in contractual funds, and actually lost purchasing power if investing in open pension funds.

Figure IT.7 – Returns of Italian contractual pension funds (before tax, % of AuM)



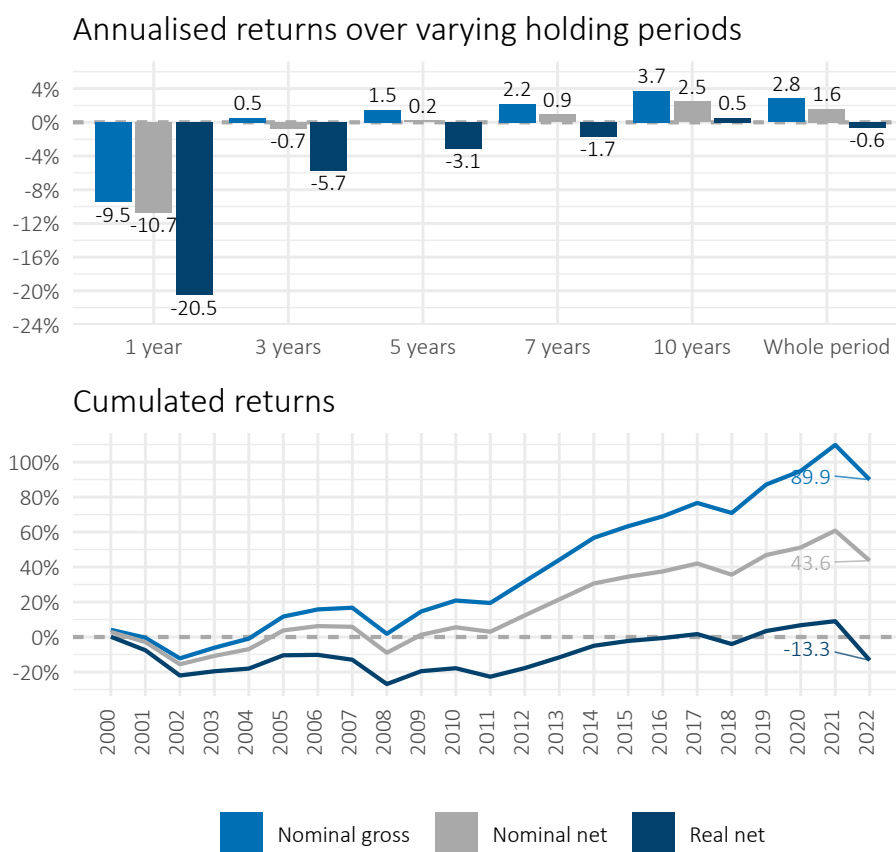
Data: COVIP, Eurostat; Calculations: BETTER FINANCE.

The results of open pension funds furthermore show the long-term impact of costs: While nominal returns before charges are similar to those of contractual pension funds, the higher average 35-year synthetic cost indicator of open pension funds (+0.89 pp in 2022), result in a nominal net performance 32.6 pp lower than that of contractual funds.

Performance of “new” PIP

Figures IT.9 and IT.10 painfully show the impact of costs on long-term performance: over half the cumulated performance is eaten away by charges levied on PIP (-42.9 pp for with profit contracts and -38.9 pp for unit-linked ones). The rest of the performance is wiped out by inflation, resulting in a meager +4.4% return for the misnamed “PIP with profits” over 15 years, and even a loss of

Figure IT.8 – Returns of Italian open pension funds (before tax, % of AuM)



Data: COVIP, Eurostat; Calculations: BETTER FINANCE.

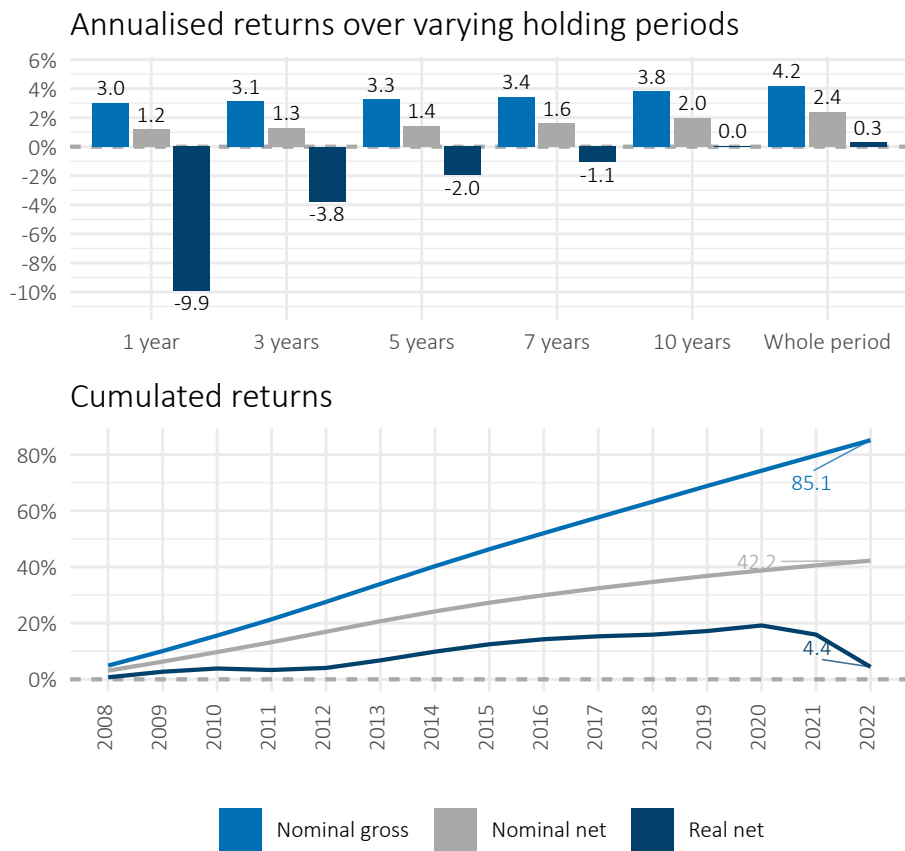
(-6.5%) for PIP unit-linked.

Returns in comparison

Overall, Italians are poorly served by their complementary pension saving vehicles. As Figure IT.11 shows, only two of the four analysed product categories offer a positive long-term real net return (over 15 and 23 years), and even then, both are below 0.5%.

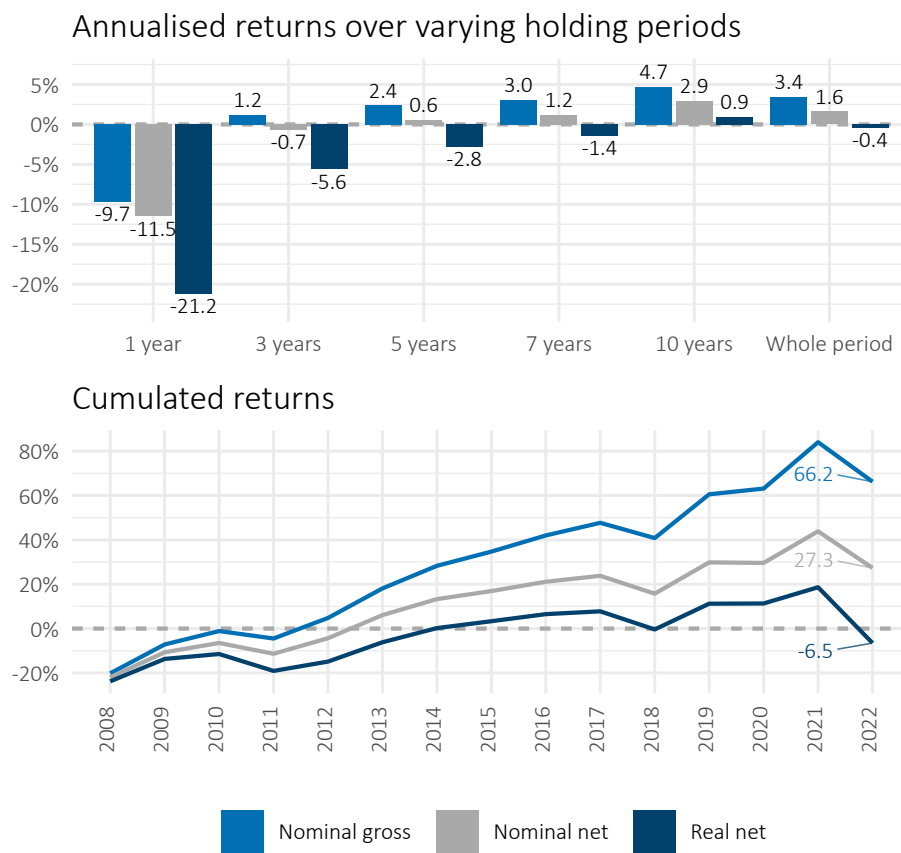
The cumulated real net performances displayed in Figure IT.12 tell the same story: after 23 years for pension funds and 15 years for PIP, Italian savers have at best marginally increased the real value of their pension savings.

Figure IT.9 – Returns of Italian PIP with profits (before tax, % of AuM)



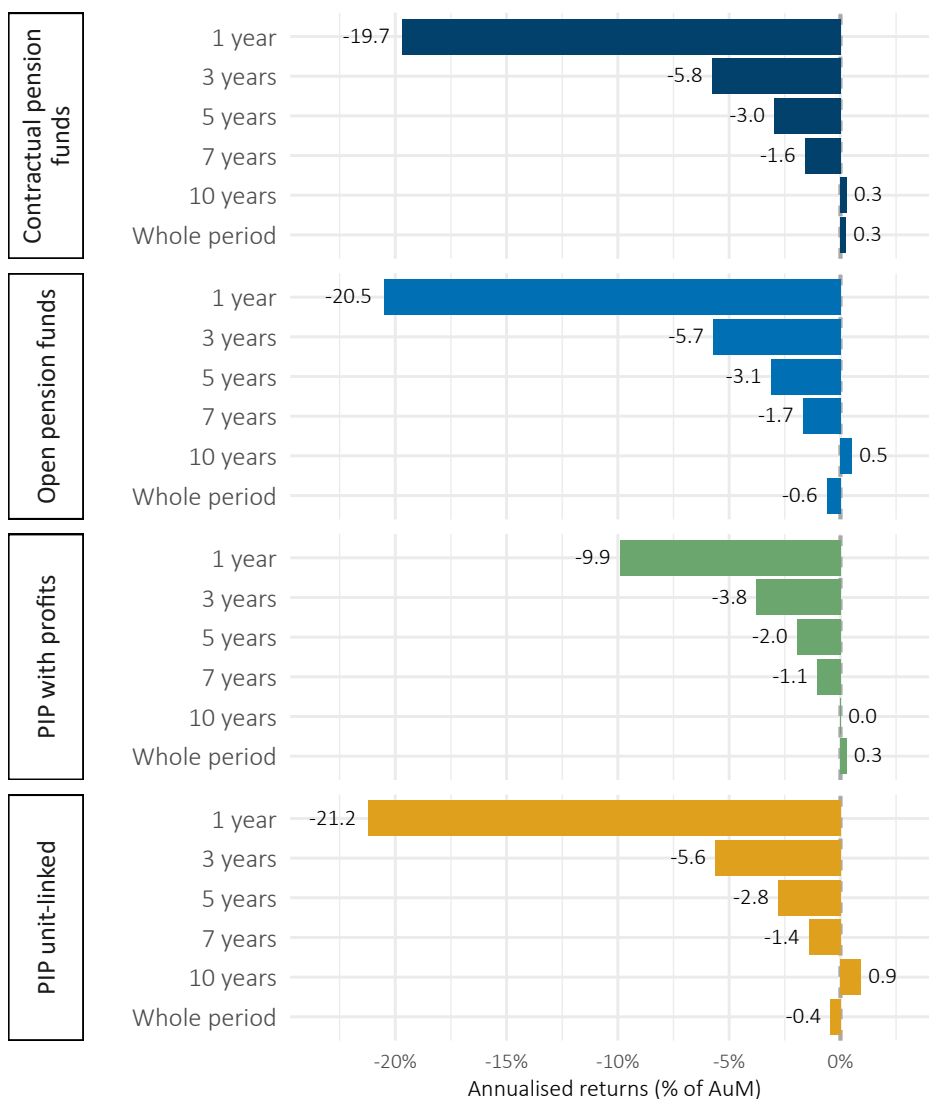
Data: COVIP, Eurostat; Calculations: BETTER FINANCE.

Figure IT.10 – Returns of Italian PIP with (before tax, % of AuM)



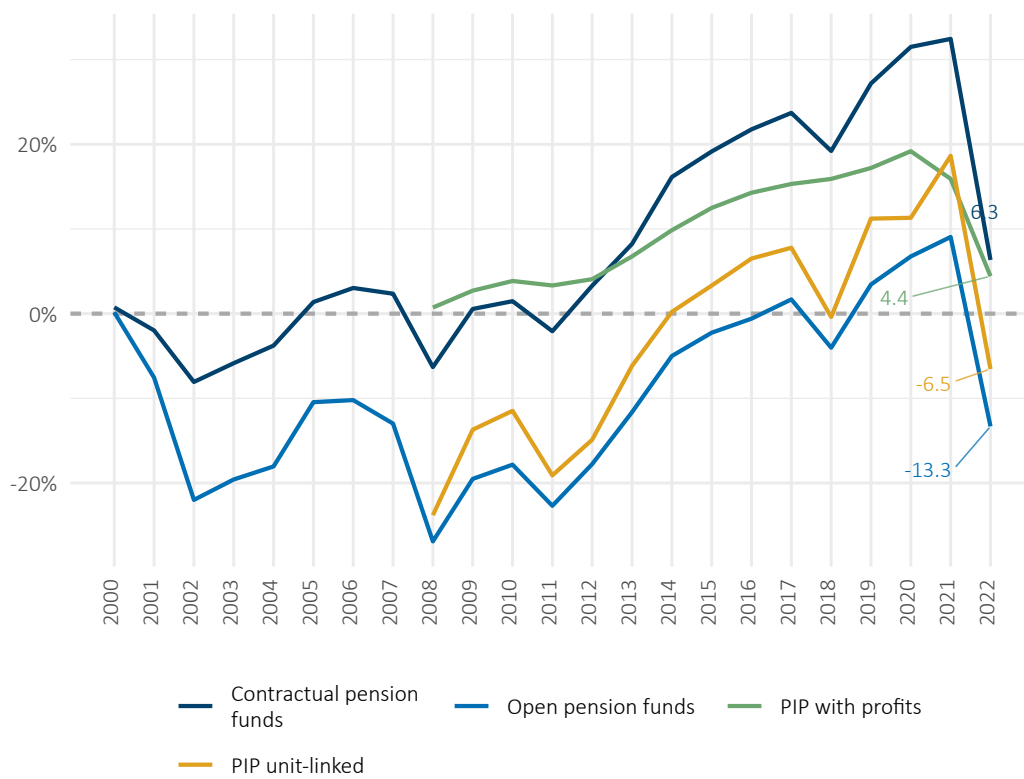
Data: COVIP, Eurostat; Calculations: BETTER FINANCE.

Figure IT.11 – Annualised returns of Italian long-term and pension vehicles over varying holding periods (before tax, % of AuM)



Data: COVIP, Eurostat; Calculations: BETTER FINANCE.

Figure IT.12 – Cumulated returns of Italian long-term and pension savings vehicles (2003–2022, before tax, % of AuM)



Data: COVIP, Eurostat; Calculations: BETTER FINANCE.

Do Italian savings products beat capital markets?

To compare the performance of Italian private pensions with that of European capital markets, we adapt the “default” benchmark portfolio presented in the introductory chapter of this report (Page 9). We keep the pan-European equity and bond indices as underlying values, but adapt the weight of equity in the mix in line with the average asset allocation of each product category. The parameters are summarised in Table IT.6

Table IT.6 – Capital market benchmarks to assess the performance of Italian pension vehicles

Product	Equity index	Bonds index	Allocation
Contractual pension funds	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	30.0%–70.0%
Open pension funds	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	30.0%–70.0%
PIP with profits	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	10.0%–90.0%
PIP unit-linked	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	65.0%–35.0%

Note: Benchmark portfolios are rebalanced annually.

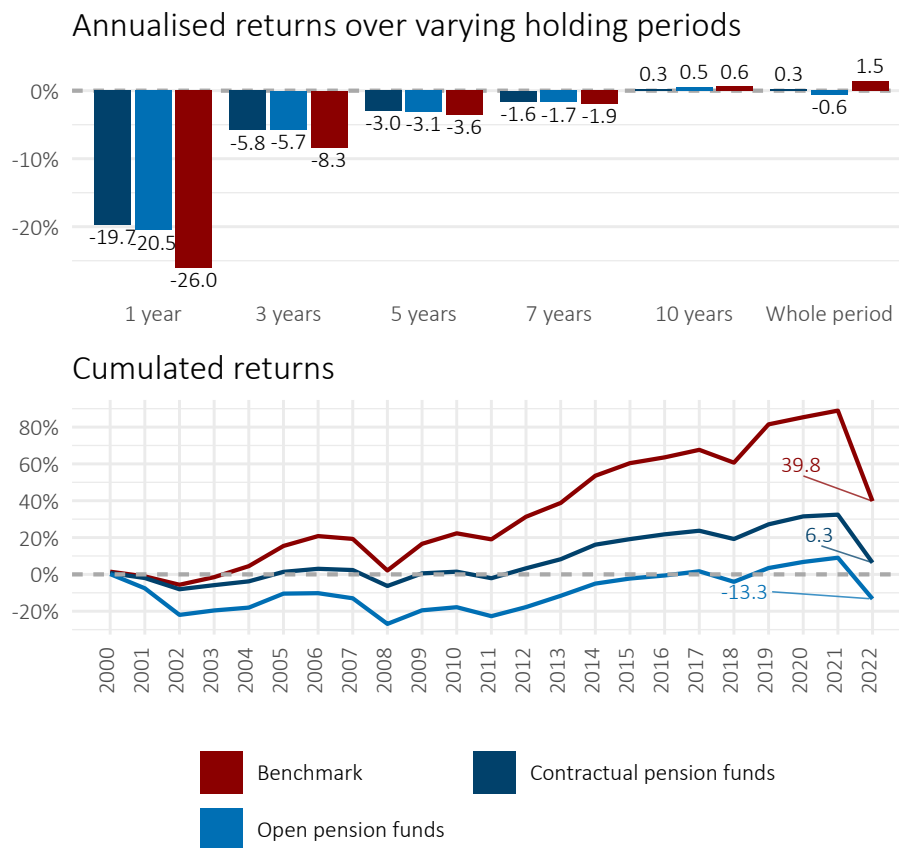
We calculate the real net returns of the benchmark portfolios based on these parameters. Annualised and cumulated returns are calculated since 2000 for occupational and open pension funds, since 2008 for “new” PIP.

As Figure IT.13 shows, neither contractual nor open pension funds manage to beat a 50% equity–50% bond benchmark. The annual average real return of the benchmark over 23 years is 1.2 pp superior to that of contractual pension funds, and 2.1 pp superior to that of open pension funds.

We use two different benchmark compositions to assess the performance of the two variants of “new” PIP in Figures IT.14 and IT.15. The sluggish though consistent return of PIP with profits do not enable it to beat the 10% equity–90% bond benchmark portfolio, despite the significantly worse performance of the benchmark in 2022.

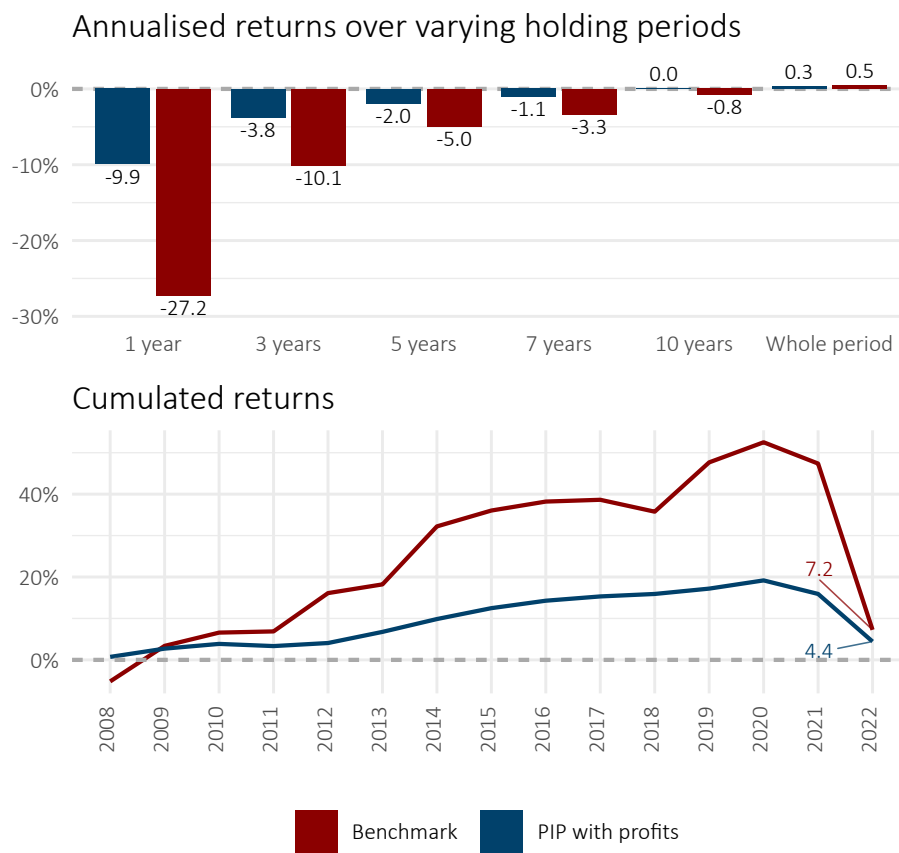
The comparison between PIP unit-linked and the 65% equity–35% benchmark is not flattering either for the former, that fails to beat the benchmark by 2.1 pp in annualised return over 23 years, and 36.1 pp cumulated.

Figure IT.13 – Performance of Italian contractual and open pension funds against a capital market benchmark (returns before tax, after inflation, % of AuM)



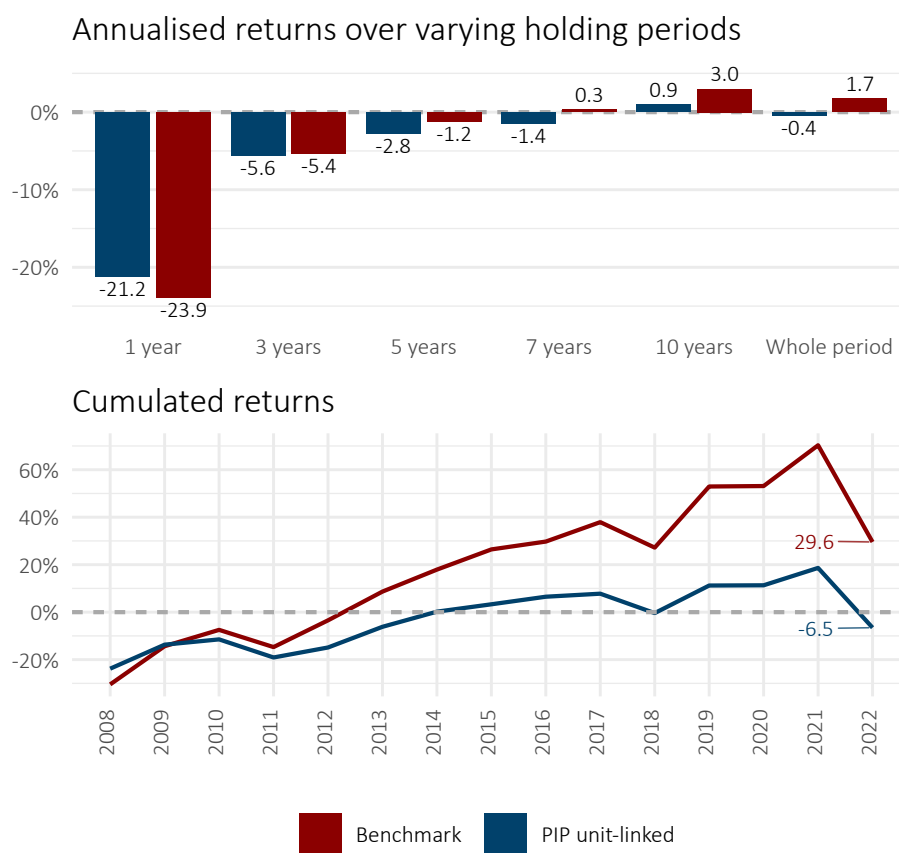
Data: COVIP, Eurostat; Calculations: BETTER FINANCE.

Figure IT.14 – Performance of Italian PIP with profits against a capital market benchmark (returns before tax, after inflation, % of AuM)



Data: COVIP, Eurostat; Calculations: BETTER FINANCE.

Figure IT.15 – Performance of Italian PIP unit-linked against a capital market benchmark (returns before tax, after inflation, % of AuM)



Data: COVIP, Eurostat; Calculations: BETTER FINANCE.

Conclusions

Italians still only rely to a limited extent on private complementary pensions. The State pension remains the major source of retirement income and both Pillar II and Pillar III cover a limited portion of the Italian labour force. The conservative asset allocation of occupational funds results in limited volatility, but also limits funds' ability to generate higher returns over the long term and significantly increase the purchasing power of Italian occupational pension savings. The high costs of open pension funds and, especially, "new" PIP eat close to half of the returns obtained on pension plan investments. Finally, in the long term, inflation is a major driver of underperformance: even before the 2021-2022 inflation rate hike, inflation had taken away the major part of the performance of pension funds and PIP performance.

Italian private pensions presents typical cases of insufficiently "aggressive" investment policies combined with high costs that make complementary pension funds—with the relative exception of contractual pension funds—unable to significantly contribute to pension adequacy. In the context of an rapidly ageing population and high public debt and deficit that put an increasingly heavy pressure on the public pillar of Italian pensions, there is an urgent need to reorient investment policies towards higher risk but also higher yield markets by implementing life-cycle approaches that adapt risk-taking to the investment horizon of pension savers—in order to increase nominal gross returns—and a need to reduce costs, especially of "new" PIP. The upcoming reform of pensions, announced for 2024, should therefore go beyond public pensions and ensure that complementary pensions are effectively able to supplement the State pension.

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Country Case 10

Latvia

Kopsavilkums

Fondēto pensiju shēmas savas pastāvēšanas laikā ir piedzīvojušas negatīvu vidējo ienesīgumu pat tad, ja pensiju fondu portfelis obligāto pensiju pilārā ir bijis konservatīvi orientēts. II pilāra pensiju fondi 2022. gadā uzrādīja vidēji negatīvu nominālo ienesīgumu -14,13% apmērā, savukārt III pilāra fondi arī uzrādīja vidēji negatīvu nominālo ienesīgumu -14,63% apmērā. Kopumā pozitīva attīstība bija vērojama II pilāra tirgū, kur pasīvi pārvaldīto fondu ieviešana veicināja turpmāku komisijas maksu samazināšanos. Maksa ir samazinājusies arī III pilārā, tomēr III pilāra pensiju fondu sarežģītā maksu struktūra un joprojām augstākas maksas būtiski ietekmē gaidāmos uzkrātos ieguvumus.

Summary

Funded pension schemes have experienced negative average returns during their existence even when the portfolio of pension funds in mandatory pension pillar has been conservatively oriented. Pillar II pension funds recorded on average negative nominal returns of -14.13% in year 2022, while Pillar III funds delivered also on average negative nominal return of -14.63%. Overall positive development could have been seen on the Pillar II market, where the introduction of passively managed funds contributed to further decrease of fees. 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.

Real returns 2022

Mandatory pension funds: -28.86%

Voluntary pension funds: -29.27%

Introduction: The Latvian pension system

There have been no major changes in the pension system in Latvia announced in 2022. The key changes did occur in the state pensions due to the high inflation, where the regular pension indexation took place in August 2022 and increased the old-age pensions below €534 based on the number of insured years. The indexation was 1.2287 (for pensions under 29 years of service) up to 1.2369 (for more than 49 years of service).

The performance of private pensions (mandatory as well as voluntary) was negative in 2022 both in nominal and real terms mainly due to the sell-off on the markets and levelled inflation.

Table LV.1 – Long-term and pension savings vehicles analysed in Latvia

Product	Pillar	Reporting period	
		Earliest data	Latest data
Mandatory pension funds	Occupational (II)	2003	2022
Voluntary pension funds	Voluntary (III)	2011	2022

Table LV.2 – Annualised real net returns of Latvian long-term and pension savings vehicles (before tax, % of AuM)

	Mandatory pension funds	Voluntary pension funds
Reporting period	2003-2022	2011-2022
1 year (2022)	-28.9%	-29.3%
3 years (2020–2022)	-9.5%	-10.6%
5 years (2018–2022)	-5.6%	-6.4%
7 years (2016–2022)	-3.9%	-4.3%
10 years (2013–2022)	-1.8%	-2.0%
Whole period	-1.4%	-1.6%

Data: Manapensija, Eurostat, 2023; *Calculations:* BETTER FINANCE.

Latvia has improved significantly its mandatory part of funded pension system. Together with its notional defined contribution (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.

Pension system in Latvia: An overview

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.

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 channelled 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.

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 paid contributions for each saver are recorded on individual accounts.

The **statutory retirement age** in Latvia in 2022 is 64 years and 3 months both for men and women.¹ 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 pos-

¹<https://latvija.lv/en/PPK/socialie-pakalpojumi/sociala-apdrosinasana/p311/ProcesaApraksts>

Table LV.3 – Overview of the Latvian pension system

Pillar I	Pillar II	Pillar III
State Pension	Funded pension	Voluntary pension
Mandatory	Mandatory	Voluntary
NDC PAYG		Funded
Financed by social insurance contributions		DC
Publicly managed	Privately (and publicly) managed pension funds	Privately managed pension funds
Benefits paid via State Social Insurance Agency	Financed by social insurance contributions Individual pension accounts	Financed by individual voluntary contributions Two types of pension plans: 1. open (individual) 2. closed (quasi-occupational)
Coverage: Generally entire Latvian population	Coverage: Generally entire working population	42.48%
Quick facts		
Nb. of economically active citizens: 904 200	Administrators: 6	Administrators: 7
Nb. of old-age pensioners: 438 961	Funds: 28	Funds: 15
Avg. old-age pension: € 449.88	AuM: €5 664 mln.	AuM: €599 mln.
Avg. salary (gross/net): €1 373/€1 006	Participants: 1.294 mln.	Participants: 0.384 mln.
Avg. replacement ratio: 32.77%		

Data: Official Statistical Portal, 2023

sible in Latvia if two conditions are met: 1) an individual in 2022 reaches the age of at least 62 years and 3 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 of 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:
 - average insurance contribution wage from 1996 until 1999 (inclusive);
 - 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 Table LV.4.

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 15 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.

Minimum amount of old-age pension is determined by applying a coefficient of 1.1 to the calculation base of the minimum old-age pension and increasing the amount by 2 % of the calculation base of the minimum old-age pension for each additional year beyond the insurance period required for the old-age pension (currently 15 years) . 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 LV.5).

Starting from 1 January 2022, 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 (€163 for persons with disabilities from childhood) 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.

Table LV.4 – Latvian NDC Pillar 1 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	33.6%	€196	46.9%
2004	€101	€300	33.7%	€214	47.2%
2005	€115	€350	32.9%	€250	46.0%
2006	€137	€430	31.9%	€308	44.5%
2007	€158	€566	27.9%	€407	38.8%
2008	€200	€682	29.3%	€498	40.2%
2009	€233	€655	35.6%	€486	47.9%
2010	€250	€633	39.5%	€450	55.6%
2011	€254	€660	38.5%	€470	54.0%
2012	€257	€685	37.5%	€488	52.7%
2013	€259	€716	36.2%	€516	50.2%
2014	€266	€765	34.8%	€560	47.5%
2015	€273	€818	33.4%	€603	45.3%
2016	€280	€859	32.6%	€631	44.4%
2017	€289	€926	31.2%	€676	42.8%
2018	€314	€1 004	31.2%	€742	42.3%
2019	€340	€1 076	31.6%	€793	42.8%
2020	€367	€1 143	32.1%	€841	43.6%
2021	€432	€1 277	33.8%	€939	46.0%
2022	€528	€1 373	38.4%	€1 006	52.4%

Data: Central Statistical Bureau of Latvia, 2023.

Table LV.5 – Amount of the minimum old-age pension according to the year of each insurance period in Latvia

Years of service (insurance period)	Min. old-age pension since Jan. 2022
Insurance length 15 years	€172.70
Insurance length 30 years	€219.80
Insurance length 40 years	€251.20
Insurance length 50 years	€282.60

Data: Ministry of Welfare, 2023.

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 pension scheme was launched on July 1, 2001. As of that date, a portion of every individual's 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 July 1, 2001. Participation in the 2nd tier is compulsory for those who had not reached the age of 30 on 1 July 2001 (born

after July 1, 1971).

Gradually all employees will participate in Pillar II. Persons who were between the ages of 30 and 49 (born between July 2, 1951 and July 1, 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 Table LV.6.

Table LV.6 – 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%

Data: Manapensija and State Social Insurance Agency, 2023.

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 analysed in the sub-section dedicated to pension returns on Page 256. 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 January 1, 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 January 1, 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.

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 voluntary pension funds (15 operational in Latvia in 2021)
2. closed voluntary pension funds (only one operating in Latvia in 2021).

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.

Long-term and pension savings vehicles in Latvia

Mandatory pension funds are the only pension vehicles allowed for the Pillar II funded pension scheme. 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.

On the other hand, voluntary pension funds for the Pillar III private pension scheme are less strictly regulated. The law on Private Pension Funds provides a wide range of possibilities to organize and manage private voluntary 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. 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 2022) could be recognized as a typical occupational pension fund. However, open private voluntary pension funds are more personal ones. Pillar III pension vehicles (voluntary pension funds) can be created only by limited types of entities, 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:
 - bank (licensed credit institution);
 - 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:

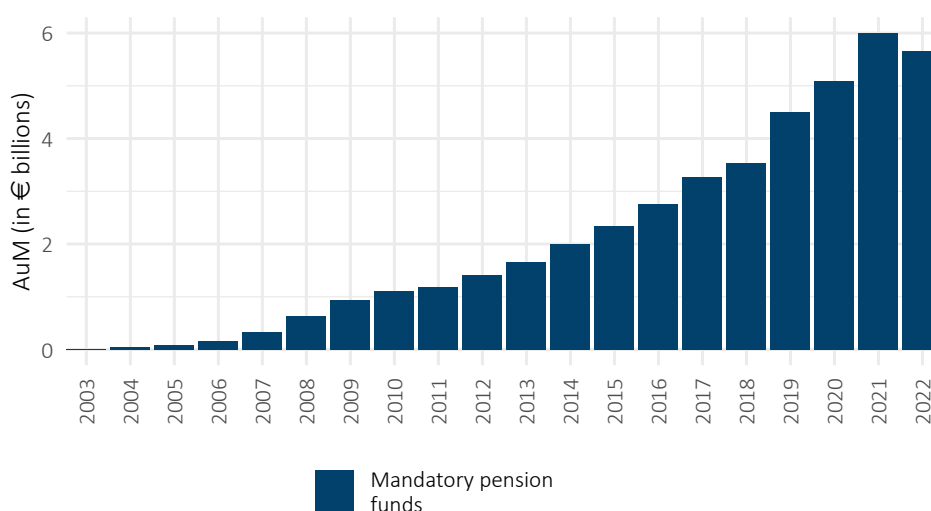
- a credit institution, which is entitled to provide investment services and non-core investment services in Latvia;
- an insurance company, which is entitled to engage in life insurance in Latvia;
- an investment brokerage company, which is entitled to provide investment services in Latvia;
- an investment 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 December 31, 2021), 15 open private voluntary pension funds and one closed private pension fund exist on the market.

Second pillar: Mandatory pension funds

Currently (as of December 31, 2021), 28 mandatory pension funds have been operational on the Pillar II market. There were several funds closures and new openings during 2021, which signals consolidation pressure on the fund providers. New funds focus on active management and solely on equities. There is no specific legal recognition of types of pension funds based on their invest-

Figure LV.1 – AuM of Latvian long-term and pension savings vehicles



Data: Manapensija, 2023; Calculations: BETTER FINANCE.

ment 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)—a KID specific to UCITS funds, 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 100% (since 2021) 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.

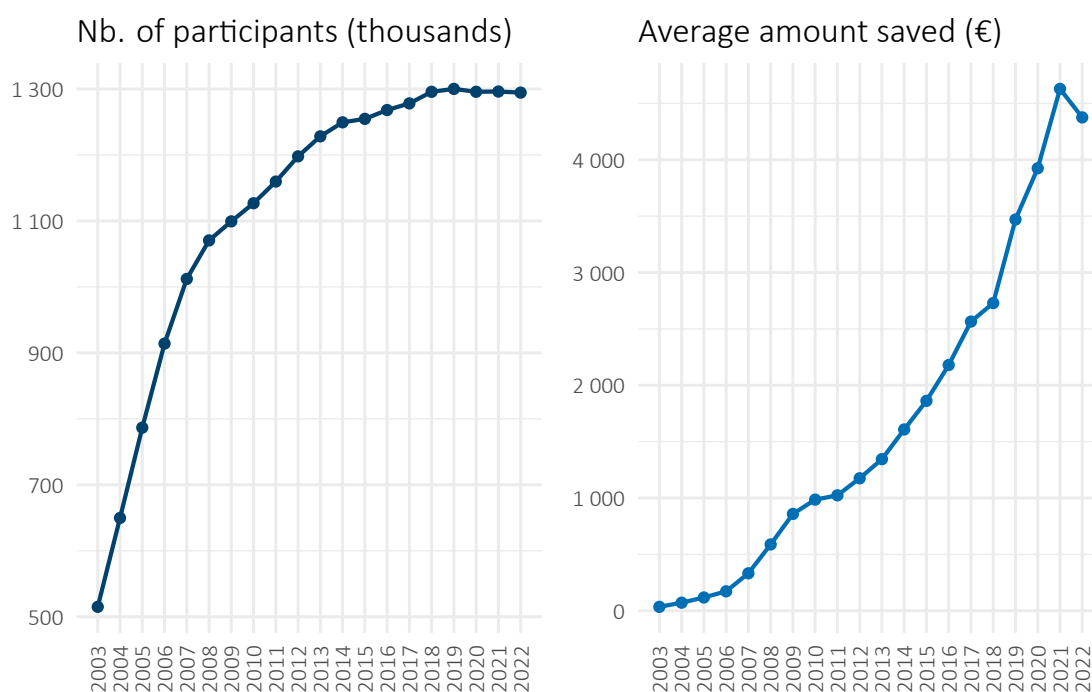
Overall asset allocation in Latvia is fairly conservative despite the possibility of choosing a plan according to risk preference. The chart below presents the amount of Assets under Management

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.

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.

Figure LV.2 – Number of participants and average size of individual accounts in Latvian Pillar II



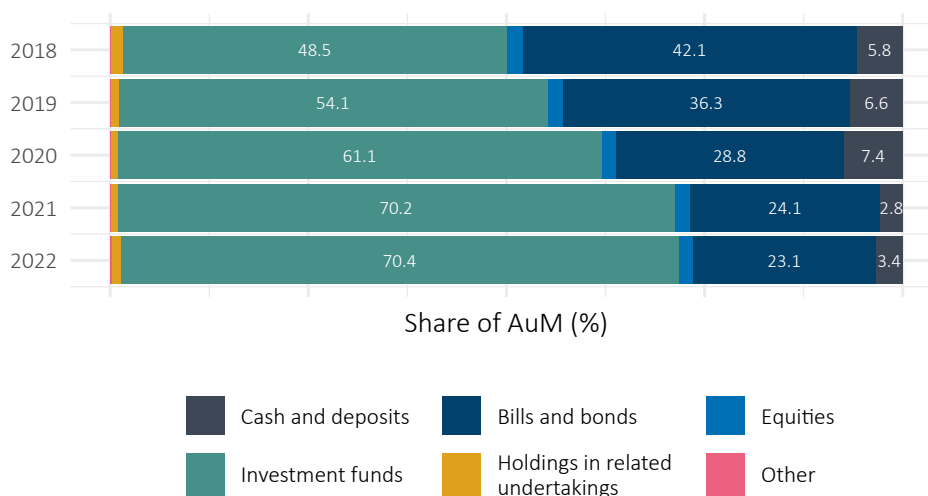
Data: Manapensija, 2023

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 of contributions and mandatory pension funds' performance.

The portfolio structure of Pillar II pension funds (Figure LV.3) 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.

Investment funds are gaining the dominant share on the Pillar II pension funds' portfolio structure, while the bonds and deposits portions are lowered. This increases the short-term volatility and potential performance of pension funds.

Figure LV.3 – Allocation of Latvian mandatory pension funds' assets



Data: Manapensija, 2023; Calculations: BETTER FINANCE.

Third pillar: Voluntary pension funds

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.

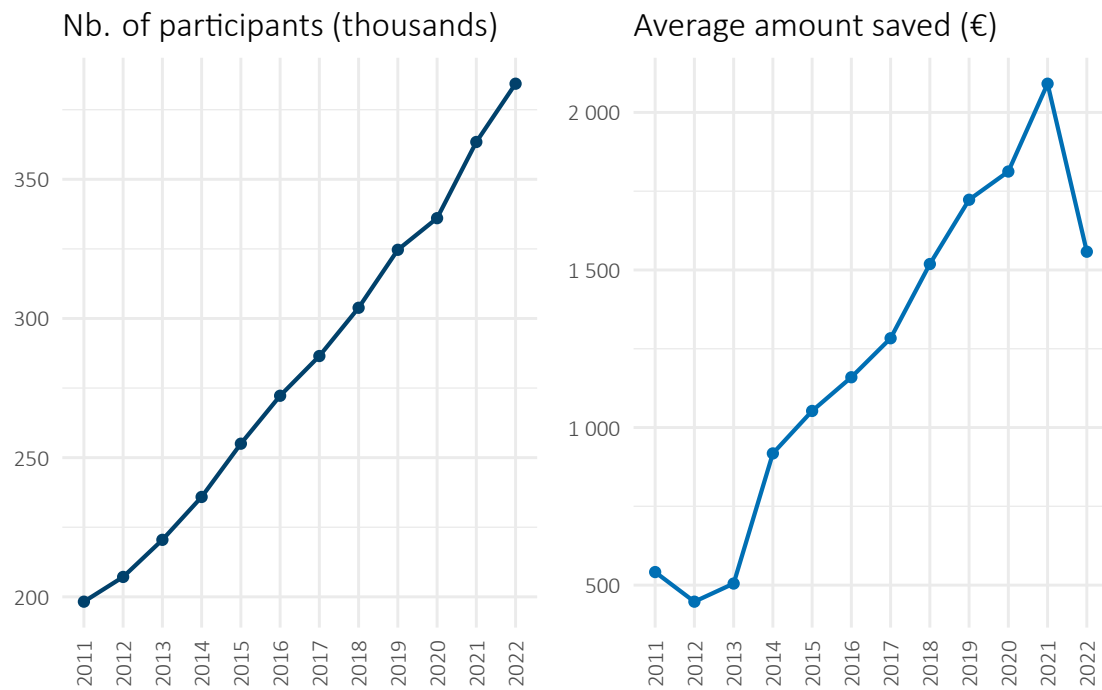
Compared to the mandatory pension funds scheme, the voluntary pension scheme covers significantly less economically active individuals with smaller amount of savings per saver in Pillar III.

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 (20 operational in Latvia in 2022), while 5 of them have started operating in 2021;
2. closed pension funds (only one operating in Latvia in 2022).

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.

Figure LV.4 – Number of participants and average size of individual accounts in Latvian Pillar III

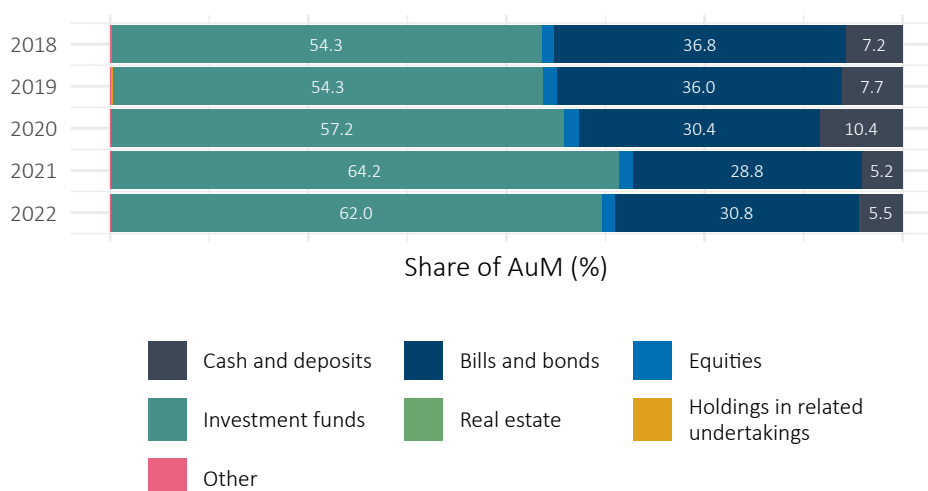


Data: Manapensija, 2023

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.

The portfolio structure of Pillar III pension funds is presented in the Figure LV.5.

Figure LV.5 – Allocation of Latvian voluntary pension funds' assets



Data: Financial and Capital Market Commission, 2023; Calculations: BETTER FINANCE.

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.

Charges

Charges of mandatory pension funds

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:

- 1.50% 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;
- 2.00% 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.

Table LV.7 – Costs and charges of Latvian mandatory pension funds (% of assets)

Year	Total ongoing charges	Total Expense Ratio
2003	1.18%	1.38%
2004	1.26%	1.46%
2005	1.30%	1.50%
2006	1.42%	1.62%
2007	1.40%	1.60%
2008	1.42%	1.62%
2009	1.39%	1.59%
2010	1.50%	1.70%
2011	1.51%	1.71%
2012	1.50%	1.70%
2013	1.50%	1.70%
2014	1.51%	1.71%
2015	1.52%	1.72%
2016	1.52%	1.72%
2017	1.64%	1.84%
2018	0.99%	1.19%
2019	0.80%	1.00%
2020	0.51%	0.71%
2021	0.47%	0.67%
2022	0.41%	0.61%

Data: Funds' documentation.

The year 2022 brought further reduction and diversification of fees based on the fund's strategy. Introduction of low-cost passively managed pension funds has spurred price battle after 2018, however divergence between the fees started to emerge in 2021 with an average fee level of 0.54% p.a.

Charges of voluntary pension funds

Compared to the mandatory pension funds' level of fees, voluntary pension funds fees are higher. 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 Table LV.8. 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.8 – Costs and charges of Latvian voluntary pension funds (% of assets)

Year	Total ongoing charges	Admin. and mgt. fees	Other ongoing fees	Other fees	Total Expense Ratio
2011	2.83%	n.a.	n.a.	n.a.	2.83%
2012	2.83%	n.a.	n.a.	n.a.	2.83%
2013	2.83%	n.a.	n.a.	n.a.	2.83%
2014	2.83%	n.a.	n.a.	n.a.	2.83%
2015	2.83%	1.50%	1.07%	0.24%	2.83%
2016	2.67%	1.50%	0.94%	0.21%	2.67%
2017	1.90%	0.95%	0.82%	0.12%	1.90%
2018	1.77%	0.91%	0.73%	0.12%	1.77%
2019	1.64%	0.84%	0.69%	0.10%	1.64%
2020	1.32%	0.75%	0.49%	0.08%	1.32%
2021	1.32%	0.75%	0.49%	0.08%	1.32%
2022	1.12%	0.61%	0.42%	0.08%	1.12%

Data: Manapensija and pension funds' prospectuses and terms, 2023.

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

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.

Latvian tax legislation stipulates the use of the "EET" regime (like Pillar II) for voluntary private pension schemes as well.

Table LV.9 – Taxation of pension savings in Latvia

Product	Phase			Regime
	<i>Contributions</i>	<i>Investment returns</i>	<i>Payouts</i>	
Mandatory pension funds	Exempted	Exempted	Taxed	EET
Voluntary pension funds	Exempted	Exempted	Taxed	EET

Data: Own elaboration.

In Pillar II, 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.

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.

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.

For Pillar III, the “EET” regime for voluntary private pension schemes is also applied. The contribution by individuals is treated in a slightly different way compared to the Pillar II social insurance contributions. 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.

Performance of Latvian long-term and pension savings

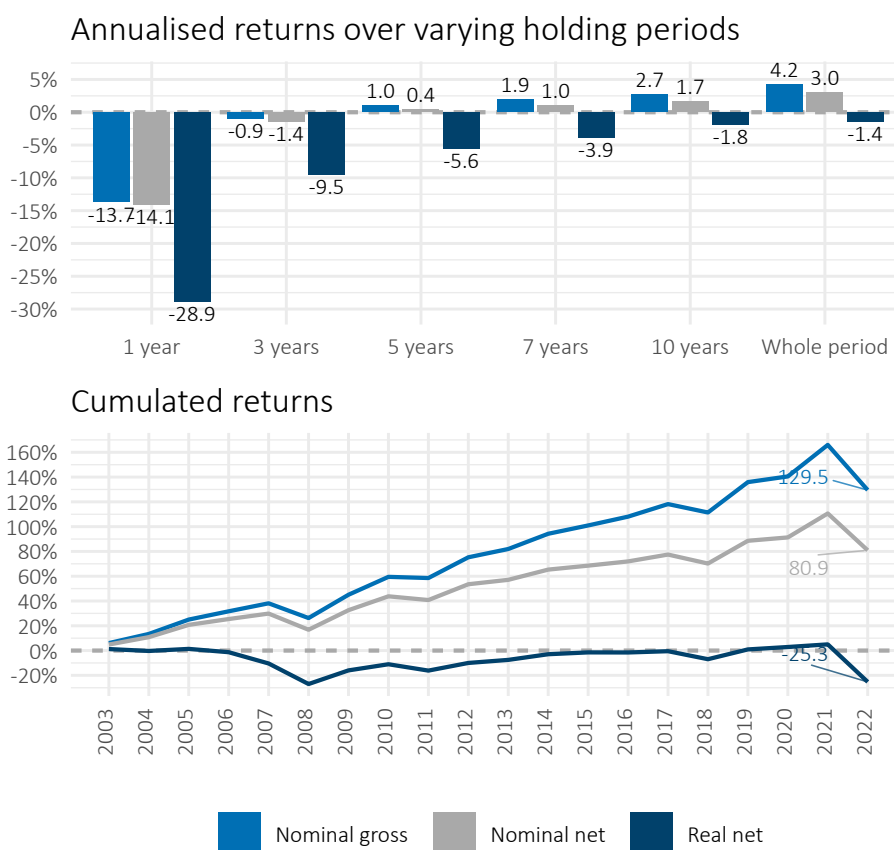
Real net returns of Latvian long-term and pension savings

Mandatory pension funds’ performance in Pillar II 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 (EFTA). 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.

Figure LV.6 – Returns of Latvian mandatory pension funds (before tax, % of AuM)

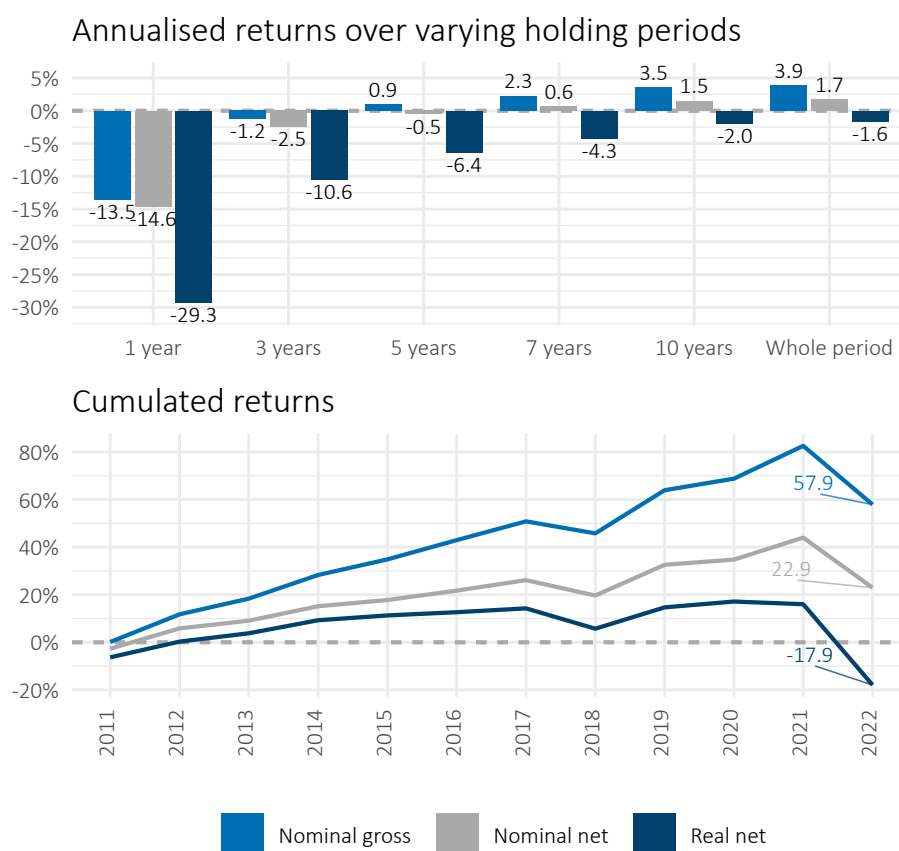


Data: Manapensija, Eurostat; Calculations: BETTER FINANCE.

Pillar III voluntary pension funds investment rules 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 is calculated from the year 2011.

Figure LV.7 – Returns of Latvian voluntary pension funds (before tax, % of AuM)



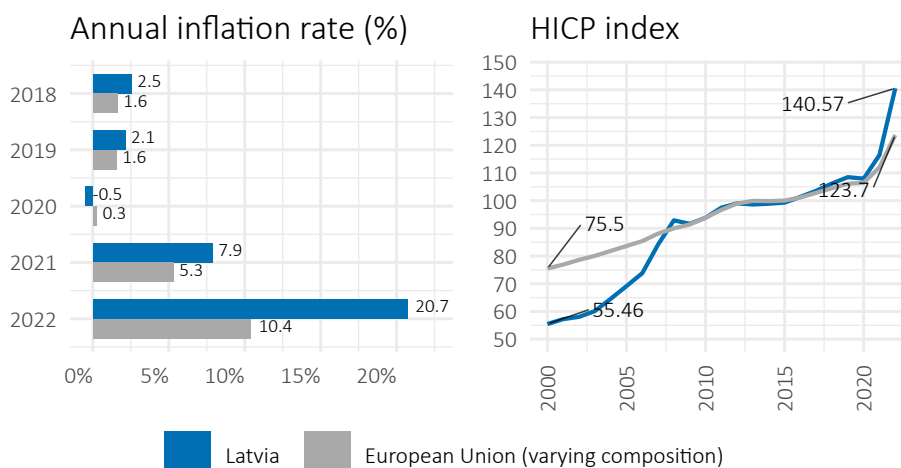
Data: Manapensija, Eurostat; Calculations: BETTER FINANCE.

It should be noted that during the year 2021 several fully equity voluntary pension funds emerged (Luminor indeksu ieguldījumu plāns Ilgtspējīgā nākotne [Active 100] has started its operation in June 2021, Swedbank ieguldījumu plāns Dinamika Indeks [Active 100] in August 2021). Some of existing Active 75 increased their equity share are assigned as Active 100 showing rising risk appetite of savers.

Figure LV.8 – Inflation in Latvia

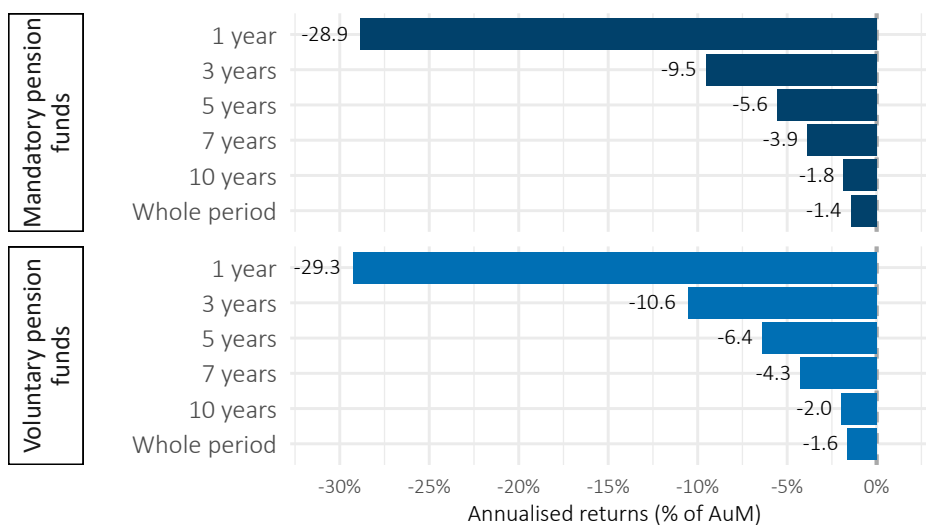
Period 2000–2022

	Annualised	Compounded
Latvia	4.2%	157.9%
European Union (varying composition)	2.3%	67.5%



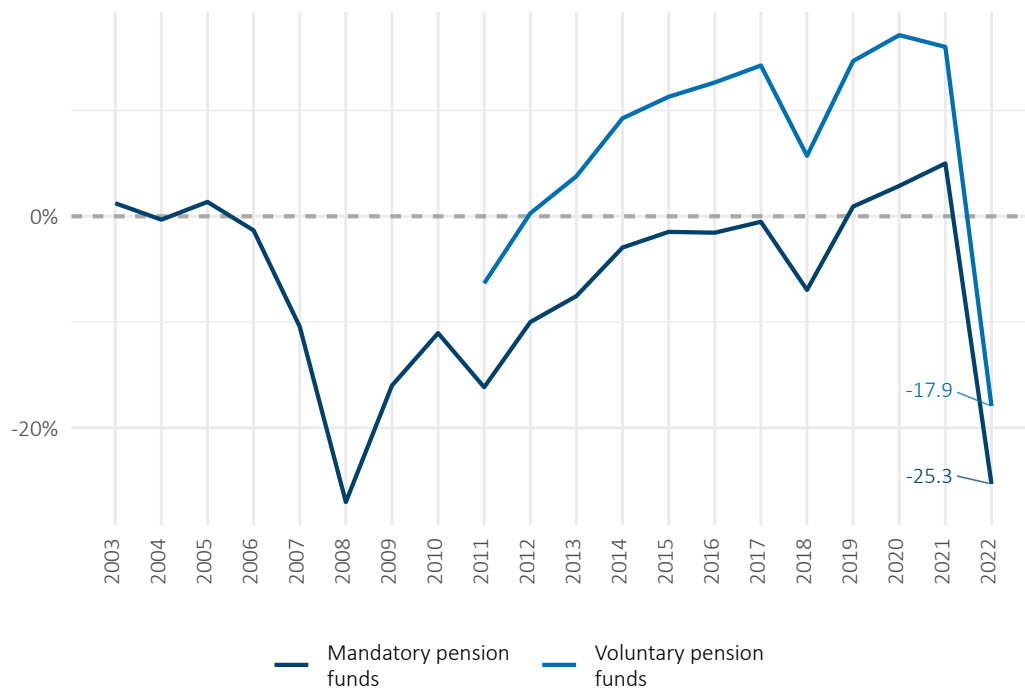
Data: Eurostat, HICP monthly index (2015 = 100); Calculations: BETTER FINANCE

Figure LV.9 – Annualised returns of Latvian long-term and pension vehicles over varying holding periods (before tax, % of AuM)



Data: Manapensija, Eurostat; Calculations: BETTER FINANCE.

Figure LV.10 – Cumulated returns of Latvian long-term and pension savings vehicles (2003–2022, before tax, % of AuM)



Data: Manapensija, Eurostat; Calculations: BETTER FINANCE.

Do Latvian savings products beat capital markets?

In this section, we compare the performance of the mandatory and voluntary pension funds in Latvia to the performance of relevant capital market benchmarks. By analysing the portfolio structure of pension funds, we have selected a rather conservative benchmark portfolio (35% equity-65% bonds) for mandatory pension funds, and a more aggressive one (55% equity-45% equity) for voluntary pension funds, both based on two pan-European indices.

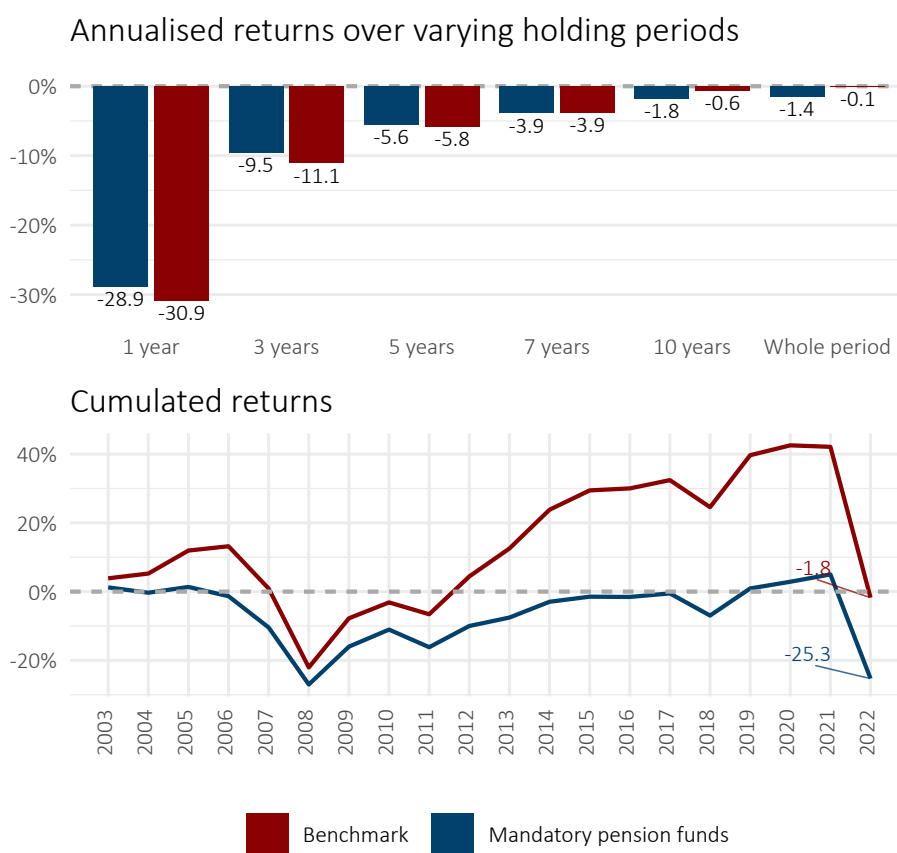
Table LV.10 – Capital market benchmarks to assess the performance of Latvian pension vehicles

Product	Equity index	Bonds index	Allocation
Mandatory pension funds	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	35.0%–65.0%
Voluntary pension funds	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	55.0%–45.0%

Note: Benchmark portfolios are rebalanced annually.

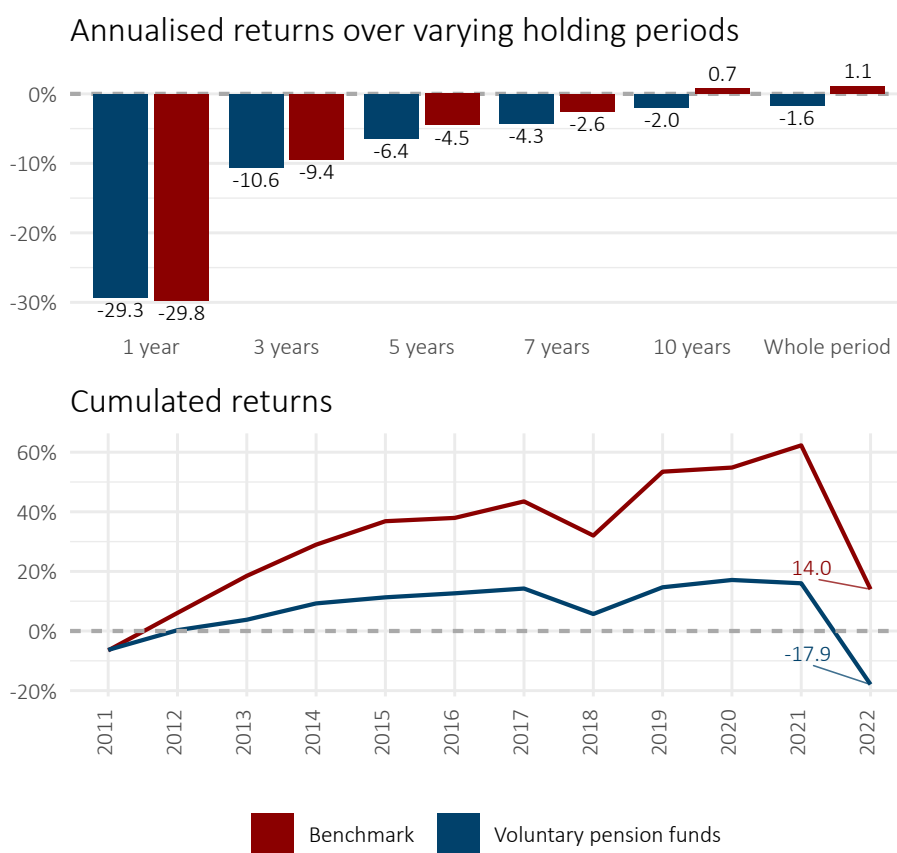
In both cases, we conclude that Latvian pension vehicles are not able to beat the market benchmark. However, detailed analysis of the particular pension funds' performance could show that more aggressive pension funds are able to stay in positive real returns over the analysed period.

Figure LV.11 – Performance of Latvian mandatory pension funds against a capital market benchmark (returns before tax, after inflation, % of AuM)



Data: Manapensija, Eurostat; Calculations: BETTER FINANCE.

Figure LV.12 – Performance of Latvian voluntary pension funds against a capital market benchmark (returns before tax, after inflation, % of AuM)



Data: Manapensija, Eurostat; Calculations: BETTER FINANCE.

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 drop in charges starting from 2019 and diversification of fees as well as funds' investment strategies in 2021 driven by a competition from low-cost passively managed funds and ability to charge the fees based on the riskiness of the strategy. 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.

Latvia has improved significantly its mandatory part of funded pension system. Together with its NDC scheme for PAYG 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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Country Case 11

Lithuania

Santrauka

Lietuva priėmė tipiską Pasaulio banko daugiapakopę sistemą, kurioje PAYG pakopa (valstybinė pensija, I pakopa) vis dar atlieka dominuojantį vaidmenį užtikrinant senatvės pensininkų pajamas. Nuo 2019 m. pradėtos kaupti santaupos II pakopoje kaupiamos per gyvenimo ciklo pensijų fondus, kuriuose investavimo rizika keičiama keičiant portfelio struktūrą pagal dalyvių amžių. Nuo 2019 m. valdymo mokestis už kaupimą II pakopos gyvavimo ciklo fonduose palaipsniui mažinamas nuo 0,8 proc. 2019 m. iki 0,52 proc. 2022 m. Turto išsaugojimo fonde valdymo mokestis bus tik 0,2%. Apskritai 2022 m. pensijų fondų veiklos rezultatai abiejose pakopose visose turto klasėse buvo iš esmės neigiami. Dėl neigiamos grąžos 2022 m. bendri abiejų pakopų rezultatai per analizuojamą laikotarpį nukrypo į neigiamos realiosios grąžos teritoriją.

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. Started in 2019, accumulating savings in Pillar II takes place via life-cycle pension funds, which change investment risk via changes in the portfolio structure on the basis of participants' age. Since 2019, management fee for accumulating in Pillar II life-cycle funds is being gradually reduced from 0.8% in 2019 down to 0.52% in 2022. For the asset preservation fund, the management fee will be just 0.2%. Overall, pension funds' performance in both pillars was broadly negative in 2022 across all asset classes. Negative returns in 2022 have moved the overall performance of both pillars into the negative real returns territory over the analysed period.

Real returns 2022

Pillar II Funded pensions: -21.41%

Pillar III Voluntary private pensions: -21.51%

Introduction: The Lithuanian pension system

There have been no major changes in the pension system in Lithuania announced in 2022. The key changes did occur in the state pensions due to the high inflation. The government has introduced the indexation mechanism in order to limit the impact of high inflation on the buying power of already granted state old-age pensions managed by the state agency SoDra.

In 2022, pensions were increased twice: in January and July. Overall, pension growth in 2022 was 16-17 percent, that is, the average old-age pension increased from €413 to €483 (+€70), and the average old-age pension with the required length of service increased from €441 to €513 (+€72) (Delfi.lt, 2023).

The performance of private pensions (mandatory as well as voluntary) was negative in 2022 both in nominal and real terms mainly due to the sell-off on the markets and levelled inflation.

Table LT.1 – Long-term and pension savings vehicles analysed in Lithuania

Product	Pillar	Reporting period	
		Earliest data	Latest data
Pillar II Funded pensions	Occupational (II)	2004	2022
Pillar III Voluntary private pensions	Voluntary (III)	2004	2022

Table LT.2 – Annualised real net returns of Lithuanian long-term and pension savings vehicles (before tax, % of AuM)

	Pillar II Funded pensions	Pillar III Voluntary private pensions
Reporting period	2004-2022	2004-2022
1 year (2022)	-21.4%	-21.5%
3 years (2020–2022)	-3.4%	-5.1%
5 years (2018–2022)	-0.1%	-2.4%
7 years (2016–2022)	0.5%	-0.9%
10 years (2013–2022)	1.9%	0.5%
Whole period	1.7%	0.9%

Data: Bank of Lithuania, Eurostat; *Calculations:* BETTER FINANCE.

Lithuania has undertaken a pension reform in 2004, which was renewed in 2013. This was the reason to establish private pension funds.

Pension system in Lithuania: An overview

Currently, the Lithuanian pension system provides three distinct sources of accumulation for retirement funds – so-called pension pillars (Bitinas, 2011):

- 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 the 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.

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 more than 93% in 2022, while Pillar III covered more than 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 years.

First pillar: 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.

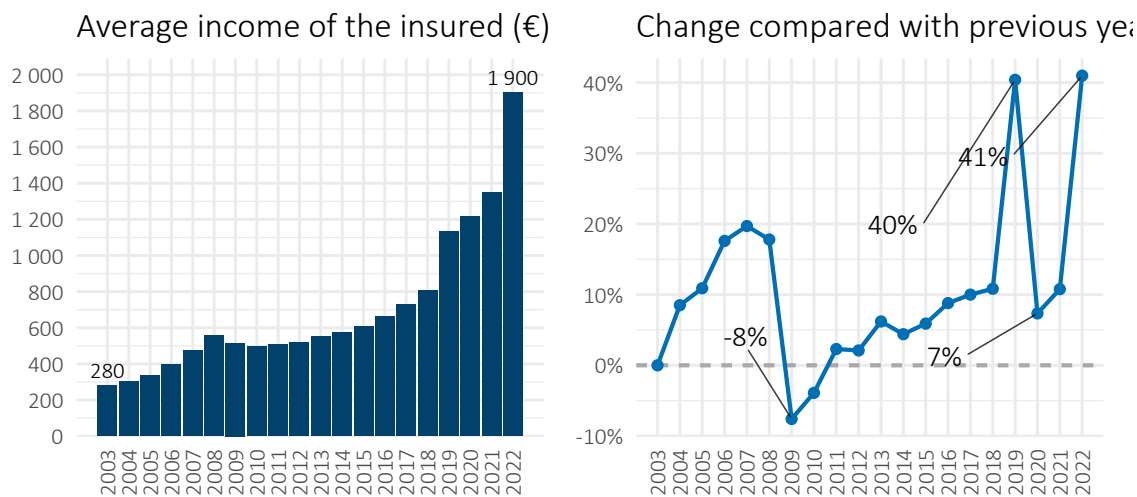
The old-age pension is the main type of state social security in old age. Individuals who meet the requirements for age and for the pension social insurance record are entitled to the old-age pension, i.e.: the person has reached the established old-age pension age (64 years and 4 months

Table LT.3 – Overview of the Lithuanian pension system

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 Company (PAC)	
Mandatory	Quasi-mandatory	Voluntary
Publicly managed	Privately managed pension funds	
PAYG	Funded	
Pointing System (DB scheme based on salary)	DC	
	Individual personal pension accounts	
Quick facts		
Nb. of old-age pensioners: 616 200	Administrators: 6	Administrators: 4
Average old-age pension: €482.99	Funds: 48	Funds: 16
Average income (gross): € 1 789	AuM: € 5 909.6 mln.	AuM: € 220.3 mln.
Average replacement ratio: 27%	Participants: 1 387 923	Participants: 82 975
Nb. of insured persons: 1 414 800	Coverage ratio: 99.51%	Coverage ratio: 5.86%

Data: SoDra, Bank of Lithuania and Official Statistics Portal, 2023; *Calculations:* BETTER FINANCE.

Figure LT.1 – Average income and annual changes in income of insured persons



Data: State Data Agency, 2023.

for men and 63 years and 8 months for women in 2022). 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 ; 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 2021, the mandatory record is at least 32 years 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 35 years and the person's insurance record is 40

years, then the value of β is $40/35 = 1.1429$); and

- B represents the basic pension (in €).

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 €).

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 40×1 point = 40 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: $40 \times 10 = €400$.

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,¹ where an individual can assess his projected old-age pension including the expected (projected) Pillar II savings.

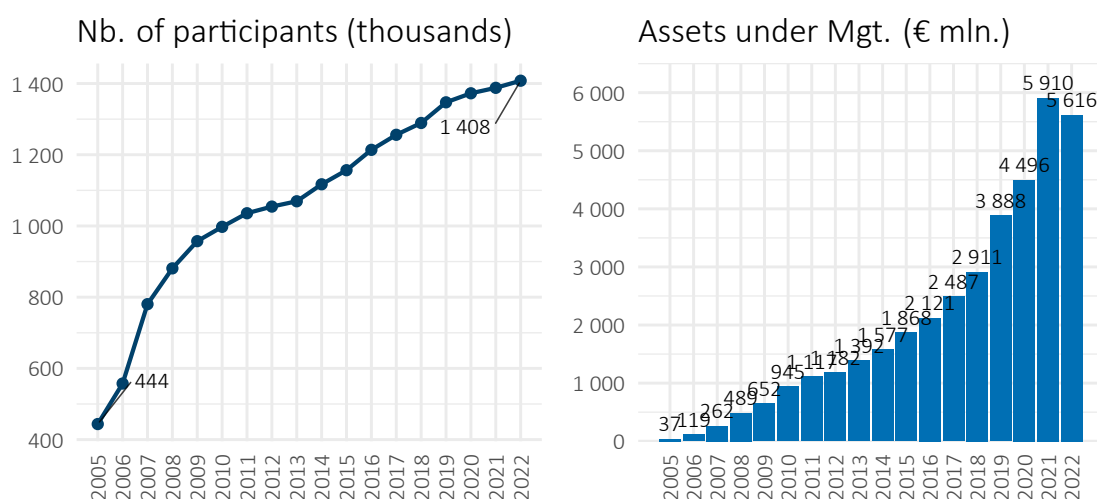
Second pillar: Funded pensions

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 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 more than 5 billion € are managed by 5 PACs (see Figure LT.2).

Figure LT.2 – Pillar II – Number of participants and AuM



Data: Bank of Lithuania, 2023.

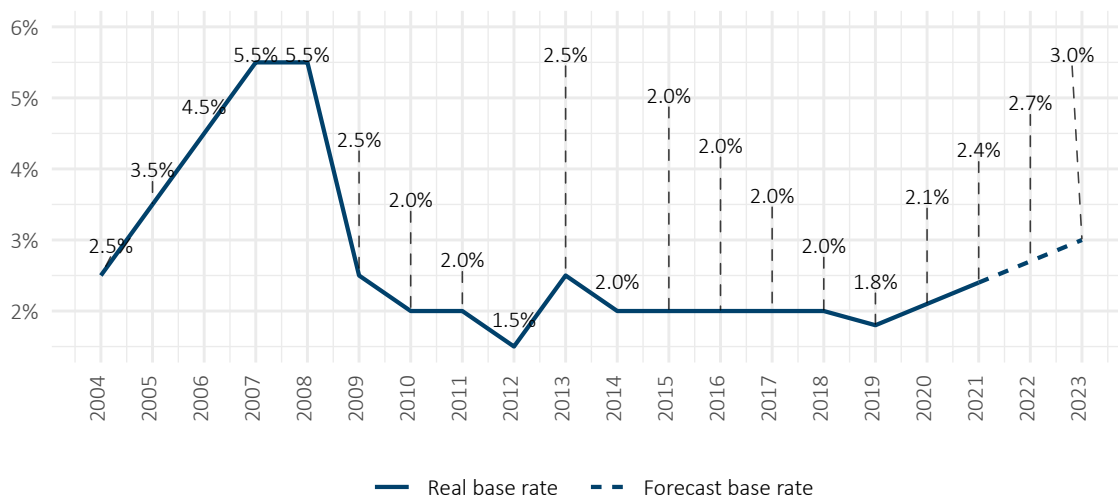
The pension contributions towards the Pillar II are part of the participant's state social insurance contribution rate. Originally, the level of contributions ("base rate") was set at final level of 5.5% of insurable income. This level should have been reached in 2007. The base rate in 2004 was

¹http://www.sodra.lt/lt/skaiciuokles/prognozuojamos_pensijos_skaiciuokle

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). Those who accumulated maximally will move to the new formula as of 2019 automatically, while those who accumulated minimally will in 2021 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%".

Figure LT.3 – Level of "base rate" contributions towards Pillar II



Source: Own elaboration based on the Law on Reform of the Pension System.

The contributions to Pillar II are recorded on individual personal pension account at selected providers—Pension Accumulation Companies (PACs). Contributions and accumulated savings

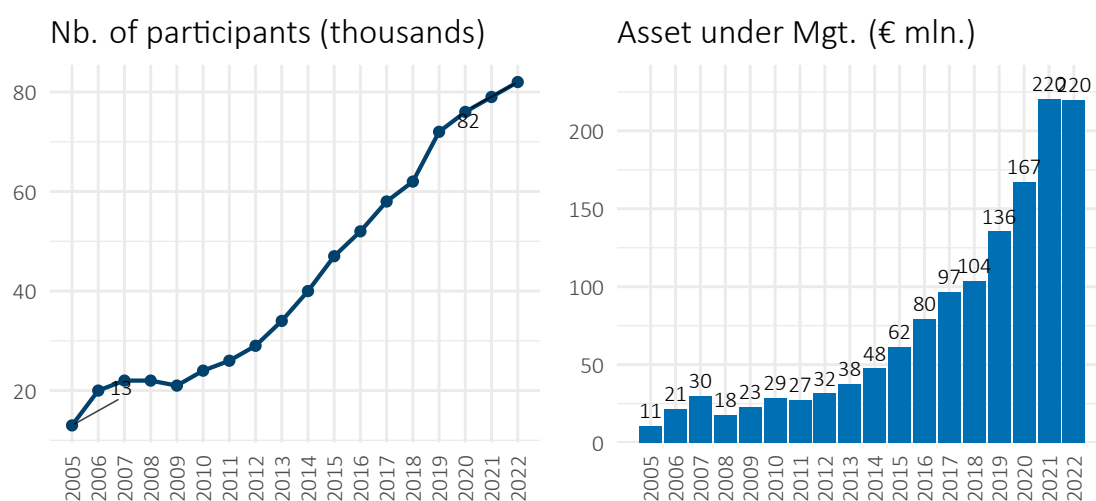
are invested by the companies into managed pension funds. PACs can manage multiple pension fund based on a “life-cycle” approach. PACs must obtain licenses from market regulator and supervisory body, which is the Bank of Lithuania.

Third pillar: Voluntary private pensions

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 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 Figure LT.4.

Figure LT.4 – Pillar III – Number of participants and AuM



Data: Bank of Lithuania, 2023.

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 2022, 18 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 2022, new equity funds SEB index were introduced. New funds Klimato ateitis, Luminor tvari ateitis index and Goindex pasaulio akciju funds have been operating only for 5 months in 2022 and were not included in the calculations for this year. In 2022, assets managed by funds have increased to €219 million. Number of participants accumulating their pension in Pillar III pension funds amounted to 82 000.

Long-term and pension savings vehicles in Lithuania

Second pillar: Funded pensions

As indicated above, each provider (PAC) has to offer 7 life-cycle funds and 1 capital preservation fund. Currently, 48 pension funds are offered by 5 management companies.

Table LT.4 – List of Pillar II pension funds

Fund name	Inception date
Life-cycle pension funds, 1996-2002	
Luminor 1996–2002 tikslinės grupės pensijų fondas	02.01.2019
INVL pensija 1996–2002	02.01.2019
SEB 1996–2002 metų tikslinės grupės pensijų kaupimo fondas	28.12.2018
Swedbank pensija 1996–2002	01.03.2018
Allianz Y3 1996–2002 tikslinės grupės pensijų fondas	02.01.2019
Life-cycle pension funds, 1989-1995	
Luminor 1989–1995 tikslinės grupės pensijų fondas	02.01.2019
INVL pensija 1989–1995	02.01.2019
SEB 1989–1995 metų tikslinės grupės pensijų kaupimo fondas	28.12.2018
Swedbank pensija 1989–1995	01.03.2018
Allianz Y2 1989–1995 tikslinės grupės pensijų fondas	02.01.2019
Life-cycle pension funds, 1982-1988	
Luminor 1982–1988 tikslinės grupės pensijų fondas	02.01.2019
INVL pensija 1982–1988	02.01.2019
SEB 1982–1988 metų tikslinės grupės pensijų kaupimo fondas	28.12.2018
Swedbank pensija 1982–1988	01.03.2018
Allianz Y1 1982–1988 tikslinės grupės pensijų fondas	02.01.2019
Life-cycle pension funds, 1975-1981	
Luminor 1975–1981 tikslinės grupės pensijų fondas	02.01.2019
INVL pensija 1975–1981	02.01.2019
SEB 1975–1981 metų tikslinės grupės pensijų kaupimo fondas	28.12.2018
Swedbank pensija 1975–1981	01.03.2018
Allianz X3 1975–1981 tikslinės grupės pensijų fondas	02.01.2019
Life-cycle pension funds, 1968-1974	
Luminor 1968–1974 tikslinės grupės pensijų fondas	02.01.2019
INVL pensija 1968–1974	02.01.2019
SEB 1968–1974 metų tikslinės grupės pensijų kaupimo fondas	28.12.2018
Swedbank pensija 1968–1974	01.03.2018
Allianz X2 1968–1974 tikslinės grupės pensijų fondas	02.01.2019
Life-cycle pension funds, 1961-1967	
Luminor 1961–1967 tikslinės grupės pensijų fondas	02.01.2019
INVL pensija 1961–1967	02.01.2019
SEB 1961–1967 metų tikslinės grupės pensijų kaupimo fondas	28.12.2018
Swedbank pensija 1961–1967	01.03.2018
Allianz X1 1961–1967 tikslinės grupės pensijų fondas	02.01.2019
Life-cycle pension funds, 1954-1960	
Luminor 1954–1960 tikslinės grupės pensijų fondas	02.01.2019
INVL pensija 1954–1960	02.01.2019
SEB 1954–1960 metų tikslinės grupės pensijų kaupimo fondas	28.12.2018

Table LT.5 – Pillar II market share based on AuM and number of participants

Investment strategy	AuM (million €)	Market share (% of total AuM)	Nb. of participants (thousands)	Market share (% of total participants)
Life-cycle pension funds, 1996-2002	136.23	2.43%	119	8.43%
Life-cycle pension funds, 1989-1995	573.31	10.21%	228	16.20%
Life-cycle pension funds, 1982-1988	1035.23	18.43%	302	21.45%
Life-cycle pension funds, 1975-1981	1277.38	22.74%	249	17.70%
Life-cycle pension funds, 1968-1974	1254.18	22.33%	232	16.46%
Life-cycle pension funds, 1961-1967	998.83	17.78%	205	14.58%
Life-cycle pension funds, 1954-1960	250.16	4.45%	52	3.72%
Asset preservation pension funds	90.86	1.62%	21	1.47%
TOTAL	5616.19	100.00%	1408	100.00%

Data: Bank of Lithuania, 2023.

Table LT.4 – List of Pillar II pension funds (continued)

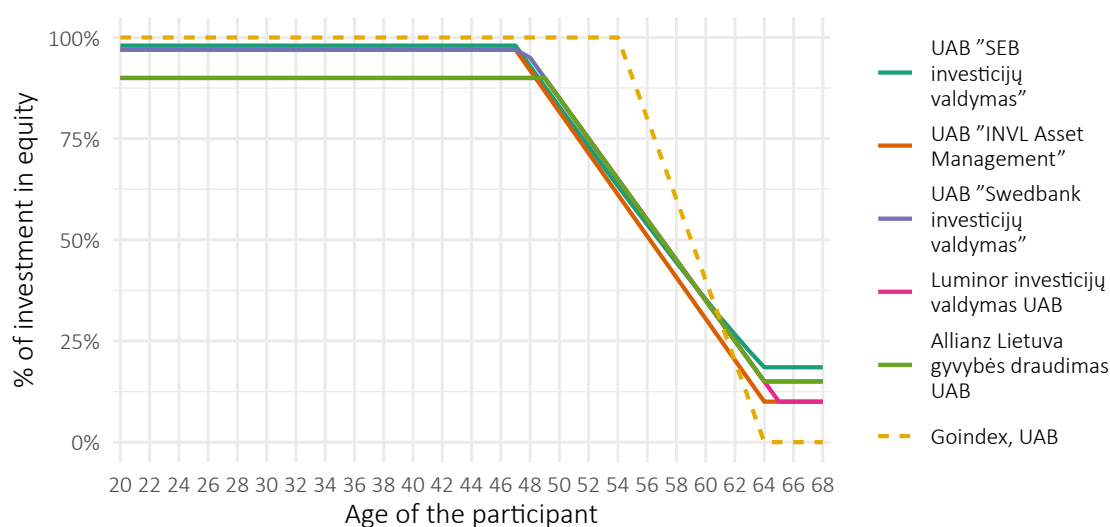
Fund name	Inception date
Swedbank pensija 1954–1960	01.03.2018
Allianz B 1954–1960 tikslinės grupės pensijų fondas	02.01.2019
Asset preservation pension funds	
Luminor turto išsaugojimo fondas	02.01.2019
INVL pensijų turto išsaugojimo fondas	02.01.2019
SEB turto išsaugojimo pensijų kaupimo fondas	28.12.2018
Swedbank turto išsaugojimo pensijų fondas	01.03.2018
Allianz S turto išsaugojimo pensijų fondas	02.01.2019

Data: Bank of Lithuania, 2023.

The structure of savers, assets under management and market share of four group of pension funds according their investment strategy is presented in Table LT.5.

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 has introduced the same life-cycle investment strategy (see Figure LT.5).

Figure LT.5 – Life-cycle investment strategy of Pillar II pension funds



Data: Bank of Lithuania, 2023.

The portfolio structure of Pillar II pension funds is presented in the graph below. The reform in 2019 delivered significant increase of equities in pension funds' portfolios due to the introduction of "life-cycle" strategies via target-date funds.

It can be seen that dominant financial instruments in Pillar II pension funds' portfolios are the equities and government bonds. The 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) and this adjusted portfolio structure should preserve rather large portion of equities in pension funds' portfolios.

Third pillar: 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 18 voluntary pension funds. The list of Pillar III pension funds is presented in Table LT.6

Table LT.6 – List of Pillar III pension funds

Pension fund name	Inception day
Bond pension fund	
INVL STABILO III 58+ / INVL Stabilus	12.20.2004
Luminor pensija 1 plius	10.07.2013
SEB pensija 58+	10.27.2004
Mixed investment pension fund	
Luminor pensija 2 plius	10.26.2004
INVL Medio III 47+	09.24.2007

Table LT.7 – Pillar III market share based on AuM and number of participants

Investment strategy	AuM (million €)	Market share (% of total AuM)	Nb. of participants (thousands)	Market share (% of total participants)
Bond Pension Fund	30.23	14%	9	11.4%
Mixed Investment Pension Fund	71.10	32%	33	40.3%
Equity Pension Fund	118.45	54%	40	48.3%
TOTAL	219.78	100%	83	100.0%

Data: Bank of Lithuania, 2023.

Table LT.6 – List of Pillar III pension funds (continued)

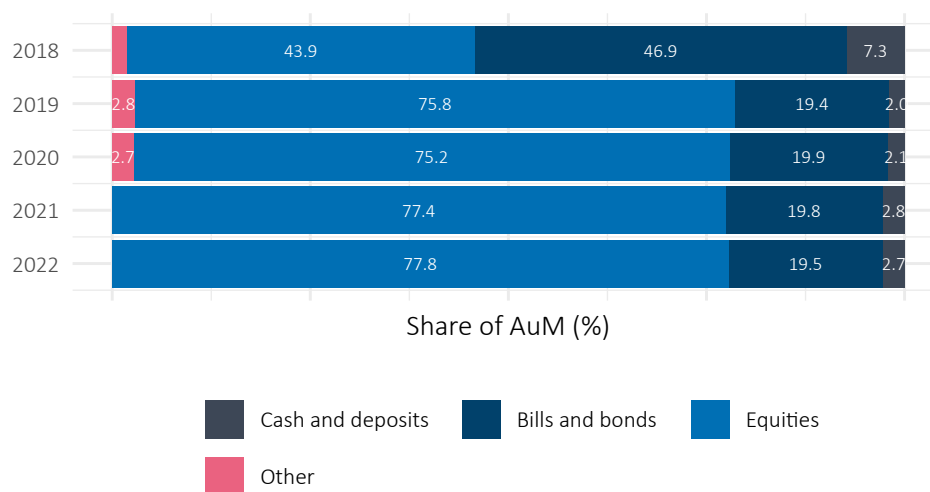
Pension fund name	Inception day
INVL Apdairus	05.13.2013
Luminor pensija darbuotojui 1 plius	11.20.2014
Luminor pensija darbuotojui 2 plius	11.20.2014
Swedbank pensijų fondas 30	12.02.2019
Swedbank pensijų fondas 60	12.02.2019
SEB pensija 50+	04.10.2020
Goindex subalansuotas	07.21.2022
Pensijos fondas 60+*	04.07.2022
Pensijos fondas 50+*	04.07.2022
Equity pension fund	
Luminor pensija 3 plius	10.01.2007
INVL Drąsus	12.20.2004
INVL Extremo III 16+	09.24.2007
SEB pensija 18+	10.27.2004
Swedbank pensijų fondas 100	12.02.2019
SEB index. Klimato ateitis	01.03.2022
Luminor tvari ateitis index	05.24.2021
Goindex pasaulio akcijų	08.22.2022

Data: Bank of Lithuania, 2023.

The market share according to the AuM and number of participants is presented in Table LT.7

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 until 2020). Unfortunately, the Lithuanian national bank do not provide data on individual Pillar III pension funds' portfolio structure since 2021, just share of investment in stocks. The data on the portfolio structure of the Pillar III pension funds as a whole have been extracted from the financial state-

Figure LT.6 – Allocation of Lithuanian Pillar II funded pensions' assets

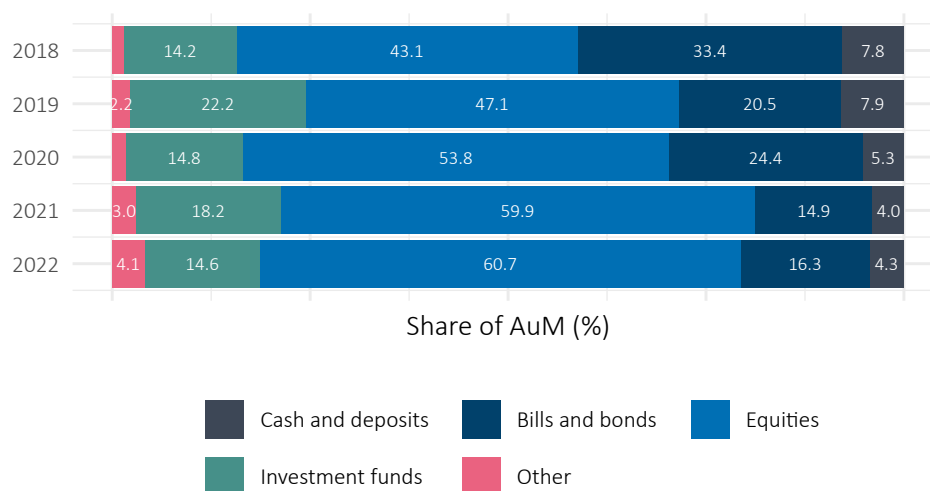


Data: Bank of Lithuania, 2023; Calculations: BETTER FINANCE.

ments of the pension funds on an aggregate basis provided by the State data agency, Statistics Lithuania.

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.

Figure LT.7 – Allocation of Lithuanian Pillar III voluntary private pensions' assets



Data: Bank of Lithuania, Statistics Lithuania, 2023; Calculations: BETTER FINANCE.

Charges

Charges of 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. Table LT.8 compares effective charges of Pillar II pension funds in Lithuania in 2019.

The year 2022 brought no changes in the fees and charges for Pillar II pension funds. Introduction of low-cost passively managed target date funds and entry of new player Goindex may spur new pressure on the fees, however the year 2022 did not bring any significant downward trend in costs and charges.

Charges of 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. Table LT.9 compares fees of Pillar III pension funds in Lithuania.

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.

Table LT.8 – Costs and charges of Lithuanian pillar ii funded pensions (% of assets)

Year	Total Expense Ratio
2004	3.35%
2005	2.31%
2006	1.63%
2007	0.97%
2008	1.18%
2009	1.08%
2010	0.11%
2011	1.10%
2012	0.99%
2013	0.97%
2014	1.02%
2015	1.00%
2016	1.00%
2017	0.91%
2018	0.86%
2019	0.72%
2020	0.65%
2021	0.52%
2022	0.52%

Data: Funds' documentation.

Table LT.9 – Costs and charges of Lithuanian pillar iii voluntary private pensions (% of assets)

Year	Total Expense Ratio
2004	0.39%
2005	12.37%
2006	6.38%
2007	5.01%
2008	2.73%
2009	2.50%
2010	2.99%
2011	2.07%
2012	1.83%
2013	2.10%
2014	1.89%
2015	2.06%
2016	2.01%
2017	1.40%
2018	1.63%
2019	1.94%
2020	1.42%
2021	1.44%
2022	1.27%

Data: Bank of Lithuania,
2023.

Taxation

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.

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 an “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 December 31, 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 January 1, 2013).

Under the optimum set-up, the “EEE” tax regime can be achieved on Pillar III savings.

Table LT.10 – Taxation of pension savings in Lithuania

Product	Phase			Regime
	<i>Contributions</i>	<i>Investment returns</i>	<i>Payouts</i>	
Pillar II Funded pensions	Exempted	Exempted	Exempted	EEE
Pillar III Voluntary private pensions	Exempted	Exempted	Taxed	EET

Data: Own elaboration, 2023.

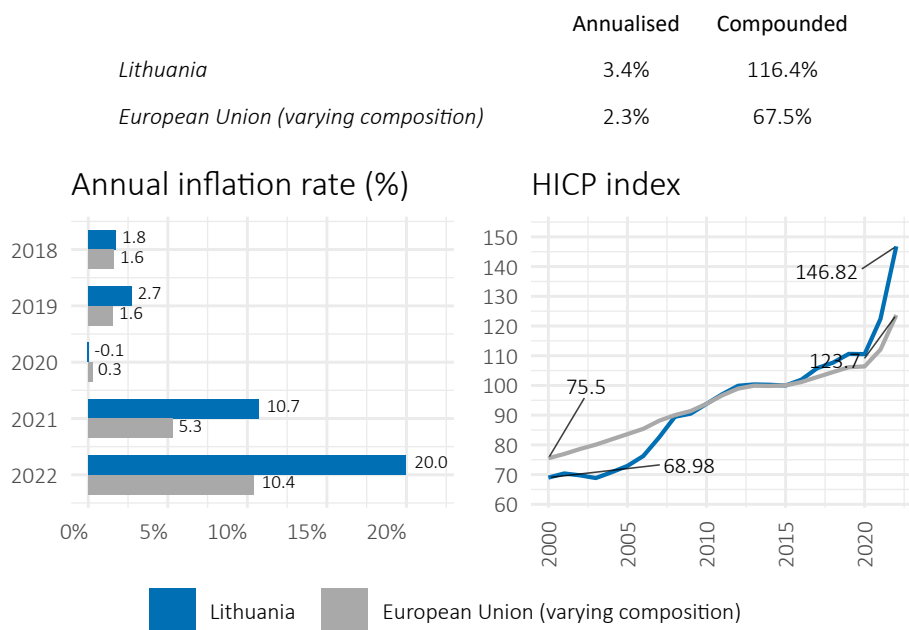
Performance of Lithuanian long-term and pension savings

Real net returns of Lithuanian long-term and pension savings

Before inspecting the real net returns of Lithuanian pension funds, the inflation for the last 24 years is presented on the figure below. The inflation has doubled the price level during the last 24 years and considering the small financial market where most of the savings are invested globally, the real returns might be negatively influenced by higher inflation in Lithuania during the analyzed period.

Figure LT.8 – Inflation in Lithuania

Period 2000–2022



Data: Eurostat, HICP monthly index (2015 = 100); Calculations: BETTER FINANCE

Pension returns of Pillar II pension funds differ according to the life-cycle investment strategy applied. When comparing the returns, it should be noted that the major changes in Pillar II regarding the introduction of the target date funds and reallocation of savers into these funds based on the birth year in 2019 could influence the direct comparison of pre-2019 returns and the returns of the funds beyond the year 2019.

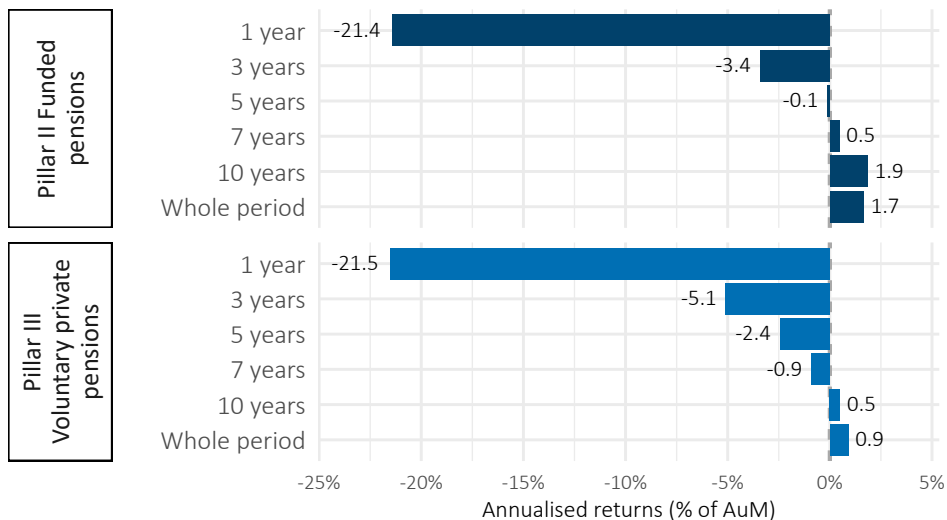
When inspecting particular pension funds within each group, only minor changes in performance were observed between the years 2019 and 2022.

Pillar III pension funds' performance is presented according to their investment strategy, where 3 groups are formed.

Real annual and cumulative returns of pension vehicles in Lithuania are presented in Figures LT.9 and LT.10.

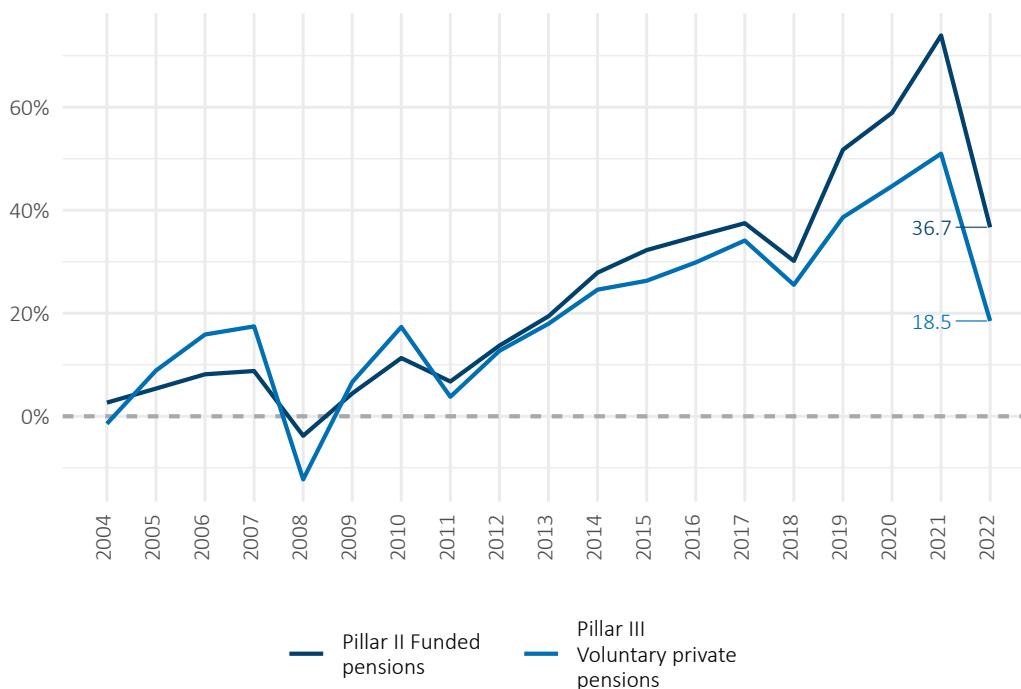
Performance of Pillar II and Pillar III pension funds is quite similar, while the higher fees of Pillar III pension funds drags the after fees returns lower and into negative territory in real terms.

Figure LT.9 – Annualised returns of Lithuanian long-term and pension vehicles over varying holding periods (before tax, % of AuM)



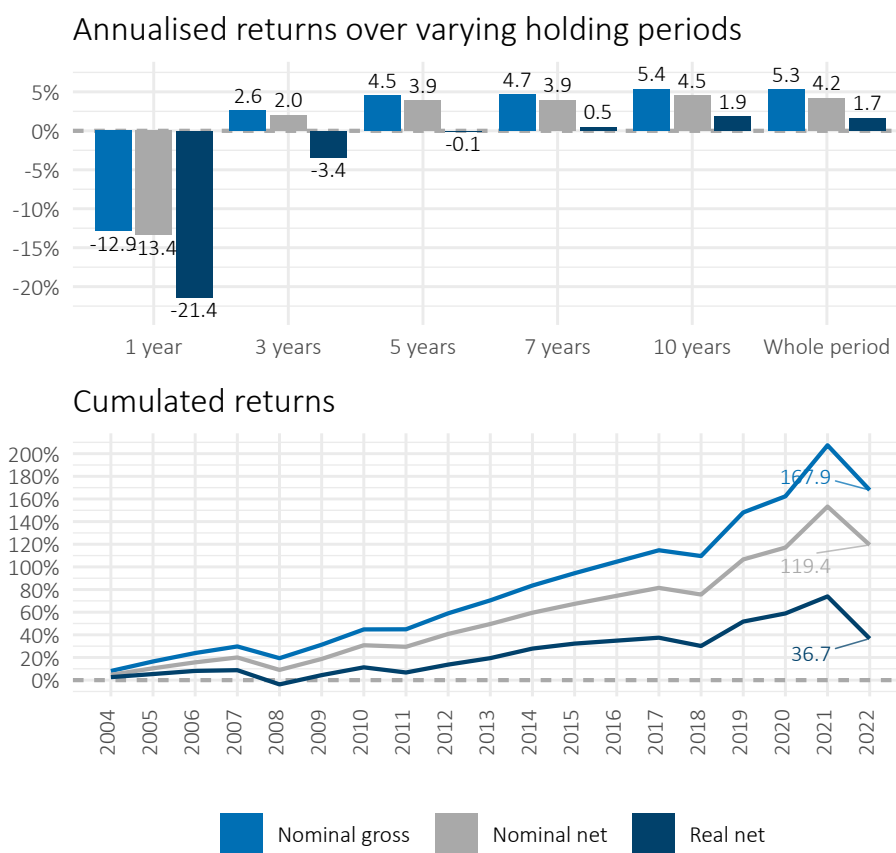
Data: Bank of Lithuania, Eurostat; Calculations: BETTER FINANCE.

Figure LT.10 – Cumulated returns of Lithuanian long-term and pension savings vehicles (2003–2022, before tax, % of AuM)



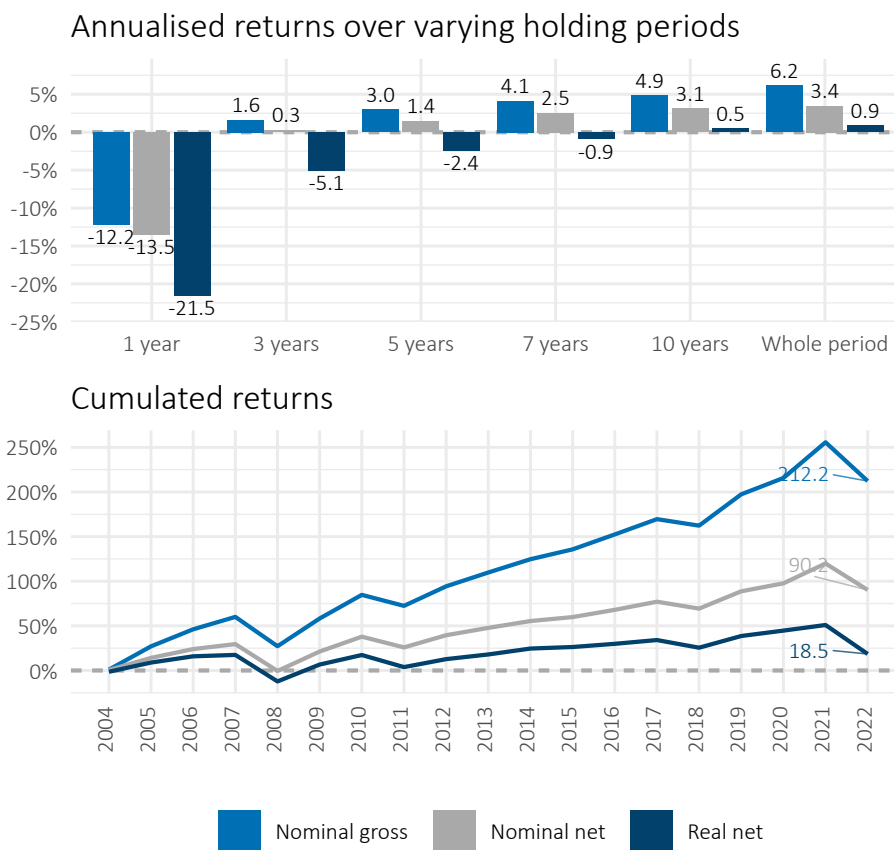
Data: Bank of Lithuania, Eurostat; Calculations: BETTER FINANCE.

Figure LT.11 – Returns of Lithuanian Pillar II funded pensions (before tax, % of AuM)



Data: Bank of Lithuania, Eurostat; Calculations: BETTER FINANCE.

Figure LT.12 – Returns of Lithuanian Pillar III voluntary private pensions (before tax, % of AuM)



Data: Bank of Lithuania, Eurostat; Calculations: BETTER FINANCE.

Do Lithuanian savings products beat capital markets?

In this section, we compare the performance of the mandatory and voluntary pension funds in Lithuania to the performance of relevant capital market benchmarks. By analyzing the portfolio structure of pension funds, we have selected the a balanced benchmark portfolio (50% equity-50% bonds) based on two pan-European indices.

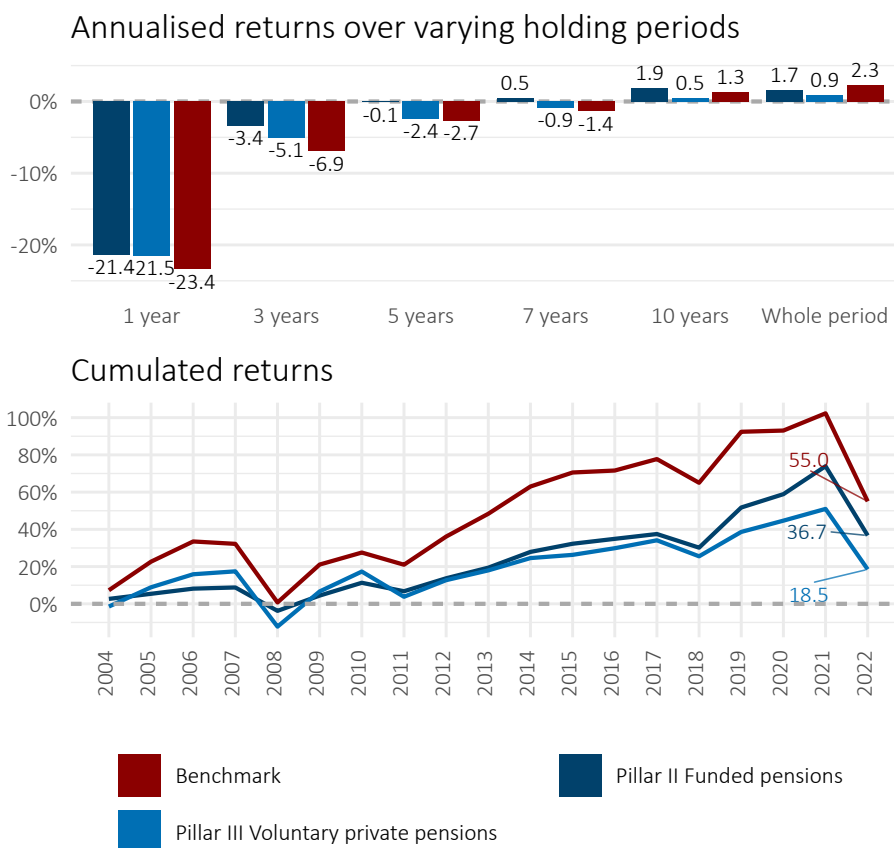
Table LT.11 – Capital market benchmarks to assess the performance of Lithuanian pension vehicles

Product	Equity index	Bonds index	Allocation
Pillar II Funded pensions	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	50.0%–50.0%
Pillar III Voluntary private pensions	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	50.0%–50.0%

Note: Benchmark portfolios are rebalanced annually.

We can conclude that Lithuanian pension vehicles are not able to beat the market benchmark. However, detailed analysis of the particular pension funds' performance could show that more aggressive pension funds are able to stay in positive real returns over the analyzed period.

Figure LT.13 – Performance of Lithuanian mandatory pension funds against a capital market benchmark (returns before tax, after inflation, % of AuM)



Data: Bank of Lithuania, Eurostat; Calculations: BETTER FINANCE.

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.

Real net performance of the Pillar II as well as Pillar III pension funds after the negative returns in 2022 slipped to the negative territory over the entire analysed period. 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 favorable tax treatment of private pension savings, where in both cases an “EEE” tax regime is applied.

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Country Case 12

The Netherlands

Samenvatting

Het Nederlandse particuliere pensioenstelsel steunt in grote mate op bedrijfspensioenfondsen, die bijna de hele actieve bevolking in het land dekken als gevolg van de verplichte inschrijvingsregel die geldt in de meeste economische sectoren. Een nieuwe wet die in juli 2023 wordt aangenomen, zal leiden tot een grote transformatie van deze pensioenfondsen van de tweede pijler, die alle bestaande en toekomstige pensioenuitkeringen zullen omzetten van een DB naar een DC model. Deze grote pijler II wordt aangevuld met een veel kleinere reeks pijler III-producten, zoals levensverzekeringscontracten, die Nederlandse ingezetenen onder beperkte voorwaarden kunnen gebruiken als pensioenspaarinstrument. In 2022 werden de beleggingsrendementen in beide pijlers ernstig beïnvloed door de macro-economische en financiële marktomstandigheden: sombere prestaties op de kapitaalmarkt in combinatie met een oplopende inflatie leidden tot zware verliezen voor zowel pensioenfondsen als polishouders van levensverzekeringen. Het gemiddelde rendement van pensioenfondsen in 2022 bereikte een dieptepunt van -21,1% voor lasten en inflatie, -29,3% na lasten en inflatie. Ondertussen behaalden unit-linked en index-linked levensverzekeringen een gemiddeld rendement van -8,2% na kosten en voor inflatie, en -17,3% na kosten en inflatie. Dit slechte jaar komt na een jaar 2021 waarin sterke resultaten op de aandelenmarkten de resultaten in beide productcategorieën stimuleerden, een opeenvolging die illustratief is voor de volatiliteit van Nederlandse langetermijn- en pensioenspaarproducten, die desondanks op de lange termijn een positief reëel nettorendement weten te behalen.

Summary

The Dutch private pension system relies heavily on occupational pension funds, which cover nearly all the active population in the country due to the mandatory enrolment rule that applies in most economic sectors. A new law adopted in July 2023 will lead to a major transformation of these Pillar II pension funds, who will switch all existing and future pension benefits from a DB to a DC model. This large Pillar II is supplemented by a much smaller set of Pillar III products, such as life insurance contracts, which Dutch residents can use as pension savings vehicles under limited conditions. In 2022, investment returns in both pillars were severely affected by macroeconomic and financial market conditions: dismal capital market performance combined with peaking inflation led to heavy losses for both pension funds and life insurance policyholders. The average return of pension fund in 2022 reached the depths of -21.1% before charges and inflation, -29.3% after charges and inflation. In the meantime, unit-linked and index-linked life insurance policies returned on average -8.2% after charges and before inflation, and -17.3% after charges and inflation. This bad year comes after a year 2021 that had seen strong equity market results boost the results in both product categories, a succession illustrative of the volatility of Dutch long-term and pension savings products, which nevertheless manage to provide positive real net returns in the long run.

Real returns 2022

Life insurance -
Unit/index-linked:
-17.3%

Pension funds:
-29.28%

Introduction: The Dutch pension system

A wind of change is blowing over the Dutch pension system after the *Wet Toekomst Pensioenen* (WTP), the “law for future pensions” entered into force on July 1, 2023, opening a transition phase that will last several years. The WTP introduces fundamental changes to the large Dutch occupational pensions sector (€ 1432.4 billion, or 149.4% of GDP in 2022, according to Eurostat), switching from a largely defined benefit (DB) to a mostly defined contribution (DC) system. The “low for long” interest rate environment of the 2010s, which made it particularly difficult for pension funds to meet their regulatory funding ratio requirements, ranked among the main motivations for the reforms. Even though the rise of interest rates—concomitant of the return of inflation—eased these difficulties, the switch to a DC system is still considered as necessary to modernise the Dutch occupational pension system.

In this chapter, we analyse two main types of pension savings vehicles: the occupational pension funds (Pillar II), which absorb the lion’s share of Dutch workers’ retirement savings, and the smaller segment of unit-linked and index-linked life insurance, belonging the third pillar of voluntary retirement savings (see Table NL.1. Like in previous years, we analyse returns of pension funds from the year 2000, based on data from *De Nederlandsche Bank* (DNB), the Dutch central bank, which makes publicly available relatively long and coherent series about the number of members, AuM and costs of the pension fund sector. We carefully reviewed the data available and corrected some of the time series used in previous editions of this report, leading to corrections in the long-term assessment of pension fund returns. Reviewing the data for the much smaller life insurance sector, however, we realised that there was no sufficient information available about returns and costs to conduct a robust analysis. We decided to start afresh, using data going back only to 2016 and focusing only on unit/index linked insurance policies, data that was kindly provided by DNB upon our request but is not publicly available.

Table NL.1 – Long-term and pension savings vehicles analysed in the Netherlands

Product	Pillar	Reporting period	
		<i>Earliest data</i>	<i>Latest data</i>
Pension funds	Occupational (II)	2000	2022
Life insurance - Unit/index-linked	Voluntary (III)	2016	2022

The Netherlands was not immune to the global turmoil that resulted in high inflation and poor capital market returns across the Europe. The results of its main long-term and pension saving vehicles in 2022 reflect their exposition to world markets, and inflation—reaching 11% at the end of the year—was in line with the EU average (10.39%). As the longer-term returns in Table NL.2 show, however, the Dutch pension vehicles perform generally rather well compared to other countries in our study. They manage to offer a positive return after inflation—for a 10-year holding period for pension funds, and a 7-year period for life insurance—despite the strongly negative despite the strongly negative results of the last year dragging their annual average returns.

In the remainder of this introduction, we will briefly present the Dutch pension system, including the Pillar I State pension. The next section will present in more detail the two main pension

Table NL.2 – Annualised real net returns of Dutch long-term and pension savings vehicles (before tax, % of AuM)

	Pension funds	Life insurance - Unit/index- linked
Reporting period	2000-2022	2016-2022
1 year (2022)	-29.3%	-17.3%
3 years (2020–2022)	-8.8%	-3.6%
5 years (2018–2022)	-3.6%	-0.9%
7 years (2016–2022)	-0.8%	0.4%
10 years (2013–2022)	1.1%	n.a.
Whole period	1.3%	0.4%

Data: DNB, Eurostat; *Calculations:* BETTER FINANCE.

savings vehicles analysed in this chapter—occupational pension funds and unit/index-linked life insurance policies. We will then look more closely at the data available on costs and charges and at the taxation regime applicable to those long-term and pension saving vehicles, before analysing their returns after charges and inflation from a long-term perspective.

Pension system in the Netherlands: An overview

Like most of the country analysed in this report, the Netherlands have a classic three-pillar pension system whereby:

- Pillar I is a contributory, state pension scheme organised as a social insurance system under the PAYG principle;
- Pillar II is made of fully funded, mostly tax-exempt and—until now—comprising mostly DC schemes;
- The much smaller Pillar III pillar is made of life insurance policies.

Pillar I: The *Algemene Ouderdomswet* (AOW)

The *Algemene Ouderdomswet* (AOW), the basic, universal pension paid by the Dutch State borrows its name from the 1956 law that established a lifelong pension for all elderly inhabitants of the Netherlands, regardless of their nationality and employment history (*Algemene Ouderdomswet*, 1956). The amount of this primary pension depends on the number of years an individual has contributed to the Dutch health insurance. The AOW is financed by social contributions and taxes. Each resident in the Netherlands between 16 and 66 years that is either employed, self-employed or on benefits contributes to the financing of the AOW—among other social security services—via a deduction from wages or benefits. A contribution from the State’s general budget covers the gap between these social contributions and pension commitments. Every inhabitant of the Netherlands is automatically enrolled in the AOW system and is entitled to 2% of the maximum monthly allowance—from July 1, 2023, € 1 458.15, gross amount, for a single person;

people who are married or, more generally live in couple receive up to € 843.78¹—for each year lived in the country between the ages of 16 and 66.² Due to the gender pay gap that results in lower average occupational pension rights for women than for men, the former tend to be more depend more heavily on AOW pensions for their retirement income.³

The AOW is a PAYG scheme—a redistributive system whereby social security contributions from the current workforce are used to pay the current pensions—and is therefore sensitive to the ageing of the population. With an old-age dependency ratio (the ratio of number of pensioners to the active population) of 31.1% in 2022 and projected to reach 42.3% in 2050, the Netherlands is in a rather better position than most of the other countries in our study. That is partly due to the decision taken in the mid-1990s to raise the retirement age—the *AOW-leeftijd*—continually on a par with life-expectancy, tempered by a 1999 agreement between government, employers and trade unions to limit the increase of the retirement (Wet temporiseren verhogen AOW-leeftijd, 2019). For a transition period from 2020 to 2025, the *pension agreement* reduced the previously agreed retirement age by 8 months. From 2025, the retirement age will increase by 8 months for each additional year of average life expectancy. Thus, the retirement age in 2023 is 66 years and 10 months, vs. 67 years and 3 months under the previous increase system, for people born between June 1, 1956 and February 28, 1957. For people born after September 30, 1962, the retirement age is not yet known: Because the system relies on life expectancy projections, which are bound to be corrected over time, an individual's precise retirement age is only set five years before the end of their career.⁴ The AOW pension is not payable before the AOW age (no early retirement) and cannot be deferred beyond that age, although it is possible to combine the pension and work (OECD, 2021).

Pillar II: Occupational pensions

The second pillar of the Dutch pension system is a system of collective pension schemes, operated by pension funds which are legally independent from their (often corporate) sponsors, or by insurance companies. Over the past two decades, the sector went through an important phase of concentration: From 1 060 funds active in 1997, the number fell to 174 in 2022.⁵

Pillar II pensions are fully funded. Each individual enrolled in a pension fund and their employer contributes directly or indirectly to it. The employer provides the major part of the contributions (usually between 50% and 70%), which are invested in order to fund retirement payouts.

Enrolment in a Pillar II scheme is in many cases compulsory: When trade unions and employers decide to set up an occupational pension scheme for a company or economic sector, the government has the possibility to make enrolment in that fund compulsory for all employees. This results into a near universal coverage of the Dutch active population by Pillar II pension schemes.

¹From which a social security contribution of 5.43% and a payroll tax if the individual does not claim payroll tax credit on their AOW (up to € 277.42 for a single person), and 8% of the monthly allowance is set aside to be paid out as a holiday allowance in May.

²That is, an individual who has lived in the Netherlands during the whole period— $66-16 = 50$ years—would be entitled to $50 \times 2\% = 100\%$ of the maximum monthly allowance.

³According to Bettio et al. (2013), the overall gender pension gap in the Netherlands was 40.4% in 2013, but was actually negative for Pillar I: -3.1%.

⁴A table of indicative retirement ages exist, based on current life expectancy projections up to 1960: <https://www.rijksoverheid.nl/onderwerpen/pensioen/documenten/publicaties/2019/06/05/tabel-aow-leeftijden-obv-principeakkoord>.

⁵Source: DNB statistics, *Supervised pension funds (Year)* (table 8.17).

Compulsory enrolment aims at increasing coverage of the working population, reduce costs per member through economies of scale, but also avoid a “race to the bottom” in the level of paid pension premiums. An employee can participate in more than one occupational pension fund if they change employer during their career and the two employers do not contribute to the same pension scheme: The employee only actively contribute to the pension scheme of their current employer, while capital accumulated with the first employer’s scheme remains there until reaching retirement age or, subject to specific scheme rules, is transferred to the new employer’s scheme.

The Dutch and social partners in 2019 agreed a major reform of the Dutch pension system, the main measure of which is the transformation of occupational pensions from the currently dominating classic defined benefit (DB) model to a defined contribution (DC) model with some collective risk-sharing. The agreed solution, which was legally enacted by with the *Wet Toekomst Pensioenen* (WTP) in July 2023, implies the conversion of all current DB pension entitlements into individual, DC capital accounts. Members’ contributions will accumulate on their accounts, where pension funds will also credit returns obtained from their investments. Pension payouts will then depend on how much an individual will have contributed to the fund, and on the returns that the asset manager will have managed to obtain by investing these contributions in capital market instruments. The new system is then supposed to link more directly pension benefits to investment and returns, and would offer the possibility to differentiate investment decisions based on age (life-cycling approach) and individual risk preferences (Ministerie van Sociale Zaken en Werkgelegenheid, 2023).

Under the WTP, three types of DC scheme arrangements will be available for pension schemes to choose from, the main two being the “solidarity contribution scheme” (*solidaire premieovereenkomst*) and the “flexible contribution system” (*flexibele premieovereenkomst*). The former retains an important collective dimension, with a single, collective investment policy for the whole scheme and a risk-sharing buffer to protect members against potential benefit cuts due to various financial risks. The latter, “flexible”, arrangement resemble more the “classic” individual DC model, with the possibility to implement life-cycling approaches and a risk-sharing buffer being optional.⁶

Dutch pension funds have until July 2027 to transition to the new system; most have already been making plans for some time. The switch indeed requires creating or updating DC arrangements, setting up individual pension accounts and collecting members’ individual risk preferences. Nevertheless, the reform however still raises many questions, not the least as regards information of members, property rights and intergenerational aspects (Meerten & Vlastuin, 2022; Metselaar et al., 2022). Some critics warn that the forcible conversion of existing DB rights will lead to an “avalanche of legal cases” (Hoekstra, 2023a).

Pillar III: Life insurance

Pillar III is composed of individual pension products sold by insurance companies, including life insurance and *pensioensparen*—a special-purpose savings account intended for retirement savings. Pillar III products are offered to anyone in the Netherlands to save for retirement, either in

⁶social partners and the Dutch Ministry for Social Affairs and Employment created an information website to inform pension scheme participants about the changes, accessible at <https://www.pensioenduidelijkheid.nl/>.

complement or in lieu of retirement savings in Pillar II pension funds.⁷ Tax benefits applicable to Pillar III products make them attractive savings vehicles.

Table NL.3 – Overview of the Dutch pension system

Pillar I	Pillar II	Pillar III
State Pension <i>Algemene Ouderdomswet</i> (AOW)	Occupational pension Pension funds	Voluntary pension Life insurance, <i>pensioensparen</i> , etc.
Mandatory PAYG Public	Mandatory Funded DB/DC ^a Private	Voluntary Funded DC Private
Social contributions and taxes	Employee/employer contributions (variable according to social partners' agreement)	Individual payments
Universal coverage	Quasi-universal	n.a.

^a The WTP will transform occupational pensions from mostly a mostly DB system to a mostly DC one.

Long-term and pension savings vehicles in the Netherlands

Pension savings in the Netherlands are mostly accumulated in occupational pension funds (Pillar II), and to a much lesser extent into life insurance contracts (Pillar III). As shown in Figure NL.1, Dutch pension savings reached a peak € 1 943 billion by the end of 2021, with € 1 746 billion invested in pension funds, and € 197 in life insurance contracts (of which € 103 billion in unit/index-linked contracts). The heavy losses suffered on capital market exposed products in 2022 reduced these amounts to a total of € 1 671 billion, of which € 1 521 billion in pension funds (91% of the total) and € 151 billion in life insurance (9%, of which € 83 billion in unit/index-linked).

Pillar II: Pension funds

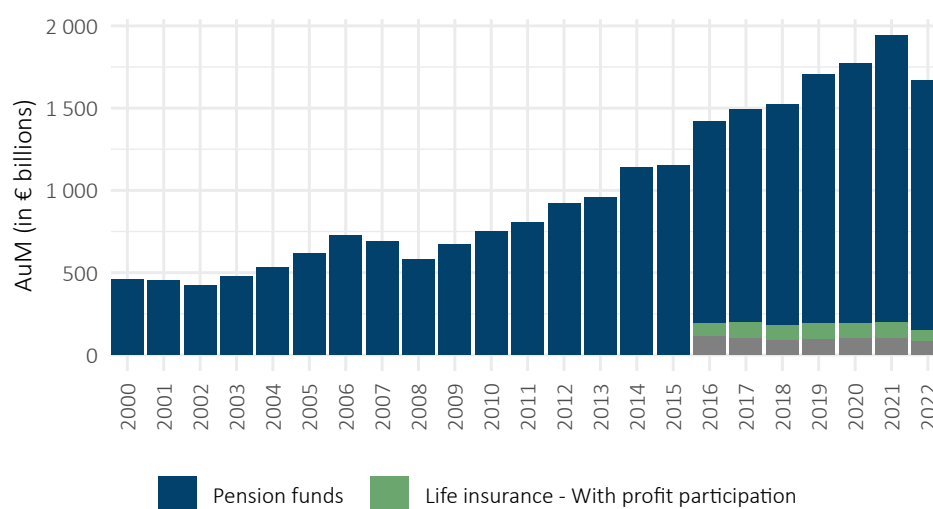
Dutch pension funds had 6.2 million contributing members and 3.8 million pension beneficiaries in 2022. Total contributions amounted to € 40 875 million, 65% of which were paid in by employers and 35% by employees.

The Dutch occupational pension fund sector went through an important concentration phase over the past two decades, which resulted in generally fewer but bigger pension funds. Table NL.4 shows this trend for the second half of the 2010s: the average size of pension funds increased both in terms of AuM and of members as the number of funds decreased.

With € 1 518.85 billion in AuM and despite the heavy losses suffered in 2022, the Netherlands still boasts the second largest occupational pension system in the EU, exceeded only by Denmark (see Chapter 5).

⁷There are rare cases of individuals in the Netherlands whose professions or companies do not entail enrolment into an occupational pension scheme, e.g., entrepreneurs.

Figure NL.1 – AuM of Dutch long-term and pension savings vehicles



Data: DNB; Calculations: BETTER FINANCE.

Table NL.4 – AuM and members of Dutch pension funds 2015–2022

Year	Nb. of funds	AuM (€ bln.)		Nb. of members (thousands)	
		Total	Average	Total	Average
2015	250	1 116.37	6.24	17 900.37	71.60
2016	245	1 195.50	6.46	18 242.67	77.63
2017	231	1 276.02	6.38	18 653.18	80.75
2018	224	1 328.55	6.36	19 175.28	87.16
2019	212	1 511.13	7.30	19 137.84	90.70
2020	201	1 571.01	7.86	19 192.00	95.48
2021	192	1 740.12	9.11	19 152.08	99.75
2022	185	1 518.85	8.25	19 063.07	103.04

Data: DNB

Average values hide great disparities: while the 2022 average size in AuM was a mere € 8.25 billion, the largest two funds per AuM—ABP and Zorg en Welzijn—had AuM well above € 100 billion. Logically, those same two funds also are the ones with most members (see Tables NL.5 and NL.6).

There are four main types of pension funds in the Netherlands. First, the industry-wide pension funds administer and operate the pensions for an entire sector, such as food companies or civil service. ABP, the pension fund of civil servants, is not only the largest in the Netherlands, it is also the second largest pension fund in Europe. Second, corporate pension funds administer and operate pension schemes for individual corporations, usually major ones. Third, there exist several pension funds for independent professionals, such as medical specialists. Fourth, and final, General Pension Funds have been created to achieve economies of scale and improve governance, being allowed to ring-fence and incorporate several (former) corporate pension funds under a single administrative umbrella.

Table NL.5 – Largest Dutch pension funds per AuM

Fund	AuM	Nb. of members (thousands)
ABP	483.5	3 013.5
Zorg en Welzijn	230.5	3 048.3
Metaal en Techniek	80.3	1 214.0
Bouwnijverheid	65.3	743.1
Metalektro, bedrijfstakpensioenfond	52.2	612.6

Data: DNB

Table NL.6 – Largest Dutch pension funds per number of members

Fund	Nb. of members (thousands)	AuM
Zorg en Welzijn	3 048.3	230.5
ABP	3 013.5	483.5
Detailhandel	1 467.8	29.4
Horecabedrijf	1 363.3	12.2
Metaal en Techniek	1 214.0	80.3

Data: DNB

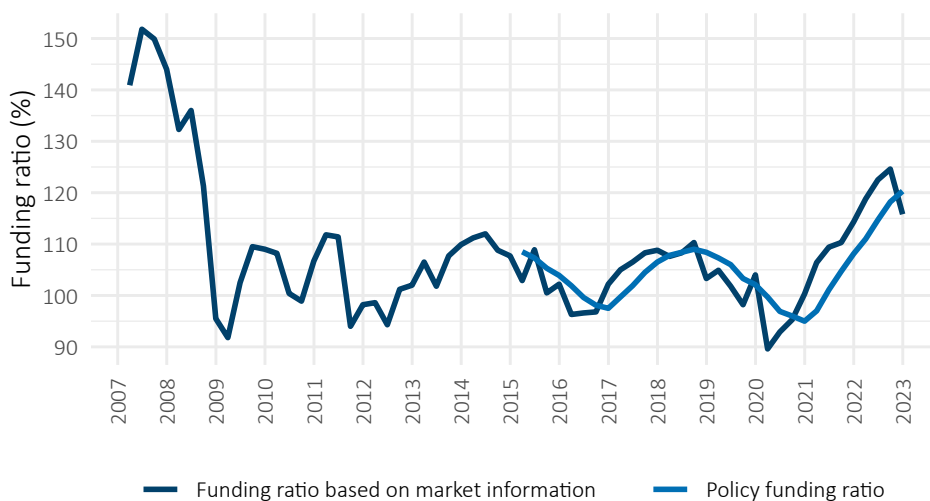
Pension funds are independent from their sponsors, that is, they are strictly separated from the company (or any other organisation) on whose behalf they administer and run the pension scheme. This strict separation is intended to protect employees' savings in case of bankruptcy of the sponsor company.

By law, pension funds are currently required to maintain a funding ratio of at least 105% (approximately) to protect members against benefit cuts. Even larger reserves are required before a pension fund is allowed to increase pensions in line with inflation. However, the WTP cancels these obligations general funding ratio requirements, in line with the switch to a DC system, and replaced them with more flexible prudential requirements.

Maintaining the current system's "coverage ratio"—(*dekkingsgraad*), the regulatory funding ratio, calculated by discounting the future pension liabilities (i.e. future nominal retirement outflows) using a mandatory interest rate curve regularly updated by DNB—proved difficult throughout the "low for long" interest rate environment of the 2010s (see Figure NL.2). Indeed, the lower the interest rates on financial markets, the greater the value of future liabilities, and the greater the chances that the funding ratio would fall below 105%. This was one of the major motivations for the switch to a DC system (Hoekstra, 2023b). Although it might seem counter-intuitive, 2022 was a year in which pension funds were able to increase pension benefits: with the concomitant rise of inflation and interest rate, future pension liabilities are discounted at a lower rate, resulting in better funding ratios for pension funds.

Collectively, the Dutch pension funds sector invest more than half of its AuM into fixed-income securities (mostly bills and bonds, see Figure NL.3), which can be explained by the prevalence of the DB model—which requires funds to offer guarantees against benefit cuts to their members—and the absence of life-cycling approaches whereby younger members' contributions could be

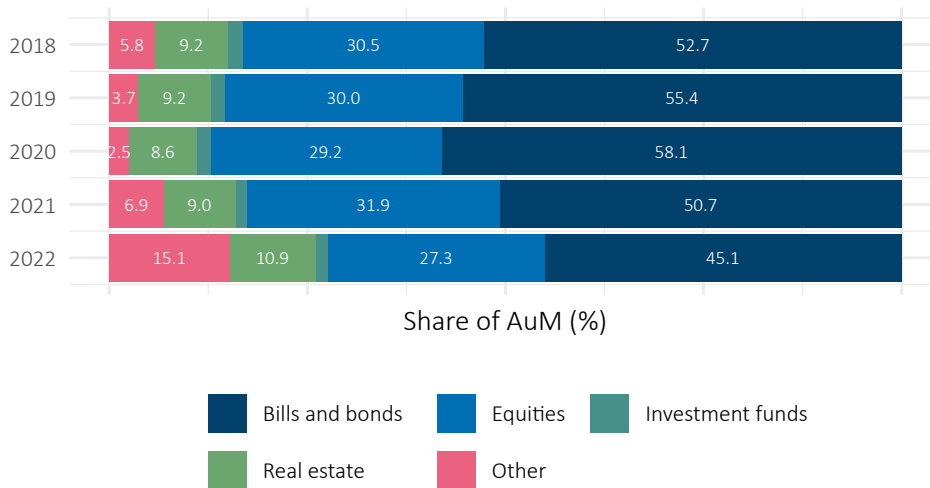
Figure NL.2 – Average funding ratio of Dutch pension funds



Data: DNB.

mainly or even fully invested in equity markets, which are riskier, more volatile, but also better performing in the long run.

Figure NL.3 – Allocation of Dutch pension funds' assets



Data: DNB; Calculations: BETTER FINANCE.

Premiepensioeninstellingen (PPI)

Premiepensioeninstellingen (PPI), or “Premium Pension Institutions” are not analysed in this report owing to their very small size as much as to the relative scarcity of data. PPIs are only offered to those few whose firms that do not have their own or sectoral pension arrangement. At the end of 2022, according to DNB statistics, PPI managed € 20.9 billion in assets on behalf of 1.34 million members, of which 700 151 active members. Nevertheless, PPIs have been growing fast since 2014 and may play a bigger role in the future.

Pillar III: Life insurance

The third pillar is not mandatory and is run by private insurance companies offering various long-term, pension-like, saving products. Every individual can subscribe to such products, although for some products the law sets eligibility criteria.

The most important condition is that one must have a shortfall in their pension (*pensioentekort*). The Dutch tax authority determines an annual maximum amount that any inhabitant of the Netherlands can pay towards their pension savings; this maximum amount is supposed to ensure an acceptable retirement income. If, for any reason, an individual’s annual contributions fall below the maximum amount allowed, then they are considered to a pension shortfall and can make a deposit into a savings account for requirement income that is equal to the difference between the maximum allowed amount and the amount already paid towards other pension saving vehicles. Amounts thus deposited cannot, however, be withdrawn before retirement. A tax benefit applies: contributions can be deducted from the taxable income, effectively reducing the amount of income tax that one has to pay. Moreover, payouts upon retirement are taxed at a lower rate than current income.

As already mentioned, the share of those third-pillar products in the retirement mix of Dutch households is relatively low (see Figure NL.1). The universal and near-universal coverage of Pillars I and II partly explains that Dutch savers see little need to add a third-pillar product to their portfolio.

Charges

For a long time, data regarding costs and charges of Dutch pension saving vehicles were difficult to obtain and, where available, tend to only partially reflect the burden of these costs on investors’ returns. Following calls from Dutch NCAs—the DNB and the *Autoriteit van Financiële Markten* (AFM), the financial markets authority—to improve transparency, pension fund management companies agreed to work on a harmonised cost reporting framework. The self-regulation initiative became law in 2015, with the adoption of the *Wet Pensioencommunicatie* (“Pensions Communication Act”), which applies to data from 2015 onwards. The Federation of the Dutch Pension Funds consequently revised its “recommendations on administrative costs” to implement the new law (PensioenFederatie, 2016).

Dutch pension funds today constitute one of the few cases where data on costs and performance is relatively plentiful (compared to other product categories in our study, see Figure XS.2 on Page iv), and comparable across funds. The AFM nevertheless called on pension funds to do better: in a report published in 2021, it found that 54% of the funds’ annual reports either missed

or reported incorrectly at least one cost metric (Autoriteit Financiële Markten [AFM], 2021). The AFM also signalled the need for better explanations of costs, beyond aggregate figures. With the switch to a DC system, cost consideration will become increasing important:

Because of the transition costs that pension funds will have to deal with in the coming period, and the more prominent role that costs will have in participant communication in the new pension system, the AFM believes it is important to pay extra attention to accountability and transparency of costs now, on the eve of that transition. (AFM, 2021, p. 5)

As regards costs, the reporting framework mandates the disclosure of three main metrics: asset management costs, transaction costs (both in percentage of total AuM) and costs of pension administration per member (in € per member). As Table NL.7 shows, data before the *Wet Pensioencommunicatie* is essentially limited to costs of asset management.

Table NL.7 – Costs and charges of Dutch pension funds (% of assets)

Year	Admin. and mgt. fees	Contract mgt. fees	Other ongoing fees
2007	0.21%	n.a.	n.a.
2008	0.25%	n.a.	n.a.
2009	0.19%	n.a.	n.a.
2010	0.15%	n.a.	n.a.
2011	0.20%	n.a.	n.a.
2012	0.22%	n.a.	n.a.
2013	0.25%	n.a.	n.a.
2014	0.19%	n.a.	n.a.
2015	0.39%	€113.63	0.10%
2016	0.38%	€111.72	0.09%
2017	0.39%	€112.11	0.10%
2018	0.37%	€101.20	0.10%
2019	0.36%	€104.10	0.10%
2020	0.35%	€107.85	0.10%
2021	0.37%	€107.60	0.08%
2022	0.37%	€112.02	0.10%

Data: DNB; *Note:* “Other ongoing fees” represent the transaction costs, which are reported separately only since 2014; asset management costs and transaction costs: average of individual pension funds’ cost-to-AuM reported to DNB; contract management fees: average pension management costs per member weighted by number of members.

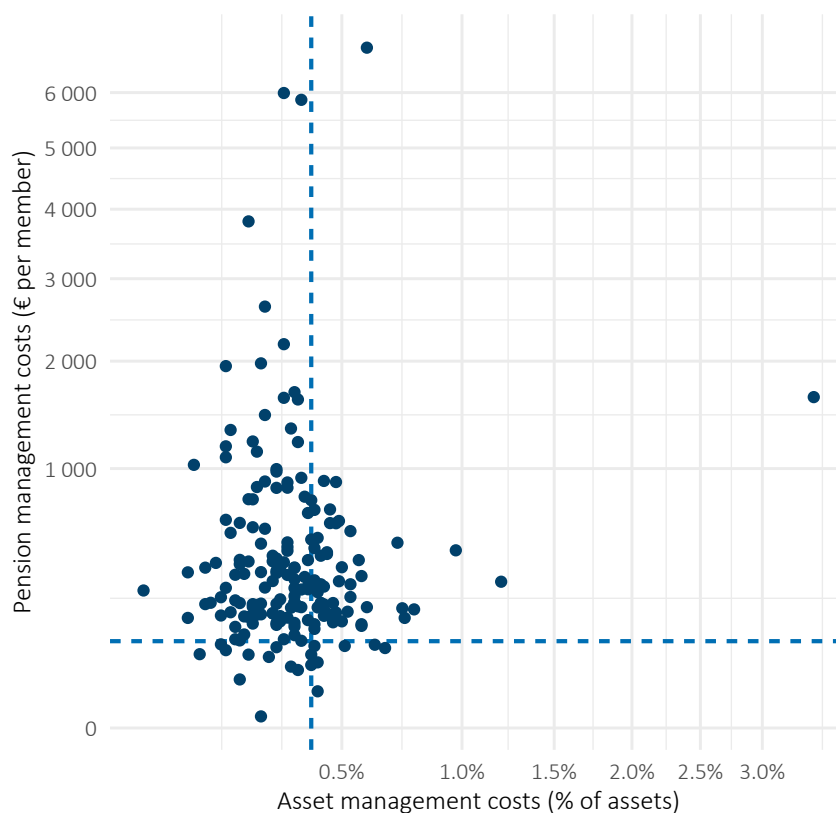
The sudden jump in these asset management costs from 2014 to 2015 should not be understood as an increase in the actual costs of Dutch pension funds: Instead what these figures reveal is that asset management cost figures until 2014 probably underestimate actual costs, and that the new reporting framework better captures the actual extent of these costs. Furthermore, over the past decade, pension funds have largely eliminated the payment of performance fees from their contracts with asset managers, leading to a reduction in costs. One should also note that the figures published by DNB for pension funds’ nominal returns are net of transaction costs, which are notoriously ambiguous and difficult to account for. In recent years, Dutch pension funds

and regulators have made significant progress to more fully and transparently account for these costs, but we should assume that the actual transaction costs before 2015 were actually higher than the figures deducted from the gross returns reported to DNB, meaning that nominal returns may be overestimated. Naturally, since our computation of net returns relies on these figures, this implies that our calculations of nominal and real net returns before 2015 are—potentially considerably—*overestimated* (see Figure NL.7).

The asset-weighted average cost figures in Table NL.7 paint a picture of great stability and relatively moderate fees: Asset management costs remained at 0.37%, while transaction costs increased from 0.08% in 2021 to 0.10% in 2022; pension administration costs increased from € 107.60 in 2021 to € 112.02 in 2022.

Nevertheless, the fund-level data reported funds to DNB reveals important differences across funds: As can be appreciated in Figure NL.4, most funds have pension management costs—the costs of administering the contract—well above the asset-weighted average of € 112 (dashed horizontal line), with some funds charging above a thousand euros (up to € 6 878 per member and per year). By contrast, we see that most funds have asset management fees below the asset-weighted average of 0.4% (vertical dashed line), and none, except for one outlier, charges more than 1.25% per year for that service.

Figure NL.4 – Pension and asset management costs of Dutch pension funds, 2022

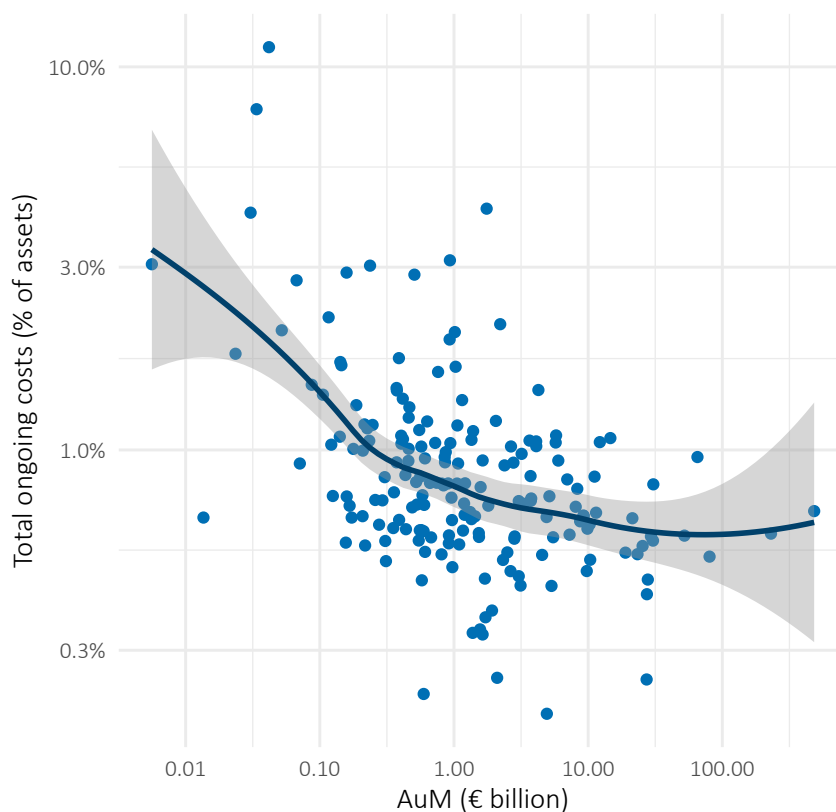


Data: DNB

Generally, when including all costs, there seems to be a tendency for smaller funds to levy more

annual charges off their members' assets. The fit line in Figure NL.5 shows this relation: the level of costs drops rapidly until approximately € 500 million in AuM; the reduction then slows until € 100 billion, before increasing marginally again for the largest two funds.

Figure NL.5 – Total costs per size of Dutch pension funds, 2022



Data: DNB; Smoothed nonparametric fit line with a 95% confidence interval

We unfortunately could not obtain cost data related to life insurance contracts in the Netherlands. Data available about life insurance arises from prudential reporting mandated by Directive 2009/138/EC (“Solvency II”) and focuses on the balance sheet of life insurance companies rather than on cost and performance of the products they distribute.

Taxation

Pension funds are exempt from company taxes in the Netherlands. The money that Dutch employees pay into their pension funds during their working life is deducted from their gross income and therefore exempt from income tax. The returns on the investments made by pension funds on behalf of pension scheme participants are not taxed either. Pension payouts—the amounts paid to pension scheme participants upon reaching retirement age—are subject to the personal income tax. However, this so-called “deferred taxing” of pensions may also entail a further tax benefit, as, for incomes in the €0–€ 35 473, the tax rate is lower for pensioners than for younger taxpayers (between 19.17% and 35.58% instead of 37.10%). The taxation regime of Dutch pension funds is therefore the classic “EET” model.

As already mentioned, contributions to voluntary, Pillar III products are similarly tax exempt, as are returns on those investments. Payouts are, like payouts of pension funds, taxed at the personal income tax rate; the tax regime is therefore also an “eet” model.

Table NL.8 – Taxation of pension savings in the Netherlands

Product	Phase			Regime
	<i>Contributions</i>	<i>Investment returns</i>	<i>Payouts</i>	
Pension funds	Exempted	Exempted	Taxed	EET
Life insurance - Unit/index-linked	Exempted	Exempted	Taxed	EET

Data: Dutch tax administration.

Performance of Dutch long-term and pension savings

Real net returns of Dutch long-term and pension savings

After presenting the Dutch pension system and its main pension saving vehicles, discussing the evolution of pension funds’ costs and summarising the tax regime applicable to pension savings, we now turn to the analysis of returns.

2022 was a bad year for Dutch pension savings as it was for savers and investors across Europe and beyond due to the poor performance of capital markets (see, notably, Figure GR.6 on Page 18 of this report). Inflation—the other important performance factor for long-term and pension savings—reached 11% in the Netherlands in 2022, slightly higher than the EU average (10.4%, see Figure NL.6), up from 0.9% only in 2020.

Over the longer term, the Netherlands may be said to have a moderate inflation, with a 2.4% average annual inflation over the period 2000-2022, but that moderate inflation, together with the peak of the last two years, still entails a 73.4% loss of purchasing power for Dutch pension savings.

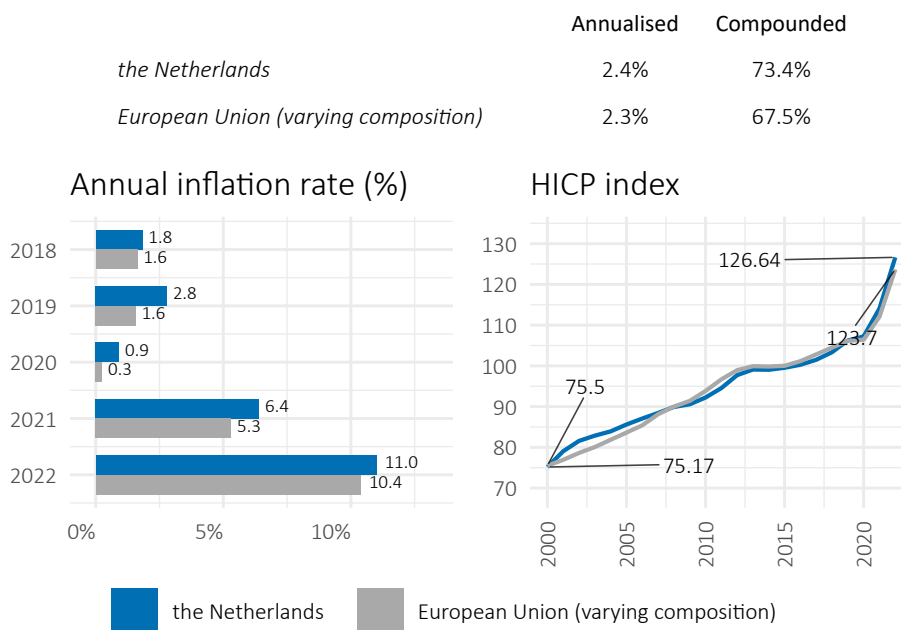
In the remainder of this section, we will report annualised and cumulated returns of Dutch pension funds and unit/index-linked life insurance policies. We base this analysis on the data made available by the DNB, which enables us to calculate aggregate returns for pension funds since 2000 and for unit/index-linked life insurance since 2016. For this country case, we follow the methodology presented in the introductory chapter of this report.

Returns of occupational pension funds

Until the WTP is fully implemented, the pensions that Dutch occupational pension scheme members receive upon retirement age depends on their pension fund achieving sufficient returns on its investment to pay the agreed pension benefits (a DB system). Higher returns imply the possibility for the fund to increase benefits, while insufficient returns may entail benefit cuts. After the switch to a DC system, the relation between investment returns and benefits will be more direct and more individual: a member’s pension will be paid from the amounts they have contributed to the fund plus the returns generated by investments made by the fund on their behalf; if those

Figure NL.6 – Inflation in the Netherlands

Period 2000–2022



Data: Eurostat, HICP monthly index (2015 = 100); Calculations: BETTER FINANCE

returns are positive, the pension benefits will increase, if the returns are negative, benefits decrease. The Dutch reform foresees a number of solidarity mechanisms that funds can adopt to soften the potential impact of negative performance on individual performance, but whether and how specific funds will implement such solidarity “buffers” remains to be seen.

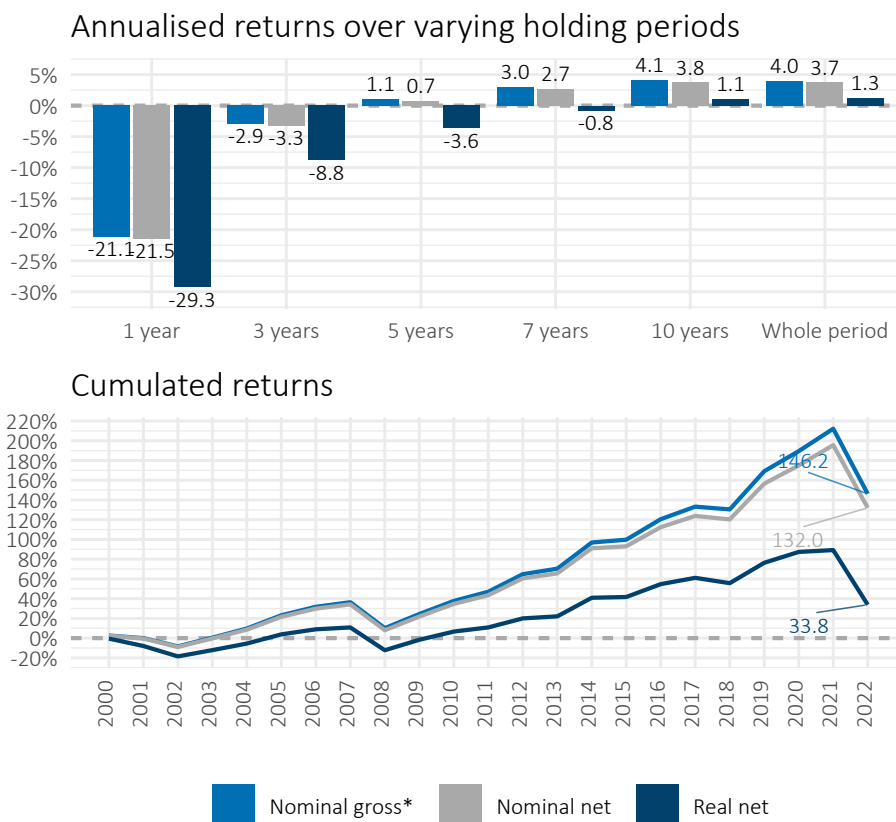
Figure NL.7 presents the returns of Dutch pension funds before charges (except transaction costs) and inflation, returns after deducting asset management charges and before inflation, and finally returns after charges and inflation. The upper panel shows annualised returns over varying holding periods, while the lower panel displays cumulated returns from the year 2000.

The data used for these calculations are those made publicly available by DNB. Annual returns are taken at year end, calculated on the basis of quarterly returns data disclosed by individual funds. The aggregate nominal gross return figure is then calculated as the asset-weighted average of funds’ annual returns.

The very negative 1-year results (-21.1%) reflect the generally poor performance of capital markets in 2022, which is still felt over the 3-year holding period, despite a strong performance in 2021 (+7.85%). For the whole reporting period, the bad 2022 performance reduced the average annual nominal gross returns of Dutch pension funds by 1.3 percentage points, from 5.3% over the period 2000-2021 to 4.0% over 2000-2022. The cumulated returns show a steady course of capital accumulation until 2021, followed, as expected, by an abrupt fall in 2022, which reduced the average nominal cumulated returns by 66 percentage points.

We can see by the proximity of the nominal gross and nominal net returns that the long-term

Figure NL.7 – Returns of Dutch occupational pension funds (before tax, % of AuM)



Data: DNB, Eurostat; Calculations: BETTER FINANCE; Note: * Net of transaction costs.

impact of costs appears moderate, reducing returns by “only” 14.2 percentage points after 23 years. However, we should note again that this difference only represents asset management costs: transaction costs are already deducted from nominal “gross” returns and we do not deduct the pension administration costs per member.⁸

We then factor the annual Dutch inflation rate in the calculations—as per the methodology stated in the introductory chapter—to obtain the real net returns. Annualised nominal gross and net returns turn positive for holding periods of 5 years or more but inflation still entails negative real net returns for holding periods of 5 and 7 years; real net returns only become for holding periods of 10 years or more. The average annual real return of Dutch pension fund over the whole reporting period decreased by 1.6 percentage points, at 1.3% over 2000–2022, down from 2.9% over the period 2000–2021.

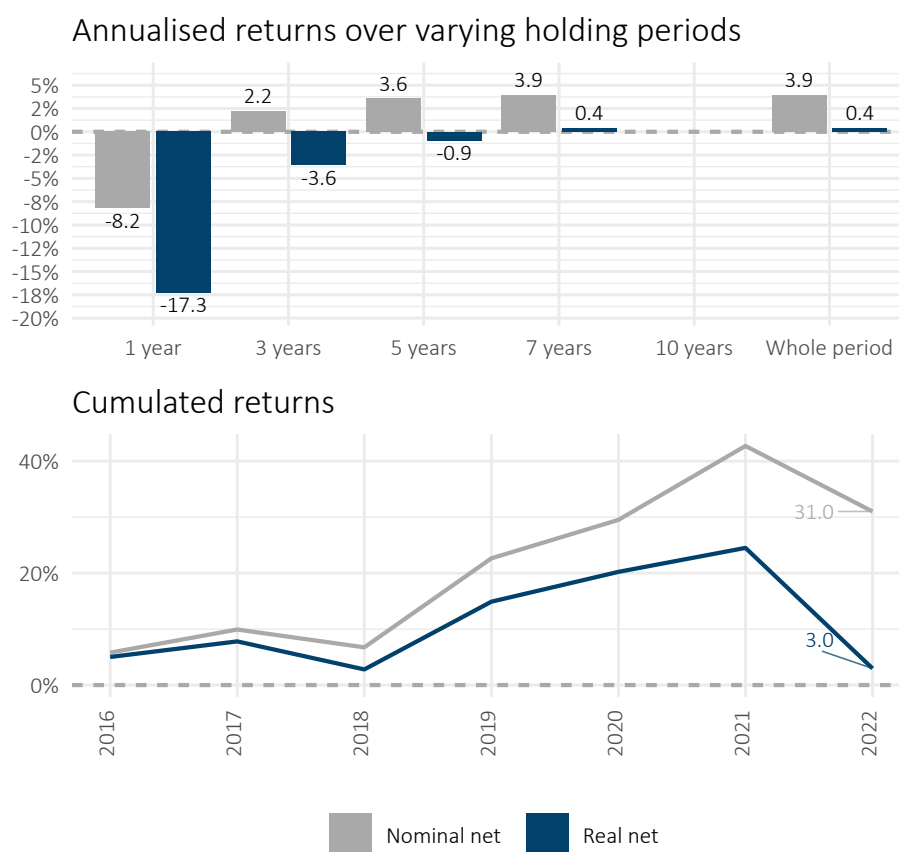
⁸Since data for this cost item is only available since 2015, we do not have sufficient data to extrapolate for early years.

Unit-linked and index-linked life insurance

In previous editions of this report, we analysed the returns of all Dutch life insurance contracts. However, the data that was used did not relate specifically to returns of life insurance *policies*; instead, it indicated the general return of life insurance companies' investments.

We then decided to re-examine the data available on life insurance policies, with a particular focus on those among such policies that enable individuals to invest their savings on capital markets: unit-linked and index-linked life insurance contracts. Although data to compute the real return of those contracts is not publicly available, the Dutch central bank, DNB, kindly provided us with aggregated nominal net returns figures for the period 2016–2022. Figure NL.8 presents these data as well as our computation of real net returns, after correcting for inflation.

Figure NL.8 – Returns of Dutch unit/index-linked life insurance (before tax, % of AuM)



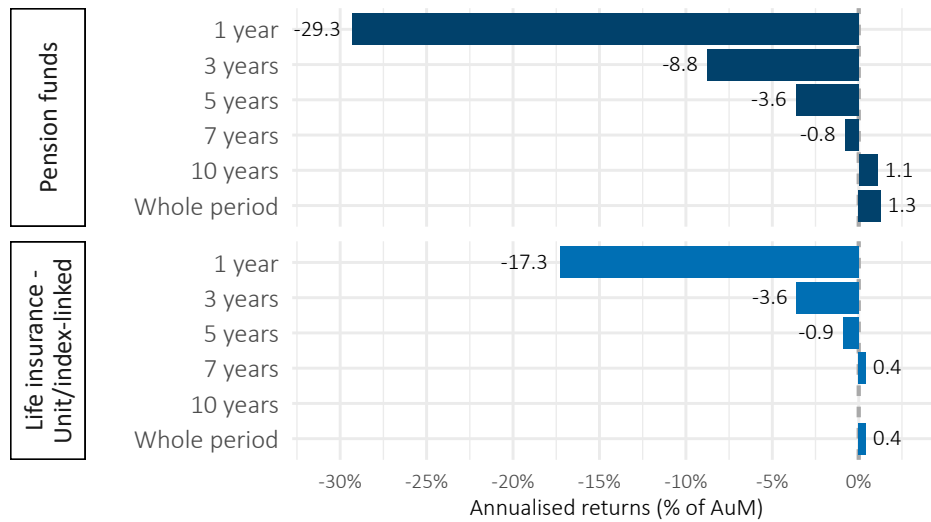
Data: DNB, Eurostat; Calculations: BETTER FINANCE.

Returns in comparison

Comparing the two product categories covered by this chapter about Dutch long-term and pension savings vehicles is difficult, considering the differences in size of the two sectors, the different legal frameworks in which they operate, and the different set of data available on which to build

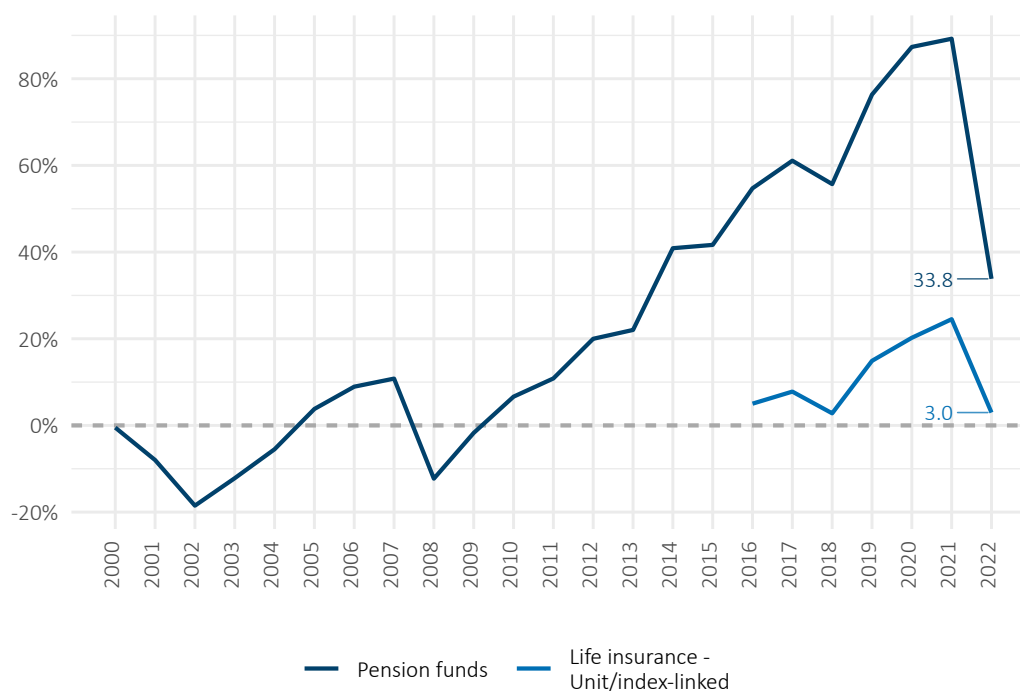
our analysis. Nevertheless, we observe that both pension funds and unit/index-linked life insurance manage to yield positive returns after charges and inflation in the medium to long-term, despite the calamitous results of 2022. Figures NL.9 and NL.10 present a comparison of the real net returns of both product categories.

Figure NL.9 – Annualised real net returns of Dutch long-term and pension vehicles over varying holding periods (before tax, % of AuM)



Data: DNB, Eurostat; Calculations: BETTER FINANCE.

Figure NL.10 – Cumulated real net returns of Dutch long-term and pension savings vehicles (2002–2022, before tax, % of AuM)



Data: DNB, Eurostat; Calculations: BETTER FINANCE.

Do Dutch savings products beat capital markets?

As a last step in this analysis of Dutch pension saving products' returns, we compare their performance with that of a hypothetical portfolio invested in European capital markets. The portfolio used here is the "default" 50% equity–50% bond portfolio, annually rebalanced, as presented in Table NL.9.

Table NL.9 – Capital market benchmarks to assess the performance of Dutch pension vehicles

Product	Equity index	Bonds index	Allocation
Pension funds	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	50.0%–50.0%
Life insurance - Unit/index-linked	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	50.0%–50.0%

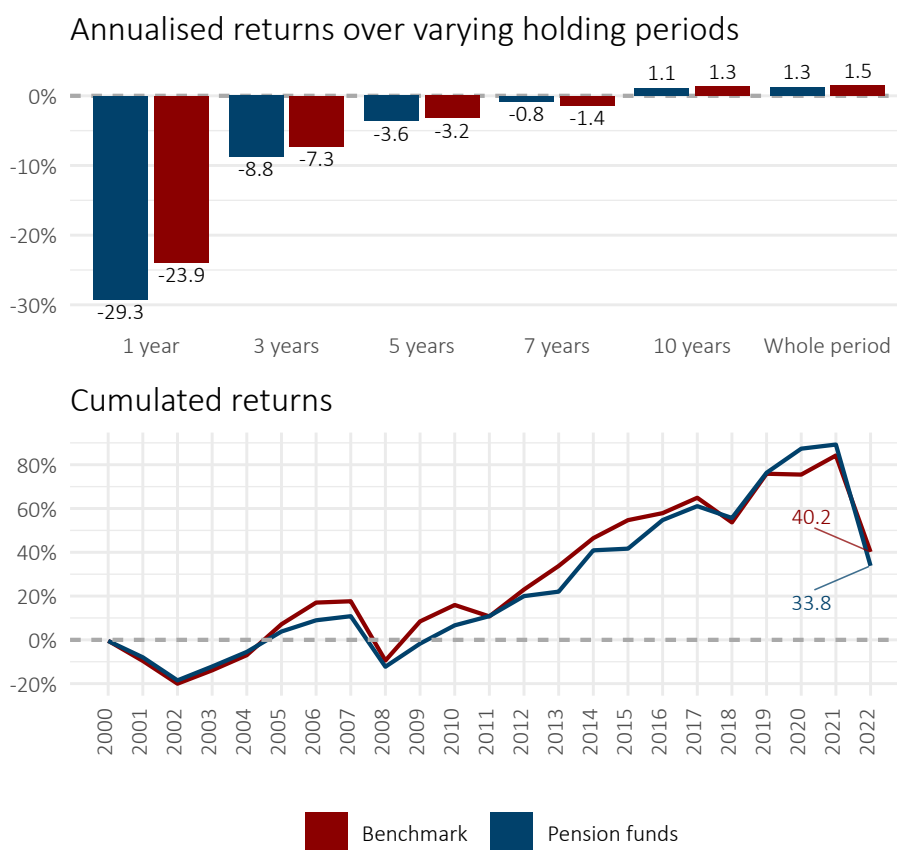
Note: Benchmark portfolios are rebalanced annually.

The nominal returns of this benchmark portfolio are adjusted—like the returns of the products—using the inflation rates calculated based on Eurostat's HICP monthly index for the Netherlands. For each product category, we calculate the returns of the benchmark over the same period as

the average returns of the product category.

Pension funds’s average real net returns, though they do not beat the benchmark (except for a 7-year holding period), reach levels that are close (Figure NL.11). However, the reader must bear in mind the fact that the limited data availability up to 2015 mean that our calculations most probably overestimate the long-term returns of Dutch pension funds. The gap between pension funds and the benchmark may be somewhat wider than Figure NL.11 shows.

Figure NL.11 – Performance of Dutch pension funds against a capital market benchmark (returns before tax, after inflation, % of AuM)

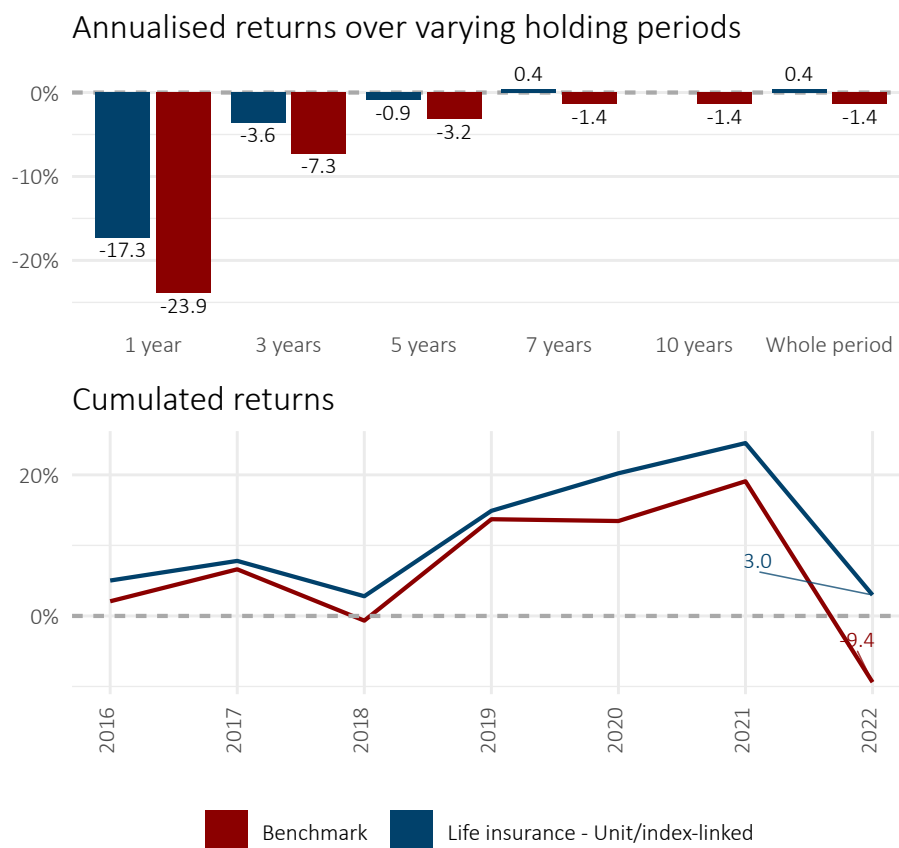


Data: DNB, Eurostat; Calculations: BETTER FINANCE.

The similarity of pension funds’ cumulated real net returns with those of the benchmark show that the investment policies of pension funds generally correspond to a balanced investment mix, which may in the future include more investments into equity, once the WTP enables those choosing the “flexible” arrangement to implement life-cycle approaches.

Over the much shorter reporting period for unit/index-linked life insurance, those contracts managed to beat the benchmark, as shown in Figure NL.12, with cumulated returns 12.4 percentage points higher than the benchmark. Time (and additional data) will tell whether this good performance remains consistent over longer periods.

Figure NL.12 – Performance of Dutch unit-linked and index-linked life insurance against a capital market benchmark (returns before tax, after inflation, % of AuM)



Data: DNB, Eurostat; Calculations: BETTER FINANCE.

Conclusions

Dutch long-term and pension savings were not immune to the geopolitical turmoil caused by the Russian attack on Ukraine in 2022 and the ripple effects these events had on macroeconomic and financial market conditions all over the world. Their exposure to the volatility of capital markets nevertheless enables them to generate positive returns in the long-term.

In this chapter, we have devoted much more space to occupational pension funds than to voluntary pension savings in Pillar III products. This partly reflects their respective share of Dutch households' pension savings, but also the different extent to which data is available for us to analyse.

The efforts that Dutch pension funds have made to account for costs and report these costs in a uniform manner enable us to testify of a trend towards lower costs for members of occupational pension schemes. These efforts are welcome, as clear and comparable cost and performance information is essential—even where enrolment is mandatory and choices available to the in-

vestor limited—to assess the management of pension funds and ensure the accountability of managers. By contrast, the very limited data available on life insurance policies performance, and the absence of any data on costs, make it impossible to assess by how much said costs reduce investment returns.

With the adoption of the *Wet Toekomst Pensioenen* (WTP), the Dutch pension system is on the eve of a major upheaval. The transformation of the predominantly DB occupational pillar into a DC system constitutes a challenge that pension fund managers will have to meet with great caution.

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Country Case 13

Poland

Streszczenie

Dodatkowy system emerytalny w Polsce składa się aktualnie 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.). Na koniec 2022 roku zgromadzono w nich odpowiednio 19,13 mld zł (4,16 mld €), 14,12 mld zł (3,07 mld €), 6,62 mld zł (1,44 mld €) oraz 11,99 mld zł (2,61 mld €).

W analizowanym okresie (2002-2022) pracownicze fundusze emerytalne (PFE), będące jedną z form PPE, wypracowały nominalne stopy zwrotu sięgające 5% w skali roku. Średnia realna stopa zwrotu za cały analizowany okres wyniosła natomiast 2%.

Dobrowolne fundusze emerytalne (DFE), będące jedną z form IKE i IKZE, osiągnęły nadzwyczajne wyniki inwestycyjne w początkowym okresie funkcjonowania, które nie zostały jednak powtórzone w kolejnych latach. Średnia nominalna stopa zwrotu z uwzględnieniem opłat za lata 2013-2022 wyniosła 3,54%, a realna 0,36%.

Wprowadzone tuż przed pandemią pracownicze plany kapitałowe (PPK) oferowane w formie funduszy zdefiniowanej daty osiągnęły natomiast w okresie 2020-2022 stopę zwrotu równą 2,92% nominalnie i -5,41% realnie.

Summary

The supplementary pension system in Poland currently consists of four components: employee pension plans (PPE), individual retirement accounts (IKE), individual retirement security accounts (IKZE) and employee capital plans (PPK operating as of July 1, 2019). At the end of 2022, they have accumulated PLN 19.13 billion (€4.16 billion), PLN 14.12 billion (€ 3.07 billion), PLN 6.62 billion (€ 1.44 billion) and PLN 11.99 billion (€ 2.61 billion), respectively.

During the period under review (2002-2022), employee pension funds (PFEs), which are one form of PPEs, generated nominal rates of return of 5% per year. In contrast, the average real rate of return for the entire period analyzed was 2%.

Voluntary pension funds (DFEs), which are a form of IKEs and IKZEs, achieved extraordinary investment results in their initial period of operation, but these were not repeated in subsequent years. The average nominal rate of return including fees for 2013-2022 was 3.54%, and the real rate was 0.36%.

Introduced just before the pandemic, employee capital plans (PPKs) offered in the form of target-date funds achieved a nominal rate of return of 2.92% and -5.41% in real terms for the 2020-2022 period.

Real returns 2022

Employee pension funds (PFE): -21.87%

Voluntary pension funds (DFE): -24.05%

Employee capital plans (PPK): -22.72%

Introduction: The Polish pension system

- All forms of supplementary pension savings in Poland are offered in funded DC formula that means high exposure to investment risk for individual participants.
- The schemes are generally offered in few 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), an account in a brokerage house; a bank account (savings account) or a voluntary pension fund (*dobrowolny fundusz emerytalny*, DFE).
- At the end of 2022, there was PLN 51.9 bln (€ 11.3 billion) assets collected in the whole supplementary pension system in Poland.
- In 2022 due to turbulent times caused by the war in Ukraine all the schemes reported negative returns but the average rates of return for longer period both nominal and real stayed positive for almost all plans (except for average real returns of employee capital plans, PPK).

Table PL.1 – Long-term and pension savings vehicles analysed in Poland

Product	Pillar	Reporting period	
		Earliest data	Latest data
Employee pension funds (PFE)	Voluntary (III)	2002	2022
Voluntary pension funds (DFE)	Voluntary (III)	2013	2022
Employee capital plans (PPK)	Voluntary (III)	2020	2022

Table PL.2 – Annualised real net returns of Polish long-term and pension savings vehicles (before tax, % of AuM)

	Employee pension funds (PFE)	Voluntary pension funds (DFE)	Employee capital plans (PPK)
Reporting period	2002-2022	2013-2022	2020-2022
1 year (2022)	-21.9%	-24.1%	-22.7%
3 years (2020–2022)	-7.9%	-7.8%	-5.4%
5 years (2018–2022)	-5.0%	-7.5%	n.a.
7 years (2016–2022)	-2.3%	-4.2%	n.a.
10 years (2013–2022)	-1.1%	0.4%	n.a.
Whole period	2.0%	0.4%	-5.4%

Data: ADD SOURCE; Calculations: BETTER FINANCE.

Pension system in Poland: An overview

The old-age pension system in Poland is a multi-tier structure consisting of three main elements:

- Tier I — a mandatory, notional defined contribution (NDC) system ;

- Tier II — a mandatory NDC system with a partial opt-out for funded open pension funds (OFEs); and
- Tier III — voluntary or quasi-obligatory, occupational and individual DC pension plans.

Table PL.3 – Overview of the Polish pension system

Pillar I	Pillar II	Pillar III
Mandatory	Mandatory ^a	Voluntary/Quasi-obligatory
PAYG	PAYG/Funded (opt-out)	Funded
NDC	NDC/DC (opt-out)	DC
Basic benefit	Basic benefit	Complementary benefit
Publicly managed	Publicly/Private managed	Privately managed
Social insurance institution (ZUS)	Social insurance institution (ZUS) / Open Pension Funds in opt-out element	Pension savings managed by different financial institutions, organised by employers or individual

^a The II tier is still mandatory although open pension funds (OFE) have been made voluntary since 2014 (partial opt-out for funded system).

Source: Own elaboration.

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 (Tier I + Tier 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 Tier I (underwritten on individual accounts of the insured), and 7.3 p.p. to Tier 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.¹

Tier 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.

Tier 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). Polish OFEs are just a mechanism of temporary investing public pension system resources in financial markets (financial vehicles for the accumulation phase). 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

¹Two 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.

Institution (ZUS). This default option resulted in a huge decrease in OFEs' active participation in the year 2014.

The pension law establishes the contribution level and guarantees minimum pension benefits that are paid together from the whole basic system (tier I + II) by the public institution (ZUS). The statutory retirement age is 60 for women and 65 for men.² Prior to retirement the member's assets gathered in OFE (if one opted out for funded element) are transferred to a sub-account administered by ZUS.³ Pension benefits from the basic system are calculated in accordance with a Defined Contribution (DC) rule and are paid in a form of an annuity by Social Insurance Institution (ZUS).

The old-age pension from the basic system (tier I+II) depends solely on two components: 1) the insured person's total pension entitlements accumulated during his/her entire career (balance of an NDC account and a sub-account), and 2) the average life expectancy upon retirement.

Tier III supplements the basic, mandatory pension system and represents voluntary and quasi-obligatory, 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 security 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 contribution amounting to 4.5 times the average wage (PLN 26 649 - € 5 693.26 - in 2022). 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. At the end of 2022 PPEs covered 652 thousand employees which represents only 3.9% of the working population in Poland.⁴

Employee capital plans (*pracownicze plany kapitałowe*, PPK) are also organised by employers but they use auto-enrollment and matching defined contribution mechanisms. They started to

²It 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.

³Money gathered on individual accounts in OFE is systematically transferred to the Social Insurance Institution (ZUS) during 10 years prior to retirement (before reaching the statutory retirement age).

⁴The coverage was calculated according to Statistics Poland (GUS) data on the number of employed Poles at the end of 2022 (GUS 2023).

operate in 2019 and their full implementation was staggered in accordance to 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 (€ 56.41) and a regular annual state subsidy amounting to PLN 240 (€51.27). 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 3 mln employees at the end of 2022, which represents ca. 17.91% 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 17 766 - € 3 795.51 - in 2022). 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 2022 only 800 thousand Polish citizens had an individual retirement account (IKE) which represents 4.78% of the working population.

Individual retirement security 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 as a programmed withdrawal after the saver reaches the age of 65. The limit for IKZE contributions is 120% of the average wage (PLN 7 106.40⁵ – € 1 518.20 in 2022). Only about 2.84% of the Polish working population (2022) is covered by this type of supplementary old-age provision.

⁵Since 2021 there is also a special limit of contributions for self-employed that amounts to 180% of the average wage (PLN 10 659.60 – € 2 277.30 in 2022).

Table PL.4 – Voluntary pension products in Poland (pillar III) at the end of 2022

Employee Pension Programmes (PPE)	Employee capital plans (PPK) ^a	Individual Retirement Accounts (IKE)	Individual Retirement Security Accounts (IKZE)
Type of pension vehicles			
<ul style="list-style-type: none"> • Unit-linked life insurance • Investment fund • Employee pension fund 	<ul style="list-style-type: none"> • Unit-linked life insurance • Investment fund • Pension fund 	<ul style="list-style-type: none"> • Unit-linked life insurance • Investment fund • Account in the brokerage house • Voluntary pension fund • Bank account 	<ul style="list-style-type: none"> • Unit-linked life insurance • Investment fund • Account in the brokerage house • Voluntary pension fund • Bank account
Assets under Management			
PLN 19.13 bln € 4.16 bln 36.88% of Pillar III assets	PLN 11.99 bln € 2.61 bln 23.13% of Pillar III assets	PLN 14.12 bln € 3.07 bln 27.22% of Pillar III assets	PLN. 6.62 bln € 1.44 bln 12.77% of Pillar III assets

^a This vehicle started operating in 2019.
 Data: UNKF (2023).

Long-term and pension savings vehicles in Poland

The most popular forms of supplementary pension plans are the collective ones, namely PPEs and PPKs that represent 60% of assets under management. Regarding the type of financial vehicle used, investment funds attracted the great majority of savers – 84% both in PPE and PPK, 52.5% in IKE and 44% in IKZE.

Third pillar

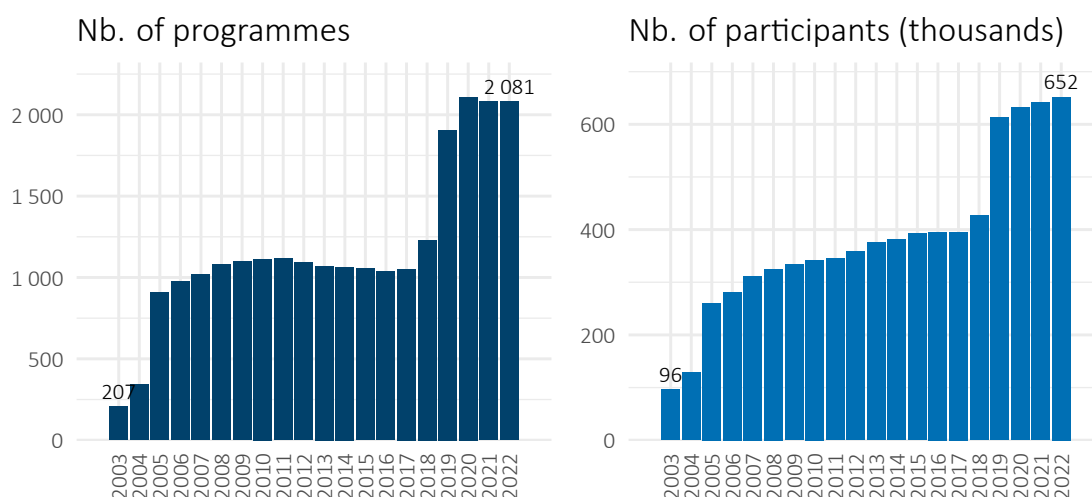
Employee Pension Programmes

PPEs can be offered in four forms:

- as a contract with an asset management company (an investment fund);
- as a contract with a life insurance company (a 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 2022, the number of programmes reached 2 081, mainly due to significant increase in 2019 and 2020 being the direct response to the new law that allowed employers to be exempt from the obligation to create PPK when they offer PPE.

Figure PL.1 – Number of Employee Pension Programmes and number of participants 2003-2022



Data: UKNF, 2023.

The most popular forms of PPE are investment funds that represent 74.2% of PPEs (see Table PL.5)

and manage 73.6% of total PPEs' assets. Their share is even higher when taking into consideration the number of participants (82.3%).

Table PL.5 – Number and assets of Employee Pension Programmes (PPE) by form of the programme

	Unit-linked life insurance	Investment fund	Employee Pension Fund	Total 2022
Nb. of PPE	513	1 544	24	2 081
<i>Market share (% of of PPE nb.)</i>	<i>24.7%</i>	<i>74.2%</i>	<i>1.2%</i>	<i>n.a.</i>
Nb. of participants (thousands)	85.8	536.8	29.6	652.2
<i>Market share (% of participants)</i>	<i>13.2%</i>	<i>82.3%</i>	<i>4.5%</i>	<i>n.a.</i>
Assets (PLN mln.)	3 121.0	14 073.7	1 935.0	19 129.7
Assets (€ mln.)	666.8	3 006.7	413.4	4 086.8
<i>Market share (% of total assets)</i>	<i>16.3%</i>	<i>73.6%</i>	<i>10.1%</i>	<i>n.a.</i>

Data: UKNF, 2023.

PPE assets amounted to PLN 19.13 bln (€4.16 bln) and the average account balance equalled PLN 29 331 (€ 6 257) at the end of 2022. 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.

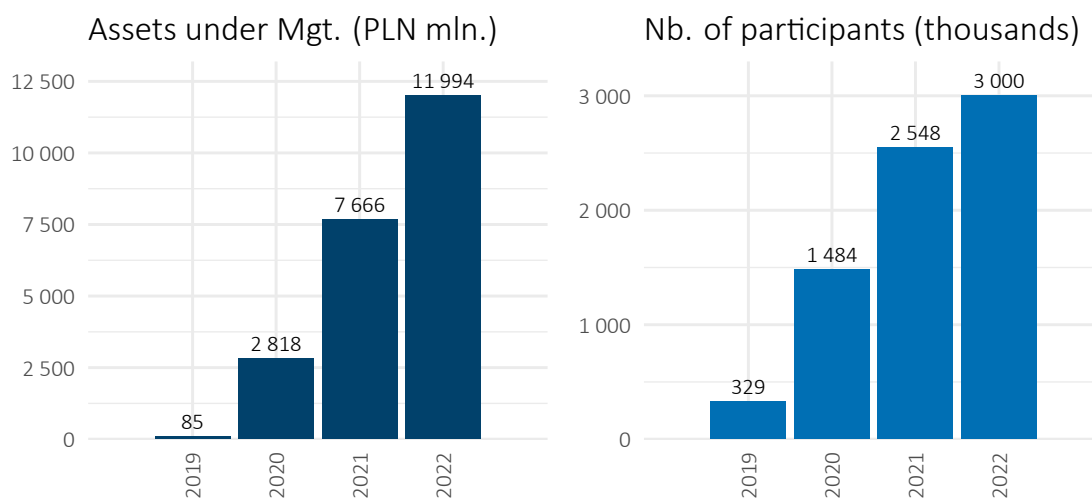
Employee Capital Plans (PPK)

Employee capital plans (*pracownicze plany kapitałowe*, PPK) can be offered by life insurance companies, investment companies (asset management companies, *towarzystwa funduszy inwestycyjnych*, TFI), general pension societies (*powszechnie towarzystwa emerytalne*, PTE) and Employee Pension Societies (*pracownicze towarzystwa emerytalne*, PrTE) in a form of target-date funds (TDF, life cycle funds). All employees aged 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 targeted 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.

Figure PL.2 – Number of Employee Capital Plans and number of participants 2019-2022



Data: UKNF, 2021, 2022 & 2023.

Table PL.6 – Number and assets of Employee Capital Plans (PPK) by form of the programme

	Life insurers	Asset management companies	General Pension Societies	Total 2022
Nb. of participants (thousands)	51.3	2 514.8	433.6	2 999.7
Market share (% of participants)	1.7%	83.8%	14.5%	<i>n.a.</i>
Assets (PLN mln.)	125.1	10 342.4	1 526.8	11 994.3
Assets (€ mln.)	26.7	2 209.5	326.2	2 562.4
Market share (% of total assets)	1.0%	86.2%	12.7%	<i>n.a.</i>

Data: UKNF, 2023.

At the end of 2022 3 million participants gathered PLN 11.99 billion (€ 2.56 billion) 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 konta emerytalne*, IKE) can operate in a 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 (*powszechnie towarzystwo emerytalne*, PTE) that also manages one of the open pension funds (OFEs in Tier II of the public pension system) 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 2023), these two forms of plans represent 75% of all IKE accounts.

IKE holders do not fully use the contribution limit. The average contribution paid from 2004 to 2022 remains permanently below the statutory limit (3 times the average wage). The total amount of IKE assets amounted to PLN 14.12 bln (€3.07 bln) as of 31 December 2022. There were PLN 17 644 (€ 3 769) gathered on an IKE account on average.

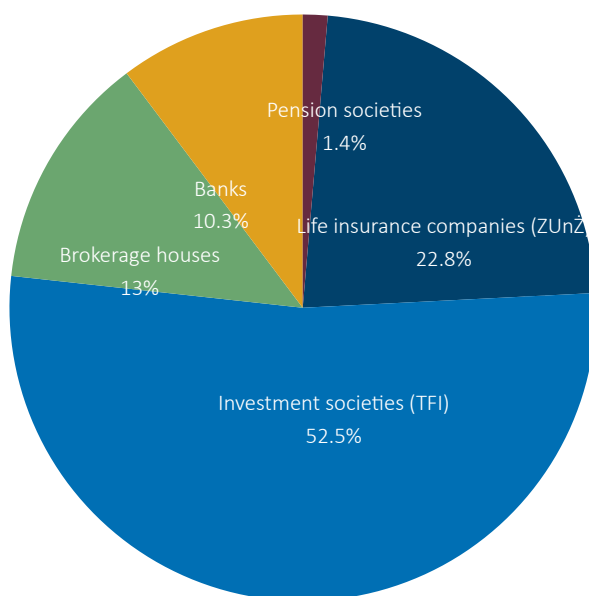
Individual Retirement Security Accounts (IKZE)

Exactly like IKEs, the group of IKZE products consists of: unit-linked life insurance; investment funds; bank accounts; accounts in brokerage houses; and voluntary pension funds.

At the end of 2022 around 475.5 thousand Poles had individual retirement security accounts. As shown on Figure PL.4, the biggest share of the IKZE market have asset management companies that manage 44% of IKZE accounts.

The savings pot of IKZE is small compared to other elements of the Polish supplementary pension system. At the end of 2022, financial institutions managed funds amounting to PLN 6.62 bln (€ 1.44 bln). It is worth noting that this capital was raised through contributions in just eleven years. There were PLN 13 929 (€ 2 976) gathered on an IKZE account on average.

Figure PL.3 – Structure of IKE market by number of accounts and type of provider as of December 31, 2022



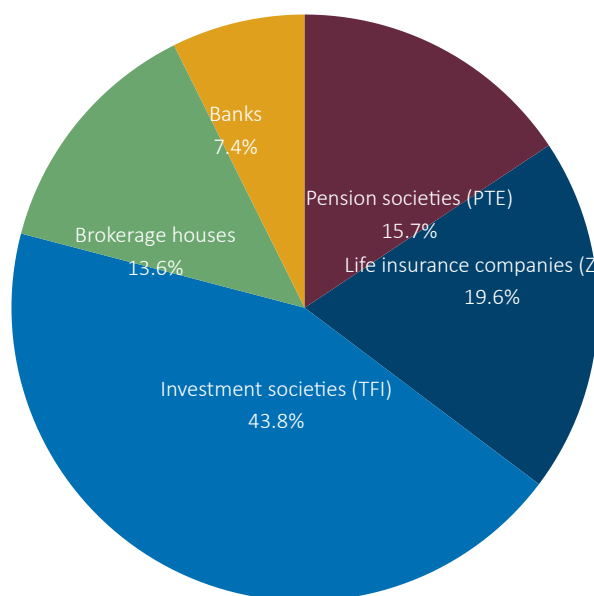
Data: UKNF, 2023

Table PL.7 – Number of Individual Retirement Accounts (IKE) by type of product

Year	Unit-linked life insurance	Investment fund	Account in the brokerage house	Bank account	Voluntary pension fund	Total
2004	110 728	50 899	6 279	757	n.a.	168 663
2005	267 529	103 624	7 492	4 922	n.a.	383 567
2006	634 577	144 322	8 156	53 208	n.a.	840 263
2007	671 984	192 206	8 782	42 520	n.a.	915 492
2008	633 665	173 776	9 985	36 406	n.a.	853 832
2009	592 973	172 532	11 732	31 982	n.a.	809 219
2010	579 090	168 664	14 564	30 148	n.a.	792 466
2011	568 085	200 244	17 025	29 095	n.a.	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	856 220
2016	571 111	236 278	27 615	64 031	358	899 393
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
2021	195 179	432 756	79 906	79 002	9 646	796 489
2022	182 715	420 356	104 136	82 035	10 901	800 143

Data: UKNF.

Figure PL.4 – Structure of IKZE market by number of accounts and type of provider as of December 31, 2022



Data: UKNF, 2023

Charges

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 2% 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 a management fee charged by asset management companies. It could not exceed 3.5% in 2019, 3% in 2020, 2.5% in 2021 and 2% since 2022.

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 the return is both positive and above the benchmark). The fee level depends on the risk profile of the fund and amounts from 0.15% to 0.40% with 0.35% being the average for the whole PPK market (Portal PFR 2023).

Table PL.8 – Average rates of management fee in PPK 2020–2022

Target date	2020	2021	2022
2020	0.24%	0.19%	0.15%
2025	0.28%	0.27%	0.27%
2030	0.31%	0.31%	0.31%
2035	0.33%	0.33%	0.32%
2040	0.34%	0.34%	0.33%
2045	0.36%	0.35%	0.35%
2050	0.38%	0.37%	0.36%
2055	0.39%	0.38%	0.38%
2060	0.41%	0.40%	0.39%
2065	0.41%	0.40%	0.40%
Average for all funds	0.35%	0.35%	0.35%

Data: PFR Portal.

Individual Retirement Accounts (IKE) and Individual Retirement Security 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, e.g. 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.

There are no official data on fees in IKEs and IKZEs for 2022. The most recent data is published in the study by Rutecka-Góra et al. (2020) and it reflects fees charged in 2017.

Table PL.9 – Charges in IKE and IKZE by type of provider

Type of financial institution	Up-front fee	Management fee (% of AuM)	Transfer fee
Life insurance companies	0–8%	0–2	10–50 of assets
Asset management companies	0–5.5%	0.8–2.0; success fee 0–30% of the returns above the benchmark	PLN 0–500
Pension societies	0–53.4%	0.6–2.0; success fee 0–20% of the return above the benchmark	10–50% of assets; min. PLN 50

Data: Based on (Rutecka-Góra et al., 2020), taking into account a statutory limit of management fee (max. 2% since 2022).

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)

In PPK both an employee and an employer contributions are taxed. A state kick-off payment and regular annual subsidies as well as investment returns and benefits are exempt from taxation. 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 Security Accounts (IKZE)

Contributions to IKZE are deductible from the income tax base. Every individual can pay up to 120% of the average salary into an IKZE 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.**

Table PL.10 – Taxation of pension savings in Poland

Product	Phase			Regime
	<i>Contributions</i>	<i>Investment returns</i>	<i>Payouts</i>	
Employee pension funds (PFE)	Taxed	Exempted	Exempted	TEE
Voluntary pension funds (DFE) as IKE	Taxed	Exempted	Exempted	TEE
Voluntary pension funds (DFE) as IKZE	Exempted	Exempted	Taxed	EET
Employee capital plans (PPK)	Taxed	Exempted	Exempted	TEE

Data: Own work.

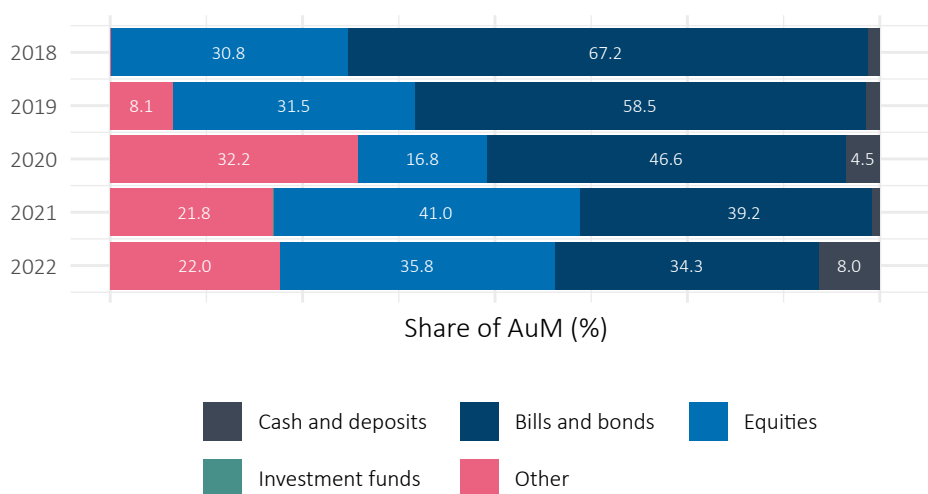
Performance of Polish long-term and pension savings

Asset allocation

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.

Figure PL.5 present the investment portfolio of employee pension funds (PFEs), which are the only types of occupational pension products with official and separate statistics on asset allocation.

Figure PL.5 – Allocation of Polish Employee Pension Funds' assets



Data: KNF, 2023; Calculations: BETTER FINANCE.

PPKs are 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 savings vehicles in Poland” section.

There are no available statistics that allow for the identification of the asset allocation within Individual Saving Accounts (IKE) and Individual Retirement Security 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 neither 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 (DFE). These vehicles started operating in 2012.

Real net returns of Polish long-term and pension savings

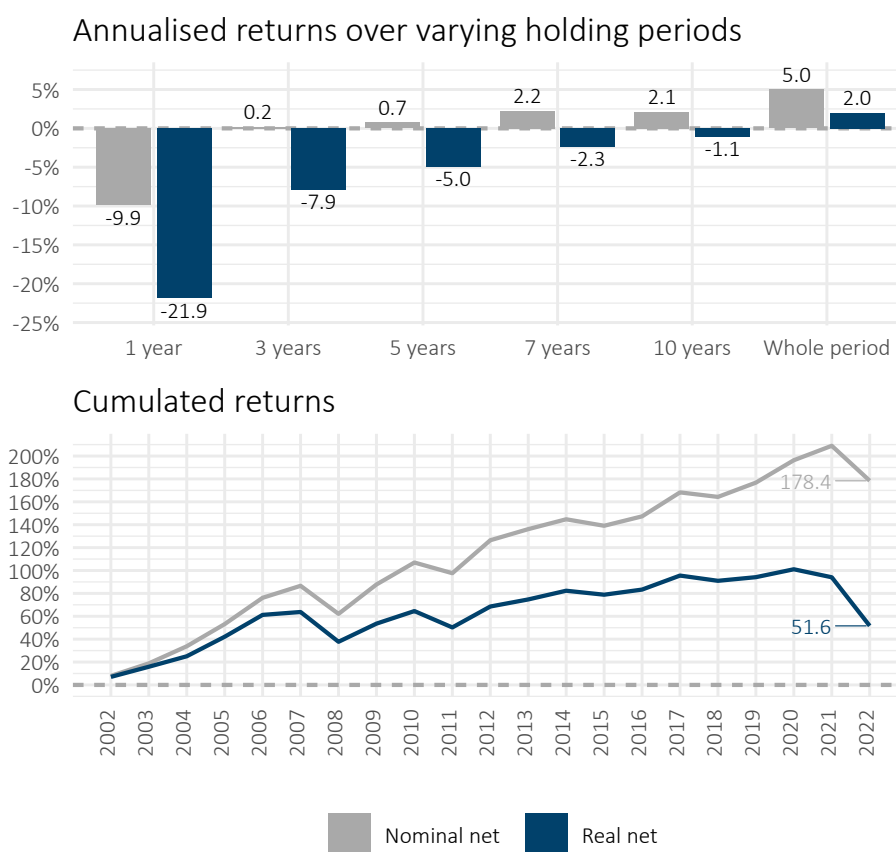
The investment efficiency of supplementary pension products is almost impossible to assess due to the lack of necessary data published by financial institutions. In Poland in many retirement plans there is no obligation to disclose rates of return to pension accounts holders. Generally, owners of savings 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, especially individual plans, is 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 selected vehicles, namely employee pension funds (PFE), capital pension plans (PPK) 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 fee. The only fee that must be included (if applicable) when calculating after-charges returns is the upfront-fee deducted from contributions paid into accounts.

During the period of 2002-2022 employee pension funds (PFs) showed rather positive returns up to 17.41% annually (see Figure PL.6). After-charges real returns observed in 15 of 21 years and the average return in the 21-year period is positive as well. These satisfactory results were obtained due to proper portfolio construction, high quality of management and low costs. However, in 2022 PFs reported negative returns both in nominal and real terms, mainly due to the war in Ukraine.

Figure PL.6 – Returns of Polish Employee Pension Funds (before tax, % of AuM)

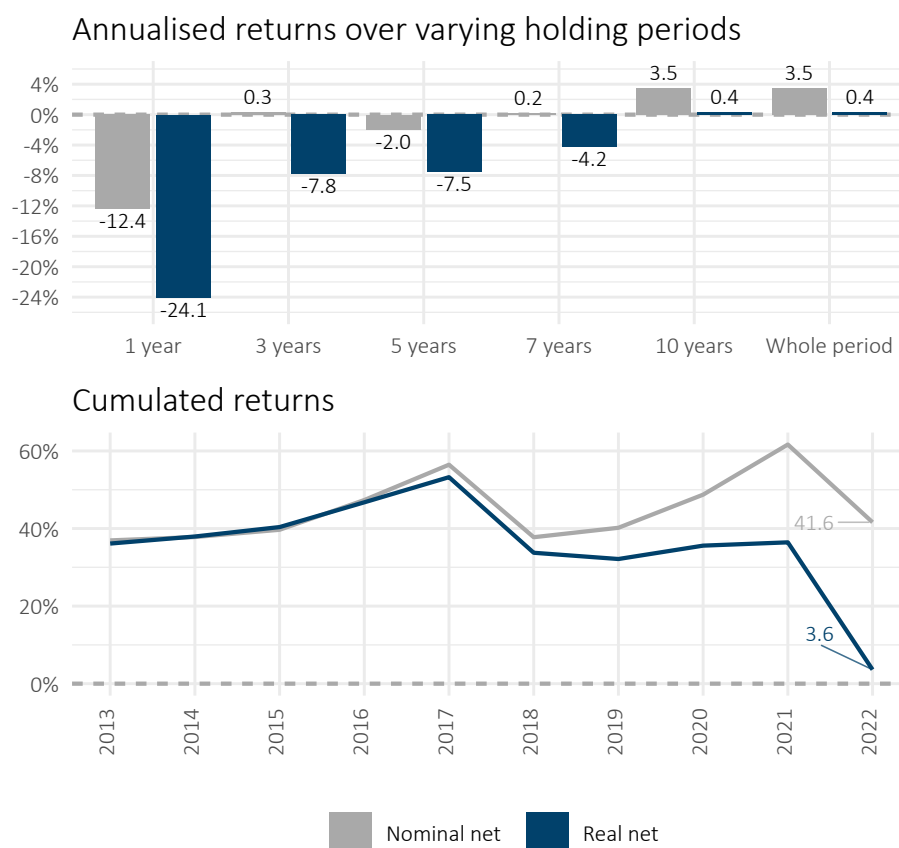


Data: UKNF, Eurostat; Calculations: BETTER FINANCE.

Voluntary pensions funds (DFE) have obtained extraordinary investment results from their start in 2012 (see Figure PL.7). 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 and 2022 when all DFE made losses. The average nominal rate of return after charges in years 2013-2022 amounted to 3.54%.

Figure PL.7 – Returns of Polish Voluntary Pension Funds (before tax, % of AuM)



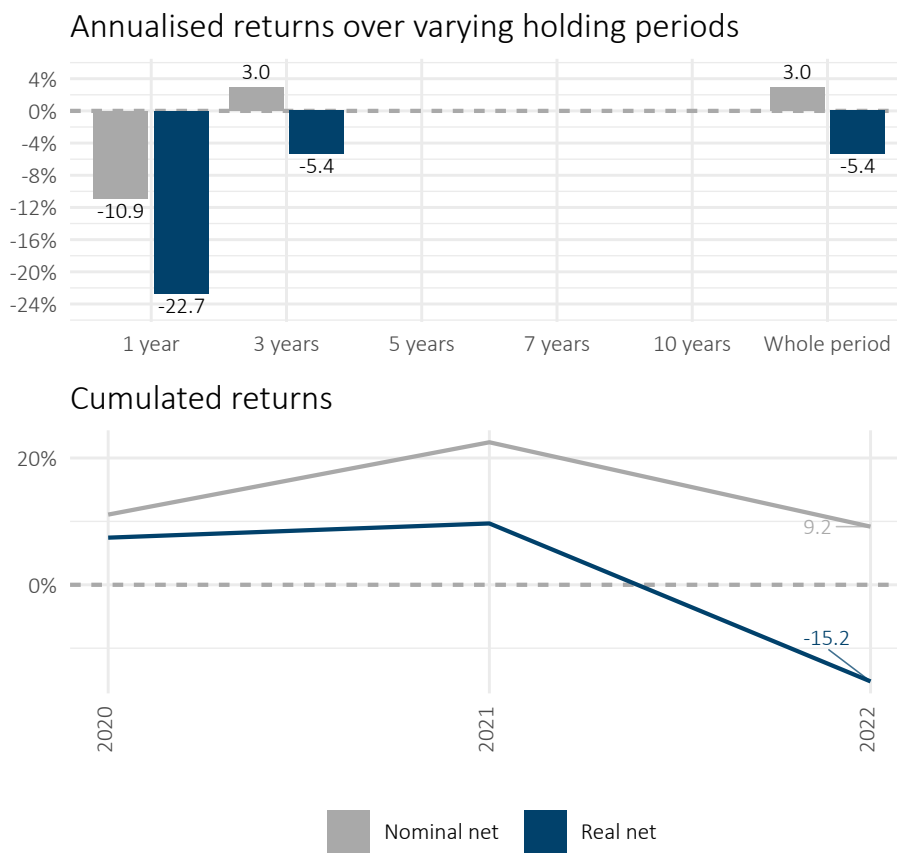
Data: UKNF, Eurostat; Calculations: BETTER FINANCE.

Employee capital plans (PPK) that started to operate in the second half of 2019 reported positive nominal returns in the first two years of their operation (see Figure PL.7). Later, in 2022, they reported losses after the outbreak of war in Ukraine. However the losses did not consumed the profits they generated in the first two years. The investment efficiency of PPKs since 2020 is presented in Figure PL.8.

The inflation in Poland limited the profitability of pension plans significantly (see Figure PL.9). In the majority of years under analysis it was much higher than the EU average and has rocketed to much higher levels since 2019, mostly due to the COVID-19 pandemic and the war in Ukraine.

The annual real net returns of PFEs were reported to be much lower, especially due to the inflation in the last three years, and amount to 2% for the period 2002-2022. The real returns of DFEs turned to be even lower, namely 0.36% annually. But the worst results achieved PPKs that showed a 5.41% real loss on annual basis for the period 2020-2022 (see Figures PL.10 and PL.11).

Figure PL.8 – Returns of Polish Employee Capital Plans (before tax, % of AuM)

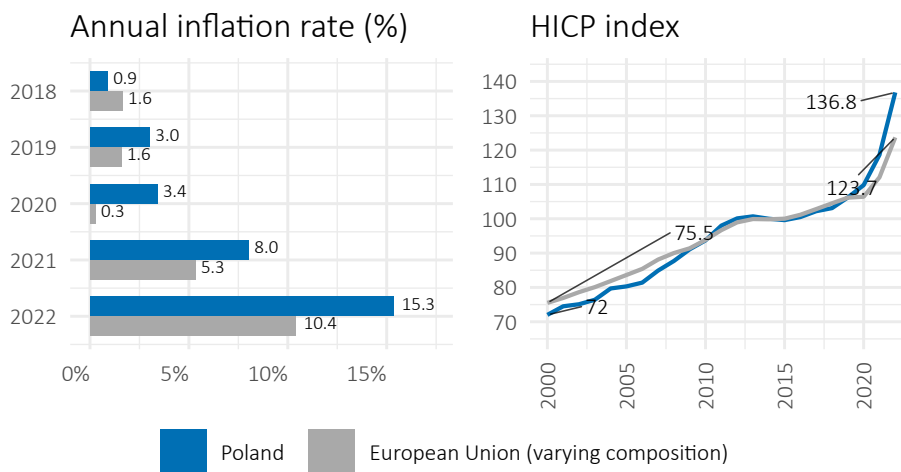


Data: UKNF, Eurostat; Calculations: BETTER FINANCE.

Figure PL.9 – Inflation in Poland

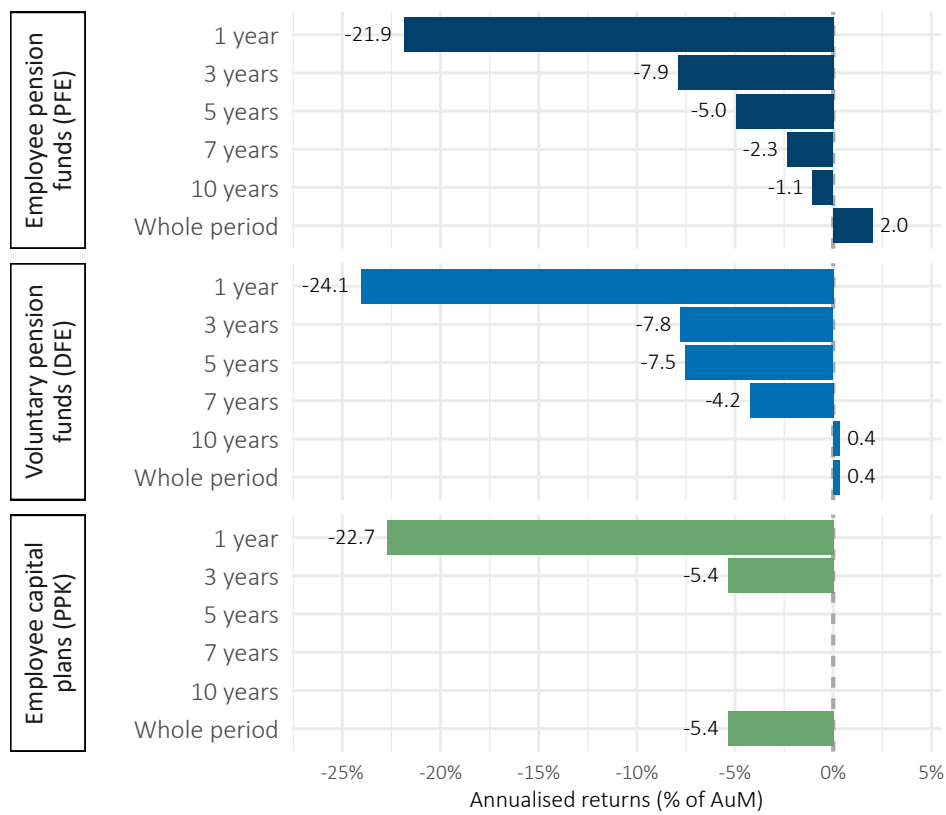
Period 2000–2022

	Annualised	Compounded
Poland	3.2%	106.0%
European Union (varying composition)	2.3%	67.5%



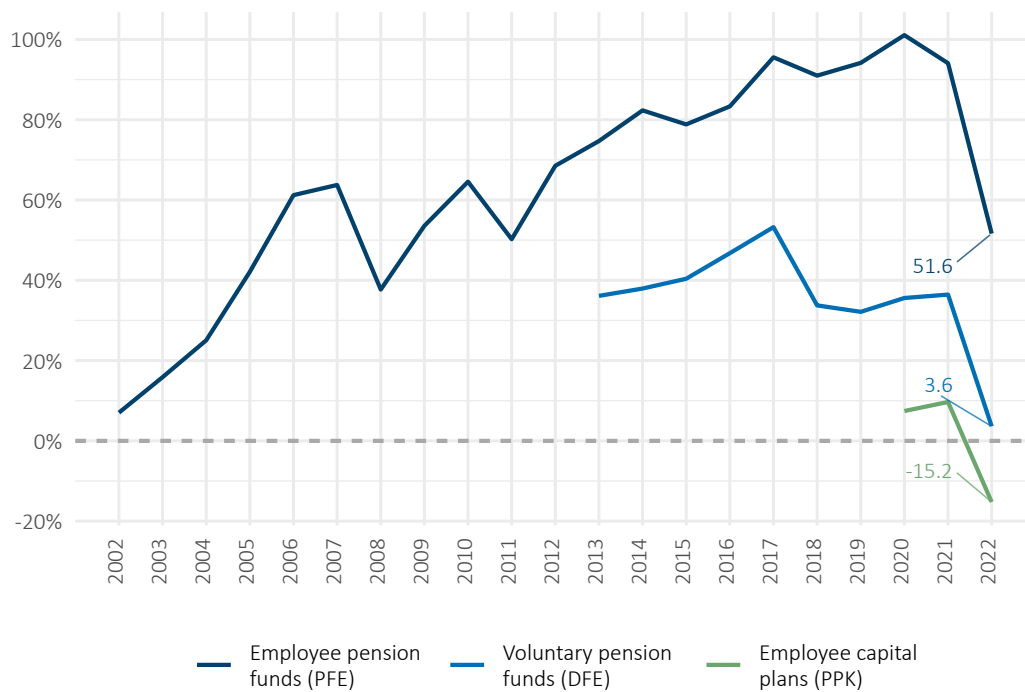
Data: Eurostat, HICP monthly index (2015 = 100); Calculations: BETTER FINANCE

Figure PL.10 – Annualised real net returns of Polish long-term and pension vehicles over varying holding periods (before tax, % of AuM)



Data: UKNF, Eurostat; Calculations: BETTER FINANCE.

Figure PL.11 – Cumulated real net returns of Polish long-term and pension savings vehicles (2002–2022, before tax, % of AuM)



Data: UKNF, Eurostat; Calculations: BETTER FINANCE.

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 (3.9%, 17.91%, 4.78% and 2.84% for PPE, PPK, IKE and IKZE 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. 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. In the majority of pension plans financial institutions do not have any obligation to disclose rates of return, either nominal or real, nor after-charges. Published data includes generally 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 of employee pension funds (PFE) and voluntary pension funds (DFE) were positive for the whole period of their operation, both in nominal and real terms, and offered the average annual real rate of return amounting to 2% and 0.36% respectively. 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. The only vehicles that reported negative real returns were employee capital plans (PPK), that have just started their operation in the turbulent times of COVID-19 pandemic and the war in Ukraine.

To sum up, the information policy and the disclosure policy in supplementary pension system 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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Country Case 14

Romania

Rezumat

Populația României scade rapid, îmbătrânește și migrează, ceea ce pune o presiune considerabilă asupra sistemului public de pensii. În 2019, au fost adoptate noi modificări privind calcularea pensiilor pentru limită de vârstă din pilonul PAYG, care intră în vigoare din septembrie 2021.

Deși pensiile ocupaționale sunt obligatorii indiferent de forma de muncă (salariați și liber profesioniști), gospodăriile din România trebuie să fie stimulate mai mult să economisească în planuri de pensii facultative (Pilonul III). Sistemele de pensii private din România au înregistrat o performanță nominală ușor negativă în 2022. În medie, randamentele nominale pentru 2022 au fost de -3,71% pentru fondurile din Pilonul II și -5,47% pentru fondurile din Pilonul III. Cu toate acestea, luând în considerare inflația din 2022, randamentele reale au fost semnificativ negative.

Ambele scheme (ocupaționale și private) au structuri de portofoliu aproape identice și, prin urmare, generează randamente brute similare. Cu toate acestea, performanța netă a Pilonului III este influențată în mod semnificativ de structura ridicată a comisioanelor (de aproape 4 ori mai mare decât cea a fondurilor din Pilonul II) și, pe termen lung, va genera randamente mai mici decât cele ale colegilor din Pilonul II. În general, randamentul real al fondurilor de pensii din Pilonul II este încă ușor pozitiv pentru întreaga istorie, însă fondurile din Pilonul III au alunecat spre un randament real negativ în 2022.

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.

Although occupational pensions are mandatory regardless of the work form (employees and self-employed), the Romanian households must be incentivised more to save in voluntary pension plans (Pillar III). Private pension schemes in Romania recorded a mild negative nominal performance in 2022. On average, nominal returns for 2022 were -3.71% for Pillar II funds and -5.47% for Pillar III funds. However, taking into account the inflation in 2022, the real returns were significantly negative.

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 compared to Pillar II funds) and will, in the long-run, deliver lower returns than Pillar II peers. Overall, the real return of pension funds in Pillar II are still mildly positive for the entire history, however, Pillar III funds slipped to negative real return in 2022.

Real returns 2022

NA: NA%

NA: NA%

Introduction: The Romanian pension system

- Private pension schemes in Romania recorded a mild negative nominal performance in 2022. On average, nominal returns for 2022 were -3.71% for Pillar II funds and -5.47% for Pillar III funds. It should be noted, that the portfolio structure of almost all pension funds in Pillar II and Pillar III is similar and the savers are of limited choice regarding the investment strategy.
- Real returns of all funds in both pillar were significantly affected by high inflation in 2022. Real returns for both pillars were -15.64% for mandatory pension funds (Pillar II) and -17.18% for voluntary pension funds (Pillar III) in 2022.

Table RO.1 – Long-term and pension savings vehicles analysed in Romania

Product	Pillar	Reporting period	
		Earliest data	Latest data
Mandatory pension funds	Occupational (II)	2008	2022
Voluntary pension funds	Voluntary (III)	2007	2022

Table RO.2 – Annualised real net returns of Romanian long-term and pension savings vehicles (before tax, % of AuM)

	Mandatory pension funds	Voluntary pension funds
Reporting period	2008-2022	2007-2022
1 year (2022)	-15.6%	-17.2%
3 years (2020–2022)	-5.5%	-6.7%
5 years (2018–2022)	-2.8%	-4.1%
7 years (2016–2022)	-1.7%	-2.7%
10 years (2013–2022)	0.8%	-0.2%
Whole period	0.7%	-2.0%

Data: ADD SOURCE; Calculations: BETTER FINANCE.

- Romania has committed to reforming the first pillar of its pension system under the recovery plan financed by the EU.
- The reforming plans include gradual increase of the retirement age to 65 years (a move pertaining to the public pension system, but also the employees subject to special pensions) and calculating the pension based on the entire working period and not allowing pension benefits highest than the net wages received by same recipients.
- The reform should be focused on fair treatment of so-called special service pensions. These are pensions granted to certain professional categories such as judges, prosecutors, military, police and secret service employees, some of which are even ten times higher than the average pension in the country. These special pensions are still not based on the contributory principle and are considered a burden on the state budget.

Pension system in Romania: An overview

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 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 RO.3 and text provide an overview of the Romania's pension system. It contains information on main characteristics of each pillar, main pension savings vehicles, respective coverage of each pillar.

The overall coverage of Pillar II was almost entire working population, while Pillar III covered only 10% 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.

The first pillar of the Romanian pension system is organized on the 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 particular) collects the social pension contribution from the contributors and immediately pays the pensions to the current retirees. 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% 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.

According to Romania's legislation, starting on January 1, 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

Table RO.3 – Overview of the Romanian pension system

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 scheme	DC schemes	
	Individual personal pension accounts	
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.	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		
Nb. of old-age pensioners: 4.6 mln.	Administrators: 7	Administrators: 8
Nb. of insured: 6.34 mln.	Funds: 7	Funds: 10
Avg. old-age pension: €416	Custodians: 3	Custodians: 3
Average salary (gross): €1 154	Brokers: 14	Brokers: 21
Gross replacement ratio (state pension): 36.1%	AuM €19.5 bln. (RON 96 bln.)	AuM: €0.73 bln. (RON 3.62 bln.)
	Participants: 7.96 mln.	Participants: 0.63 mln.

Data: CNPP, ASF and INSSE;

Note: Exchange rate RON/EUR = 4.9495; data on average old-age pension and gross salary and data on the number of old-age pensioner are as of December 2022; data on number of participants and assets under management as of December 2022.

might bring a maximum deduction of 45% from the standard pension. The deduction is applied until the standard age limit is reached.

Year 2022 introduced several new legislative features under the Recovery plan pension reform. The new legislation shall:

- introduce a new calculation formula for new pensions and pensions in payment. The parameters of the formula shall be carefully chosen in line with the target for pension expenditure as percentage of GDP. Moreover, they shall not allow for ad hoc increases on pension levels;
- introduce a new pension indexation rule in line with the pension expenditure as percentage of GDP target and mechanisms against ad hoc indexation;
- significantly reduce possibilities for early retirement, introduce incentives to expand the working life and to voluntarily increase standard retirement age up to 70 years in line with the increases of life expectancy, and equalize the statutory retirement age for men and women at 65 years by 2035;
- introduce incentives for postponing retirement;
- revise special pensions to bring them in line with the contributory principle;
- strengthen the contributory principle of the system;
- increase the adequacy of minimum and lower pensions, in particular for those below the poverty threshold;
- ensure financial viability of the Pillar II of the pension system by increasing contributions to this pension pillar.

Newly introduced legislation in 2023 was subject to EC debate on satisfactory fulfilling the Recovery plan milestone.

Romania's mandatory private pensions system (Pillar II) is a fully funded scheme, with mandatory participation and private management of funds based on personal accounts and on the 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.

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.

Contribution collection is centralized by the *Casa Națională de Pensii Publice* (CNPP), the Romanian 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. Participants can choose only one pension fund. Withdrawal from the Pillar II is only allowed at the standard retirement age of participants in the private pension system.

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. PMCs must obtain several licenses from Romania's pension market regulatory and supervisory body, which is the *Autoritatea de Supraveghere Financiară* (ASF), the Financial Supervisory Authority.

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.

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 DC philosophy. Pillar III represents privately managed supplementary, voluntary pensions.

In Pillar III, 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.

Pillar III is fully voluntary and the contributions are invested via voluntary pension funds as a special purpose vehicle that are managed by their administrators - 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 ASF.

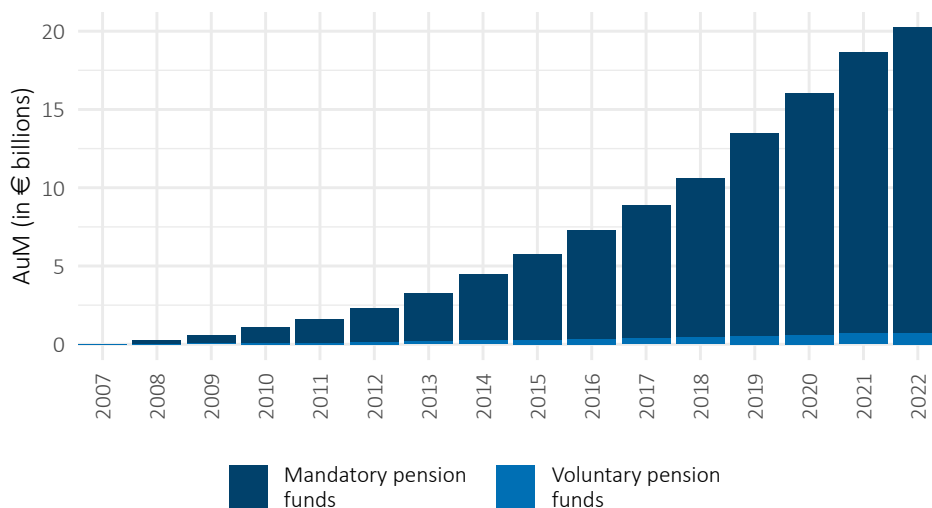
Participants to a voluntary pension fund contribute during their active life and will get a pension at the age of 60 (both woman and men) if he had accumulated at least 90 contributions. The contribution is limited up to 15% of the participant's total gross income. The contribution level is flexible: it can be decided upon, changed, and even interrupted and resumed.

Long-term and pension savings vehicles in Romania

Pension saving vehicle for both pillars in Romania are based on a saving principle with investment strategies and realized via pension funds. The transparency of information regarding the pension funds is really high in Romania, where all key information on performance, fees, risk and portfolio structure are well presented to the public.

Assets under management (AuM) for pension funds offered under both pillars (in million €) are presented in Figure RO.1. Pillar II plays dominant role and represents more than 97% of pension savings in Romania.

Figure RO.1 – AuM of Romanian long-term and pension savings vehicles



Data: CSSPP, 2023; Calculations: BETTER FINANCE.

In Pillar II, 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.

In Pillar III, 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 for the 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.

Second pillar: Mandatory pension funds

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 2021), there are 7 administrators offering 7 pension funds. The two biggest mandatory pension funds (AZT and NN) serve 47% (according to number of participants) or 55.46% (according to AuM) of the market.

Each PMC is authorized and supervised by ASF. One of the most important conditions imposed on PMCs 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 Table RO.4.

Table RO.4 – Pension Management Companies market share in Romania (Pillar II)

Mandatory pension fund (PMC)	AuM (million €)	Market share (% of total AuM)	Nb. of participants (thousands)	Market share (% of total participants)
ARIPI	1749.40	9.0%	840	10.6%
METROPOLITAN LIFE	2775.42	14.2%	1096	13.8%
AZT VIITORUL TAU	4120.86	21.2%	1658	20.8%
BCR	1357.16	7.0%	744	9.4%
BRD	813.61	4.2%	531	6.7%
NN	6683.74	34.3%	2085	26.2%
VITAL	1982.61	10.2%	1005	12.6%
TOTAL	19482.80	100.0%	7960	100.0%

Data: CSSPP, 2023.

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 European Economic Area (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 UCITS, including ETFs in Romania, the EU or EEA;
- up to 3% in ETCs 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.

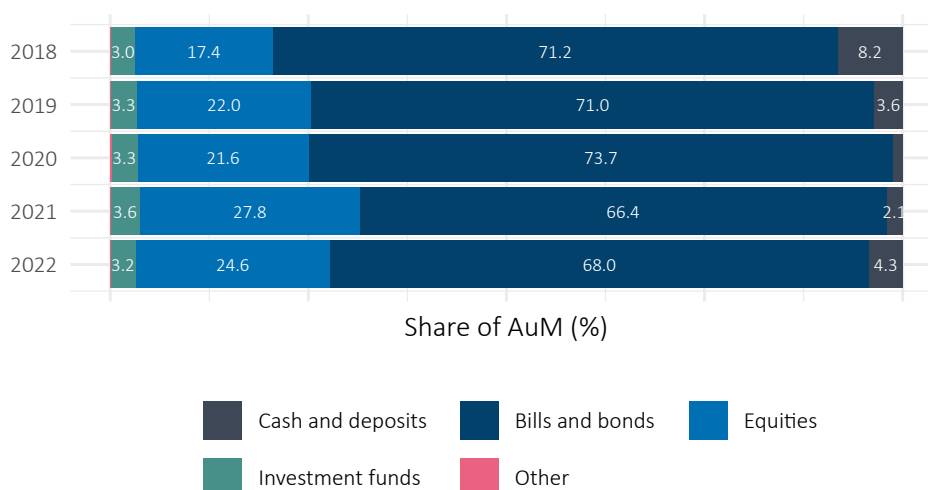
Mandatory pension funds can invest all their assets abroad. There are no explicit restrictions regarding investments made abroad.

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:

1. low risk (risk level up to and including 10%),
2. medium risk (risk level between 10%, exclusively, and 25%, inclusively),
3. high risk (risk level between 25%, exclusively, and 50%, inclusively).

Pillar II mandatory pension funds portfolio structure is presented in Figure RO.2.

Figure RO.2 – Allocation of Romanian mandatory pension funds' assets



Data: CSSPP, 2023; Calculations: BETTER FINANCE.

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 68% of all investments in Pillar II pension

Table RO.5 – Pension Management Companies market share in Romania (Pillar III)

Voluntary pension fund (PMC)	AuM (million €)	Market share (% of total AuM)	Nb. of participants (thousands)	Market share (% of total participants)
High risk profile				
AZT VIVACE	25.94	3.55%	21	3.43%
NN ACTIV	87.56	11.98%	66	10.53%
Medium risk profile				
AZT MODERATO	73.50	10.06%	48	7.65%
BCR PLUS	120.73	16.52%	145	23.21%
BRD MEDIO	38.33	5.25%	38	6.09%
NN OPTIM	317.24	43.42%	235	37.44%
PENSIA MEA	30.38	4.16%	37	5.85%
RAIFFEISEN	27.51	3.77%	27	4.26%
ACUMULARE				
STABIL	7.06	0.97%	6	0.89%
AEGON ESENTIAL	2.37	0.32%	4	0.64%
TOTAL	730.62	100.00%	627	100.00%

Data: CSSPP, 2023.

funds are bond investments and less than 25% is invested in equities despite relatively young age structure of savers.

Third pillar: Voluntary pension funds

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 2021), 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%).

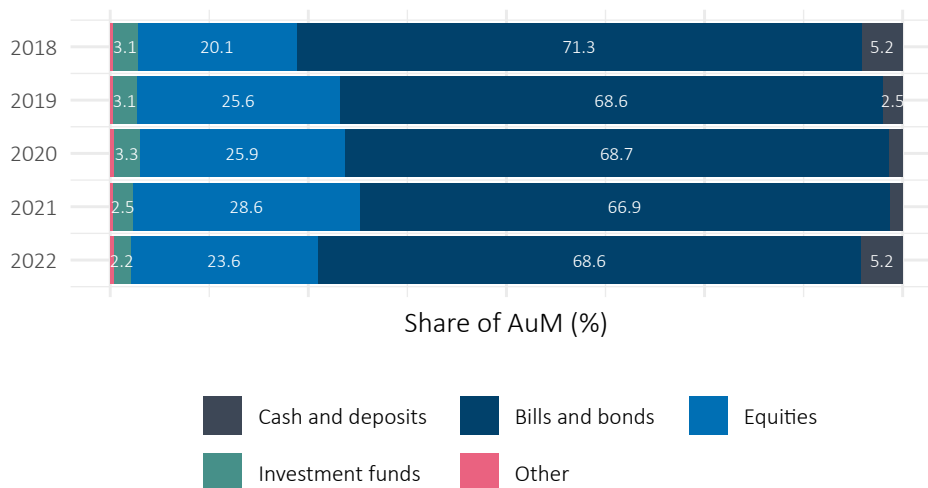
The structure of savers, assets under management and market share of respective voluntary pension fund is presented in a table below.

Analyzing the portfolio structure of voluntary pension funds based on *Comisia de Supraveghere a Sistemului de Pensii Private* (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) are the equities and the third most important part of the portfolio are the bank deposits. Other asset classes have minimal impact on pension fund's performance results.

Portfolio structure of Romanian Pillar III voluntary pension funds is presented in Figure RO.3

Figure RO.3 – Allocation of Romanian voluntary pension funds' assets



Data: CSSPP, 2023; Calculations: BETTER FINANCE.

According to the data for 2021, around 68% of all investments in Pillar III pension funds are bond investments and about 24% 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.

Charges

Charges in both pillars are regulated differently. As the Pillar II is more regulated and represents the dominant role for the future pension income stream, the regulation of fees and charges pushes the overall costs down for Pillar II pension funds compared to the Pillar III peers.

Charges of Pillar II products: Mandatory pension funds

According to the Mandatory Pensions Law, the fund manager's income resulted from the administration of privately administrated pension funds are composed of:

1. Entry fee – maximum 1% of the contributions paid (entry fee is paid before the conversion of contributions into fund units, of which 0.5% is transferred to the CNPP, the organization that administers the social insurance program)
2. Management fee – from 0.02% to 0.07% monthly of net assets under management, depending on the fund's rate of return relative to the inflation rate. Before 2019, the maxi-

mum monthly management fee was 0.05 percent.

3. Transfer penalties (covered from personal assets, in case of moving to another fund/PFC earlier than in 2 years – between 3.5% and 5%);
4. tariffs for additional information services, in particular:
 - Depository commission (depository fee);
 - Transaction costs (trading fees);
 - Bank commissions (banking fees);
 - Fund auditing taxes (pension fund auditing fees).

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, depository, 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 asset value (NAV).

The year 2022 brought another cut in fees for pension administrators in Pillar II, while the effective charges dropped down to 0.24% annually (0.02% monthly).

Table RO.6 presents the effective annual charges for mandatory pension funds (in percentage of NAV).

Charges of Pillar III products: Voluntary pension funds

According to the Voluntary Pensions Law, the administrator shall charge a fee from participants and beneficiaries for the management of a pension fund.

- 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:

- entry fee - management commission charged as 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);
- management fee – charged as a 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;
- transfer penalties (covered from personal assets, in case of moving to another fund/PFC

**Table RO.6 – Costs and charges of Romanian mandatory pension funds
(% of assets)**

Year	Total ongoing charges
2008	0.77%
2009	0.70%
2010	0.66%
2011	0.61%
2012	0.62%
2013	0.61%
2014	0.60%
2015	0.60%
2016	0.58%
2017	0.56%
2018	0.61%
2019	0.51%
2020	0.51%
2021	0.48%
2022	0.24%

Data: CSSPP, 2023; *Note:*
Data as of December 2022.

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).

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. Table RO.7 compares effective charges of voluntary pension funds in pillar III over time (calculated via total and net NAV).

The analysis confirm that despite the almost same portfolio structure and same performance, Pillar III pension funds are almost seven times more expensive than Pillar II funds.

Table RO.7 – Costs and charges of Romanian voluntary pension funds (% of assets)

Year	Total ongoing charges
2007	4.72%
2008	1.91%
2009	2.12%
2010	2.30%
2011	2.09%
2012	2.10%
2013	1.99%
2014	1.99%
2015	2.01%
2016	1.92%
2017	1.83%
2018	1.99%
2019	1.99%
2020	1.98%
2021	1.96%
2022	1.94%

Data: CSSPP, 2023; *Note:* Data as of December 2022.

Taxation

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.

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 Romanian Leu (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.

Table RO.8 – Taxation of pension savings in Romania

Product	Phase			Regime
	<i>Contributions</i>	<i>Investment returns</i>	<i>Payouts</i>	
Mandatory pension funds	Exempted	Exempted	Exempted	EEE
Voluntary pension funds	Exempted	Exempted	Taxed	EET

Data: Own elaboration based on respective laws, 2023.

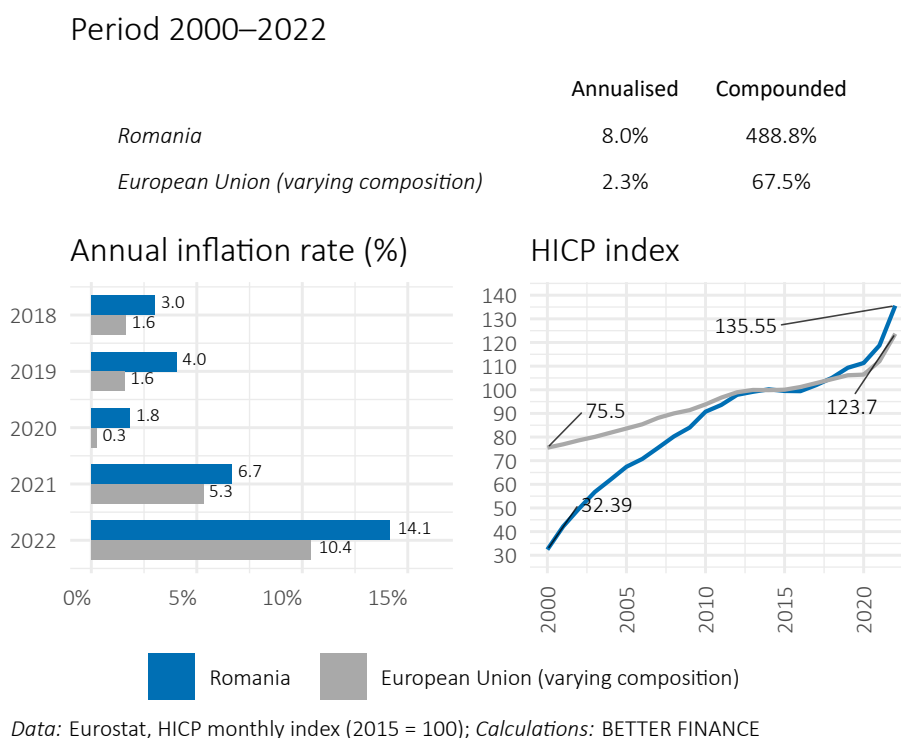
Performance of Romanian long-term and pension savings

Real net returns of Romanian long-term and pension savings

Romania is a high inflation country. The average annual inflation rate between years 2000 and 2022 was 8.01%, while for the rest of the EU, the annual inflation rate was 2.27%. Thus, we can expect that the inflation will have a significant effect on the real returns of pension vehicles.

Figure RO.4 shows two charts presenting the development of the inflation in Romania.

Figure RO.4 – Inflation in Romania



The performance of pension funds for both pillars in Romania are presented in Figures RO.5 and RO.6.

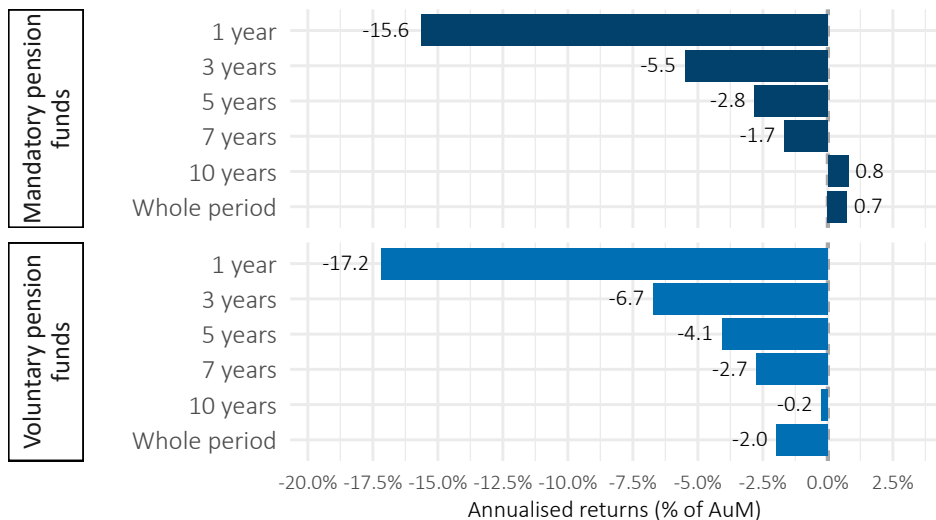
When inspecting the development of the performance of pension products within each pillar, the inflation do play a key role in maintaining the buying power of the savings for the retirement age.

For pillar III voluntary pension funds performance, the fees and charges are the second factor influencing the real value of savings.

Figures RO.7 and RO.8 show the nominal and real net performance of pension funds for both pillars.

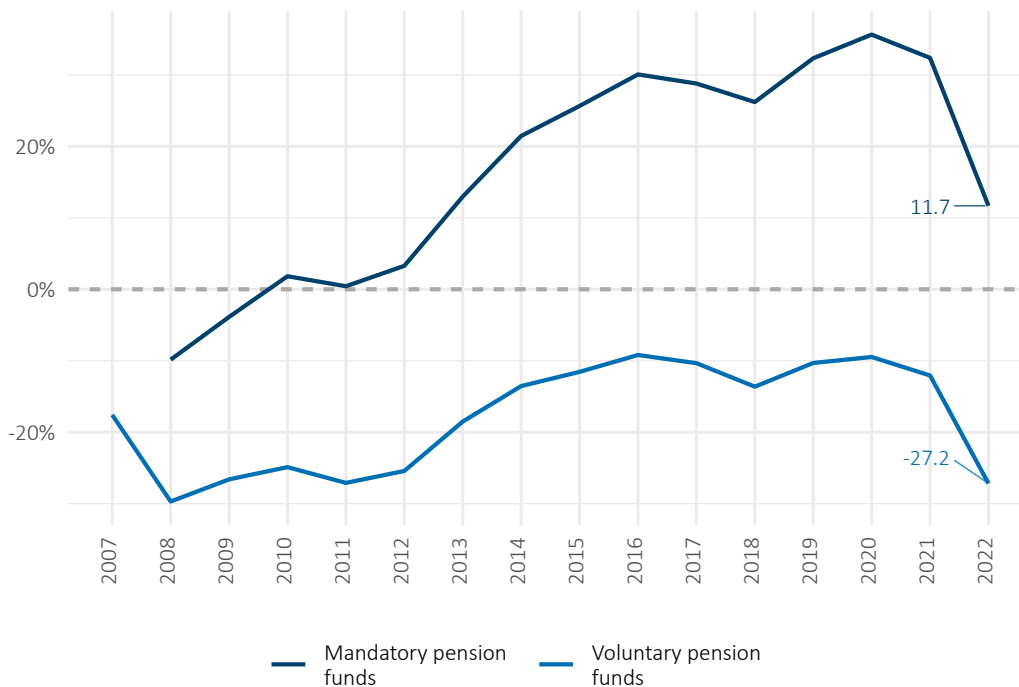
For voluntary pension funds, the fees and charges decrease the performance of funds by almost half, indicating more room for cost-effectiveness.

Figure RO.5 – Annualised returns of Romanian long-term and pension vehicles over varying holding periods (before tax, % of AuM)



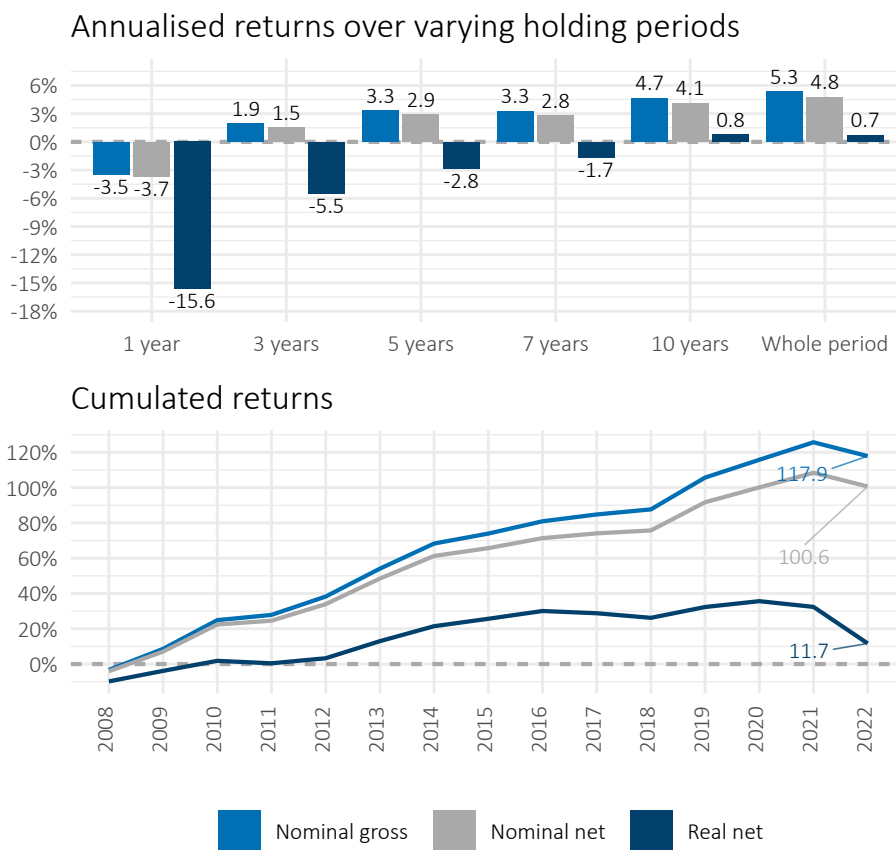
Data: CSSPP, Eurostat; Calculations: BETTER FINANCE.

Figure RO.6 – Cumulated returns of Romanian long-term and pension savings vehicles (2003–2022, before tax, % of AuM)



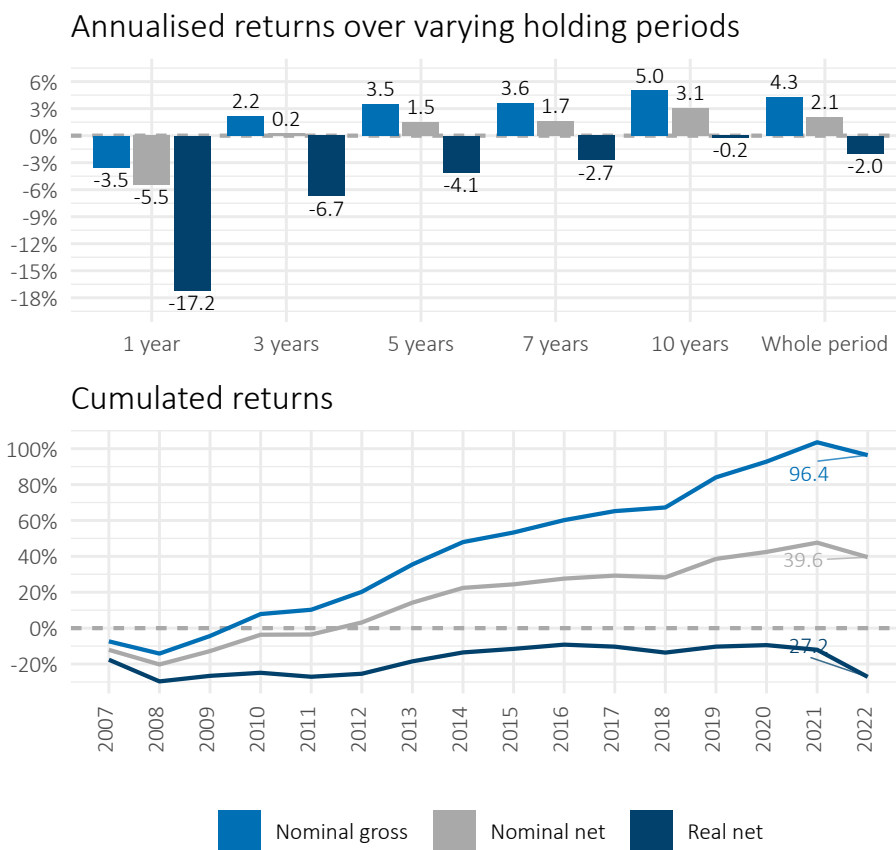
Data: CSSPP, Eurostat; Calculations: BETTER FINANCE.

Figure RO.7 – Returns of Romanian mandatory pension funds (before tax, % of AuM)



Data: CSSPP, Eurostat; Calculations: BETTER FINANCE.

Figure RO.8 – Returns of Romanian voluntary pension funds (before tax, % of AuM)



Data: CSSPP, Eurostat; Calculations: BETTER FINANCE.

Do Romanian savings products beat capital markets?

In this section, we compare the performance of the Romanian Pillar II and Pillar III pension funds to the performance of relevant capital market benchmarks. In order to do so, we have analysed the portfolio structure of pension funds and set the weight of asset classes for the benchmark portfolio creation.

We have set the weight of the equities at 20% of the benchmark portfolio.

Table RO.9 – Capital market benchmarks to assess the performance of Romanian pension vehicles

Product	Equity index	Bonds index	Allocation
Mandatory pension funds	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	20.0%–80.0%
Voluntary pension funds	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	20.0%–80.0%

Note: Benchmark portfolios are rebalanced annually.

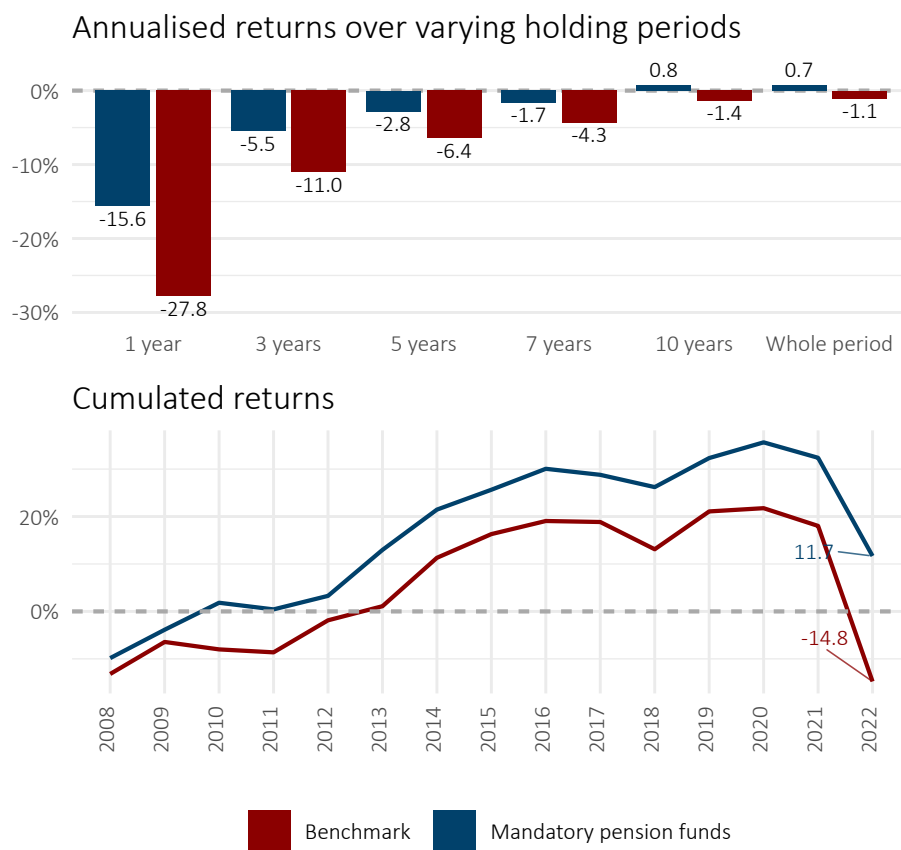
Pillar II Mandatory pension funds do perform quite strongly compared to the capital market benchmark. Detailed evolution of the performance of pension funds are presented in Figures RO.9 and RO.10.

While the respective market benchmark has been negative on the analysed time-frame of 15 years (2008–2022), Romanian mandatory pension funds were able to beat the benchmark and keep the real value of savings of the analysed period.

The different story is being seen when comparing the performance of Romanian voluntary pension funds with the respective market benchmark.

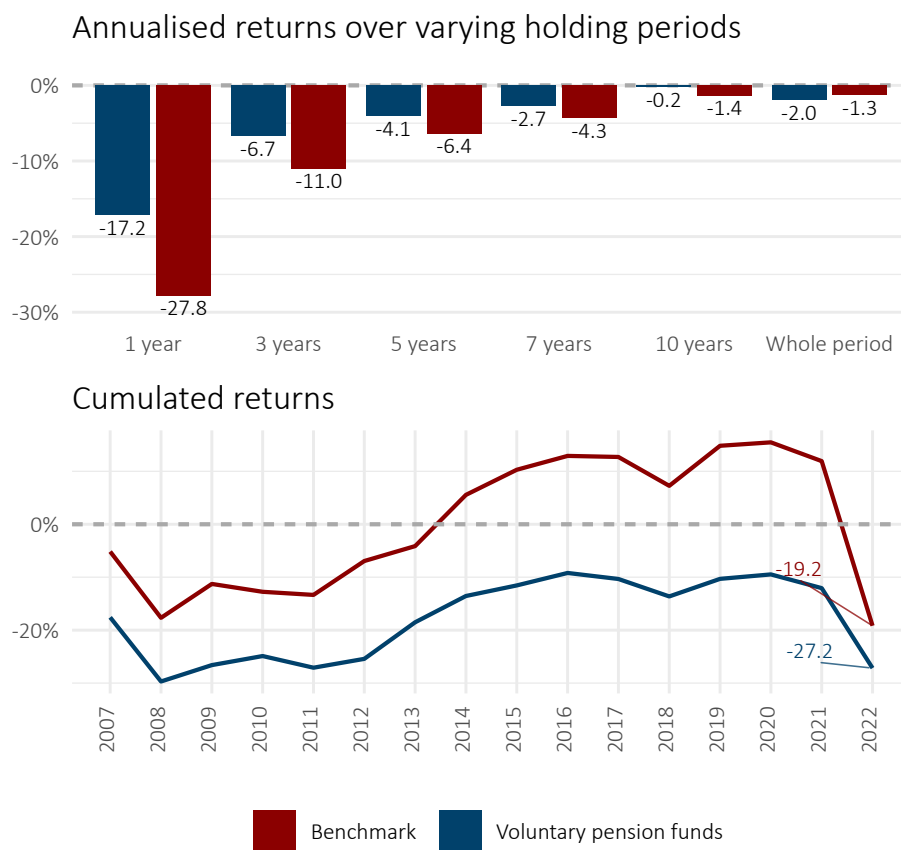
Over the analysed period of 16 years (2007–2022), the cumulative performance of the Pillar III pension funds was below its market benchmark and also negative. The key element explaining the results seems to be the high level of charges as the portfolio composition is quite similar to Pillar II funds.

Figure RO.9 – Performance of Romanian mandatory pension funds against a capital market benchmark (returns before tax, after inflation, % of AuM)



Data: CSSPP, Eurostat; Calculations: BETTER FINANCE.

Figure RO.10 – Performance of Romanian voluntary pension funds against a capital market benchmark (returns before tax, after inflation, % of AuM)



Data: CSSPP, Eurostat; Calculations: BETTER FINANCE.

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. 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 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 reversed.

Mandatory pension funds are managed by their administrators—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) and as the portfolio structure of pension funds are quite similar, there is no real competition among providers and no viable life-cycle investment strategy is applied.

Romanian pillar III is also a fully funded system based on personal accounts and on the DC philosophy. Pillar III represents privately managed supplementary pensions. This system is opened to all income cohorts. Voluntary pension funds in Pillar III are managed by their administrators—PMCs, LICs or 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 is positive, however high charges weight on the performance of Pillar III pension funds. Combining the effect of high fees and low participation, the Pillar III needs a serious reform in order to play an important role in securing adequate pension income for savers in a future.

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Country Case 15

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 2021 boli očakávané výrazné reformné zmeny v I. pilieri, ktoré by mali zvýšiť finančnú stabilitu I. piliera a vyriešiť problémy v nastavení súkromných dôchodkových schém. V roku 2022 prebehla zásadná reforma I. piliera (naviazanie dôchodkového veku na strednú dĺžku dožitia) aj II. piliera, kde sa zaviedol automatický vstup, predvolená investičná stratégia, zmena výplatnej fázy, zníženie poplatkov aj zníženie poplatkov v III. pilieri.

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 2021, which should increase the financial stability of Pillar I and resolve problems in the set-up of private pension schemes. In 2022, there was a major reform of both Pillar I (linking the retirement age to life expectancy) and Pillar II (introducing automatic enrolment, a default investment strategy, a change in the payout phase, a reduction in fees), as well as a reduction in Pillar III fees.

Real returns 2022

Pension funds:
-22.58%

Supplementary
pension funds:
-24.09%

Introduction: The Slovakian pension system

- Year 2022 has brought the major pension reform influencing all pension pillars;
- The reform removed retirement age ceiling and tied the retirement age back to the life expectancy;
- For Pillar II, the reform in 2022 introduced the predefined investment strategy aimed at increasing the performance of pension savings for all non-active savers;
- Starting July 2023, the portfolio of non-active savers should be re-allocated to the index pension funds (100% until the age of 50 years and then adopting the glide path of 4% annually from index funds into bond pension funds) within 30 months;
- For Pillar III, the reform has decreased the fees to the level competitive to the PEPP products (1% of AuM);
- Year 2022 brought the national PEPP legislation with the first PEPP provider on the EU market.

Table SK.1 – Long-term and pension savings vehicles analysed in Slovakia

Product	Pillar	Reporting period	
		<i>Earliest data</i>	<i>Latest data</i>
Pension funds	Occupational (II)	2005	2022
Supplementary pension funds	Voluntary (III)	2009	2022

- The pension reform adopted in 2022 as part of the Recovery and Resilience Plan (Component 18) has had some positive features on the overall financial stability of Pillar I. However, further measures on the financial stability of the PAYG scheme are necessary.
- There should be a significant increase in the state support for private pension schemes in order to increase the pension savings ratio which is one of the lowest among the EU countries and spurs the financial problems for the generation retiring in the next 20 years.
- The year 2022 brought the first PEPP products to the Slovak pension market that have the features allowing them to effectively compete the III. pillar pension products. However, tax laws favour the Pillar III products and thus reduce the competitiveness of PEPP products on the market.

Table SK.2 – Annualised real net returns of Slovakian long-term and pension savings vehicles (before tax, % of AuM)

	Pension funds	Supplementary pension funds
Reporting period	2005-2022	2009-2022
1 year (2022)	-22.6%	-24.1%
3 years (2020–2022)	-7.0%	-7.8%
5 years (2018–2022)	-4.0%	-5.0%
7 years (2016–2022)	-2.5%	-3.0%
10 years (2013–2022)	-1.1%	-1.7%
Whole period	-1.2%	-1.3%

Data: oranzovaobalka.sk, 2023; *Calculations:* BETTER FINANCE.

Pension system in Slovakia: An overview

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 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.

Pillar I - State pensions

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 2022, the main income stream derives from the PAYG (Pillar I) pension scheme. On average, the individual replacement ratio of such a person could reach 47% of their gross salary. If the person would have participated since 1996 in Pillar III and contributed on average 3% of their salary into a Pillar III pension scheme, having also entered Pillar II (1bis pillar) in 2005, their income stream during retirement would have been slightly different and their replacement ratio would have been a little higher than 60%. 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.

Pillar I is a state organized PAYG pension scheme, managed by the State Social Insurance Com-

pany. 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 12.5% (18% if an individual 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).

An individual is entitled to an old-age pension after the statutory retirement age is reached. There are two options for early retirement: 40 years of insurance period or 2 year before retirement age. In both cases, the minimum level of pension ($1,6 \times$ living minimum) should be reached.

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.

Pillar I is a typical PAYG point scheme with a certain income solidarity element. The old-age pension of the insured person depends on three parameters:

1. The insurance period, that is, the number of insured years with active contribution;
2. The average personal wage point, 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; and
3. The value of the pension point, that is, 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. The value is annually defined by the Slovak Government to mimic the increase in the average salary in Slovakia.

Statutory retirement age is 63 years in 2022, valid for both men and women. For women, the retirement age might be lowered depending on the number of raised children. For each raised child the retirement age is lowered by 6 months up to three children. For the birth years 1968 and younger, a new pension reform in 2022 re-introduced the retirement age tied to the life expectancy.

To illustrate the calculation of an old-age pension, let us assume an individual who reached the statutory retirement age of 63 years in 2022 and has following characteristics:

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) = €151 300 (for persons retiring in the year 2022).

The old-age pension is then calculated using the following formula: $N \times APWP \times VPU$. Therefore, considering the above-mentioned individual parameters of a person claiming old-age pension, he/she will be entitled to a monthly pension equal to: $42 \times 1 \times €151\,300 = €635$. If an individual has earned on average 100% of an average salary during their entire working career and the average salary in 2022 was €1 304, then the gross individual replacement ratio of such an individual would be: $€635 / €1\,304 = 48.70\%$.

Pillar II - Funded pensions

The Slovak Pillar II was established as a DC pension saving scheme in 2005. 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 administered by Pension Assets Management Companies (PAMCs), licensed by the National Bank of Slovakia.

During the period from September 2012 until May 2022, the enrolment was voluntary and eligible for persons up to 35 years of age. Since May 2022, the automatic enrolment with opt-out option is applied for all workers under the 40 years entering the labour market for the first time. In general, pension fund members (Pillar II savers) are free to choose pension funds provided by the same PAMC. Each saver has an IRA. Their contributions (savings) are redirected from the Social Insurance Company to the chosen Supplementary Pension Assets Management Company (SPAMC) on their IRA at a rate of 5.5% of gross salary in 2022. The contributions increase by 0.25% biennially until they reach the final level of 6% in 2027.

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 their own savings would be invested in one pension fund or another. They 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 their allocation ratio or switch pension funds managed by the same PAMC—even on a daily basis. Switching providers (PAMCs) for free is possible for savers if the change is made after one year, otherwise a fee of €16 is applied.

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 SPAMCs. The SPAMCs are private joint stock companies established under the Slovak law and able to only provide services tied to the management of supplementary pension funds. SPAMCs 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 (29% in 2022).

Both employers and employees can contribute to the individual retirement account with no limits. 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.

The year 2022 has brought major pension reform with the objective to financially stabilize the Pillar I and support the funded pension schemes – Pillar II and Pillar III. Key changes in the Slovak pension system in 2022 included:

1. First pillar (state pensions)

- Flexible statutory retirement age tied to the life-expectancy (longer working career) for people born after 1967;
- Early retirement (2 years before statutory retirement age or after 40 working years regardless the age) = risk of losing employees (lowered fine for early retirement 3,6% annually) effective since January 2023;
- Reduced pension point increase ($0,95 \times$ average wage increase) = lower replacement rates in future, effective since January 2023;
- Introduction of parental bonus (1,5% of child's wage, maximum $1,2 \times$ average wage) effective since January 2023;

2. Second pillar (funded DC scheme)

- Decreased fees (removing the performance fee 10% of new highs and 0,4% p.a. of accumulated savings + 1,25% of new contributions), effective since January 2023;
- Predefined saving strategy (life-cycle strategy with glide path starting at 50 years, 4% annually equity share decrease), effective since May 2023;
- Automatic enrolment for the new workers entering labour market, effective since May 2023;
- Major changes in payout phase (programmed withdrawal for the first half of life expectancy and annuity for the remaining life expectancy)—one-off withdrawal possible for above average earners, effective since January 2025;

3. Third pillar and PEPP (voluntary occupational and personal pensions)

- Introduction of PEPP legislature (tax benefits for employee contributions similar to the III. pillar, no tax benefits for employer's contributions, more relaxed payout phase compared to the III. pillar, 5 years of programmed withdrawal or up to statutory age + 5 years), effective since January 2022;
- Decreased fees for III. pillar (max 1% p.a. of accumulated savings), effective since January 2023.]

Table SK.3 – Overview of the Slovakian pension system

Social Insurance Company	National Bank of Slovakia	
Pillar I	Pillar II	Pillar III
State pension	Funded pension	Voluntary pension
Mandatory	Mandatory	Voluntary
State management	Pension Assets Management Companies (PAMCs)	Supplementary Pension Assets Management Companies (SPAMCs)
PAYG	Funded	Funded
DB	DC	DC
Point scheme	Individual personal pension accounts	Individual personal pension accounts
Retirement Age: 63 years and tied to the increase in life expectancy	Withdrawal allowed if Pillar I pension is granted	Individual as well as employer can contribute with no limits (indirect fiscal support provided for the individual as well as employer)
Early retirement possible after 40 years of service or 2 years before retirement age	Withdrawal options: phased withdrawal for the first half of life expectancy + single annuity for the second half (since 2025); lump-sum if the Pillar I pension is higher than average pension	Withdrawal options: lifetime annuity; phased withdrawal for minimum of 10 years; lump-sum if the value of savings is less than 4-times the average wage; combination of phased withdrawal and annuity
Contributions: 18% (if participating only in Pillar I) or 12,5% (if participating in Pillar I and Pillar II)	Contributions: 5.5% in 2022 - 2024; 5.75% in 2025 - 2026; 6% afterwards (derived from the paid social insurance contributions)	
Quick facts		
Number of old-age pensioners: 1.1 mil.	Administrators: 5	Administrators: 4
Coverage (active population): 2.75 mil.		
Average old-age pension: €516	Funds: 17	Funds: 19
Average salary (gross): €1304	AuM €11 754 bln.	AuM €2.93 bln.
Average replacement ratio: 39.78 %	Participants: 1.7 mil.	Participants: 0.9 mil.

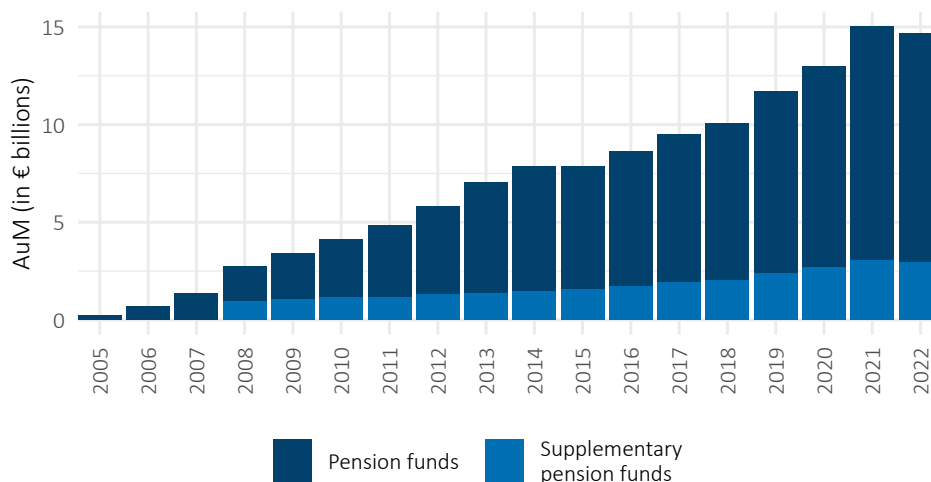
Source: Social Insurance Company, 2023, <https://www.socpoist.sk/sp-transparentne/statistiky>.

Long-term and pension savings vehicles in Slovakia

There are five providers—PAMCs—operating on the Pillar II (funded pension) market. According to the AuM measure, the two biggest providers, Allianz and UNIQA, represent nearly 55.16% of the market.

There are four providers—SPAMCs—operating on the Pillar III market. According to Assets under management, the two biggest, NN and DDS Tatra banky, represent nearly 70.98% of the whole market.

Figure SK.1 – AuM of Slovakian long-term and pension savings vehicles



Data: oranzovaobalka.sk, 2023; Calculations: BETTER FINANCE; Note: data as of December 31, 2022.

Second pillar: Pension funds

The Pillar II market is fairly concentrated. Each saver can choose one out of six currently existing providers (PAMCs) on the Slovak market. The PAMCs 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 PAMC 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 PAMC 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 April 30, 2013. Before date, each PAMC 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 PAMCs 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.

PAMCs 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. PAMCs and managed pension funds are supervised by the National Bank of Slovakia.

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.

The reform of the pay-out phase, introduced in 2022 and effective from 2025, stipulates the following pay-out phase rules:

1. Half of the savings have to be used to buy programmed withdrawals lasting half of the life expectancy of the retiring person;
2. The second half of the savings is invested using the predefined investment strategy and used to buy the single nominal annuity once the retired person survives to the age expected in the first point.
3. Programmed withdrawal (phased withdrawal) with no limitations if the retired persons benefits are higher than the average pension benefits;
4. Perpetuity (withdrawal of only annual returns).

Products 1, 2 and 3 are provided by insurance companies, products 4 and 5 by PAMCs.

Market structure of providers and pension funds shows the dominant role of 3 players and one pension product—bond pension funds.

Table SK.5 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.

Table SK.4 – Pension Assets Management Companies market shares (Pillar II)

PAMC	Assets under management (in € million)	Market share based on AuM
Allianz – Slovenska	3 408.21	29.00%
UNIQA (AXA before 2021)	3 075.31	26.16%
DSS Postovej banky	556.13	4.73%
NN (ING before 2015)	2 499.27	21.26%
VUB - Generali	2 215.02	18.84%
TOTAL	11 753.94	100.00%

Data: oranzovaobalka.sk, 2023 (data as of December 31, 2022).

Table SK.5 – 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) - obligatory	6 939.40	59.04%
Nonguaranteed PFs	Mixed nonguaranteed pension funds (2) - optional	143.02	1.22%
	Equity nonguaranteed pension funds (5) - obligatory	1 739.65	14.80%
	Index nonguaranteed pension funds (5) - optional	2 931.88	24.94%
TOTAL	17 Pension funds	11 753.94	100.00%

Data: oranzovaobalka.sk, 2023 (data as of December 31, 2022).

The increase in AuM 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 almost 60% 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.

The reform in 2022 introduced the predefined investment strategy for all non-active savers who made no active choice during May 2013 and January 2023. Starting July 2023, the portfolio of these savers should be gradually re-allocated to the index pension funds (100% until the age of 50 years and then adopting the glide path of 4% annually from index funds into bond 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).

Third pillar: Supplementary pension funds

Currently, there are four providers (SPAMCs) operating on the market, which could be considered concentrated. Each SPAMC 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 three 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 (UNIQA since January 2021)” 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.

DDS Tatra banky has introduced target date funds (TDFs) in 2015, with the aim to provide age specific investment strategy for its members saving for retirement.

Table SK.6 – Supplementary Pension Assets Management Companies market shares (Pillar III)

Supplementary Pension Company	Assets under management (in millions €)	Market share based on AuM
DDS Tatra banky	964.60	32.95%
UNIQA (AXA before 2021)	445.16	15.21%
NN	1 113.20	38.03%
STABILITA	404.46	13.82%
<i>TOTAL</i>	<i>2 927.42</i>	<i>100.00%</i>

Data: oranzovaobalka.sk, 2023 (data as of December 31, 2022).

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, IMF or World bank;
- max. 20% of AuM in one standard mutual fund (UCITS-compliant);
- max. 10% of AuM in one AIF;
- max. 40% of AuM in mutual funds.

Table SK.7 – Supplementary vehicles' market share by group of pension funds

Type	Supplementary pension vehicles	Assets under management (in millions €)	Market share based on AuM
Contributory	Conservative supplementary pension funds (4)	774.83	26.47%
	Balanced supplementary pension funds (2)	1 018.77	34.81%
	Growth supplementary pension funds (9)	1 017.17	34.75%
PAY-OUT	Pay-out supplementary pension funds (4)	116.17	3.97%
<i>TOTAL</i>	<i>19 Pension funds</i>	<i>2 927.41</i>	<i>100.00%</i>

Data: oranzovaobalka.sk, 2023 (data as of December 31, 2022).

In general, the Pillar III scheme covers less than 29% 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

Pension products for both pillars have seen continual decrease in costs and charges over the period of their existence. However, it is obvious that both pillars do have different fee structures that reflects the features of the pillars and duties of the asset managers and administrators.

The year 2022 has brought significant fee structure changes for Pillar II products where two fees has been abandoned (entry fee as well as performance fee) and the administration fee has been slightly increased. Pillar III products have also seen some changes in fee policy as the law required the providers to continually decrease the asset management fee towards the 1% cap within 4 years.

Charges of pension funds (Pillar II)

Charges are highly regulated and capped in the Pillar II scheme by the Old-Age Pension Saving Act. In 2022, PAMCs 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 charged as percentage of new highs reached in performance of respective pension fund – High Water Mark (HWM) principle (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 within last 3 years. If today's closing price is higher than historical highs achieved within last 3 years, the provider has the right to charge 10% success fee from the difference between today's pension unit price and high-

est historical price. If the difference is negative no success fee can be charged.);

- 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 social security contributions and transfers part of savers' contributions to their personal pension account managed by the PAMC.

Table SK.8 compares applied charges for Pillar II pension funds and the evolution of fee policy over the analysed period.]

Table SK.8 – Costs and charges of Slovakian pension funds (% of assets unless otherwise specified)

Year	Entry fees [*]	Admin. and mgt. fees	Other ongoing fees	Performance fees [†]
2005	1.50%	0.80%	0.04%	5.60%
2006	1.50%	0.80%	0.04%	5.60%
2007	1.50%	0.80%	0.04%	5.60%
2008	1.50%	0.80%	0.04%	5.60%
2009	1.50%	0.80%	0.04%	5.60%
2010	1.50%	0.80%	0.04%	5.60%
2011	1.50%	0.80%	0.04%	5.60%
2012	1.50%	0.80%	0.04%	5.60%
2013	1.25%	0.30%	0.04%	10.00%
2014	1.25%	0.30%	0.04%	10.00%
2015	1.25%	0.30%	0.04%	10.00%
2016	1.25%	0.30%	0.04%	10.00%
2017	1.25%	0.30%	0.04%	10.00%
2018	1.25%	0.30%	0.04%	10.00%
2019	1.25%	0.30%	0.04%	10.00%
2020	1.25%	0.30%	0.04%	10.00%
2021	1.25%	0.30%	0.04%	10.00%
2022	1.25%	0.30%	0.04%	10.00%

Data: Own research; *Note:* data as of December 31, 2022.

^{*} % of contributions [†] % of overperformance

Charges of supplementary pension funds (Pillar III)

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 – HWM),
- Depository fee (as percentage of AuM in a respective pension fund),
- Other charges (Switching fee).

Table SK.9 compares charges applied in the Pillar III.

Table SK.9 – Costs and charges of Slovakian supplementary pension funds (% of assets unless otherwise specified)

Year	Admin. and mgt. fees	Other ongoing fees	Performance fees [†]
2009	2.50%	0.04%	10.00%
2010	2.50%	0.04%	10.00%
2011	2.50%	0.04%	10.00%
2012	2.50%	0.04%	11.00%
2013	2.40%	0.04%	12.00%
2014	2.30%	0.04%	13.00%
2015	1.80%	0.04%	10.00%
2016	1.70%	0.04%	10.00%
2017	1.60%	0.04%	10.00%
2018	1.50%	0.04%	10.00%
2019	1.40%	0.04%	10.00%
2020	1.30%	0.04%	10.00%
2021	1.20%	0.04%	10.00%
2022	1.20%	0.04%	10.00%

Data: Own research based on Supplementary pension saving Act; *Note:* data as of December 31, 2022. [†] % of overperformance

It should be noted that the pension reform in 2022 has changed the fee structure and reduced the overall cost ratio starting the year 2023.

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 2022 was higher than €3 212.75 (around 7% of working population in 2022).

Corporate income tax rate for 2021 was 21%.

Pillar II

Pillar II should be viewed as a 1bis pension pillar that is basically a derivative of the basic old-age security scheme, as a part (5.25% in 2021) of the overall (18%) old-age social insurance contributions are diverted from a PAYG pillar into funded DC scheme. Understanding this principle, Pillar

Table SK.10 – Taxation of pension savings in Slovakia

Product	Phase			Regime
	<i>Contributions</i>	<i>Investment returns</i>	<i>Payouts</i>	
Pension funds	Exempted	Exempted	Exempted	EEE
Supplementary pension funds	Exempted	Exempted	Taxed	EET

Data: Own elaboration, 2023.

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 5.25% 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

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. Consid-

ering that the average salary (€1 304 in 2022), employee contributions up to 1.15% 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 €78.24 per employee per month are considered as tax expenses for contributing employers in 2022. 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 SPAMC 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 SPAMC 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.

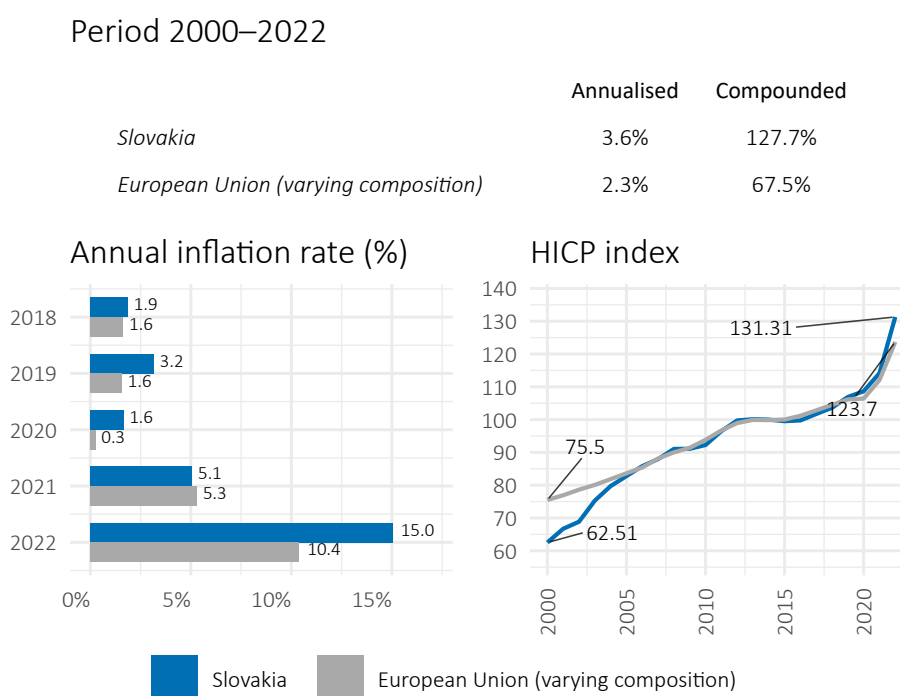
Therefore, we can conclude that the income tax treatment of pay-out phase is, in fact, a deferred taxation of investment returns applied not to the supplementary pension fund, but directly to the saver during the pay-out phase. In general, we can say, that the tax regime for Pillar III is “EET”.

Performance of Slovakian long-term and pension savings

Real net returns of Slovakian long-term and pension savings

The year 2022 brought negative returns on both equity and bond markets for both pension pillars across all types of pension funds regardless the portfolio structure, which together with the high inflation have negatively influenced the performance of all pension funds.

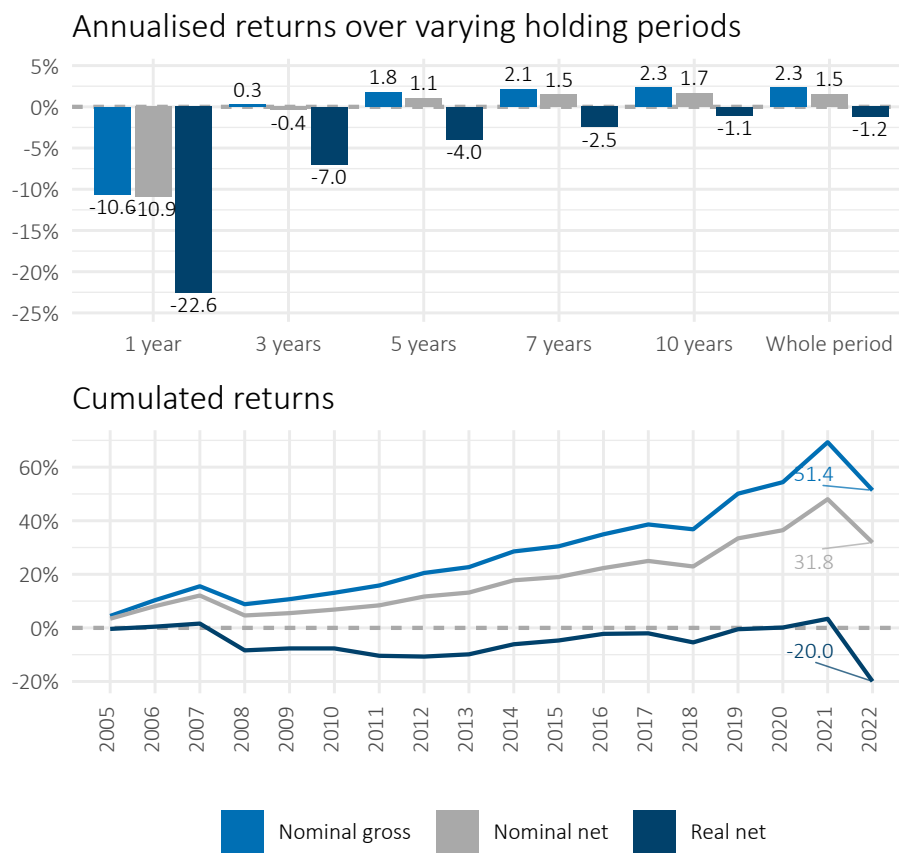
Figure SK.2 – Inflation in Slovakia



Data: Eurostat, HICP monthly index (2015 = 100); Calculations: BETTER FINANCE

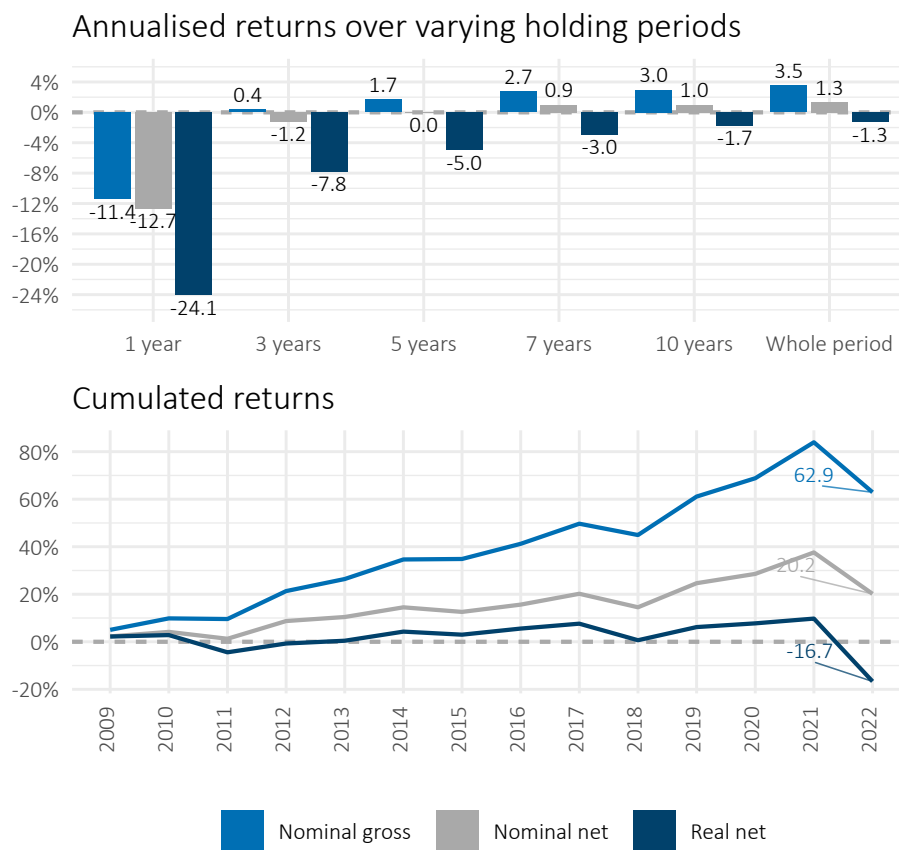
The performance (returns and respective volatility) differs in all types of pension funds. This is caused by the portfolio structure and different investment strategies. Bond guaranteed pension funds do not invest in equity investments. Mixed non-guaranteed pension funds invest a small portion in equity 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 figure presents the performance of Pillar II Pension Funds over various holding periods.

Figure SK.3 – Returns of Slovakian IORPs (before tax, % of AuM)



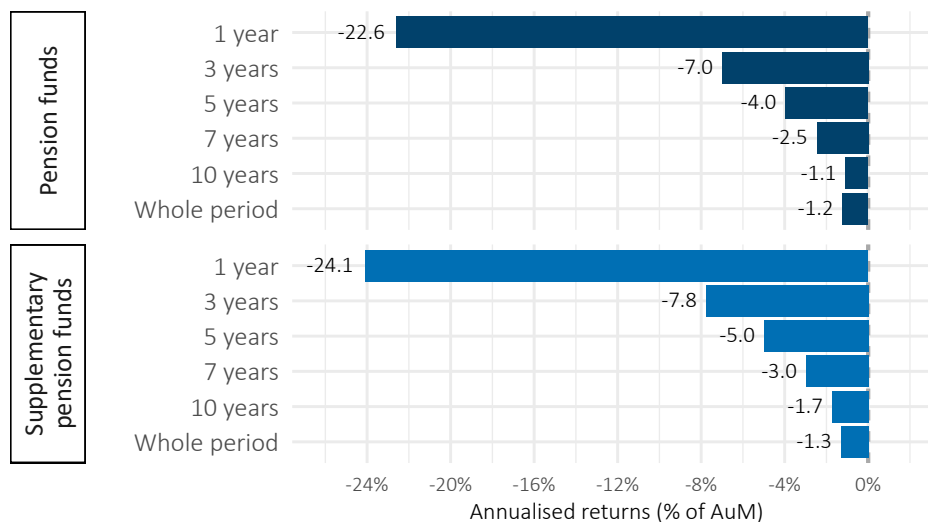
Data: Orange Envelope, 2023, Eurostat; Calculations: BETTER FINANCE.

Figure SK.4 – Returns of Slovakian pension savings products (before tax, % of AuM)



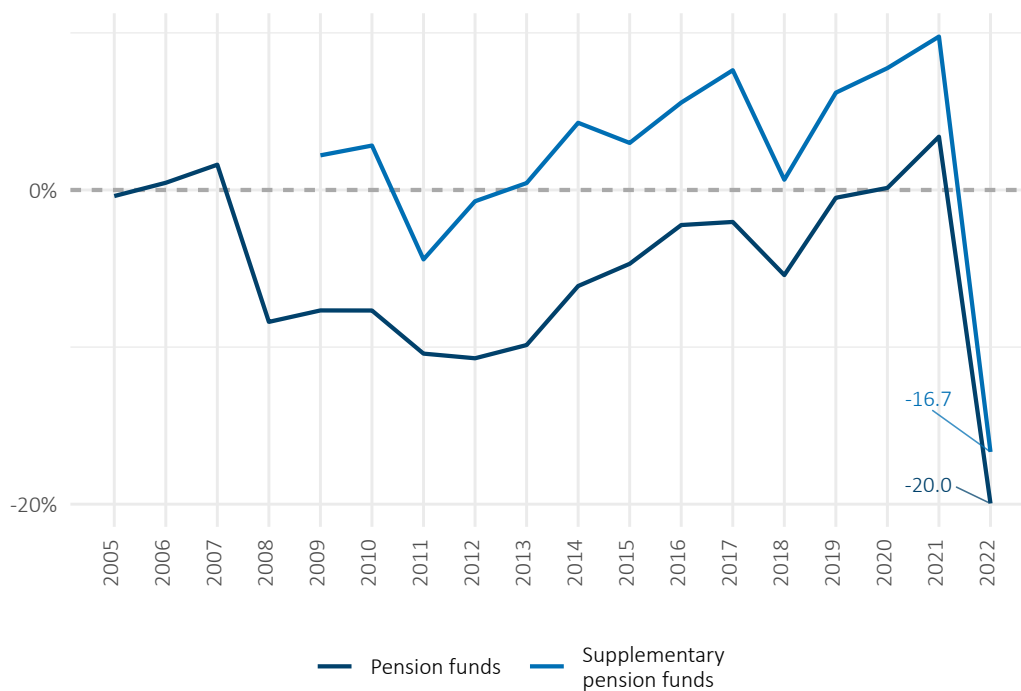
Data: Orange Envelope, 2023, Eurostat; Calculations: BETTER FINANCE.

Figure SK.5 – Annualised returns of Slovakian long-term and pension vehicles over varying holding periods (before tax, % of AuM)



Data: Orange Envelope, 2023, Eurostat; Calculations: BETTER FINANCE.

Figure SK.6 – Cumulated returns of Slovakian long-term and pension savings vehicles (2000–2022, before tax, % of AuM)



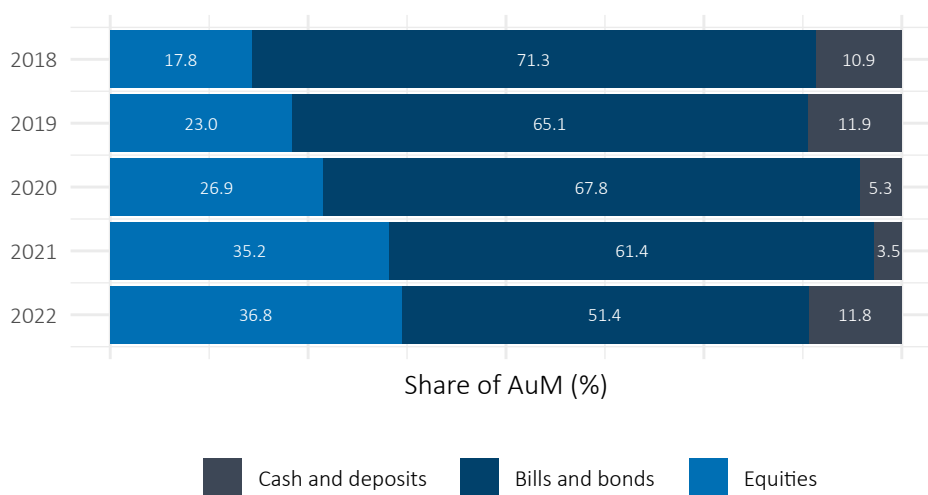
Data: Orange Envelope, 2023, Eurostat; Calculations: BETTER FINANCE.

Do Slovakian savings products beat capital markets?

Before comparing the performance of savings products against relevant market benchmarks, portfolio structure of pension products should be understood.

For pillar II pension funds, most of the savings have been invested into money market instruments and later in bond investments due to the legislative ruling and started to invest more into equities starting 2015 (see Figure SK.8).

Figure SK.7 – Global allocation of Slovakian pension funds' assets



Data: Orange Envelope, 2023, data as of December 31, 2022; Calculations: BETTER FINANCE.

Pillar III products have allocated savings into the equities and bonds, so the performance of the vehicles has been more volatile compared to the Pillar II pension funds. The portfolio structure of Pillar III Supplementary Pension funds is presented below.

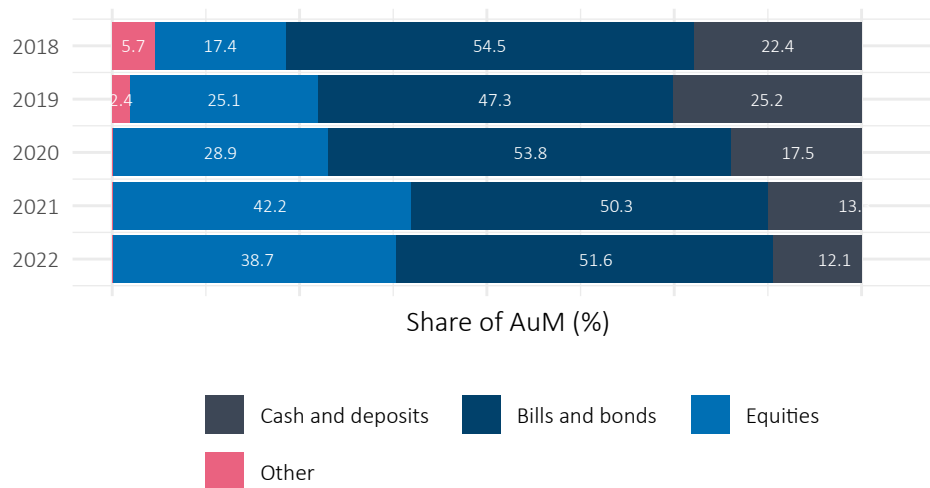
In order to compare the performance, we set the weight for two key classes (equities and bonds) based on the respective portfolio structures of pension vehicles in both pillars (see Table SK.11).

Table SK.11 – Capital market benchmarks to assess the performance of Slovakian pension vehicles

Product	Equity index	Bonds index	Allocation
Pension funds	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	10.0%–90.0%
Supplementary pension funds	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	25.0%–75.0%

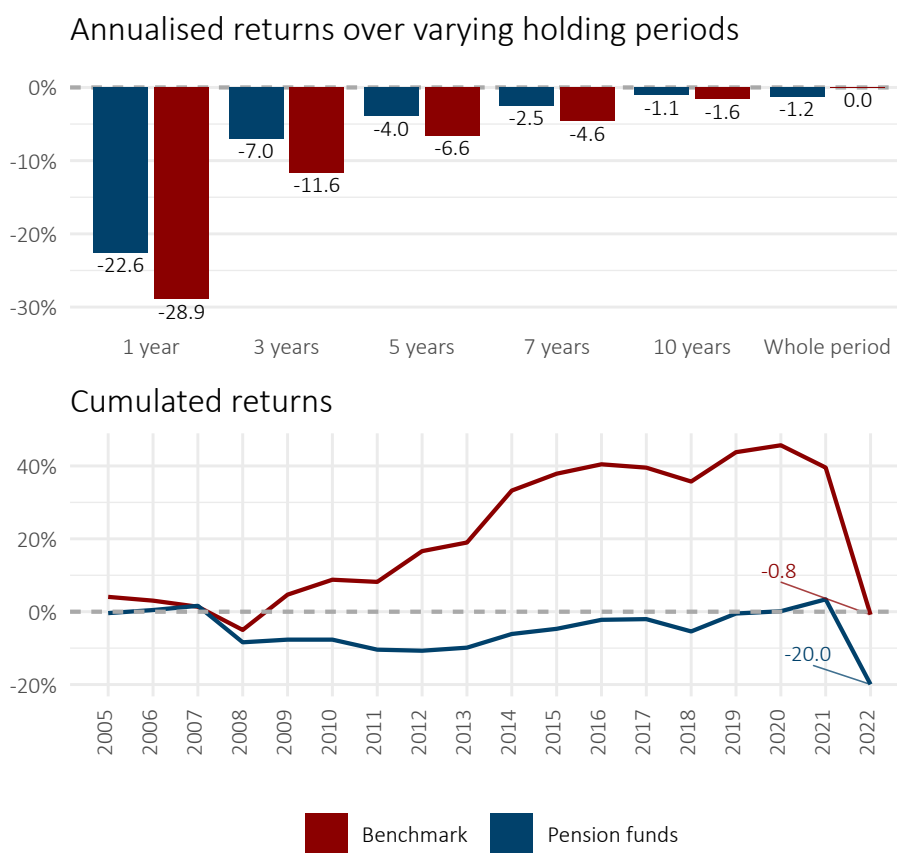
Note: Benchmark portfolios are rebalanced annually.

Figure SK.8 – Global allocation of Slovakian pension funds' assets



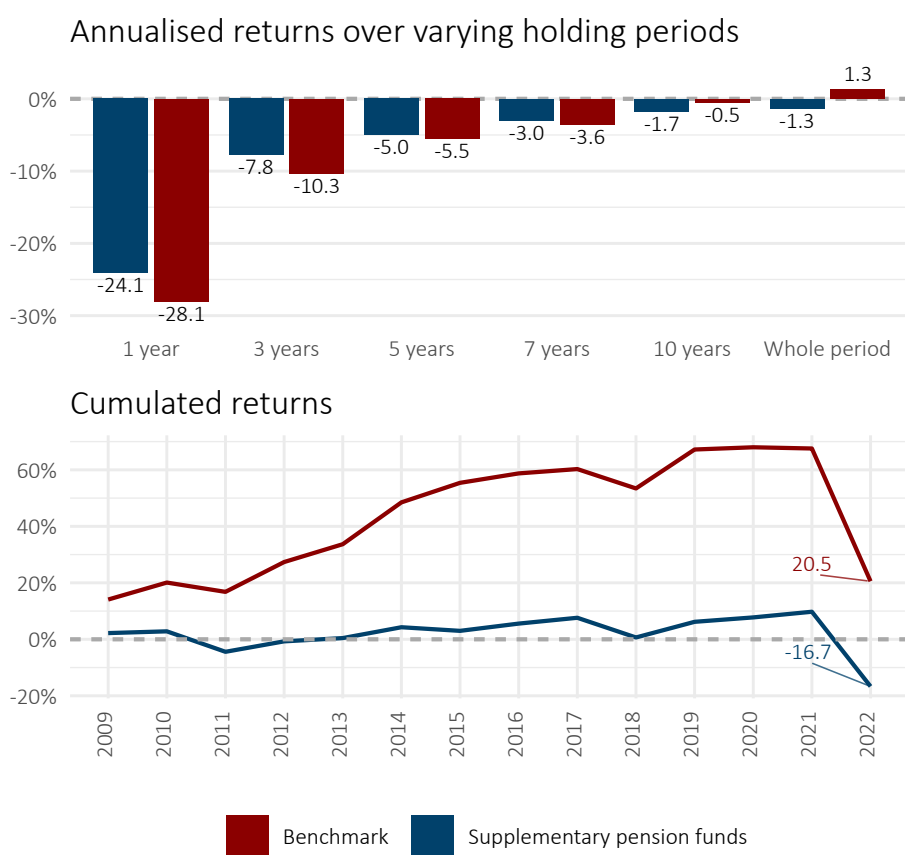
Data: Orange Envelope, 2023, data as of December 31, 2022; Calculations: BETTER FINANCE.

Figure SK.9 – Real performance of Slovakian Pillar II pension funds vs. capital markets (returns before tax, after inflation, % of AuM)



Data: Orange Envelope, 2023, Eurostat; Calculations: BETTER FINANCE.

Figure SK.10 – Real performance of Slovakian Pillar II pension funds vs. capital markets (returns before tax, after inflation, % of AuM)



Data: Orange Envelope, 2023, Eurostat; Calculations: BETTER FINANCE.

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 2022 could be viewed as a year of major reform changes in Slovak pension pillar. However, it combines recommended positive changes (retirement age tied to the life expectancy, lowering fees for pension funds, introduction of predefined investment strategy) with the populist features (new parental bonus, new early retirement rules, low state support for private savings).

The unprofessional move of transferring savers' assets from equity-based pension funds into bond ones in 2013 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. The reform in 2022 with the introduction of predefined investment strategy for all inactive savers could improve the situation and expected pension benefits in future.

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.

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Country Case 16

Spain

Resumen

Los trabajadores españoles ahorran poco para complementar su pensión. Más del 70% de su riqueza total son viviendas y las pensiones de Seguridad Social sustituyen más del 80% del salario previo a la jubilación. Como resultado de estos y otros factores, la “industria de las pensiones” (Pilares II y III) en España es pequeña y menos eficiente que si fuese tan grande como las de los Países Bajos o el Reino Unido. Los activos de los Planes de Pensiones convencionales, a 31 de diciembre de 2022, equivalían al 8,71% del PIB de ese año y las reservas técnicas de los productos asegurados para la jubilación alcanzaban otro 14,11% del PIB, en total un 22,82% del PIB. La gestión de estos activos no es barata, aunque puede llegar a ser muy competitiva en los esquemas del Pilar II. La Fiscalidad de los activos y rentas de ambos pilares en España responde al régimen EET, común en la OCDE, si bien en 2021 y 2022 se deterioró considerablemente para los vehículos del Pilar III, habiéndose producido una cierta corrección en 2023. En el periodo 2000–2022, el rendimiento (neto) acumulativo medio de los esquemas del sistema de Planes de Pensiones, una vez descontada la inflación, y antes de impuestos, varía de +4.5% para planes de pensiones de empleo, hasta -32.9% para planes individuales invertidos en fondos de pensiones de renta fija.

Summary

Spanish workers don't save for their retirement. “Bricks & Mortar” make more than 70% of a typical Spanish household's portfolio and Social Security old-age benefits replace more than 80% of lost labour income at retirement. So, why Spanish employees should save for their retirement? As a result, the Spanish pensions industry (Pillars II and III) is small and less efficient than that of the Nederland or the UK. Pension Funds' assets at end 2022 reached 8.71% of GDP that year, and if insured retirement or retirement-like vehicles' mathematical reserves were added to this, an extra 14.11% could be found, adding to a grand total of 22.82% of GDP. These and other reasons imply that asset management in this low-scale industry cannot be cheap. To be sure, Pillar II assets are as cheap to manage as in advanced markets or more, 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, although 2021 and 2022 have witnessed a serial deterioration of fiscal terms granted to Pillar III schemes. Over the period 2000–2022, the (net) cumulative return of conventional pension plans, after correcting for inflation and before taxes, ranges from +4.5% for occupational pension plans to -32.9% for individual pension plans invested in bonds.

Real returns 2022

Conventional
Occupational Pension
Plans (Pillar II):
-13.52%

Equity Pension Plans
(III): -18.09%

Mostly Bonds Pension
Plans (Pillar III):
-14.31%

Mostly Equity Pension
Plans (Pillar III):
-15.43%

Introduction: The Spanish pension system

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, has returned every euro paid in contributions around 12 years after retirement when the average retiree has yet another 10 years of remaining life. This implicit return is difficult to beat by marketed retirement products, even if these are by default sustainable when they are of the DC variety.

Since 2020 Spain has witnessed several major pensions reforms that complemented, and partly reversed, reforms adopted in 2011-2013. Automatic benefits' inflation indexation was adopted in 2021 by law and 2013's Benefits Revalorization Index (IRP, Spanish acronym) and Sustainability Adjustment Index (FS, Spanish acronym, a correction factor for Life Expectancy changes) were abolished. By Budgetary laws in 2020 and 2021, tax deductibility of contributions to Pillar III pension products was greatly reduced from €8 000 (in 2020) to €2 000 (in 2021) and €1 500 (in 2022). This latter measure impacted severely in contributions to Pillar III vehicles. Also in 2022 Pillar II products were additionally regulated to introduce a new kind of "Simplified Occupational Pension Plans" that could be promoted by Employers' Associations, Trade Unions, Professional Trusts and Mutual Funds and Self-employed workers Associations. Independent workers could also join sectoral Employers' Associations Pension Plans. Finally, a major reform took place in 2023 to reinforce the sustainability of Pillar I (Social Security) with a series of measures consisting in higher and additional payroll taxes on workers and employers to cope with massive retirement of the baby-boom cohorts. This legislation let the door open to further tax increases if needed.

Debates were hot along these lines of reform as many analysts and experts feared that the combination of these measures could not ensure sustainability. Inflation adjustment mechanism was deemed a powerful cost increasing factor, what was shown and also hotly debated as 2022 inflation hit almost 9% mark. An increase of 8,5% for all pension benefits was finally due in January 2023 after the automatic mechanism enacted in December 2021 played its role.

The figures we present in this chapter tell 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 (after inflation) and before taxes, returns of the standard retirement plans (Pillars II and III) in Spain has been -0.20% in annual cumulative terms (-0.42% for Pillar III schemes and 0.11% for Pillar II schemes). This mostly due to a particularly bad performance in 2022 and despite the good good results observed in 2019 and 2021.

In this chapter, we have decided to offer the reader a comprehensive overview of Spanish private pensions, including conventional pension plans and insured pension products. However, due to data limitations, we can only compute real net returns for conventional pension plans. As shown in Table ES.1, we distinguish four categories: occupational pension plans, first, that belong to Pillar II of the pension system; and three categories of individual pension plans in Pillar III, which differ from each other with regard to the allocation of assets into equity vs. bonds.

The real net returns of these four categories of pension plans is presented in details in the penultimate section of this chapter. However Table ES.2 already gives the reader an overview of the

Table ES.1 – Long-term and pension savings vehicles analysed in Spain

Product	Pillar	Reporting period	
		Earliest data	Latest data
Conventional Occupational Pension Plans (Pillar II)	Occupational (II)	2000	2023
Mostly Bonds Pension Plans (Pillar III)	Voluntary (III)	2000	2023
Mostly Equity Pension Plans (Pillar III)	Voluntary (III)	2000	2023
Equity Pension Plans (III)	Voluntary (III)	2000	2023

situation of Spanish private pensions over the long term: 2022 was, for Spanish pension savings, a terrible year that is set against a backdrop of already low long-term returns.

Table ES.2 – Annualised real net returns of Spanish long-term and pension savings vehicles (before tax, % of AuM)

	Conventional Occupational Pension Plans (Pillar II)	Mostly Bonds Pension Plans (Pillar III)	Mostly Equity Pension Plans (Pillar III)	Equity Pension Plans (III)
Reporting period	2000-2022	2000-2022	2000-2022	2000-2022
1 year (2022)	-13.5%	-14.3%	-15.4%	-18.1%
3 years (2020–2022)	-3.6%	-5.7%	-3.9%	-0.6%
5 years (2018–2022)	-1.6%	-3.7%	-1.8%	1.3%
7 years (2016–2022)	-0.7%	-2.7%	-0.7%	2.4%
10 years (2013–2022)	1.3%	-0.8%	1.5%	5.2%
Whole period	0.2%	-1.7%	-1.3%	-0.6%

Data: INVERCO, DGSFP, Eurostat; *Calculations:* BETTER FINANCE.

Pension system in Spain: An overview

The Spanish pension system is composed of three pillars:

- Pillar I — Public, with a pay-as-you-go major branch of compulsory, earnings related pensions (old-age, invalidity, and survivors' benefits) and a minor, means-tested assistance branch for over 65 years old individuals (old-age and invalidity).
- Pillar II — Voluntary, defined benefit and defined contribution occupational, employer-sponsored pension plans (restricted de facto to large companies) and other qualified pension vehicles (insured and non-insured).
- Pillar III — Voluntary, individual defined contribution pension plans and a variety of other qualified retirement savings vehicles (insured and non-insured).

A more detailed description of these three pillars is presented in Table ES.3.

Table ES.3 – Overview of the Spanish pension system

	Pillar I	Pillar II	Pillar III
	National Social Security	Employer-sponsored Pension Plans	Individual Pension Plans
	Mandatory	Voluntary	Voluntary
Participation			
Type of funding	Financed by social contributions (employees 4.8%, employers 24.1% of pensionable wage)	Financed normally by employers' contributions (no standard rate); Matching is rare.	Financed by insured persons
Type of benefit entitlement	Final Wage formula (variable % of a 25/29 years average of actualized pensionable wages)	Both DB and DC benefits	DC benefits
Management	The scheme is managed by the Social Security Administration (INSS)	Managed by licensed Asset Managers under sponsor companies' Social Partners supervision	Managed by Plans' Sponsors (Financial institutions, Insurers or Associations)
Products	Contributory State Pension, Non-contributory State Pension and Minimum Basic Income (Ingreso Mínimo Vital, means tested, as from July 2020)	Company Pension Plans (standard vehicle), Simplified Employment Pension Plans (new since 2022, sectoral & associative), Company Group Insurance and Company Insured Pension Plans	Individual Pension Plans (standard vehicle), Insured Pension Plans and Pension Mutual Societies (Mutualidades de Previsión Social) and other minor (insured) pension and pension-like vehicles
Average benefit	Average contributory retirement pension (14 payments per year): €1 579 per month (old-age, newly retired employees, average January-May 2023) Average non-contributory pension (per year): €6 402 (old-age and invalidity) + €525 for rented housing	Employer-sponsored standard Pension Plans (14 payments per year): €893 per month (retirement, income only benefits, 2021) ^a Only 37.38% of total beneficiaries opt for income only retirement benefits and amounts payed were 42.48% of total benefits paid	Individual standard Pension Plans (14 payments per year): €164 per month (retirement, income only Plans, 2021) ^b 64.62% of total beneficiaries opt for income only retirement benefits and these amount to 34.38% of total benefits paid
Coverage	Social Insurance is compulsory for all workers. There are 6.4 million old-age pensioners (as of May 2023). All persons 65 and over are eligible for Social Assistance	Barely 11.7% of employees were covered by Employer-sponsored standard Pension Plans in 2021. Only 48.1 thousand beneficiaries received income only retirement benefits in 2021	Below 24.4% of population aged 16 to 64 was covered by Individual Plans in 2021. Up to 339 thousand beneficiaries received income only retirement benefits in that year
Tax treatment	Contributions are tax exempt and benefits are taxable (ET) ^d	Contributions and returns are tax exempt and benefits are taxable (EET)	Contributions and returns are tax exempt and benefits are taxable (EET)
Net replacement ratio ^c	74.3% (Q1, 2023)	44.2% (2021)	8.1% (2021)

Data: Social Security, INE, INVERCO, DGFSP

^a Employer-sponsored Pension Plans are the standard employee pension vehicle. Besides these, Group Insurance has a far larger popularity, although average assets are one fifth that of the Pension Plans. Income-only benefits are rare as average assets are low for most participants.

^b Individual Pension Plans are the standard personal retirement vehicle for independent workers and employees and other eligible persons.

^c This ratio is a gross, effective, average "benefit ratio" rather than a standard OECD type replacement ratio.

^d As of 2023, social security contributions are tax deductible without limit (however, pensionable wage is capped); contributions to Pillar II schemes are deductible up to € 10 000 (€ 5 750 for self-employed workers); contributions to Pillar III schemes are deductible up to € 1 500.

Pillar 1

The *Instituto Nacional de la Seguridad Social* (INSS), or National Institute for Social Security, is the Department for Pensions at the core of the Spanish *Ministerio de Inclusión, Seguridad Social y Migraciones* (MISSM). The Spanish Social Security covers all workers against old-age, invalidity, and survivorship (widowhood and orphanhood). It has two separate branches: an insurance, contributory and earnings related branch and a non contributory, assistance, flat means-tested benefits 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 public and private vehicles considered). It is contributory, compulsive for all workers, either employees or self-employed workers, 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 PAYG variety. The pension formula is a "defined benefit" one where only last years' pensionable wages, age at retirement and a number of equivalent full contribution years are considered (besides penalties/bonuses for early/delayed retirement) and not effective contributions paid.

As of December 31, 2022, The INSS was paying 9.99 million pensions (to about 9 million pensioners) at a rate of € 1 095 each per month (14 payments in a year, all pension categories, all pensioners). Within these figures, slightly more than 6.3 million pensions went to the old age category at an average rate of € 1 260 per beneficiary and month (14 payments in a year). Direct total expenditure in earnings-related Social Security benefits in 2022 amounted thus to around € 152 billions, that is 11.45% of that year's GDP.¹

As for workers' coverage, as of December 31, 2022, 20.29 million workers were affiliated to the national Social Security scheme. Out of these, 15.8 million (77.9%) were wage earning workers covered by the Social Security General Regime and 3.3 million (16.3%) independent workers covered by the Self-employed Workers Regime. The remaining few, a mere 5.8% of workers, belonged to different sub-regimes within Social Security.

There were also 2,8 million registered unemployed workers, 56.4% were covered by Social Security through social contributions paid on their behalf by the *Servicio Público del Empleo Estatal* (SEPE), 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 December 31, 2022, paid 445.4 thousand pensions of which 267 thousand were old-age pensions and the rest were invalidity pensions. The average pension under this scheme was €5 899.60 a year (2022 average), a total amount of almost € 2.63 billions, or 1,98% of that year's GDP. Non-contributory (assistance) pensions are subject to means (income and assets) 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.² These benefits are paid by the Social Security thought fully financed out of general taxation. These benefits can be complemented by other personal

¹In 2022, Spanish GDP grew by 5.5% in volume in one year (as in 2021) and continued its recovery from a strong decrease of 10.8% in 2020 with respect to 2019 because of Covid-19 administrative restrictions to economic activity. Direct earnings-related benefits in 2019 amounted to 10.9% of that year's GDP. Social Security expenditure over GDP in 2020 was 12.5%.

²Since June 2020, Social Security is offering a new individual Minimum Basic Income. As for December 2022 there were 1.54 million beneficiaries.

characteristics (housing, dependent spouse and other health or disability conditions).

Within the contributory pensions scheme, social contributions received by the Social Security administration, that amounted to € 136.3 billion, provided in 2022, for 89.84% of total cost of direct Social Security contributory benefits. For 2023 the total contribution rate is 28.9% of gross contribution wage. This rate splits in 24.1 pp paid by employers and 4.8 pp paid by workers. The self-employed must pay the whole 28.9% rate on their pensionable earnings. Contribution wages track effective wages closely through a scale with a minimum (as of 2023) of € 1 260 and a maximum of € 4 495.50 per month. Employees cannot choose their contribution wage but self-employed can do it and most of them do choose the minimum contributory earnings base corresponding to their earnings bracket. This results in their ex-post retirement benefits being too small. Many of these benefits will have to be latter complemented with an assistance top to reach the statutory minimum retirement pension benefit. This resulting, paradoxically, in a larger internal rate of return for minimum earnings-related old age pensions recipients, over their past contributions, compared to retirees receiving higher or maximum earnings-related pensions payable by Social Security.

Pillar II

As shown in the introductory Table ES.3, 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 employers.³ So, there is little margin left for occupational and individual retirement accounts to step substantially into the retirement arena. And, indeed, what we observe in Spain is a very limited landscape for marketed retirement solutions even though the modern regulation for these products was enacted around 1987.

Pillar II in Spain embraces employer-sponsored retirement schemes for wage earners.⁴ These products are financed through contributions mostly paid by employers, with employees rarely participating on a matching basis.

There is a variety of retirement vehicles that employers may offer to their employees, or available for self-employed workers as well. Amongst them, tax-qualified Pension Plans are the standard and most prevalent vehicle. Other company sponsored retirement schemes include a variety of insured schemes. Pension Plans are capitalisation retirement accounts of either Defined Benefit or Defined Contribution type to which employers contribute with a percentage of their wage. 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 wage,⁵ or around € 619.71 per covered employee and year (2020). Normally, only workers in large firms are offered with these deferred wage benefits.

Employers are not obliged by law to offer this coverage to their employees, 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 less than 1.95 million participants were registered through 2021, to a total salaried workers of 16.6 million

³This 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.

⁴“Associated pension plans”, a very minor category used by cooperatives’ members are classified as “other personal pensions” together with individual pensions within Pillar III vehicles by the regulator.

⁵Estimation based on data from INVERCO and INE.

that same year, a mere 11.7%. Also, in 2021, only 48.1 thousand retired employees received old-age, income-only benefits from standard pension plans. Average annual equivalent benefit was € 11 628.65 (before taxes) and the equivalent benefit rate (against average annual gross pay) was 43.6%.⁶ As of December 31, 2022, total assets under management (AuM) to these accounts totalled € 34.4 billion (€ 3.4 billion below AuM one year earlier), that is, a tiny 3.14% of Spanish GDP in that year.

Pillar II retirement accounts are fiscally qualified by the government. Contributions by employers or employees are tax deductible up to an absolute limit of € 10 000 per person per year.⁷ Benefits, no matter whether retrieved in form of monthly income, as a lump-sum or otherwise, are taxed under the current personal income taxation rules.⁸ When benefits are retrieved in form of an income stream, beneficiaries are obliged to buy an annuity (life or term) or a drawdown. Nearly half of beneficiaries opt for a lump-sum given the tiny pension pots they manage to accumulate during their working lifetimes.

Often, in Spain and in many other countries, and this is a crucial issue to understand for our industry, layman savers and minor even experts refer to the fiscal treatment explained before as “incentives” or even “a fiscal gift”. The truth is that having contributions tax exempted and taxing benefits (tax deferral) is the world EET standard (Exempt contributions, Exempt returns on those and Tax benefits), 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 thrift.

Pillar III

Pillar III embraces personal, individual Pension Plans and other retirement schemes, the former being again the dominant type within a large variety of types (see Table ES.3). These plans are personal, voluntary and “complementary” to both Pillar I and Pillar II arrangements. These schemes were equally treated, as Pillar II schemes, from the tax point of view up to 2020. But, as already mentioned, Law 11/2020 radically changed this status quo by reducing tax deductibility of contributions to €2 000. In 2021 a new change in the 2022 Budget Law established that €1 500 can be tax-free as the new extant general limit. One of the lowest thresholds in the OECD.

This double tax shock to Pillar III retirement savings is already having devastating effects difficult to compensate in the sort to medium term. As a result of these fiscal shocks, contributions through 2022 decreased by 25,3% over contributions made in 2021 which had already fallen by 21.7% over contributions made through 2020. An accumulated fall of 41.5%. One salient feature within this category is that contributions by participants are delayed until the end of the year using balances left in their income-expenditure flows at that point in time to profit from tax deductibility.

⁶Detailed data on benefits is only available up to 2021.

⁷Up from € 8 000 as for December 2020. This absolute limit breaks down to €1 500 as the general limit for Pillars II and III schemes and an additional limit of € 8 500 from employers plus employees’ social contributions to Pillar II schemes. The Spanish Government has enacted in mid 2022 new legislation that regulates new Pillar II schemes called Simplified Pension Plans to which both employees and the self-employed can contribute. The above fiscal limits also apply to these schemes for employees, but now self-employed workers have an additional (to the general) limit of € 4 250 tax deductible.

⁸Spain has a Dual Personal Income Tax that differentiates income from investments from labor income. Pension benefits (both principal and interest), however, are fully taxed as labor income.

In what concerns other features, however, Pillar III Personal Pension Plans are virtually the same product as employer-sponsored Pension Plans, albeit quite more expensive to manage. In 2021, only 339 thousand people received income-only benefits. Average annual benefit for income-only recipients was €2 296 (gross). As of December 31, 2021, Pillar III included 7.5 million retirement accounts that belonged to around 6.5 million individuals (or 24,4% of Spanish population 16-64 years old). AuM for these plans in 2022 totalled € 80.2 bln (€ 9.1 bln. down from one year earlier), that is, a mere 6.0% of Spanish GDP.

Household savings

Personal (financial) saving in Spain is not a salient feature of its economy's financial side. Financial saving is so low because Spaniards love to save *autrement*. That is, 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 a retirement target. 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 by their employers on their behalf. This reduces both disposable income and the share of it that households could save. Besides, in exchange for heavy pay-roll taxation (28.9% of gross contribution wages, as of 2023) only for retirement and associated contingencies), public pensions replace wages after retirement at around a 74% average, effective benefit rate (see Table ES.3).

These factors reduce the desire and/or capacity to save for retirement of Spanish workers. Social contributions paid by employers (24.1 percentage points of the total rate) are commonly considered to be "deferred wage" translating into a correspondingly lower gross pay received effectively by workers as compared to the gross pay they would receive had them to pay the full contribution rate.

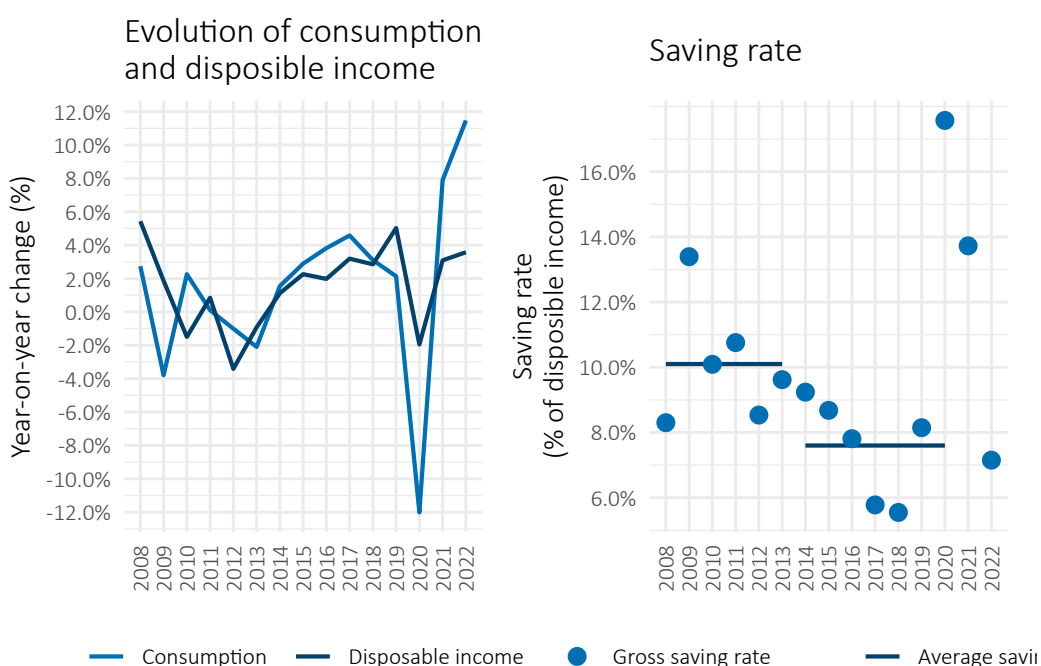
As for real estate, it is well known that it is hardly a retirement asset at all. Yet many homeowners, that in Spain tend to own more than one house or apartment, think that they could use their houses as a source of retirement income. However realistic this may be, the fact is that an astonishing three fourths of Spanish households' total wealth is made of "bricks & mortar", its value representing near four times the value of Spanish GDP. Housing, in a way, is *the* retirement asset in Spain and retirement solutions providers would better think on how to develop sound retirement income products based on housing assets rather than hope for households to start accumulating proper retirement assets. This would not happen at least for a generation and provided that radical changes help a development of brand new markets for retirement solutions in Spain.

The above, basically the same text we wrote last year, tended to be the picture before Covid-19. And so continued to be in 2022, but for few important differences. First comes the fact that households, who were given by the government the possibility to withdraw part of their retirement savings to cope with financial hardship at home and/or at their businesses, did not actually use this window. Total AuM at Pension Funds (both Pillar II and III) have not decreased in over 2019, even if dynamics of total AuM has been driven by yields performance rather than by net inflows of contributions. These net flows, actually, have been negative for most of the last years due to gradual decline en number of persons covered both in the occupational en the individual schemes.

The overall picture on households' gross disposable income (GDI) (year-on-year change), Con-

sumption (year on year change) and Gross Savings (rate over Disposable Income) is shown in ???. During the crisis (2009-2013), the savings rate oscillated amply around an average of about 10% of GDI. 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 loans and intense employment creation, coupled with wage increases. After 2008, the deep recession of 2009 and a second (and large) recession in 2011-2013, led Spanish households to increase their savings ratio above 13% in 2009, and keep it around 10% in the 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.

Figure ES.1 – Evolution of households’ spending and (financial) saving rates



Data: Banco de España.

Expansive years (2015-2018), when consumption was growing vigorously the savings rate dipped to a bottom 5% of disposable income in 2018. In 2019, consumption (and the economy) decelerated and savings bounced to just above 8%. As for 2020, we have seen a more than doubling of the savings rate observed in 2019, to a high of 17.6%. Covid-19 effectively restrained consumption in 2020 to a 2015 standard (a yoy 12.0% fall) while disposable income suffered far less (a yoy 2.0% fall). In 2021 and 2022, we have seen positive rates of change for these three indicators, notably a far larger increase in consumption than in disposable income and a fall in the savings rate to 13.7% in 2021 and a 7.2% rate fully in line with that observed in pre Covid-19 years.

By the end of 2022, (gross) financial assets owned by Spanish households—and non-profit institution serving households (NPISHs)—amounted to € 2.7 trillion, according to the Bank of Spain financial balance sheets statistics. That amount represented slightly more than 3.3 times households’ GDI and slightly above 2 times Spanish GDP. But households did not increase their holdings

of financial assets compared to 2021.

If we take a closer look at the distribution of (gross) financial assets owned by Spanish households in 2021–2022, as shown in Table ES.4, one can immediately observe that the “cash and bank deposits” class of assets, with almost 1.1 trillion euros at end 2022, takes up to an impressive 39.6% of total financial assets held by Spanish households, above the share observed one year earlier. “Equity” being the second most important financial asset in households’ portfolios at € 832.6 billion and 30.5% of total financial assets, or slightly above one percentage point up from a year earlier. Clearly, the Covid-19 recession had an impact in both preference for liquidity and precautionary savings, but this impact will be, if at all, slowly reversed. In fact, nothing of the large extra savings realized in 2020 and 2021 went to accumulation of pension rights. These actually decreased by 17 billions in 2021–2022, due both to markets’ performance and negative net flows of contributions

Table ES.4 – Financial assets held by Spanish households 2021–2022

	2021			2022			Change (%)
	€ bln.	%	% of GDI	€ bln.	%	% of GDI	
Cash and bank deposits	1 034.345	37.9%	131.0%	1 078.289	39.6%	131.9%	4.2%
Investment Funds	418.576	15.3%	53.0%	386.563	14.2%	47.3%	-7.6%
Shares	799.612	29.3%	101.3%	832.633	30.5%	101.8%	4.1%
Pension rights	189.721	7.0%	24.0%	172.783	6.3%	21.1%	-8.9%
Insurance	198.295	7.3%	25.1%	159.820	5.9%	19.5%	-19.4%
Other	86.687	3.2%	11.0%	95.866	3.5%	11.7%	10.6%
Total	2 727.236	100.0%	345.5%	2 725.954	100.0%	333.4%	0.0%
Pro memoria:	789.318	n.a.	n.a.	817.536	n.a.	n.a.	3.6%
GDI^a							

Data: Banco de España.

^a GDI: Gross Disposable Income.

Spanish households significantly reduced their investment funds and insurance holdings in 2022. Equity holdings, however profited of a large increase (+€ 33 billions) as reflected in the table above. Pension entitlements reduced their share of total financial assets by 0.7 percentage points.

With respect to households’ GDI, it increased a healthy 3.6% in a clearly recovered economic and financial year, but total financial assets barely changed with respect to 2021 and kept a relative nominal size of 3.3 times households’ GDI an just above 2 times Spanish GDP in 2022.

Long-term and pension savings vehicles in Spain

Even if, due in part 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, as said above, are Pension Plans (occupational and individual) and Insured Pension Plans. Most retirement vehicles in Pillar III are provided by financial institutions and insurers that also act as managers and depositories of Pillar II occupational pension plans.

The latter are basically provided by employers. Also, several professional associations have since long created *Mutualidades* (Mutual Funds) that offer complementary (mostly Pillar III) coverage to *mutualistas* (members), with some of those Mutual Funds also operating as regulated alternative schemes to Social Security's self-employed schemes (Pillar I) for these occupational groups.

Table ES.5 – Retirement vehicles in Spain (Dec. 2022)

	AuM/Reserves (€ mln.)	Participants (thousands)	Assets/Reserves per participant
Conventional Pension Plans^a	115 646.30	9 375.75	12 334.62
Pillar II	34 633.97	1 915.93	18 076.87
<i>Occupational Pension Plans</i>	34 633.97	1 915.93	18 076.87
Pillar III	81 012.33	7 459.82	10 859.82
<i>Individual Pension Plans</i>	80 233.17	7 408.15	10 830.40
<i>Associated Pension Plans^b</i>	779.16	51.67	15 078.14
Insured Retirement Vehicles	187 214.23	14 349.28	13 046.94
Pillar II	36 721.34	6 908.14	5 315.66
<i>Income (Acc. & Pay-out Phases)</i>	22 325.51	468.22	47 681.67
<i>Retirement Group Insurance</i>	8 890.44	3 856.33	2 305.41
<i>Other Pillar II Insured Vehicles</i>	5 505.39	2 583.59	2 130.91
Pillar III	150 492.89	7 441.14	20 224.43
<i>Annuities (Life & Term)</i>	63 647.26	1 663.51	38 260.82
<i>Defferered Capital Pensions & Savings</i>	41 122.45	2 080.68	19 763.95
<i>Unit/Index- Linked</i>	17 022.18	1 363.37	12 485.35
<i>PIAS^c</i>	13 644.66	1 071.29	12 736.66
<i>Insured Pension Plans</i>	11 034.00	858.30	12 855.64
<i>SIALP^d</i>	4 022.34	403.99	9 956.53
Total	302 860.53	23 725.03	12 765.44
Pillar II	71 355.31	8 824.07	8 086.44
Pillar III	231 505.22	14 900.96	15 536.26

Data: INVERCO and UNESPA; *Calculations:* BETTER FINANCE.

^a Non insured retirement vehicles.

^b Retirement vehicles sponsored by labour associations and regulated as Pillar III.

^c *Plan Individual de Ahorro Sistemático* (PIAS), "Systematic Individual Savings Plans"

^d *Seguro Individual de Ahorro a Largo Plazo* (SIALP), "Long Term Individual Insurance"

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 P&L accounts and entrusted to newly created entities that have their own legal personality (*Planes de Pensiones*) and their assets integrated into standard vehicles also created by those laws (*Fondos de Pensiones*). As recently as June 2022, however, the Spanish Parliament passed Law 12/2022 by which Public Occupational Pension Funds were created and brand new private Simplified Occupational Pension Plans were regulated allowing self-employed workers to join occupational schemes for the first time in Spain.

Notwithstanding the fact that Spanish households preferred to hold their financial assets in form

of bank deposits and cash, equity kept their place in 2022 at a 30.5% share of total financial assets, well above Investment Funds (see Tables ES.4 and ES.5). In 2022, total investment in this class of assets increased by 4.1%. Investment Funds suffered a 7.6% decrease. Pension funds had a nominal 8.9% decrease, well offline with their performance in 2021 and 2019.

Table ES.6 – Total assets managed by Group Investment Institutions 2010-2022 (€ mln.)

	Group Investment Funds						
	Investment funds		Investment trusts		Foreign IF	Pension funds	Total
	Financial	Real estate	Financial	Real estate			
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
2021	317 547	311	29 247	913	287 000	127 998	763 016
2022	306 196	312	16 182	990	245 000	115 641	684 321
YoY 21-22	-3.57%	0.32%	-44.67%	8.43%	-14.63%	-9.65%	-10.31%

Data: INVERCO.

In 2022, savers both through Investment Funds and Pension Funds experienced truly bad yields amid very complicated international geostrategic conditions after Covid-19 impact in 2020 and 2021. Investment Funds received significant net investments that however could not match heavy negative yields and the end-of-year value of AuM decreased significantly, as shown in Table ES.7. Pension Funds, additionally, suffered negative net investments and heavy negative yields to see the volume of AuM decrease by almost € 13 billions. Negative investments to Pension Funds, moreover, exceeded by quite an amount in 2022 those of 2021.

In this chapter, we unfortunately cannot compute the real net returns for all categories of products. We therefore focus on pension plans: The occupational pension plans of Pillar II on the one hand, and three types of Pillar III pension plans. Figure ES.2 shows the AuM of these four categories of products since 2000.

Pension plans

Pension Plans (*Planes de Pensiones*) are the standard retirement saving vehicle in Spain, albeit only one of many different retirement vehicles that are currently being marketed in the country. 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).

Table ES.7 – Flows of funds for Investment Funds & Pension Funds 2012–2022 (€ mln.)

	Investment funds (national, financial)				Pension funds			
	BoY assets	Net invest-ments	Net yields	EoY assets	BoY assets	Net invest-ments	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	116 419	1 176	928	118 523
2021	276 497	25 723	15 327	317 547	118 523	-270	9 745	127 998
2022	317 547	17 219	-28 615	306 151	127 998	-907	-11 450	115 641

Data: INVERCO; *BoY:* beginning of year, *EoY:* end of year.

Insurance companies also promote *Planes de Previsión Asegurados* (PPA) (“Insured Retirement Plans”) for the general public and *Planes de Previsión Social Empresarial* (PPSE) (“Insured Employer Retirement Plans”). These insured vehicles are essentially equivalent to their non-insured counterparts and share with them the same regulatory standards.

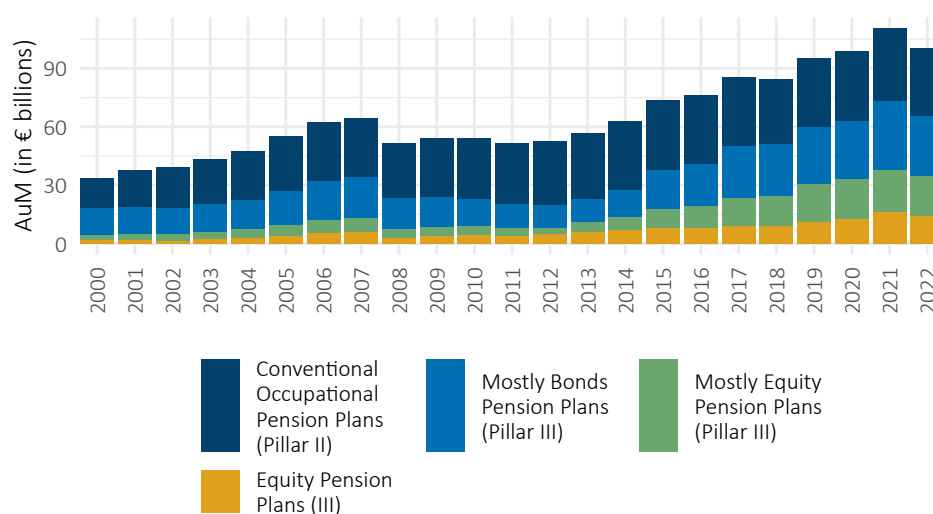
Pension Plans are voluntary and complementary to Social Security pensions. Their benefits are not integrated in whatsoever way with Social Security benefits. Plans created after 1987 legislation are DC plans but many of previously existing occupational plans, that had to be latter segregated from their parent companies and transferred to Pension Funds, continue to be DB plans, accounting for roughly half the volume (but decreasing) of assets managed into the occupational sub-class.

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 Pillar II, occupational plans and of virtually all Pillar III, or individual retirement plans and associated plans. Pension Funds are legal entities, linked or not to financial institutions, obliged by law to contract out their managing and depositary functions with specialized, licensed agents.

Pension Plans in Spain, like in most countries, are tax qualified (EET) 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 (see below). In exchange for this tax treatment, funds cannot be cashed before retirement, unless some major contingencies happen (redundancy, sickness, or long-term unemployment), albeit some extra flexibility has been added recently (see below). Accrued rights, however, can be switched by participants to different plan promoters at no cost within the individual plans scheme.

Table ES.8 below presents the number of participants (accounts rather, see note at the bottom of the table) to Pension Funds as of 31st December 2010 and 2022. The past decade has witnessed

Figure ES.2 – AuM of Spanish conventional pension plans



Data: INVERCO; Calculations: BETTER FINANCE.

a worrying trend in the number of accounts/participants and things are not likely to improve in the current one unless strong action is taken.

As of December 2022, slightly less than 9.4 million accounts were integrated in the whole scheme. The individual accounts sub scheme totalled barely 7.4 million accounts, 79.0% of total number of accounts.

Table ES.8 – Number of participants to Pension Plans 2010–2022

	Dec. 2010		Dec. 2022		Change 10–22
	Accounts	% of total	Accounts	% of total	
Associate schemes (Pillar III)	78 072	0.7%	51 675	0.6%	-33.8%
Company schemes (Pillar II)	2 149 334	19.8%	1 915 927	20.4%	-10.9%
Individual schemes (Pillar II)	8 601 775	79.4%	7 408 147	79.0%	-13.9%
Total	10 829 181	100.0%	9 375 749	100.0%	-13.4%

Data: INVERCO.

The most salient feature displayed in the above table is the drop in the number of participants' accounts since 2010, a 13.4% rather uniformly distributed on time, shared by all sub schemes but especially relevant (in absolute terms) in the individual plans sub scheme, that lost 1.2 million participants' accounts in the period.

Correspondingly, as Table ES.9 shows, the number of pension plans displays an almost regular decrease all through the present decade. Number of plans totalled 2 964 in 2010 and 2 286 at the

end of 2022, a 22.9% drop, a fairly regular though time decrease averaging over sub schemes, but most relevant again (in absolute terms) for the individual plans sub scheme. Associated schemes (inside Pillar III, according to the regulator classification) are a minority.

These data hide the fact that the average size of Pension Plans increased in the period from 3.2 thousand accounts per plan in 2010 to around 4.1 thousand accounts per plan, likely making the system more efficient. Even if one cannot get rid of the feeling that the whole scheme reached a ceiling some time ago and is now well set for a continuous and regular decline unless a “big bang” happens in this industry.

Table ES.9 – Number of Pension Plans by type of scheme 2010–2022

	Individual schemes	Company 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
2021	903	1 286	136	2 325
2022	861	1 294	131	2 286
Change 2010-2022	-32.26%	-12.80%	-37.32%	-22.87%

Data: INVERCO.

Pillar II schemes (employer-sponsored) represented, as of December 2022, 20.4% of total accounts and 55.6% of total plans (accounts per plan). AuM within Pillar II plans represented 29.9% of the system’s AuM (Table ES.10), a diminishing share. This, in turn, implies that average retirement assets per account are also larger within the Pillar II schemes than within Pillar III. Actually, € 10 831 per account in the latter versus €18 076 per account in the former.⁹

Coming to total AuM for the whole Pension Plans and Funds industry, as of December 2022, this indicator showed a heavy fall of 9%, due mostly to assets’ yields in the year albeit net investment was also negative for the second year in a row (see Table ES.7). Note, however, that total AuM for Pension Plans today barely reach 9% of GDP.

⁹Using standard mortality tables for Spain and assumptions about returns, these reduced amounts would yield very low instant lifetime annuities. The annuity a typical individual account could buy retiring at 65 amounts to around € 55 per month (twelve payments) and increases up to around €90 per month in the case of the typical occupational account. This said, retirement savings under these two varieties tend to be sensibly larger at retirement age but won’t even double the figures mentioned in the main text. Also, within the occupational variety, around half a million accounts belong to civil servants and most of these accounts have assets below one thousand euros per account. That’s why benefits at retirement are normally cashed in as a lump-sum. On the other hand, some employer-sponsored plans, covering dozens of thousands of employees in manufacturing and financial and advanced services (notably in the Basque Country, manufacturing), hold rather large average retirement accounts.

Table ES.10 – Evolution of Pension Plans’ Assets under Management by type scheme 2009–2022

	AuM (€ mln.)	% of total	AuM (€ mln.)	% of total	AuM (€ mln.)	% of total	Total AuM (€ mln.)
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	64 254	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
2021	89 323	69.8%	37 792	29.5%	883	0.7%	127 998
2022	80 233	69.4%	34 634	29.9%	779	0.7%	115 646

Data: INVERCO.

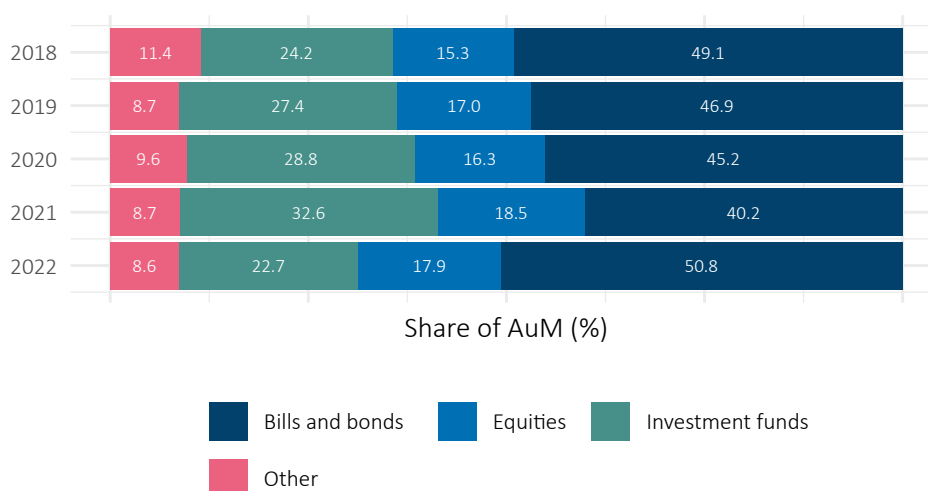
It can also be seen that around 69.4% of total AuM in these retirement vehicles belong to the Individual plans sub-scheme, representing a mere 6% of GDP. This category of assets has decreased its nominal value an 10.2% over the previous year, compared to a 8.4% decrease for occupational pension plans’ assets.

Typically, Pension Funds offer a variety of risk profiles that participants generally adhere to for some time until they decide to switch, as they age, for instance. 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 classes 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.

Figure ES.4 shows that Spanish Pension Funds (Pillar III) allocate 82% of their assets to a combination of mixed (bond + equity-based) and mostly equity-based schemes. Mostly-bond-based schemes have a reduced stance (14% of Pillar III assets) but, indeed, in 2022 funds have switched towards safer investments than in 2021 (see Table ES.11) due to rising interest rates.

On a short-term perspective (Table ES.11), asset allocation structure of Pension Funds (all schemes) is obviously more stable even if there has been a sharp contrast with respect to 2021 concerning assets’ returns. At the end of 2020, despite current terrible economic conditions, allocative decisions did not change dramatically the picture seen by end 2019. But at the end of 2022 very significant changes towards Investments Funds & Trusts and out of domestic and private bonds

Figure ES.3 – Allocation of Spanish conventional pension funds' assets



Data: INVERCO.

could be observed.

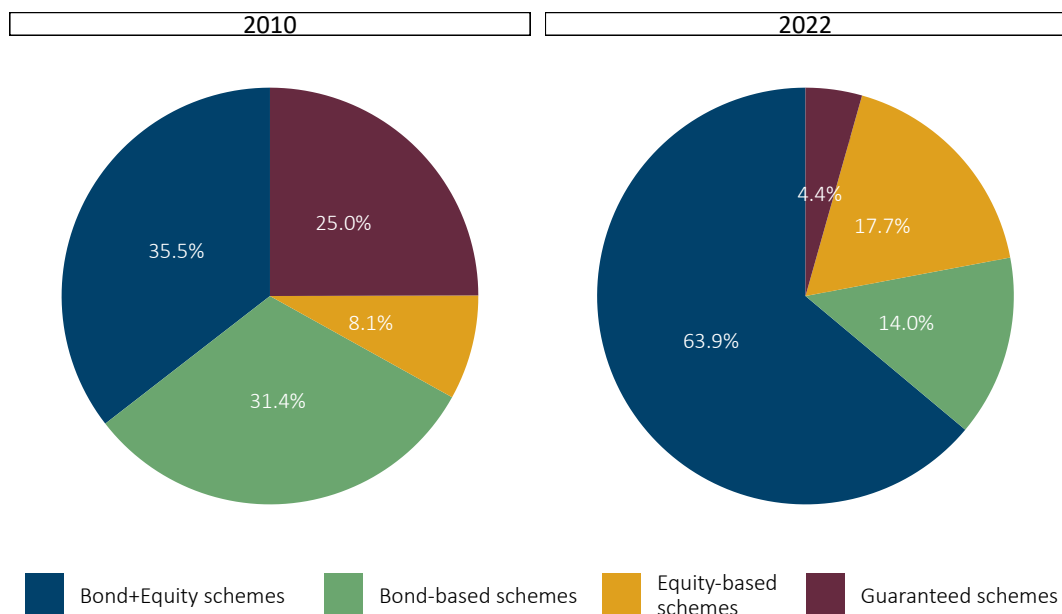
Table ES.11 – Pension Funds' Asset Allocation 2018–2022

	IVQ18	IVQ19	IVQ20	IVQ21	IVQ22
Equity	15.3%	17.0%	16.3%	17.5%	17.9%
Investment Funds & Trusts	24.2%	27.4%	28.8%	32.6%	22.7%
Domestic Government Bonds	18.7%	14.9%	13.3%	10.1%	8.3%
Foreign Government Bonds	12.7%	14.0%	13.2%	13.1%	18.1%
Securities and Private Bonds	17.7%	17.9%	18.7%	16.9%	24.2%
Other (Liquid Assets)	11.4%	8.7%	9.6%	9.7%	8.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Data: DGFSP

As shown in Figure ES.5, 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, that in 2019, rewarded those who undertook it. 2020, as said, for all its complexity in economic terms, has really been a continuation of the basic allocation structure of the previous year with 2021 showing a continuation of the trend towards Investment Funds and Trusts. This trend suddenly reversed as interest rates started to increase due to inflationary pressures provoked by geopolitical conditions after the Russian invasion of Ukraine. Foreign

Figure ES.4 – Investments by asset class (Pillar III schemes) 2010–2022



bonds and private securities gained important shares in Pension Funds portfolios against mostly investment funds in 2022.

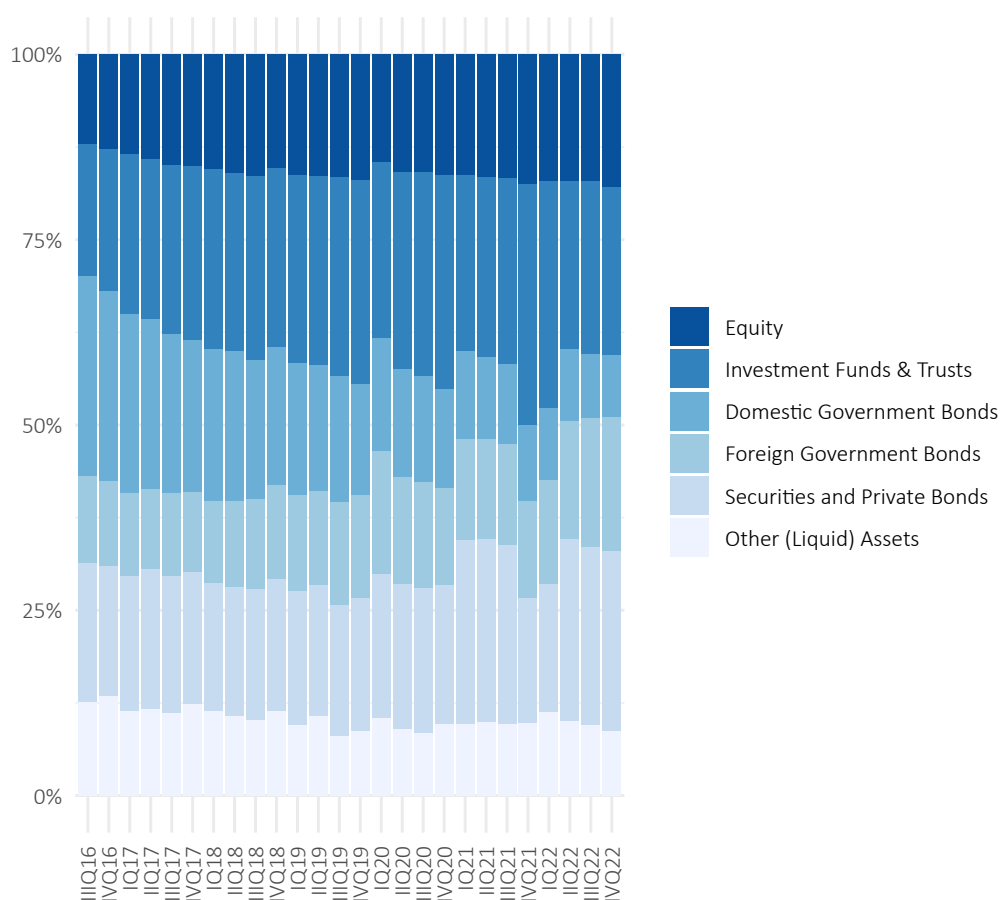
Life insurance

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 standard Pension Funds' assets is managed by insurers. A salient feature of this trade is the large variety of retirement and quasi-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 in 1987/1988 (*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 “financial” and “insurance” solutions when describing the nature of a given retirement solution. It must be said that if a given retirement product is a true, integral “retirement solution”, it must contain insurance DNA 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 or just the time span past the life expectancy point of the cohort the buyer belongs

Figure ES.5 – Pension funds' asset allocation 2017–2022



Data: DGFSP

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 products (no insurance features 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 make 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 2022 amounted to € 187 bln. (reserves), having spotted a 1.69% decrease over 2021, and € 55.9 billions of third parties' assets under management (-9.56 % with respect to 2021). As for the number of insured persons, 2022 ended with 14.3 million, and a -1.66% yoy change. The number of participants in conventional Pension Plans whose assets were managed by insurers amounted in 2022 to 4.3 million (see Table ES.12).

Table ES.12 – Insured Retirement and other Retirement-like schemes 2022

Broad category	Type of scheme	Persons insured (thousands)			Technical provisions (€ mln.)		
		Pillar II	Pillar III	Both pillars	Pillar II	Pillar III	Both pillars
Deferred capital	Insured Pension Plans (PPA)	–	858.3	858.3	–	11 034.0	11 034.0
	Company Retirement Plans (PPSE)	39.0	–	39.0	377.2	–	377.2
Pension Accruals and Insured Saving Vehicles	Risk	2 305.3	–	2 305.3	531.1	–	531.1
	PIAS ^a	–	1 071.3	1 071.3	–	13 644.7	13 644.70
	SIALP ^b	–	404.0	404.0	–	4 022.3	4 022.3
	Deferred capital	198.2	2 080.7	2 278.9	2 945.0	41 122.5	44 067.5
	Annuities ^c	–	1 663.5	1 663.5	–	63 647.3	63 647.3
	Income (acc. phase)	178.2	–	178.2	13 246.5	–	13 246.5
	Income (pay-out phase)	290.0	–	290.0	9 079.0	–	9 079.0
Unit/Index-Linked	41.1	1 363.4	1 404.5	1 652.1	17 022.2	18 674.3	
Other Retirement-like Group Insurance	Risk	3 459.4	–	3 459.4	1 077.3	–	1 077.3
	Deferred capital	294.1	–	294.1	2 770.5	–	2 770.5
	Pensions (acc. phase)	18.4	–	18.4	1 084.9	–	1 084.9
	Pensions (pay-out phase)	48.6	–	48.6	2 834.7	–	2 834.7
	Unit/Index-Linked	35.9	–	35.9	1 123.0	–	1 123.0
Total		6 908.1	7 441.1	14 349.3	36 721.3	17 022.2	18 674.3
<i>YoY change (in %)</i>		<i>1.67%</i>	<i>-4.55%</i>	<i>-1.66%</i>	<i>-3.29%</i>	<i>-1.30%</i>	<i>-1.69%</i>
Pro memoria		Persons insured (thousands)			AuM		
Pension plans managed by insurers				4 327.3			55 932.31
<i>YoY change (in %)</i>				<i>-0.49%</i>			<i>-9.56%</i>

Data: UNESPA;

^a Plan Individual de Ahorro Sistemático or Regular Individual Saving Plan;

^b Seguro Individual de Ahorro a Largo Plazo or Individual Long Term Saving Insurance;

^c Life and Term Annuities, including tax-qualified asset's conversions into annuities in the year.

Insured Retirement Plans (PPA)

The *Planes de Previsión Asegurados* (PPA)—“Insured Retirement Plans”—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 ES8 shows that, by December 2022, 858.3 thousand individuals had adopted this Pillar III retirement vehicle, with total technical reserves amounting to € 11 bn, a mere € 12 856 per contract.

Company Retirement Plans (PPSE)

These are employer-sponsored Group Insurance aiming a 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 ES8 shows that, as of December 2022, only 39 thousand workers have been opted-in in this Pillar II retirement vehicle by their employers, with technical reserves amounting to € 377 million, again a mere € 9 676 per account. In 2022, the number of participants increased by a healthy 6,33%.

Regular Individual Savings Plan (PIAS)

Plan Individual de Ahorro Sistemático (PIAS)—“Regular Individual Saving Plans” 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 ES8 shows that, as of December 2022, more than 1 million individuals have adopted this Pillar III retirement vehicle, with technical reserves amounting to € 13.4 billion, or € 12 737 per account.

Long-Term Individual Saving Plans (SIALP) Seguro Individual de Ahorro a Largo Plazo (SIALP)—“Long-term Individual Saving Plans” 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 2022, 404 thousand individuals had contracted this product totaling € 4 bn technical reserves, barely € 9 957 per account.

Charges

Since inception (1987/1988), 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 at the outset: (i) the Spanish retirement solutions market has always been and continues to be ridiculously small and this entails a heavy toll on scale and thus 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 intense regulatory pressure on companies.

Data discussed below is eloquent enough about the consequences for savers that stem out of

these market conditions. Average fees have been oscillating down in the last decade at around 1% of AuM . Using this figure as a proxy for TER (or total cost ratio for investors), and under basic assumptions, typical investors could bear a life-long RiY rate, because of charges, amounting to 13% of their final of labour life savings.

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 person. Recently, and regularly, management and depositary fees have been limited by law. These regulations however allow variable fees to be set based on yields, within certain limits.

Figure ES.6 and Table ES.13 show the evolution of effective average fees charged on Pillars II and III Pension Funds to Plan participants by both managers and depositories. Note that to management fees, as said before, some retailing fees (not known) may also be added.

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 ES.13).

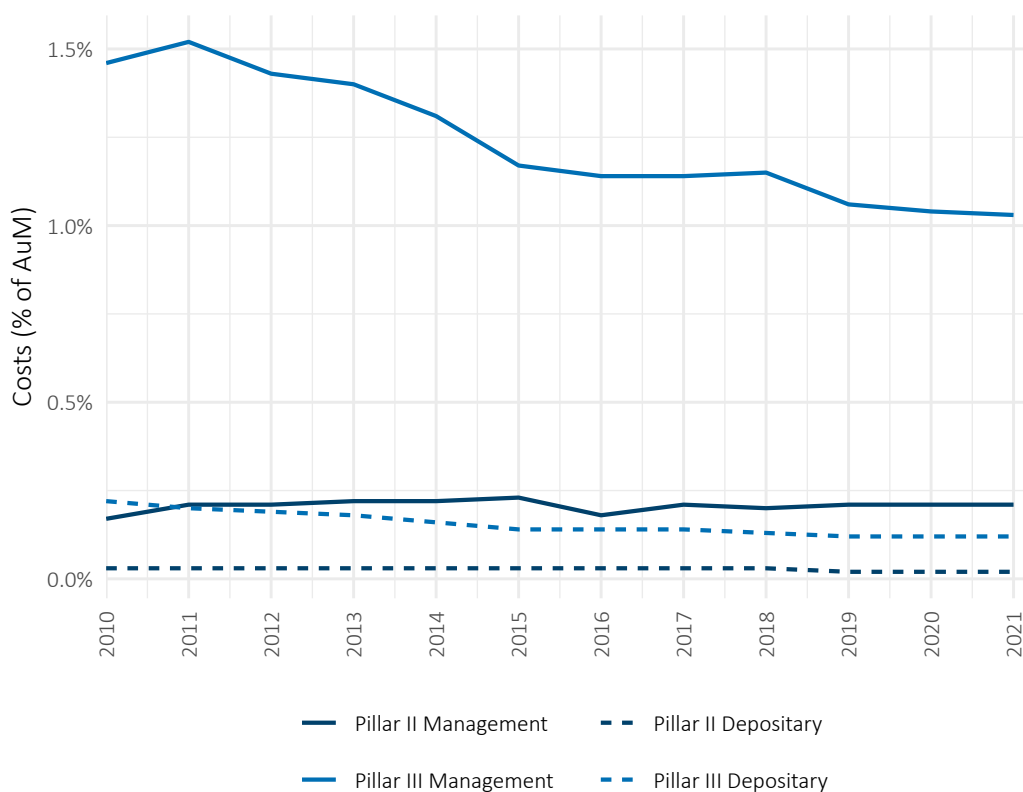
Table ES.13 – Charges in Pension Funds 2018–2022

	Pillar II			Pillar III		
	Management	Depositary	Total	Management	Depositary	Total
2010	0.17%	0.03%	0.20%	1.46%	0.22%	1.68%
2011	0.21%	0.03%	0.24%	1.52%	0.20%	1.72%
2012	0.21%	0.03%	0.24%	1.43%	0.19%	1.62%
2013	0.22%	0.03%	0.25%	1.40%	0.18%	1.58%
2014	0.22%	0.03%	0.25%	1.31%	0.16%	1.47%
2015	0.23%	0.03%	0.26%	1.17%	0.14%	1.31%
2016	0.18%	0.03%	0.21%	1.14%	0.14%	1.28%
2017	0.21%	0.03%	0.24%	1.14%	0.14%	1.28%
2018	0.20%	0.03%	0.23%	1.15%	0.13%	1.28%
2019	0.21%	0.02%	0.23%	1.06%	0.12%	1.18%
2020	0.21%	0.02%	0.23%	1.04%	0.12%	1.16%
2021	0.21%	0.02%	0.23%	1.03%	0.12%	1.15%

Data: DGFSP; no data available for 2022.

Within this context, industry transparency requirements at the international scale are starting to provide a framework within which generate a comprehensive understanding and common

Figure ES.6 – Effective charges in Pension Funds (% of AuM), 2010–2021



Data: DGSFP.

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 KID to their customers. These KIDs are firmly rooted on PRIIPs regulation that is not binding however for pension products. Pillar II products are not obliged to advance a KID to their customers, albeit they must of course provide information akin to this package regularly.

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 labor 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 (or tax deferral) of income saved for retirement pur-

poses, 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 when benefits are received and, correspondingly taxed.

This treatment is often referred to as “tax incentives” or, more plainly, “tax gifts”, and 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. Tax deferral is, moreover, a way to increase the power of capitalization even if this requires further regulations that few countries have. Not Spain, indeed.

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 in. That’s the “Exempt-Exempt-Tax” or EET paradigm most commonly used in the world. Another way to avoid double taxation of income set apart for retirement purposes 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. 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 SS benefits enjoy, that is full (or almost full) and unlimited (or almost unlimited) 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

Tax exemptions during accumulation are important for participants. This 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 final tax bills by deciding up to what limit they want to 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 absolute limit up to which income saved for retirement under a Pension Plan is tax exempt in Spain is currently € 10,000 for occupational Plans (up by € 2 000 with respect to 2019) and € 1 500 for personal Plans (down by € 6 500 in 2019). When the absolute limit of € 10,000 for Pillar II schemes is reached, participants can’t put a single cent on their personal schemes.

The Budgetary Law for 2022 (December 2021) deepened the move initiated by the Budgetary

Law for 2021 (December 2020) that eliminated equal tax treatment for Pillars II and III schemes, with personal retirement savings resulting clearly discriminated. The reason behind seems to be the need to reinforce occupational Plans, something that should not be done at the expense of personal Plans, however. And something that has not brought more participants to the former.

The new Simplified Occupational Pension Plans introduced in 2022, however can enlist for the first time independent workers and these enjoy a deduction limit of up to € 5 275. When withdrawal of benefits at retirement occurs, there are three possible cases:

1. Benefits are 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 as this income is considered labour income, even if the participant has never worked. No distinction is made between principal and interest earned during accumulation phase, despite the fact that Spain has a dual personal income tax.
2. Benefits are retrieved as a life (or term) annuity: this income is also considered labour income and taxed at the current marginal personal income tax rate, again with no distinction whatsoever between principal and interest part of benefits.
3. Benefits are 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 which Spanish region a 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. (plus autonomous cities of Ceuta and Melilla). While the Central Government sub scheme applies uniformly for the whole nation (but for the two “Foral” (historical) regions of Navarre and the Bask Country), the regional sub schemes have different income brackets and marginal tax schedules, as it is shown in Tables ES10 and ES11 below. As it can be seen, in non historical regions, the extant (for the 2022 tax year) top marginal rate varies between 18.22% (past a € 35 394 upper limit) in Región de Murcia and 29.50% (past a € 175 000 upper limit) in Comunitat Valenciana. A rather large difference both in terms of tax rate and taxable earnings.

Life insurance products

Since 1999 premiums paid into insured saving are taxed. Retirement lump sums or income from these vehicles are not taxed except in its interest and capital gains’ part (thus a TEET regime). 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 annuitant’s death, 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 € 10 000 and benefits are taxed as labour income con-

Table ES.14 – 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	€60 000	18.50%
€60 000	€300 000	22.50%
€300 000	n.a.	24.50%

Data: Agencia Tributaria.

* Spain has several government levels and PIT is roughly split in half between Central and Regional Governments

[†] Only Central Government and only labor income, interests and dividends are thoroughly taxed at 19

Table ES.15 – Personal income tax – Autonomous regions, 2022

Region*	Top income bracket (ordered)	Top marginal tax rate beyond top income bracket
Región de Murcia	€35 394	18.22%
Castila y León	€53 407	21.50%
Madrid	€55 597	20.50%
Catilla-La Mancha, Galicia, Ceuta y Melilla	€60 000	22.50%
Andalucía	€60 000	22.50%
Cantabria	€90 000	25.50%
Canarias	€120 000	26.00%
La Rioja	€120 000	27.00%
Extremadura	€120 200	25.00%
Aragón	€130 000	25.50%
Illes Balears	€175 000	25.00%
Principado de Asturias, Cataluña	€175 000	25.50%
Comunitat Valenciana	€175 000	29.50%

Data: Agencia Tributaria.

* Two historical Autonomous Regions (Navarra and The Basque Country) are exempted from the Common Tax Regime; Two Autonomous Towns are included (Ceuta and Melilla).

sidering 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. They are not straight retirement vehicles, however. As a retirement saving vehicle, annual contributions to it are fully tax deductible up to a limit of € 8 000 per year. There is also a global capital 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).

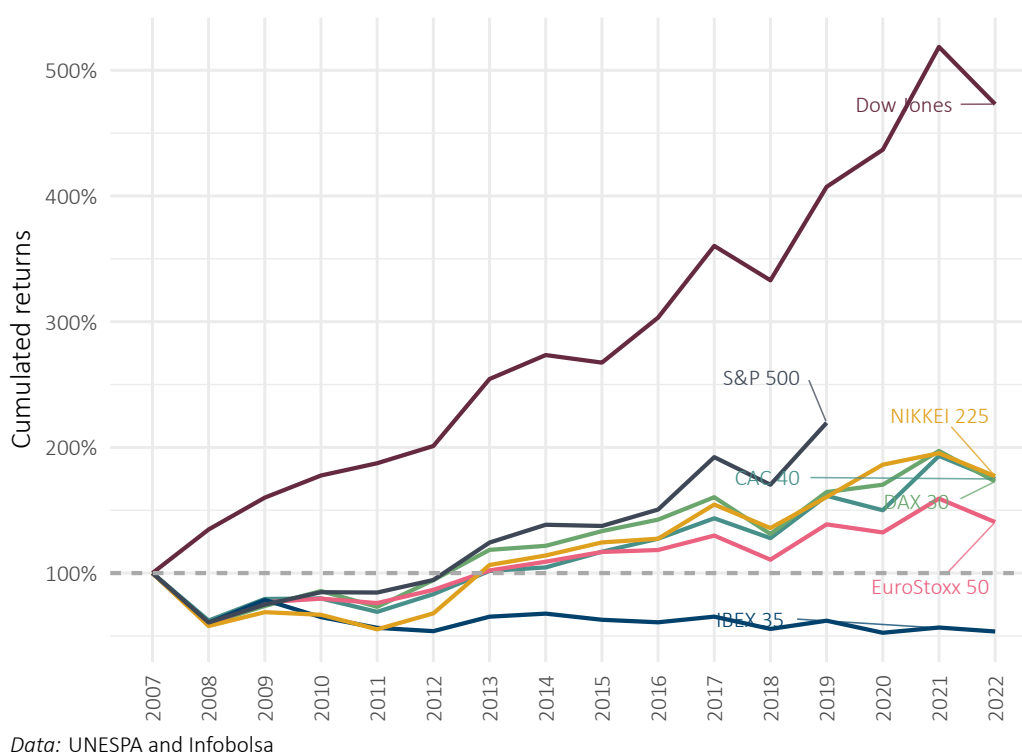
But if retirement income is retrieved as a life annuity, capital gains are 100% exempt and principal is taxed at rapidly diminishing (with time while saving prior to retirement) rates schedule. PIAS can be cashed in well before ordinary retirement age, but when cashed after age 65 the tax rate is 20% 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.

Performance of Spanish long-term and pension savings

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 many of them to poverty at old age. Most of these stock markets recovered the 2007 line by 2012–2013, But the Spanish stock market has not even past the 2008 bottom-line. This can be seen in Figure ES.7.

Figure ES.7 – Major stock markets performance 2007–2022



Happily enough, some would say, 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

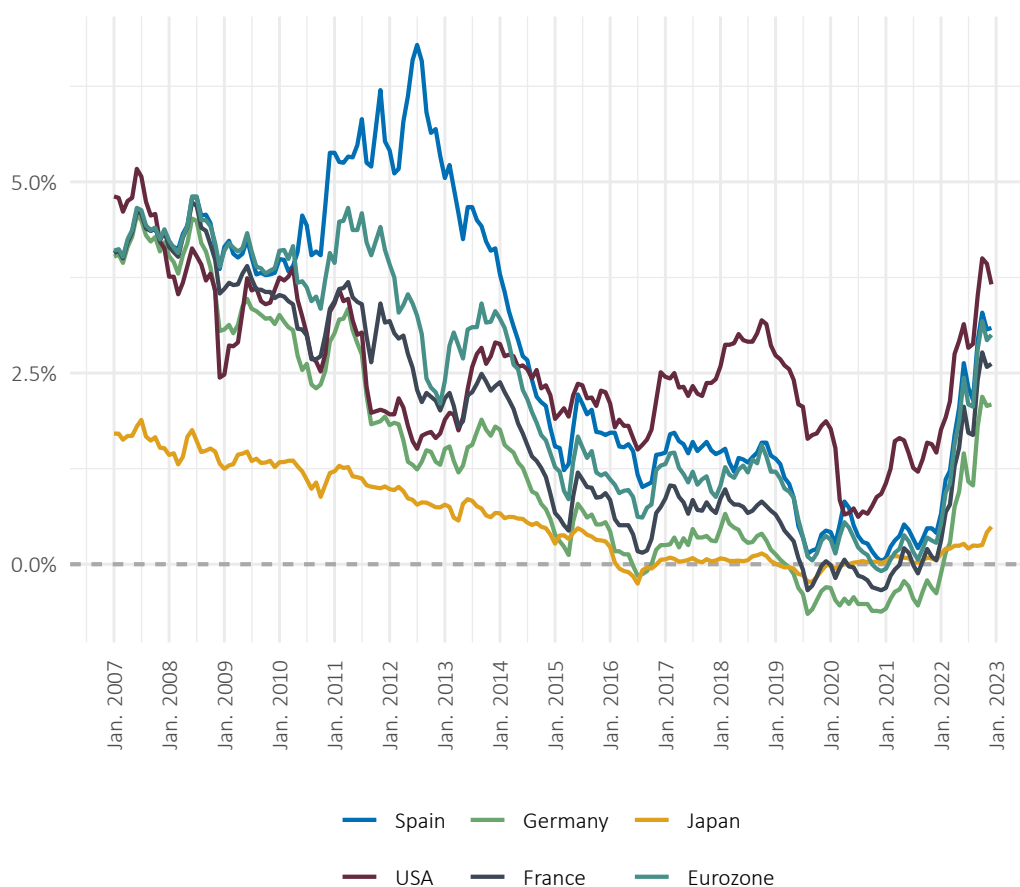
a rather large (expected) Social Security implicit wealth as pension benefits replace labour income above 80% (OECD) and, additionally, they have almost universal and large stocks of bricks & mortar.

If 2020 wasn't a good year for stocks returns for obvious reasons, 2021 was exceedingly better so that most exchanges surpassed 2019 levels taking most markets to all time highs since the beginning of the financial crisis. 2022, however, witnessed a very bad year for returns with major exchanges dropping around 10%. The Spanish IBEX however dropped by a more limited 5.56%.

In the period 2007-2022 the DOW JONES index, for instance, grew by a 373% (a cumulative annual rate of 10,92%), or a 72.85% in the case of the German DAX 30 (a 3.72% per year). The Spanish IBEX 35, in 2022, displayed a dismal 57% of its 2007 value, that means a cumulative -4.08% per year.

Sovereign debt markets in advanced countries, on the other hand, have not been less turbulent. Spanish 10y bond yields reached intervention levels in August 2012, at 679 bp. Only an EU financial sector rescue package saved the Spanish sovereign market, and perhaps the Euro, at a cost naturally (see Figure ES.8).

**Figure ES.8 – Major Sovereign Bond Yields (yoy, monthly, 10 years)
2007-2022**



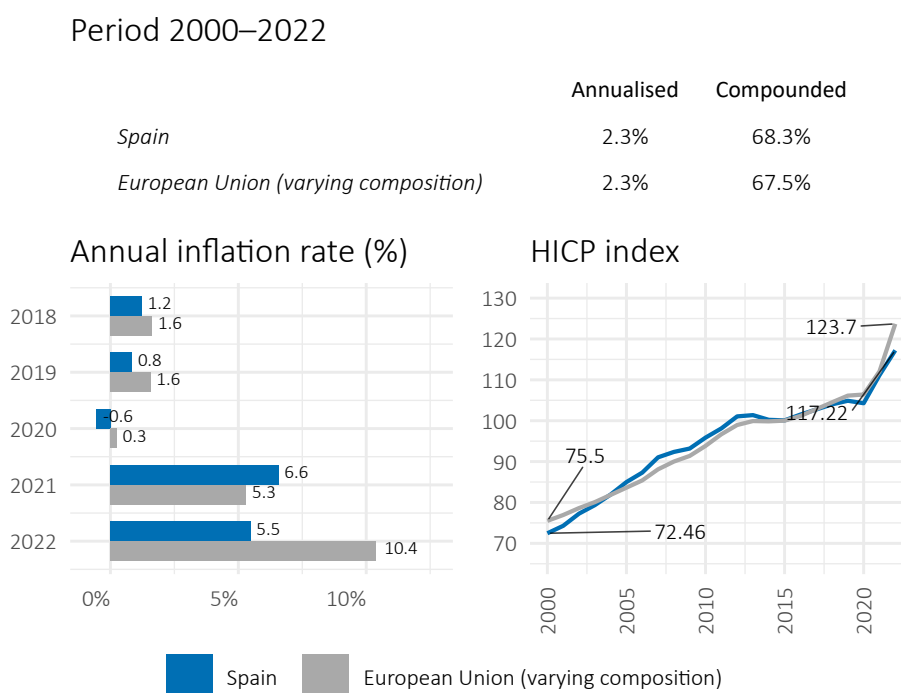
Data: Banco de España

Since May 2015, the ECB succeeded calming lenders and sovereigns entered into a considerably quieter environment. By mid 2019 European and Japanese 10y bonds yields reached around 0 or negative levels. Spanish 10y bonds yields were quoted at 3.09% in December 2022 (0.04% in December 2020 and 0.41% in December 2021) versus a 2.09% quote for Germany’s 10y bond, an exact 100 bp risk premium for Spain.

Figure ES.8 clearly shows both the assets price depreciation and corresponding increasing in interest rates that Central Banks intervention has brought since inflation started to hit Western economies at the beginning of 2022. As it is well known, interest rates have not ceased to increase during 2023.

Contrary to the conditions that prevailed in 2021, both for stocks and bonds, in 2022 general deterioration of stocks markets and heavy depreciation of bonds’ values, assets in which retirement savings are regularly invested, marked one of the worst years for the pension assets management industry since the Great Recession with nominal returns oscillating around -10% in almost all portfolios. Add to this an overall inflation rate not seen in decades (see Figure ES.9).

Figure ES.9 – Inflation in Spain



Data: Eurostat, HICP monthly index (2015 = 100); Calculations: BETTER FINANCE

Real net returns of Spanish long-term and pension savings

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. There is some hope that the newly adopted regulation on “Simplified Employment Pension Plans” helps to this

purpose.

As it is shown in the figures displayed in this section, savings, that until 2021, managed to maintain their purchasing power with few exceptions performing better, ended 2022 with their real returns clearly below par with inflation. 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 management fees, returns of these retirement assets.

All the evidence produced in this section belongs to the standard Pension Plans system, not to insured retirement vehicles, due to data limitations. All data comes basically from the website 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 covering longevity risk, on the other hand. Even if insurers are good performers, also as assets managers, and enjoy the very long-term premiums of the underlying matching assets they invest in, they also need to beat the insurance extra cost that these products entail.

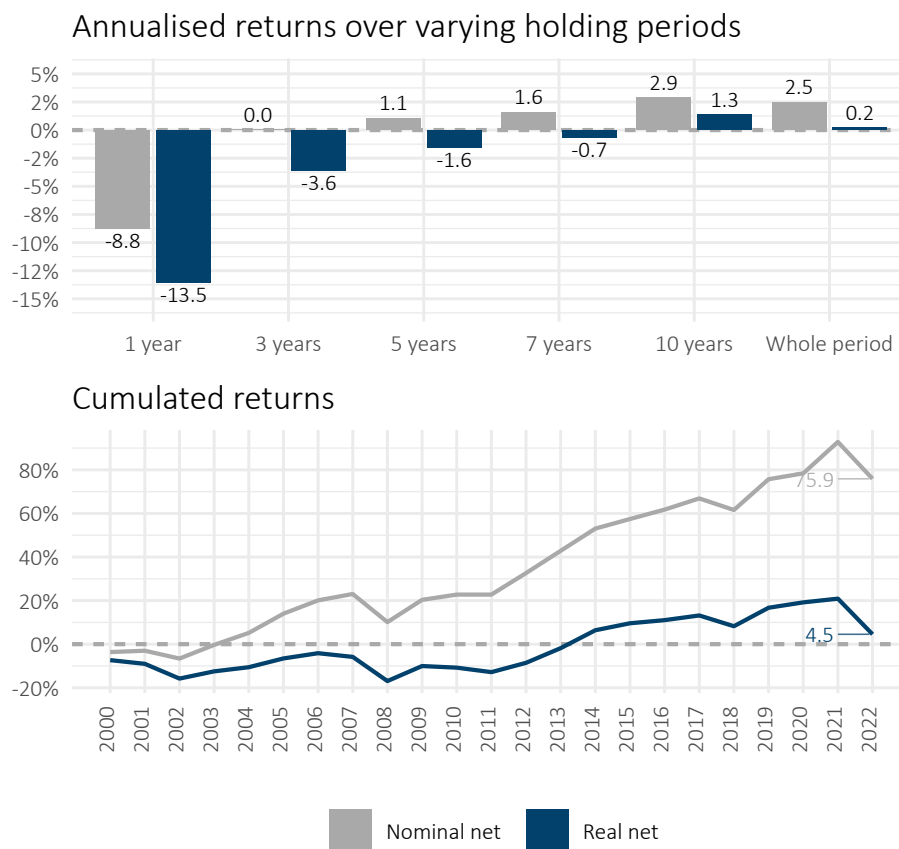
Figures ES.10 to ES.13 display the returns of Pillars II and III Pension Funds. Returns are labelled "gross", "net" and "real". "Gross" means before management and depositary fees and commissions (retailing and other transaction costs are disguised here), "net" means after management and depositary fees and commissions. Both gross and net returns are nominal. "Real" means after inflation. At first glance, positive net nominal returns dominate the landscape since 2009, 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 was a bad year for investments returns of all sorts, particularly the stock market. But returns in 2019 overshot. This saga continued in 2020-2021 as the markets suffered everywhere due to the Covid-19 collapse of activity and the corresponding rebound in 2021. But 2022 has been a very bad year for nominal returns on every asset with heavy losses against inflation. A more vivid landscape emerges when overall returns are followed through time with the help of cumulative returns computations as presented in the lower pane of each figure.

In the period 2000–2022, cumulative nominal net returns for conventional occupational pension funds reached 75.9%—a drop by more than 10 pp from end-2021—and annualised returns over the period amounted to 2.5%. After correcting for inflation, the cumulative *real* return is reduced to 4.5% (0.2% annualised). Over the past 10 years, the nominal *gross* annualised return was 3.1% per year; the 2.9% annualised nominal *net* return and 1.3% *real* return therefore imply that each year, on average, 0.2pp of returns were given to managers, while 1.6pp of returns each year were destroyed by inflation.

The situation is worse for the Pillar III funds. Funds that mostly invest in bonds have only managed to offer a cumulative nominal return of 12.9% over the past 23 years, amounting to 0.5% annual average return (see Figure ES.11). Those investing mostly between 30% and 75% in equity fared slightly better, with a 24.6% cumulative nominal net return (1% annualised, Figure ES.12). Those investing over 75% of their assets in managed a 46.3% cumulative nominal net return (1.7% annualised, Figure ES.13), owing to the particularly strong performance of equity markets in 2019

Figure ES.10 – Returns of Spanish conventional occupational pension funds (before tax, % of AuM)



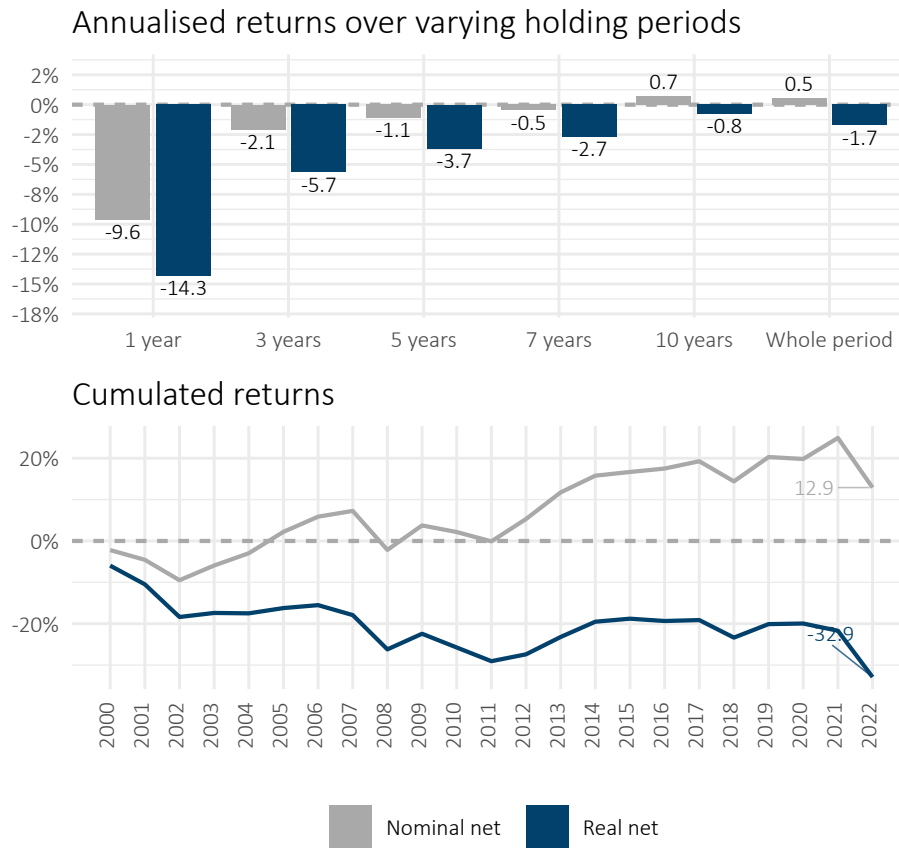
Data: INVERCO, DGSFP, Eurostat; Calculations: BETTER FINANCE.

and 2021. Nevertheless, after correcting for inflation, all three categories of funds present a negative real performance, ranging from -13% for equity funds to an abysmal -32.9% for bond funds.

Over the period 2013-2022, bond, mixed and equity Pillar III pension funds lost respectively 1.3, 1.3 and 1.2pp of their average annual nominal gross returns to costs and charges, and 1.5, 1.5 and 1.6 to inflation. This comparison confirms the already mentioned observation that costs of Pillar III funds, being much higher than those of occupational pension funds, constitute a major negative performance factor.

Occupational Pension Funds (Pillar II) are much cheaper to manage, as seen before, and obtain a larger net nominal return as seen in Figure ES.10. But their gross performance is not better than that of individual plans once compared in the longer term. Among Pillar III funds, we observe that, for the same level of costs, the “best” performance is obtained by those funds that are mostly invested in equity, although they were for a long period of time the worst performing of the three categories of funds. Figures ES.14 and ES.15 offer a comparative perspective.

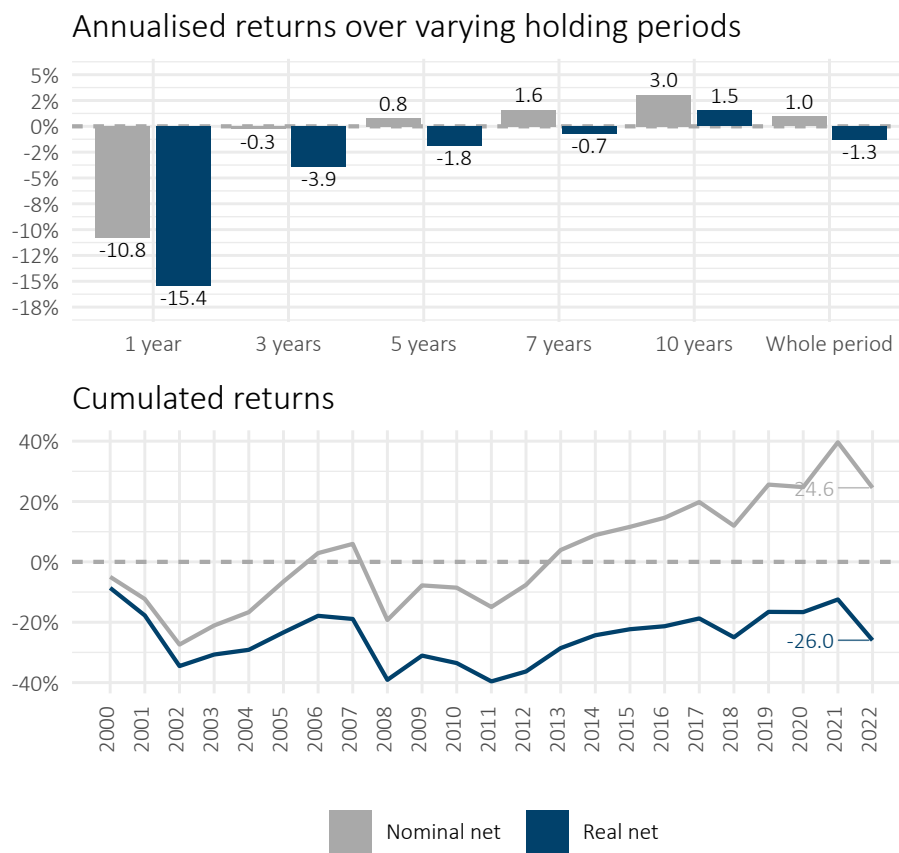
Figure ES.11 – Returns of Spanish mostly bonds Pillar III pension plans (before tax, % of AuM)



Data: INVERCO, DGSFP, Eurostat; Calculations: BETTER FINANCE.

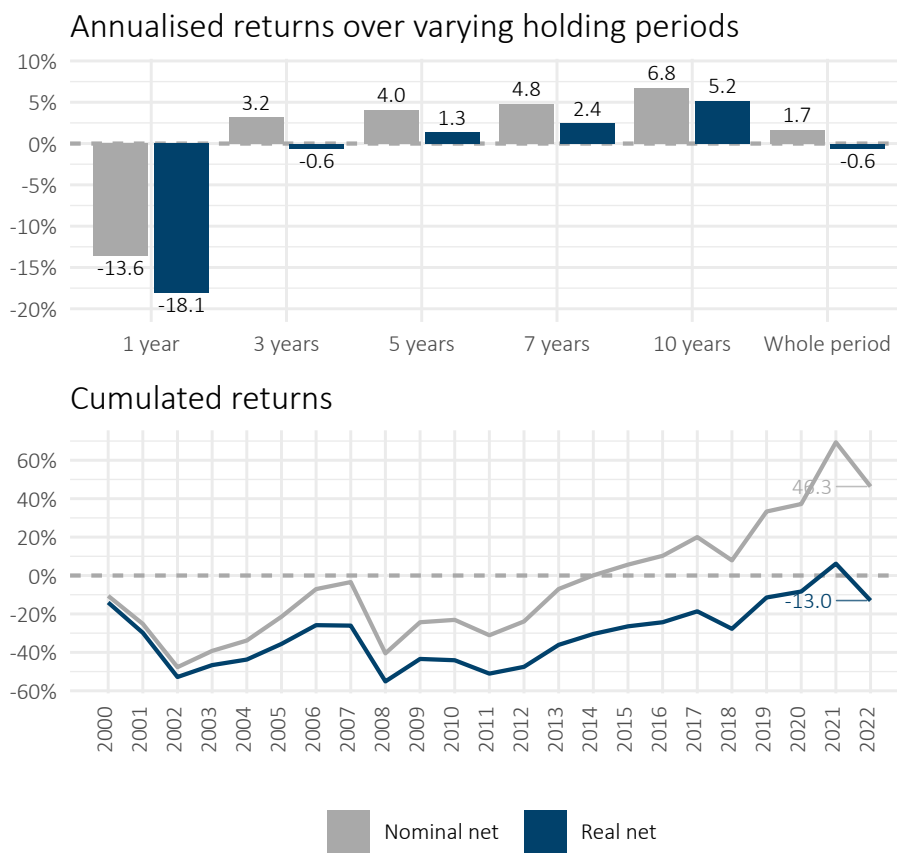
Given the performance of Pillar II (Figure ES.10) and Pillar III (Figures ES.11 to ES.13) pension funds and the overall system performance just discussed, the conclusion emerges Spanish pension funds either barely manage to operate above inflation (for occupational funds), or do not manage to at least preserve the purchasing power of pension savings (individual funds).

Figure ES.12 – Returns of Spanish mostly equity Pillar III pension plans (before tax, % of AuM)



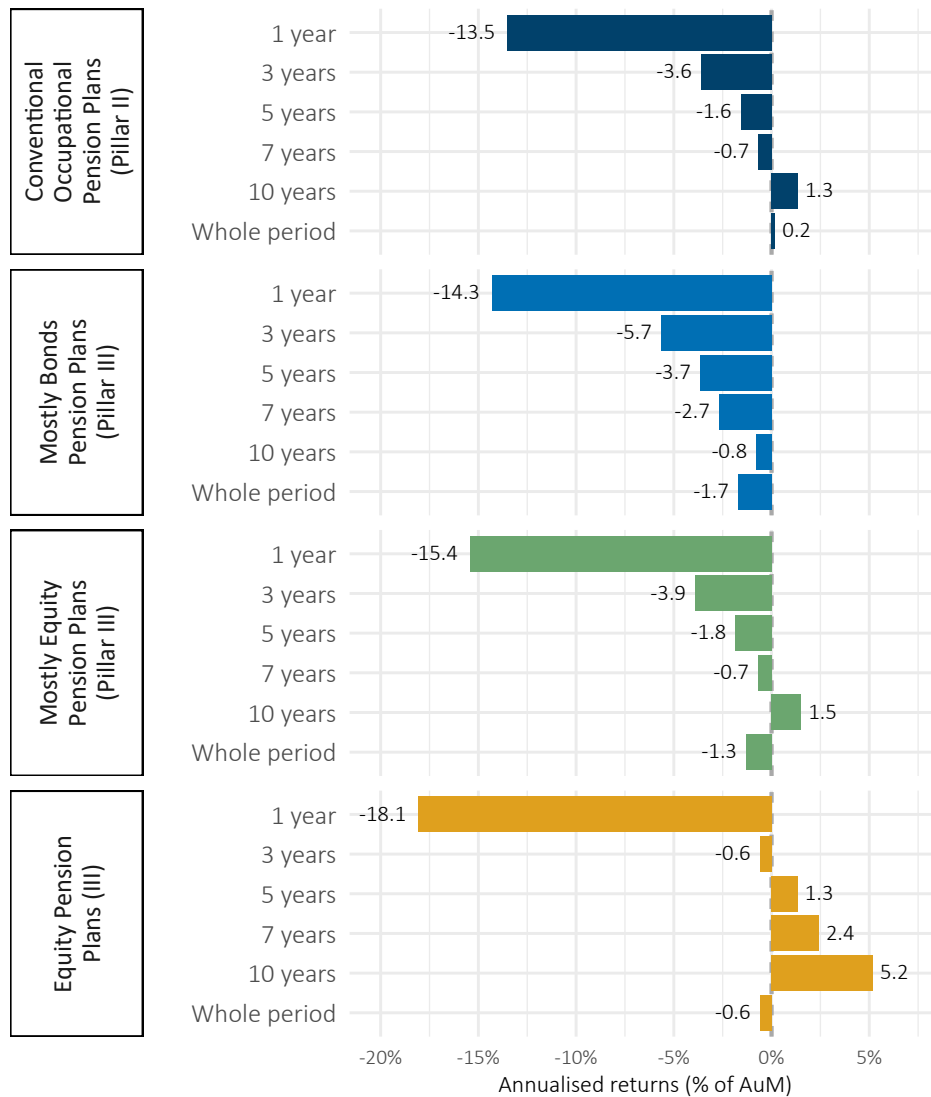
Data: INVERCO, DGSFP, Eurostat; Calculations: BETTER FINANCE.

Figure ES.13 – Returns of Spanish equity Pillar III pension plans (before tax, % of AuM)



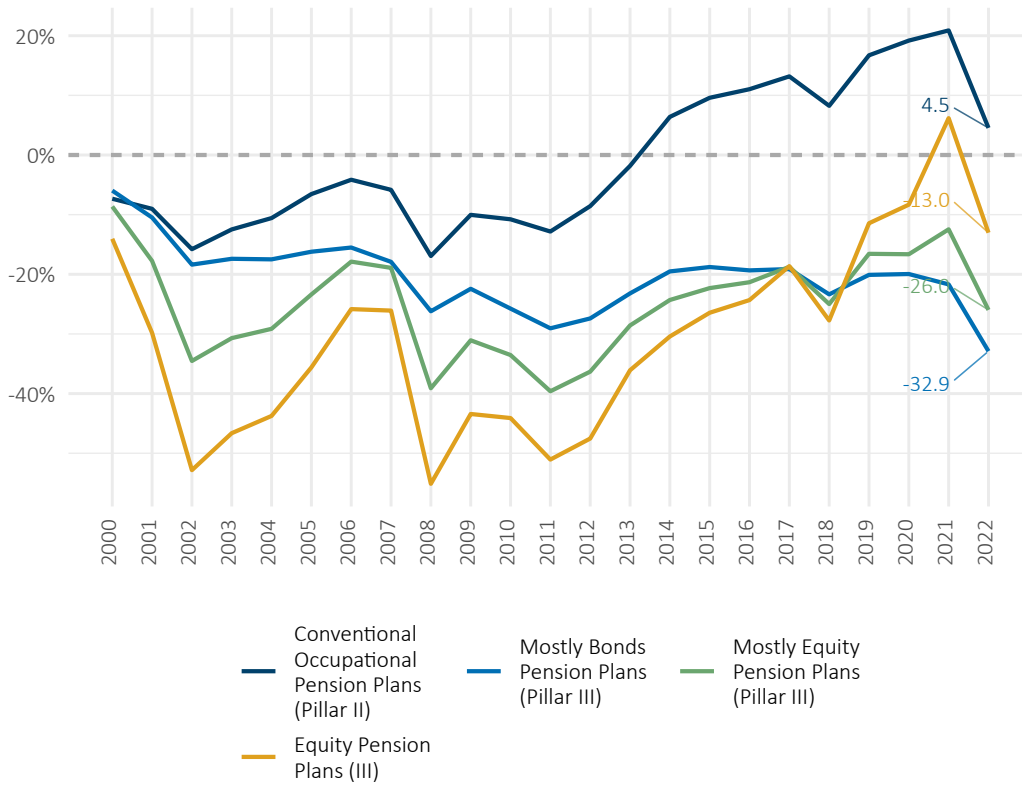
Data: INVERCO, DGSFP, Eurostat; Calculations: BETTER FINANCE.

Figure ES.14 – Annualised returns of Spanish long-term and pension vehicles over varying holding periods (before tax, % of AuM)



Data: INVERCO, DGSFP, Eurostat; Calculations: BETTER FINANCE.

Figure ES.15 – Cumulated returns of Spanish long-term and pension savings vehicles (2003–2022, before tax, % of AuM)



Data: INVERCO, DGSFP, Eurostat; Calculations: BETTER FINANCE.

Do Spanish savings products beat capital markets?

In this section, we compare the performance of the four categories of pension funds analysed in this chapter with the real returns of four hypothetical capital market portfolios over the period 2000–2022. Acknowledging the different asset allocation of the four types of fund, we have set the equity-bond balance of each benchmark portfolio at different levels; however the underlying indices are the two pan-European indices of the “default” benchmark (see introductory chapter). The composition of the benchmark portfolios is summarised in Table ES.16

Table ES.16 – Capital market benchmarks to assess the performance of Spanish pension vehicles

Product	Equity index	Bonds index	Allocation
Conventional Occupational Pension Plans (Pillar II)	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	50.0%–50.0%
Mostly Bonds Pension Plans (Pillar III)	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	30.0%–70.0%
Mostly Equity Pension Plans (Pillar III)	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	50.0%–50.0%
Equity Pension Plans (III)	STOXX All Europe Total Market	Barclays Pan-European Aggregate Index	75.0%–25.0%

Note: Benchmark portfolios are rebalanced annually.

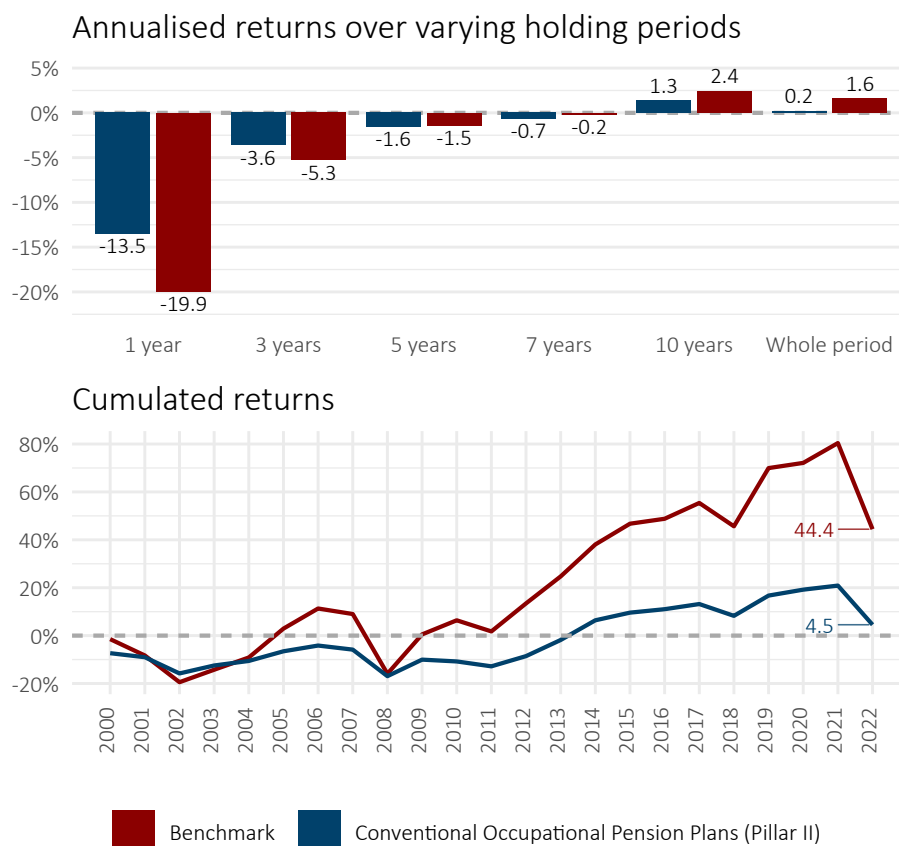
As shown in ??, over the 23-year period, conventional occupational pension funds fail to beat a 50% equity–50% bond benchmark by an average 1.4pp per year, or 39.9pp cumulated.

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. As clues for the reasons behind the varied results just discussed, several standard facts emerge irrespective of managers’ capacity to beat the records: (i) long-term and short-term debt have yielded more than mixed debt, (ii) debt is less volatile than stocks and thus less risky, and (iii) 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 are more conservatively invested and 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 poor 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 chapter (Fernandez & Fernández Acín, 2019), but few general comments can be made. Guaranteed funds, that accounted for 4.09% of Pillar III total assets in 2022 (19.47% in 2010) have been much more profitable for participants

Figure ES.16 – Performance of Spanish conventional occupational pension plans against a capital market benchmark (returns before tax, after inflation, % of AuM)



Data: COVIP, Eurostat; Calculations: BETTER FINANCE.

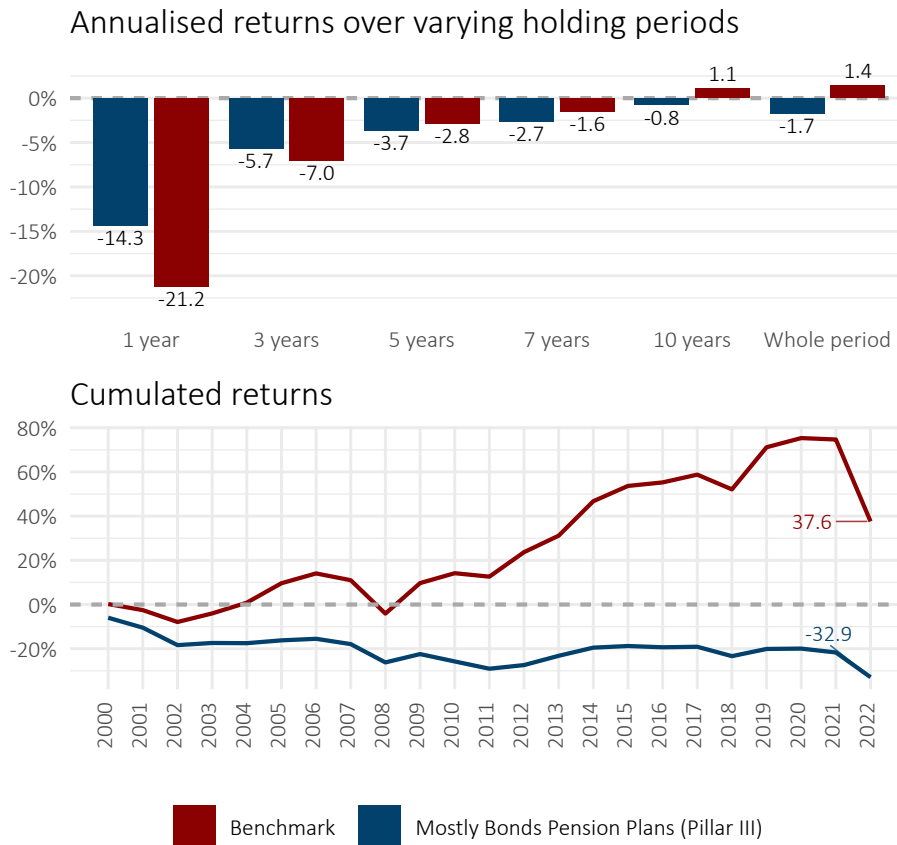
than the rest, while presumably they are more expensive to run due to the insurance coverage they include. On the other hand, Pillar III vehicles are considerably more charged by management fees than their Pillar II counterparts.

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 only by a small margin in favour of Pillar III funds in the last decade (2013–2022). The large difference in net returns in favour of Pillar II funds being thus, as already mentioned, almost entirely attributable to managing fees, much lower within Pillar II than within Pillar III funds.

All categories of retirement vehicles in Spain invest rather shyly in foreign assets with only few funds specialising in this class. Superior returns in foreign assets however are by no means assured and this investment strategy has extra costs.

Guaranteed funds' managers, finally, which enjoy considerably more freedom than their non-

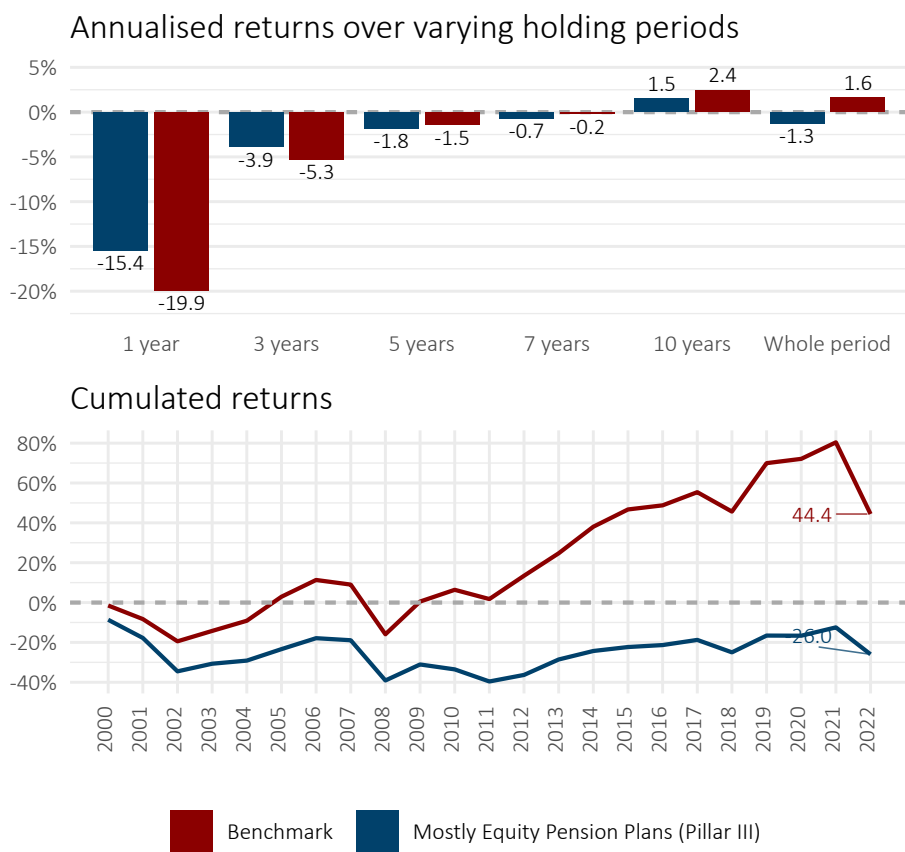
Figure ES.17 – Performance of Spanish mostly bonds Pillar III pension plans against a capital market benchmark (returns before tax, after inflation, % of AuM)



Data: INVERCO, Eurostat; Calculations: BETTER FINANCE.

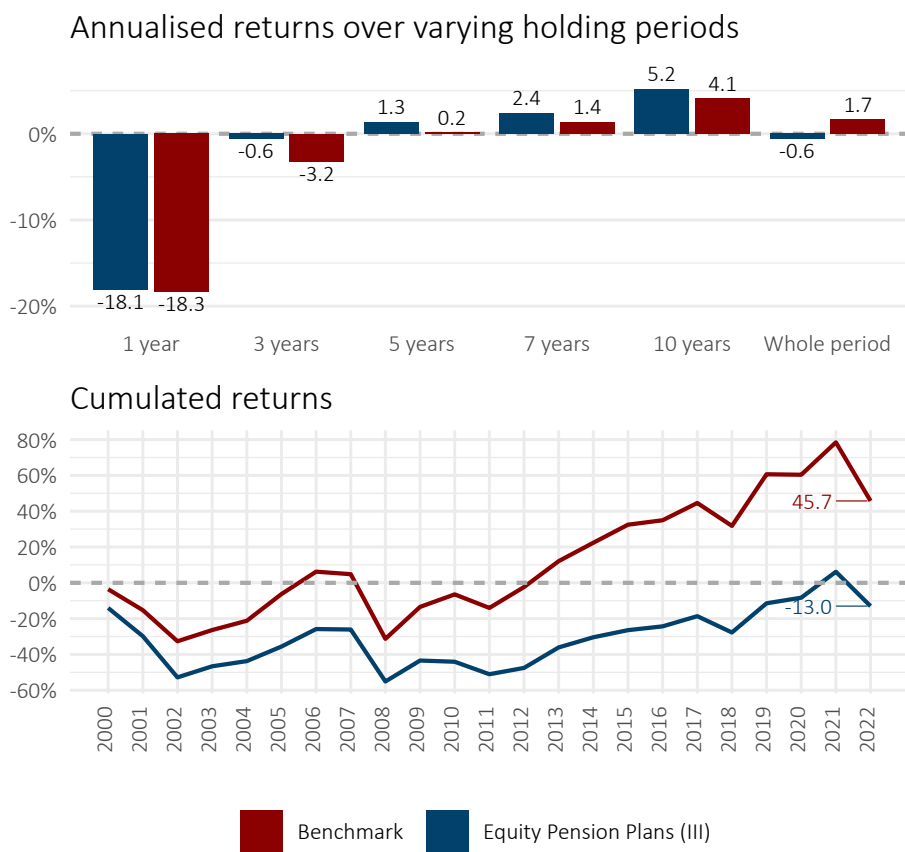
guaranteed counterparts (besides being the same managers eventually), not having to face internal control bodies like their Pillar II counterparts, seem to have profited from this conditions to obtain larger returns for their vehicles’ participants.

Figure ES.18 – Performance of Spanish mostly equity Pillar III pension plans against a capital market benchmark (returns before tax, after inflation, % of AuM)



Data: INVERCO, Eurostat; Calculations: BETTER FINANCE.

Figure ES.19 – Performance of Spanish equity Pillar III pension plans against a capital market benchmark (returns before tax, after inflation, % of AuM)



Data: INVERCO, Eurostat; Calculations: BETTER FINANCE.

Conclusions

Spanish retirement assets, through standard Pension Plans are a mere 8.71% 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 14.11% 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 14.3 million individuals are covered by insurance retirement or quasi-retirement vehicles. Assets, technical provisions, or other retirement rights amount, on average, (2022) to € 12,765 per contract or account making the whole system an insufficient complement to Social Security retirement benefits. This unfortunate complementary pensions landscape is rare among advanced 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 tightly related factors prevent this from happen: the pervasive presence of Social Security pensions, whose old-age benefits replace lost labour income at retirement by around 80% and has a high cost for both employers and employees, and the reluctance of employers to sponsor company retirement schemes for their employees because of additional costs reasons, particularly among SMEs.

This chapter of the Better Finance Pension Report 2023, apart general descriptions of the landscape in Spain, 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, but 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 or even lower. Thanks to intense regulatory effort in the last few years, charges in Pillar III schemes have decreased clearly. A continuation of this trend, without a significant increase in market size, continues to look far less affordable for managers than before. Scale is at the core of this.

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 deductability 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 the current deductability of contributions and thus tax deferral. Tax deferral empowers the accumulation of pension rights and may also turn to be a good business for thax authorities in the longer run. Spain however has gone backwards in 2021 and 2022 strongly limiting the deductatily in Pillar III schemes. This has been corrected in part in 2022 with the new legislation regulating the “Simplified Employment Pension Plans” to which independent workers can join in much better tax conditions than if they remain in Pillar III schemes.

Tax deductability cum deferral should not be seen as gifts or favours, but as the best policy that can be performed to encourage long term savings for retirement. Some ceilings to tax deductibility may be too low or even arbitrary. Less understandable is still the push among some political and social agents to fully dismantle tax deductability.

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 real returns, it must be admitted that performance to date is losing its long-term battle to beat inflation. A result that many will find too poor. Nominal gross returns for more than two thirds of participants are loaded with heavy charges, as mentioned before, but gross (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 vehicles, despite the illiquid nature of most of them. 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 those participants able to allocate some extra money aside for their retirement regularly, as roughly half of total participants cannot afford to put more money into their complementary pension pots. Since after the Great Recession. Meanwhile, many millions of workers that do not participate in complementary pension schemes may think, perhaps, that Social Security will walways be there to give them retirement benefits with a much higher implicit rate of return (on their contributions) free of management fees and inflation linked. Also, perhaps, ignoring that someone will have to pay an increasing part of their bills.

References

Fernandez, P., & Fernández Acín, J. (2019, January 21). *Rentabilidad de los fondos de pensiones en españa. 2003-2018 (return of pension funds in spain. 2003-2018)* (SSRN Scholarly Paper No. 3319461). Rochester, NY. <https://doi.org/10.2139/ssrn.3319461>

Country Case 17

Sweden

Sammanfattning

Det svenska pensionssystemet består till stor del av avgiftsbestämda/fonderade pensioner. Totalt förvaltas över 8700 miljarder SEK (€850 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 6.4% sedan 2001, jämfört med 3.4% 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 8.7 trillion (€850 billion) in 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 6.4% compared to the 3.4% of all other funds over the last 20 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 PAYG system to a funded system.

Real returns 2022

Premium pension -
AP7 Såfa: -18.38%

Premium pension -
Other funds: -23.54%

ITP1: -16.43%

SAF -LO: -20.04%

PA - 16 Avd I: -20.14%

AKAP - KL: -19.38%

Introduction: The Swedish pension system

The Swedish pension system is a combination of mandatory and voluntary components. The system comprises three distinct pillars:

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

In 2021, the total pension capital was estimated at SEK 8,700 billion (€850 billion), which corresponds to sixteen times the size of outgoing pension payments.¹ The occupational pension system constitutes 48% of this capital. Within the first pillar, the fully funded segment of the public pension system, known as the premium pension, comprises 52% of the pension capital. In comparison, the remaining 48% is managed by the buffer funds. Table SE.1 shows an overview of the pension system in Sweden and offer valuable insights into the system's diversity of retirement savings vehicles.

The average pension in Sweden was €1 884 (SEK 19 317) per month before taxes in 2021; whereof €1 267 (SEK 12 990) came from the national pension, €523 (SEK 5 361) from occupational pensions and €94 (SEK 966) derived from private pension savings. The outcome furthermore differed quite significantly between genders. For women, the average total pension was €1 577 (SEK 16 160) per month before taxes and for men €2 232 (SEK 22 877) per month before taxes.² Although a lot of money is locked in the pension system in Sweden, the Swedish household's savings rate is quite high.

In Sweden, there is no mandated retirement age, allowing individuals to personally determine both their retirement timing and the age at which they access their pension, either in part or in whole. However, individuals can claim their national pension from 62 onwards (raised to 63 in 2023). Additionally, there is no upper age limit for working, and everyone is entitled to work until the age of 68 (raised from 68 to 69 in 2023). As for occupational and private pensions, these can be withdrawn starting from the age of 55 onwards. The national pension in Sweden is administered by the Swedish Pensions Agency, which is responsible for managing the national pension and related pension benefits while providing crucial information to the public. The Swedish Social Insurance Inspectorate safeguards that the operations of the Swedish Pensions Agency are executed in a manner that adheres to proper procedures and efficiency standards.

The Swedish national pension system underwent a significant transformation in 1999, marking a pivotal shift from a defined benefit system to a defined contribution system. In the pre-reform era, pensions were regarded as a social entitlement, guaranteeing individuals a specific percentage of their pre-retirement earnings. However, post-reform, pensions are primarily determined by the accumulated pension savings amassed during one's active working years. This change aligns pensions with economic and financial developments, resulting in a more uncertain pension outcome, as retirees can no longer anticipate the exact amount of their pension. Consequently, there is a heightened need for comprehensive pension information in this new system.

¹Outflow payments totaled SEK 528 billion (EUR 51.5 billion) in 2021.

²Based 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.

Table SE.1 – Overview of the Swedish pension system

Pillar I	Pillar II	Pillar III
State pension	Occupational pension	Voluntary pension
Mandatory	Mandatory ¹	Voluntary
PAYG/funded	Funded	Funded
DC/NDC	DC/DB ^b	DC
Flexible retirement age 62-68	ERA of 55 or 62, usually paid out at 65 or 67	Tax rebate abolished in 2016 ³
No earnings test	Normally a restriction on working hours	
Quick facts		
Number of old-age pensioners: 2.3 millions		
Coverage (active population): Universal	Coverage: >90%	Share contributing (2015): 24,2%
	Pension plans: 4 major (agreement-based)	Funds: >30
Average monthly pension: €1 884	Average monthly pension: €488	Average monthly pension: €90
Average monthly salary (gross, age 60-64): €3 200	AuM:€850 bln.	
Average replacement rate: 58% ^d		

^a Occupational pension coverage is organized by the employer;

^b The defined benefit components are being phased out;

^c Self-employed and employees without occupational pension still eligible;

^d OECD estimate 56%,

This shift has also influenced the occupational pension system, with most occupational pension plans adopting defined contribution structures or hybrids that combine defined contribution and defined benefit elements.³

Table SE.2 offers an overview of the products examined in this report. These products span various pillars of the pension system and focus significantly on public and occupational options, which is good coverage of pension commitments. Table SE.3 presents the returns after charges and inflation (real net returns) of these products over varying holding periods.

Table SE.2 – Long-term and pension savings vehicles analysed in Sweden

Product	Pillar	Reporting period	
		Earliest data	Latest data
Premium pension - AP7 Såfa	Public (I)	2001	2022
Premium pension - Other funds	Public (I)	2001	2022
ITP1	Occupational (II)	2016	2022
SAF -LO	Occupational (II)	2016	2022
PA - 16 Avd I	Occupational (II)	2016	2022
AKAP - KL	Occupational (II)	2016	2022

Table SE.3 – Annualised real net returns of Swedish long-term and pension savings vehicles (before tax, % of AuM)

	Premium pension - AP7 Såfa	Premium pension - Other funds	ITP1	SAF -LO	PA - 16 Avd I	AKAP - KL
Reporting period	2001-2022	2001-2022	2016-2022	2016-2022	2016-2022	2016-2022
1 year (2022)	-18.4%	-23.5%	-16.4%	-20.0%	-20.1%	-19.4%
3 years (2020–2022)	2.1%	-0.2%	1.9%	2.0%	2.2%	1.6%
5 years (2018–2022)	5.6%	3.2%	4.7%	4.7%	4.7%	4.5%
7 years (2016–2022)	7.9%	4.3%	5.6%	5.6%	5.8%	5.6%
10 years (2013–2022)	10.2%	5.9%	n.a.	n.a.	n.a.	n.a.
Whole period	6.4%	3.4%	5.6%	5.6%	5.8%	5.6%

Data: Pensionsmyndigheten, Konsumenternas; *Calculations:* BETTER FINANCE.

Long-term and pension savings vehicles in Sweden

First pillar: 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 amount⁴ 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

³See Hagen (2017) for a more detailed description of the Swedish Pension System.

⁴€47 878 EUR (SEK 532 500) for 2022.

in Sweden. The income-based pension is financed on a 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.⁵ The Swedish pensions Agency calculates that by 2030 the premium pension will constitute 20% of the total pension.

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

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

In 2020, the parliament approved a new pension supplement in the national pension. The supplement will be paid out to pensioners with an income-based national pension of SEK 9.200–17 400 (€900–1 700) 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. In June 2022, the parliament passed a historically large increase of the minimum guarantee equal to SEK 1 000. This implies that the maximum benefit for singles is raised from SEK 8 779 to SEK 9 781 and from 7 853 to SEK 8 855 for married individuals, i.e. increases of more than 10%.

There is agreement in the Swedish Parliament to raise the different statutory retirement ages in the public pension system (Pillar I). First, the earliest eligibility age was raised from 61 to 62 in

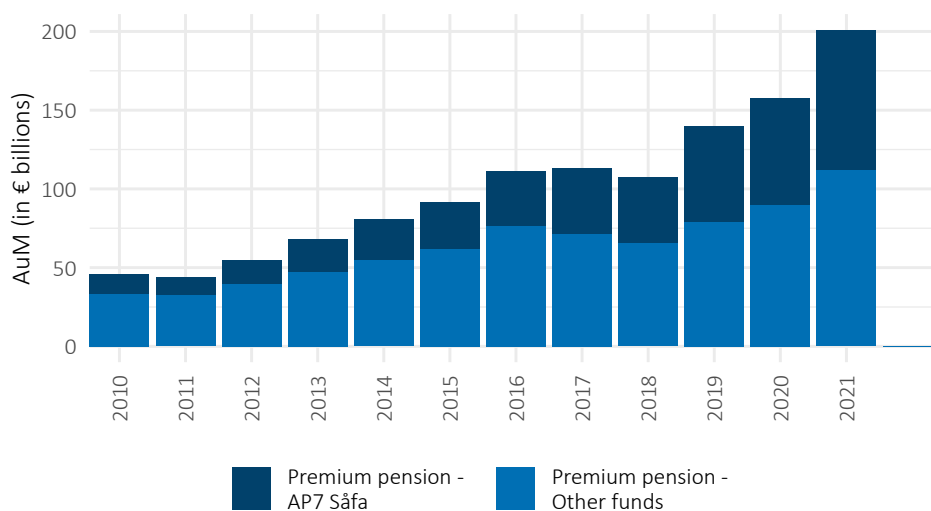
⁵Vägval för premiepensionen, Ds 2013:35.

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 2022, the fee amounted to 0.03%.⁶ 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 (63 in 2023). 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. Figure SE.1 shows the assets under management in the premium pension.

Figure SE.1 – AuM of Swedish premium pensions



Data: Pensionsmyndigheten; Calculations: BETTER FINANCE.

The choices made by individuals within the premium pension system can significantly impact the returns on their pension capital, as it depends on their chosen fund or funds. The premium pension system has faced criticism due to the abundance of available funds and the wide variation in pension outcomes. In response to these concerns, the government announced in December 2017 that it would implement changes proposed by the Pensions Agency to improve the quality and oversight of participating companies.⁷ These new regulations went into effect on November 1, 2018, and include requirements such as fund companies managing a minimum of SEK 500

⁶The Swedish Pensions Agency, Orange report p33.

⁷The Swedish Pensions Agency, Stärkt konsumentskydd inom premiepensionen.

million outside the Premium Pension, having a three-year operating history, acting in the best interests of retirement savers, meeting minimum sustainability criteria, and establishing one contract per fund with the Pensions Agency instead of one contract per company.⁸

Under the new regulations, companies seeking participation in the Premium Pension system were required to (re)submit applications to the Pensions Agency. In early 2019, 70 companies submitted applications, which covered 553 funds, representing a decrease from the prior count of over 800 funds recorded by the end of 2018. The primary objective of these new rules is to prevent the involvement of unscrupulous and fraudulent companies in the system. Concerns about such fraudulent practices were raised following incidents involving fund companies like Falcon Funds, Fondeum and Global Financial Group (GFG) in 2016, Allra and Advisor in 2017, and Solidar in 2018.

In efforts to reform the premium pension, the Swedish government, through the parliament decision, established a new independent agency called the Swedish Fund Selection Agency in 2022, tasked with selecting investment funds available within the premium pension system.⁹ This initiative aims to provide savers with a choice of funds managed by reputable and high-quality fund managers who adhere to stringent sustainability standards. The selected funds will undergo periodic evaluations, and those that fail to meet the specified quality standards may be replaced. The primary objective is to ensure that the chosen funds yield favourable investment returns, ultimately securing higher pensions for savers. Additionally, this approach is expected to attract and retain top fund managers at a cost-effective rate. 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.¹⁰ For now, all applicants who have met the criteria have been permitted to offer investment funds on the platform, where, as of March 2023, there were 478 eligible funds registered in the Premium Pension.

Second pillar: Occupational pensions

The Swedish occupational pension system is primarily governed by collective agreements. While Swedish companies are not legally obligated to provide pensions to their employees, the presence of a collective agreement at the workplace necessitates the establishment of an occupational pension plan. This system extends coverage to more than 90% of the workforce. It's important to note that self-employed individuals are not included in occupational pension plans, and this primarily affects smaller companies in emerging business sectors that lack collective agreements.¹¹

There are four primary collective agreements corresponding to different sectors, each with its dedicated pension plan. These four agreements encompass a significant membership base: the SAF-LO Collective Pension, tailored for blue-collar workers with 2.8 million members; the Supplementary Pension Scheme for Salaried Employees in Industry and Commerce (ITP), designed for

⁸<https://www.pensionsmyndigheten.se/nyheter-och-press/pressrum/nytt-avtal-klart-for-premiepensionens-fondtorg>.

⁹Socialdepartementet, Ett bättre premiepensionssystem, Prop. 2021/22:179.

¹⁰<https://www.fondbolagen.se/aktuellt/pressrum/pressmeddelanden/forslagen-i-utredningen-ett-battre-premiepensionssystem-gar-emet-malen-med-premiepensionen/>.

¹¹AMF, "Tjänstepensionerna i framtiden – betydelse, omfattning och trender", p. 17; ISF Rapport 2018:15, "Vem får avsättningar till tjänstepension".

white-collar employees, boasting 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), which counts 500 000 members among its participants.¹²

In each of the four collectively negotiated pension schemes, employees can select a fund manager for a portion of their pension. To maximize the occupational pension for employees, a dedicated “choice centre” exists for each collective pension plan. The role of these “choice centre” is to secure reputable managers for employees’ occupational pensions. Employees can make choices between various forms of traditional insurance and/or unit-linked insurance. The extent of this individual portion depends on factors such as the employer’s annual pension provision contributions, the duration of these contributions, and the investment management strategies employed. In the case of two of the collective pension schemes, KAP-KL and SAF-LO, employees can opt to choose a fund manager for the entire pension amount. However, if an individual does not select, their pension capital will be automatically placed in the default alternative. Across all four agreements, this default option consists of traditional insurance from the choice centre affiliated with the occupational pension plan.

Where no collective agreement is in place at the workplace, a company can establish an individual occupational pension plan for its employees. Among those companies operating without a collective agreement, some opt for such an occupational pension plan, while others choose not to provide any pension benefits to their employees. These individual pension plans can differ in their structure and benefits. Nevertheless, a common feature is that they often offer less favourable terms and entail higher costs when compared to collectively negotiated pension schemes.

In 2017, the Ministry of Finance proposed measures to simplify and reduce the cost of transferring occupational pension funds between providers.¹³ Currently, the ability to transfer pension capital is generally limited to funds accrued after 2007 that have yet to be paid out, with associated fees, particularly in individual occupational pension plans. Critics argue that this restricts competition, reduces retirement savings returns, and creates lock-in effects.

In April 2019, the government presented a report advocating lower transfer fees and a specified maximum fee in Swedish Kronor (SEK).¹⁴ The parliament approved these recommendations in November 2019 and urged further exploration. In March 2020, the Ministry of Finance suggested a maximum fee of 0.0127 times the price base amount (600 SEK or €59.8 for 2020).¹⁵ These new regulations came into effect in April 2021. In May 2022, it was decided that the portability right should also apply to pension capital accumulated before 2007.

In December 2016, Sweden adopted the IORP II Directive, aimed at ensuring the financial stability of occupational pensions and enhancing member protection through stricter capital solvency requirements. This directive also clarifies the legal framework for occupational pension businesses. However, critics contend that these rules create competitive imbalances, as they only affect companies exclusively offering occupational pension insurance, not those providing other insurance services. In November 2019, the government supplemented the EU Directive with

¹²<https://www.pensionsmyndigheten.se/forsta-din-pension/tjanstepension/det-har-ar-tjanstepension>.

¹³Konkurrensverket, Flyttavgifter på livförsäkringsmarknaden – potentiella inläsningseffekter bland pensionsförsäkringar, Rapport 2016:12.

¹⁴Ministry of Finance, “En effektivare flytträtt av försäkringssparande”

¹⁵Ministry of Finance, “Avgifter vid återköp och flytt av fond- och depåförsäkringar.”

additional national legislation.¹⁶

ITP

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

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

SAF-LO

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

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

PA 03

The pension plan for central government employees, PA 16 – Avd II (formerly PA 03), is a hybrid of defined contribution and defined benefit. The defined contribution component in PA 03 consists of two parts: individual old age pension and supplementary old age pension. The total premium amounts to 4.5% of the pensionable income up to a ceiling of 30 income base amounts. Of the total premium, 2.5% and 2% is allocated to the individual pension and the supplementary pension respectively. The individual can choose how the contribution of the individual retirement pension should be placed and managed. Contributions to the supplementary pension cannot be invested by the employee and are instead automatically invested in a traditional low-risk pension insurance fund.

¹⁶Finansutskottets betänkande, "En ny reglering för tjänstepensionsföretag". See <https://www.riksdagen.se> for more information on IORP II.

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 (see below).

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

KAP-KL

The KAP-KL agreement consists of two parts: the defined contribution pension AKAP-KL and defined benefit pension KAP-KL. Employees born in 1986 or later are covered by the defined contribution pension AKAP-KL. In AKAP-KL, the employer pays in an amount of 4.5% of the salary towards the occupational pension. If the salary exceeds 7.5 income base amounts, the amount is increasing with 30% of the salary that exceeds 7.5 income base amounts up to a maximum of 30 income base amounts. Employees covered by KAP-KL get 4.5% of the salary contributed to their occupational pension. For a salary over 30 income base amounts, no premium is paid. Instead, there is a defined benefit old age pension that guarantees a pension equivalent to a certain percentage of the final salary at the age of retirement. A new agreement for local government employees, AKAP-KR, was passed in December 2021 and will be phased in from 2023. The new agreement comes with raised contribution rates; 6% and 31.5% for earnings below and above 7.5 income base amounts, respectively. The individual can choose how to invest the pension capital and it can be placed in traditional insurance and/or unit-linked insurance. The eligible insurance companies for traditional insurance in AKAP-KL are Alecta, AMF, KPA and Skandia and for the unit-linked insurance in AKAP-KL they are AMF, Futur Pension, Folksam, Handelsbanken, KPA, Länsförsäkringar, Lärarfonder, Nordea, SEB and Swedbank.

Third pillar: Private pensions

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

Private pension savings can be placed in an individual pension savings account (IPS) or in private pension insurance. Money placed in an IPS and in private pension insurance is locked until the age of 55. After that the individual can choose over how many years the pension should be paid out. The minimum payout 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 (SEK 12 000 to SEK 1 800) per year, equivalent to €15 (SEK 150) in monthly savings. On January 1, 2016, the deduction was abolished. The motive for this is that the deduction favours high-income earners. In 2015, the share of private pension savers dropped to 24.2%. Those who still contribute to private pension accounts are thus subject to double taxation.

Several actors in the pension industry advocate the need for new incentives for people to save privately for retirement. One suggestion is that the government match private contributions, like what is already in place in Germany, matching benefits for low- and medium-income earners as opposed to tax subsidies which tend to favour the rich. The problem is of course that the government must bear the costs of matching in the future when the contributors retire. In addition, the 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.

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

After the lowering of the deduction for private pension savings, ISK is now regarded as a low tax alternative to private pension savings. ISK has enjoyed widespread popularity and the number of ISK accounts has increased dramatically. In 2019, the number of unique account holders exceeded 2.6 million. In 2021 ISK funds accounted for 9% of the households' total fund assets as compared to 23% for private pension insurance. The relative importance of ISK is however likely to increase in the future; 35% of net savings in funds in 2022 was allocated to ISK accounts.

The costs associated with the administration and management of the funds affect the size of outgoing pension payments. To reduce the costs in the premium pension system, the capital managers associated with the premium pension system are obliged to grant a rebate on the ordinary management fee of the funds. In 2021, the rebates to pension savers were equivalent to a discount in fund management fees of about 0.35 percentage points. The rebates on the ordinary management fees in the premium pension system are of great importance; without them pensions would be approximately 11% lower. Furthermore, the pension savers are 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 SE.5).¹⁷

The costs in the income pension are shown in the lower part of (Table SE.5). Management fees

¹⁷The Swedish Pensions Agency, Orange report 2022, page 33.

Table SE.4 – Household fund assets 2022

Fund type	Fund assets		Net saving (%)	Share of assets (%)
	SEK mln.	€ mln.		
Direct fund investments	523306	47052	-82.9%	8.8%
ISK	542951	48819	35.2%	9.1%
IPS	132502	11914	-20.9%	2.2%
Private pension insurance	1349391	121329	154.3%	22.7%
Premium Pension (1st pillar)	1830305	164569	102.3%	30.7%
Trustee-registered funds	660818	59417	1.2%	11.1%
NGOs	118721	10675	9.1%	2.0%
Swedish companies	659670	59313	-93.4%	11.1%
Others	137144	12331	-4.9%	2.3%
Total	5954808	535418	100.0%	100.0%

Data: Swedish Investment Fund Association.

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 1 826 billion in 2022). However, returns to scale in the buffer funds imply lower costs than in the premium pension.

Charges

Charges of Pillar I

The costs associated with the administration and management of the funds affect the size of outgoing pension payments. To reduce the costs in the premium pension system, the capital managers associated with the premium pension system are obliged to grant a rebate on the ordinary management fee of the funds. In 2021, the rebates to pension savers were equivalent to a discount in fund management fees of about 0.35 percentage points. The rebates on the ordinary management fees in the premium pension system are of great importance; without them pensions would be approximately 11% lower. Furthermore, the pension savers are 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 SE.5).¹⁸

The costs in the income pension are shown in the lower part of (Table SE.5). 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 1,826 billion in 2022). However, returns to scale in the buffer funds imply lower costs than in the premium pension.

To meet the new need of information in the new pension system, the orange envelope was intro-

¹⁸The Swedish Pensions Agency, Orange report 2022, page 33.

Table SE.5 – Net charges 1st pillar

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Premium pension	0.36%	0.33%	0.30%	0.28%	0.27%	0.25%	0.23%	0.20%	0.15%	0.14%
Administrative fee	0.10%	0.09%	0.07%	0.07%	0.06%	0.07%	0.04%	0.04%	0.04%	0.03%
Income pension	0.20%	0.20%	0.21%	0.19%	0.18%	0.16%	0.16%	0.15%	0.13%	0.11%
Administrative fee	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%	0.03%

Data: Orange report 2022, p.33.

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

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.¹⁹ Thus, the share of pension capital that can be moved will increase over time, which will further strengthen the competition and keep the fees low. As discussed in the background section, there are also policy proposals to extend the portability rights and reducing the associated moving costs. In May 2022, the parliament decided to extend the portability rights also to pension capital accumulated before 2007.

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

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. 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

¹⁹SOU 2012:64, page 466

Table SE.6 – Charges 2nd pillar

Scheme	Fund type	Name	Fixed costs (SEK)	Management fees (%)
ITP 1	Traditional insurance	Alecta (default)	0	0.09
		AMF	50	0.17
		Folksam	0	0.14
		SEB	55	0.08
		Skandia	65	0.16
	Unit-linked insurance	Futur Pension	0	0.11-0.19
		Handelsbanken	0	0.07-0.13
		Movestic	0	0.13-0.23
		SPP	0	0.08-0.14
		Swedbank	0	0.17-0.18
SAF LO	Traditional insurance	Alecta	65	0.17
		AMF	40	0.15
		Folksam	65	0.12
		AMF (default)	40	0.15
		SEB	65	0.09
	Unit-linked insurance	AMF	60	0.13-0.20
		Folksam LO	50	0.19-0.31
		Futur Pension	65	0.19-0.43
		Handelsbanken	65	0.36-0.41
		Länsförsäkringar	65	0.12-0.20
		Movestic	65	0.12-0.17
		Nordea	65	0.29-0.38
		SEB	45	0.13-0.35
SPP	65	0.15-0.29		
Swedbank	65	0.26-0.30		
PA 03 & PA 16	Traditional insurance	Alecta	75	0.17
		AMF	75	0.15
		Kåpan Pensioner (default)	0	0.06
		AMF	75	0.13-0.20
	Unit-linked insurance	Futur Pension	65	0.43
		Handelsbanken	75	0.35
		Länsförsäkringar	75	0.43
		SEB	75	0.14-0.4
Swedbank	75	0.33-0.4		
AKAP-KL	Traditional insurance	Alecta	65	0.17
		AMF	65	0.15
		KPA (default)	48	0.06
		Skandia	65	0.16
		AMF	65	0.13-0.20
	Unit-linked insurance	Folksam LO	65	0.20-0.30
		Futur Pension	65	0.41
		Handelsbanken	65	0.30
		KPA Pension	65	0.13-0.30
		Länsförsäkringar	65	0.33
		Läraryfonder	65	0.35
		Nordea	65	0.34-0.38
SEB	65	0.26-0.34		
Swedbank	65	0.26-0.30		

Data: Pensionsmyndigheten, Konsumenternas, Alecta, Swedbank, MinPension.

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.

ISK

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

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

In 2021, the government borrowing rate was 0.23%, which means that the calculated average value of an account is taxed with 0.375% ($0.3 \times 0.0125 = 0.00375$).

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

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

Taxation

Taxation during the accumulation phase looks different in the different pillars. In the public pension, individual contributions are deductible from the tax base and there is no tax on returns. Employers can partially deduct contributions to the second pillar.²⁰ When it comes to private pension savings, there was a tax deduction of SEK 1 800 (€179) per year available, but it was abolished in January 2016. There is no tax on returns in the first pillar. In contrast, returns in the occupational pension system and in the private pension vehicles are subject to an annual standard rate tax based on the value of the account and the government-borrowing rate. Specifically, the value of the account on January 1st multiplied by the government borrowing-rate gives the standard earnings which are then subject to a 15% tax rate.

Table SE.7 – Taxation of pension savings in Sweden

Product	Phase			Regime
	Contributions	Investment returns	Payouts	
Premium pension - AP7 Såfa	Exempted	Exempted	Taxed	EET
Premium pension - Other funds	Exempted	Exempted	Taxed	EET
ITP1	Exempted	Taxed	Taxed	ETT
SAF -LO	Exempted	Taxed	Taxed	ETT
PA - 16 Avd I	Exempted	Taxed	Taxed	ETT
AKAP - KL	Exempted	Taxed	Taxed	ETT

Data: Pensionsmyndigheten, Konsumenternas, Alecta, Swedbank, MinPension.

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.²¹ 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 (SEK 509 300) and 25% for incomes there-above.²²

From a phase taxation point of view as shown in (??), 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).

Performance of Swedish long-term and pension savings

Real net returns of Swedish long-term and pension savings

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

²⁰Deductible contributions amount to maximum 35% of the wage of the employee. However, the deduction cannot exceed 10 prise base amounts.

²¹The Swedish earned income tax credit is a refundable tax credit for all individuals aged below 65.

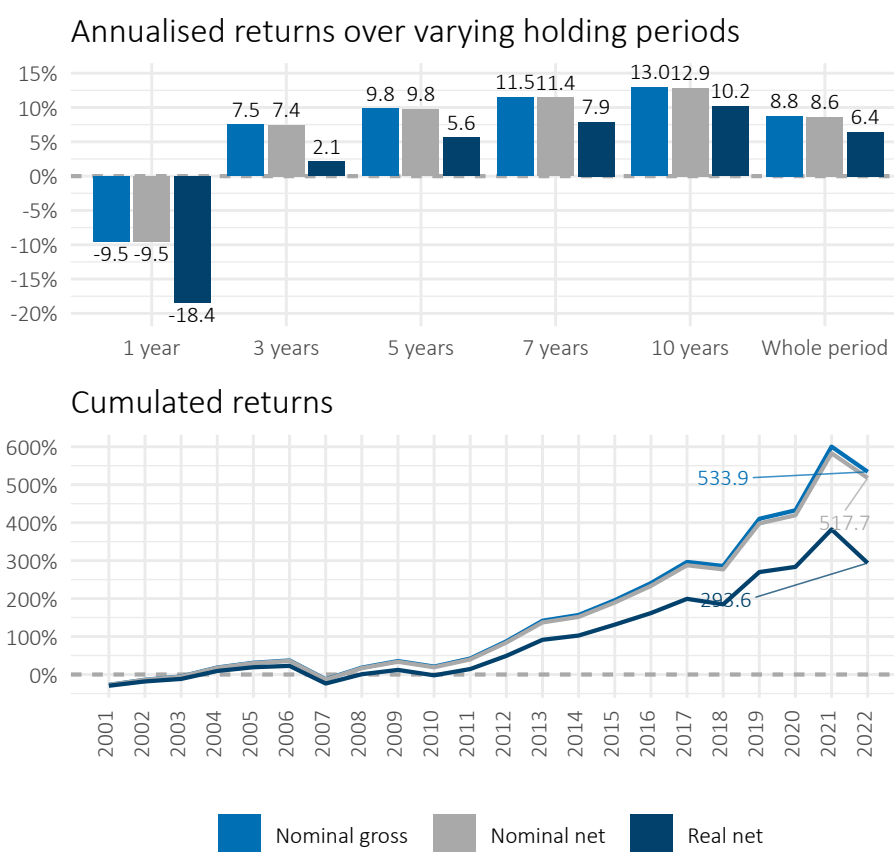
²²Financial year 2021: <https://www.skatteverket.se/privat/skatter/beloppochprocent/2022.4.339cd9fe17d1714c0774742.html>.

to the homepage of each pension provider for this information.

Pillar 1

Figure SE.2 and Figure SE.4 show average annual returns for default investors and those who opted out of the default respectively. Each figure displays the nominal return, the nominal return net of charges, and the real return (net of charges and inflation) for year 2022 and in different horizons. The lower panels display the the annualized averages over time. It is worth to note that the average fee for the default fund and for “active” investors in 2022 is 0.05% and 0.21%, respectively. The inflation rate (measured by CPI) in 2022 (a year characterised by falling stock markets, rising interest rates and high inflation) was 10.8% (see Figure SE.3), slightly above the European average of 10.4%, which marked a notable increase from 4.5% in the preceding year.²³

Figure SE.2 – Returns of Swedish Premium pension - AP7 Såfa (before tax, % of AuM)

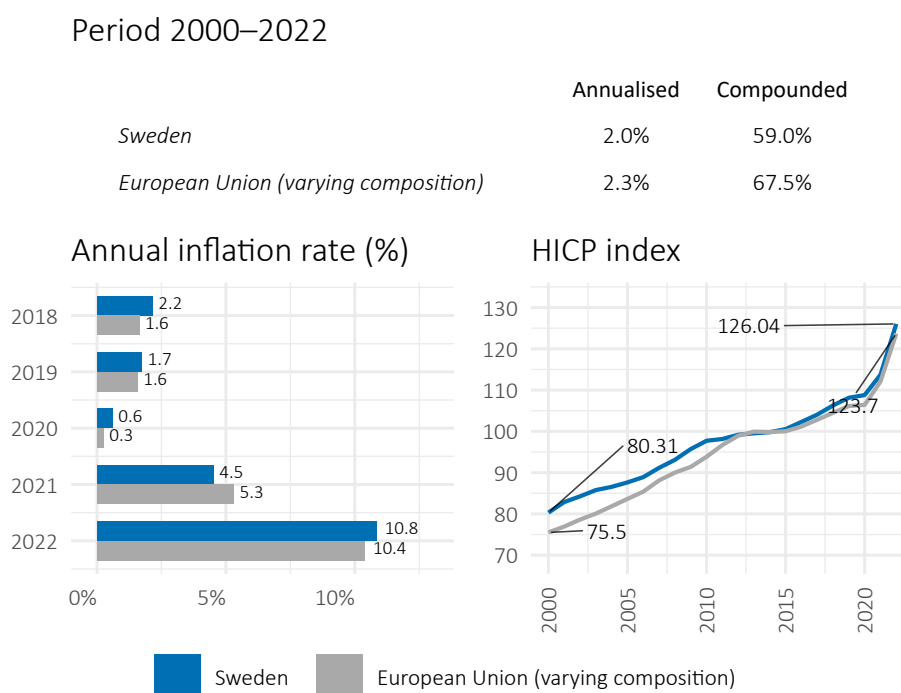


Data: The Swedish Pensions Agency, Eurostat; Calculations: BETTER FINANCE.

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 6.4% and 3.4% respectively. It is important to remember that

²³<https://ec.europa.eu/eurostat/web/products-datasets/product?code=tec00118>.

Figure SE.3 – Inflation in Sweden



Data: Eurostat, HICP monthly index (2015 = 100); Calculations: BETTER FINANCE

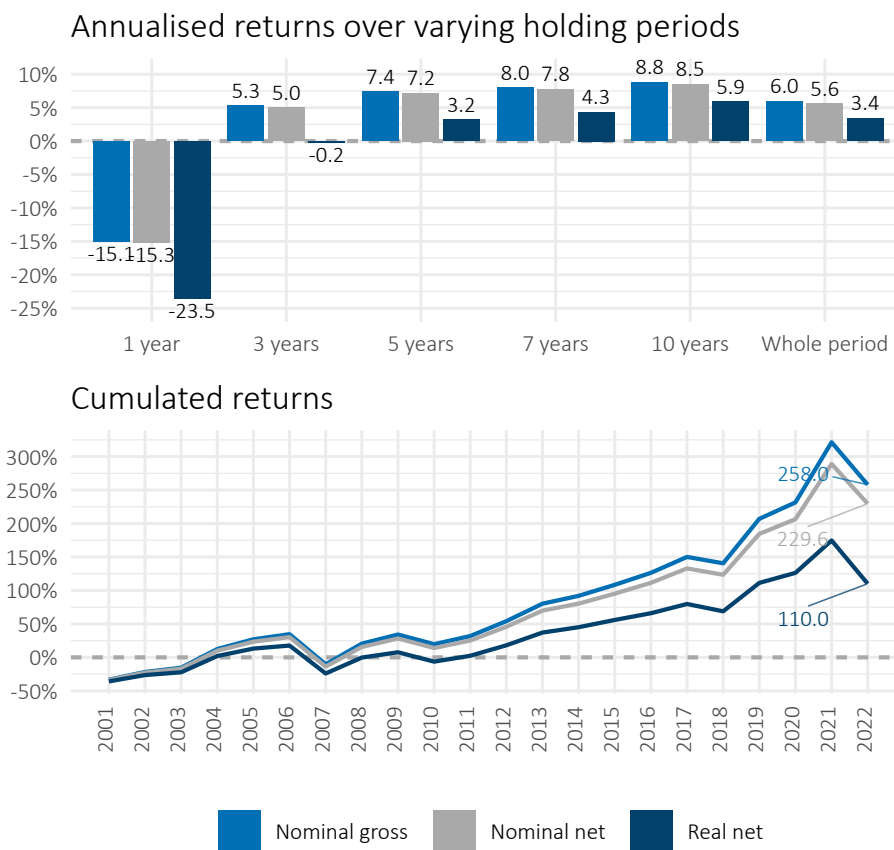
the “active” investors also include inert investors, i.e. investors that at some point made active contributions but then remained passive. The average returns for the “truly” active investors are therefore underestimated. In fact, [dahlquist2017individual](#) find that investors who are actively involved in managing their pension accounts earn significantly higher returns than passive (inert) investors.

Figures SE.5 to SE.8 illustrate returns within the occupational pension system. These figures present the average return, nominal return, nominal return net of charges, and real return (net of charges and inflation) for various occupational pension vehicles across different time horizons.

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 are almost the same.

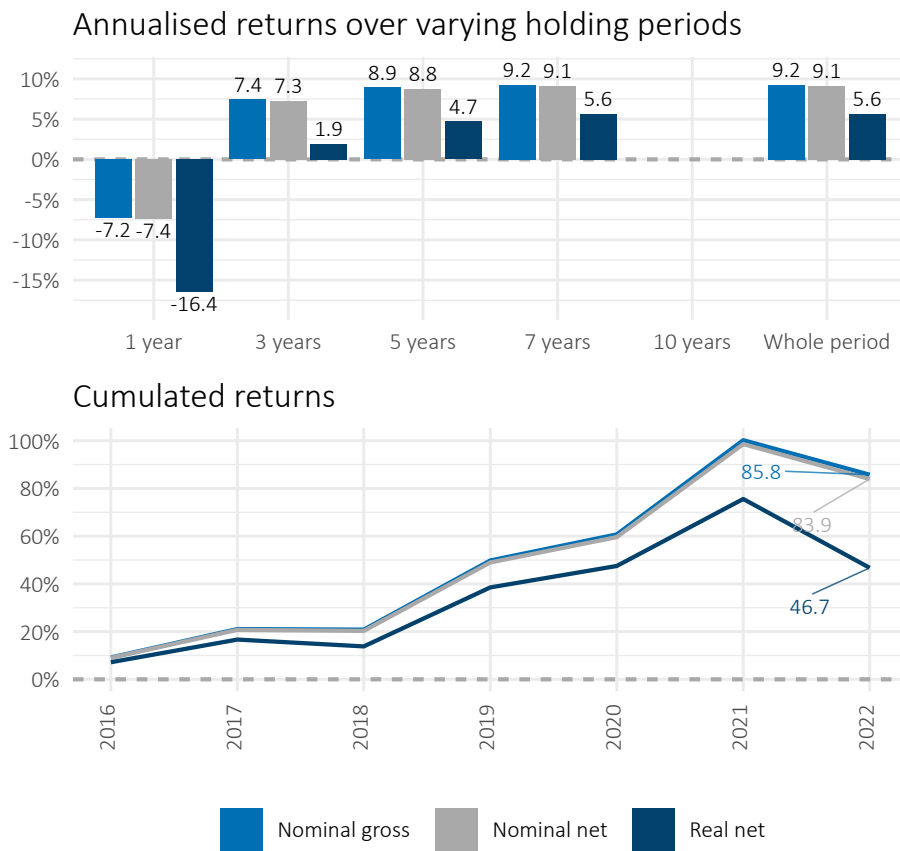
Figure SE.9 summarises the annualized averages in the Swedish Premium Pension System based on standardised holding periods (1 year, 3 years, 7 years, 10 years and since inception or the latest data available for this report). Figure SE.10 compares the cumulated returns of the various products over their respective reporting periods. The Figure (which reiterates 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.

Figure SE.4 – Returns of Swedish Premium pension - Other funds (before tax, % of AuM)



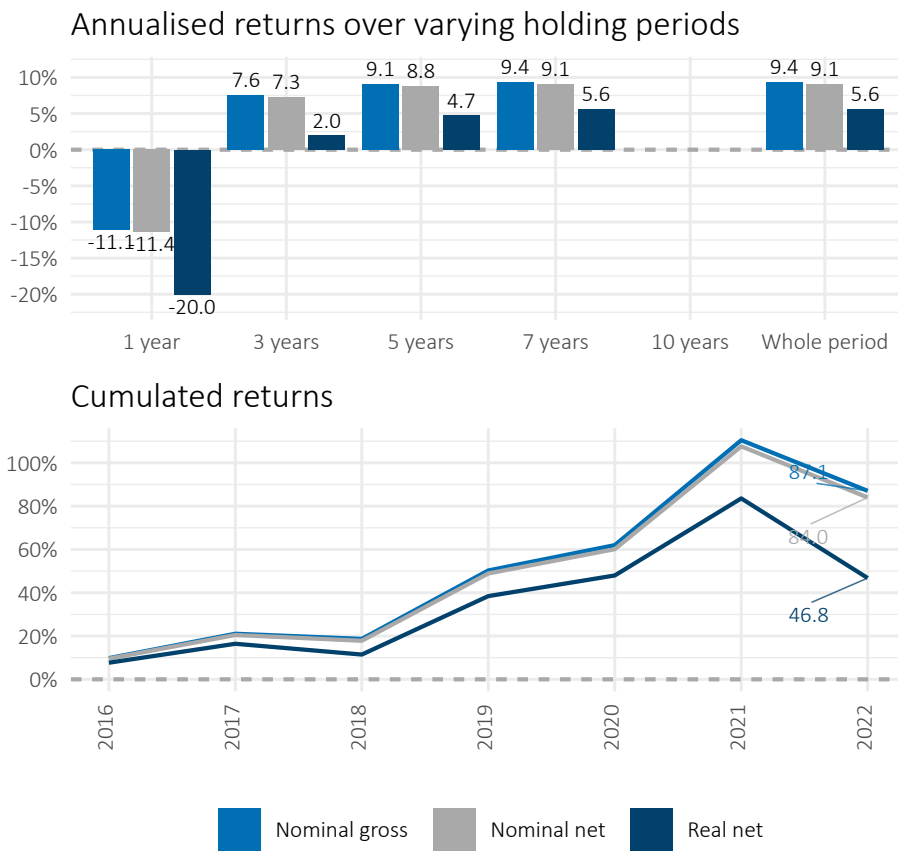
Data: The Swedish Pensions Agency, Eurostat; Calculations: BETTER FINANCE.

Figure SE.5 – Returns of Swedish ITP1 (before tax, % of AuM)



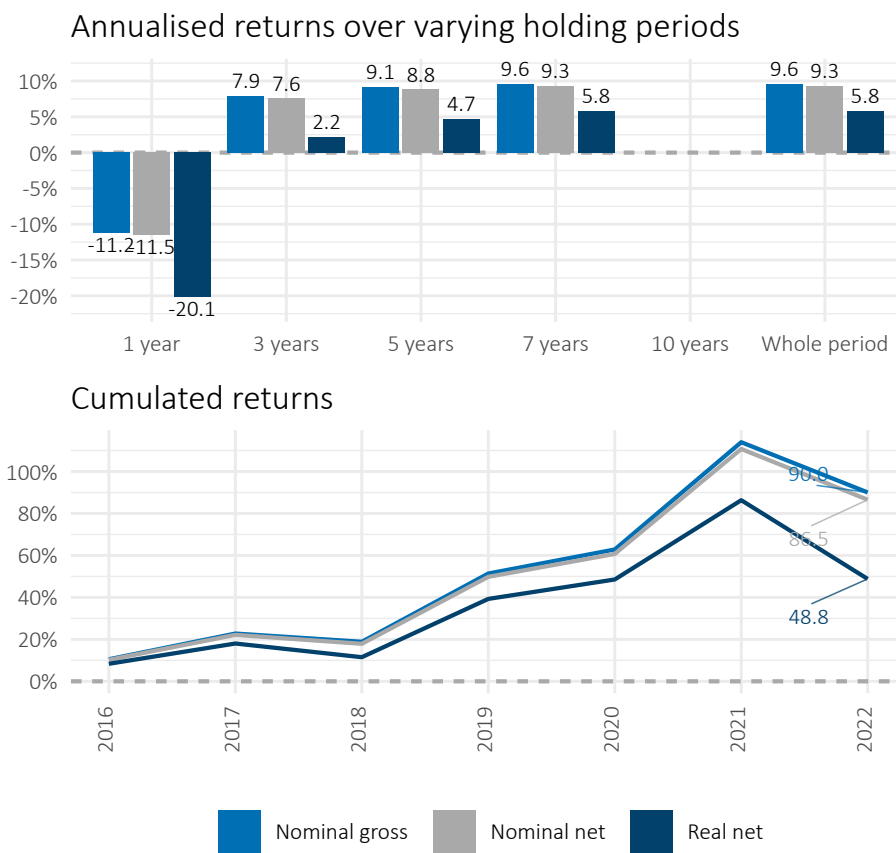
Data: The Swedish Pensions Agency, Eurostat; Calculations: BETTER FINANCE.

Figure SE.6 – Returns of Swedish SAF -LO (before tax, % of AuM)



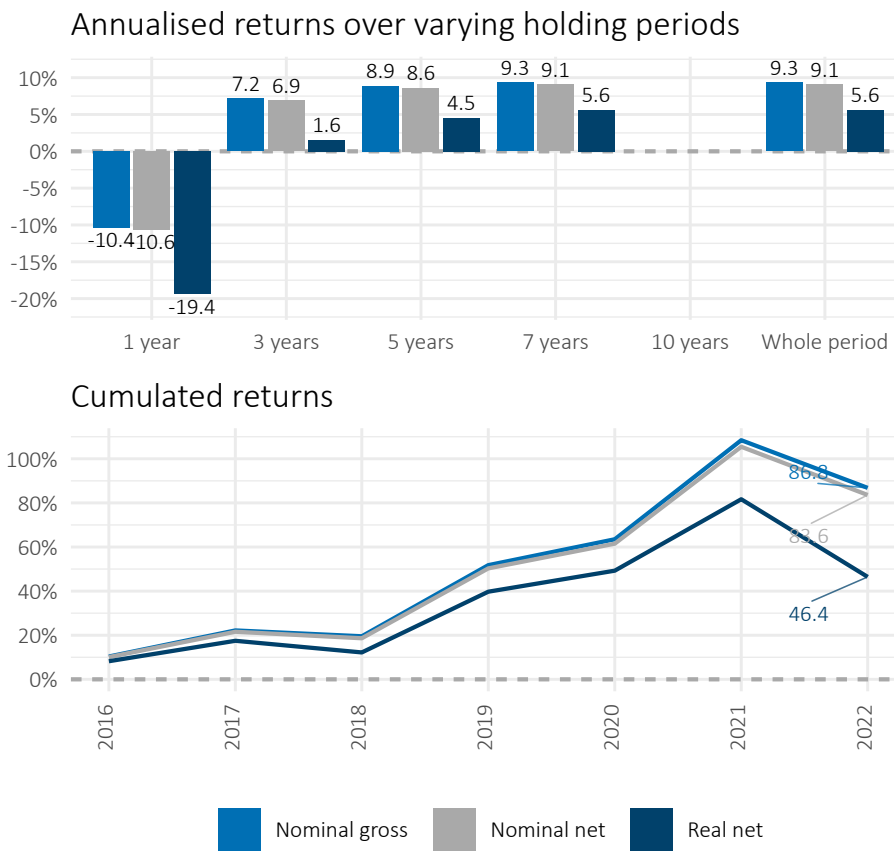
Data: The Swedish Pensions Agency, Eurostat; Calculations: BETTER FINANCE.

Figure SE.7 – Returns of Swedish PA - 16 Avd I (before tax, % of AuM)



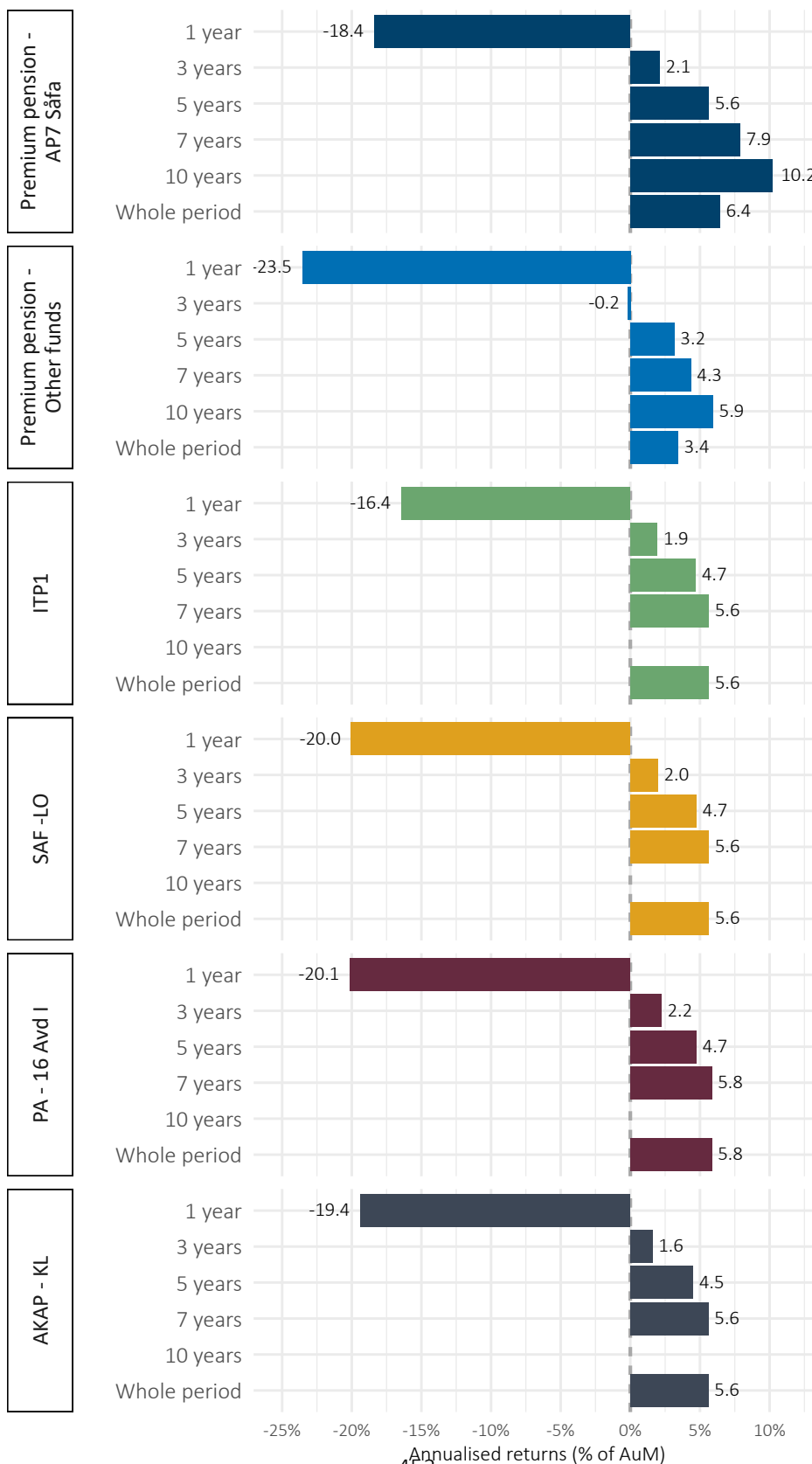
Data: The Swedish Pensions Agency, Eurostat; Calculations: BETTER FINANCE.

Figure SE.8 – Returns of Swedish AKAP - KL (before tax, % of AuM)



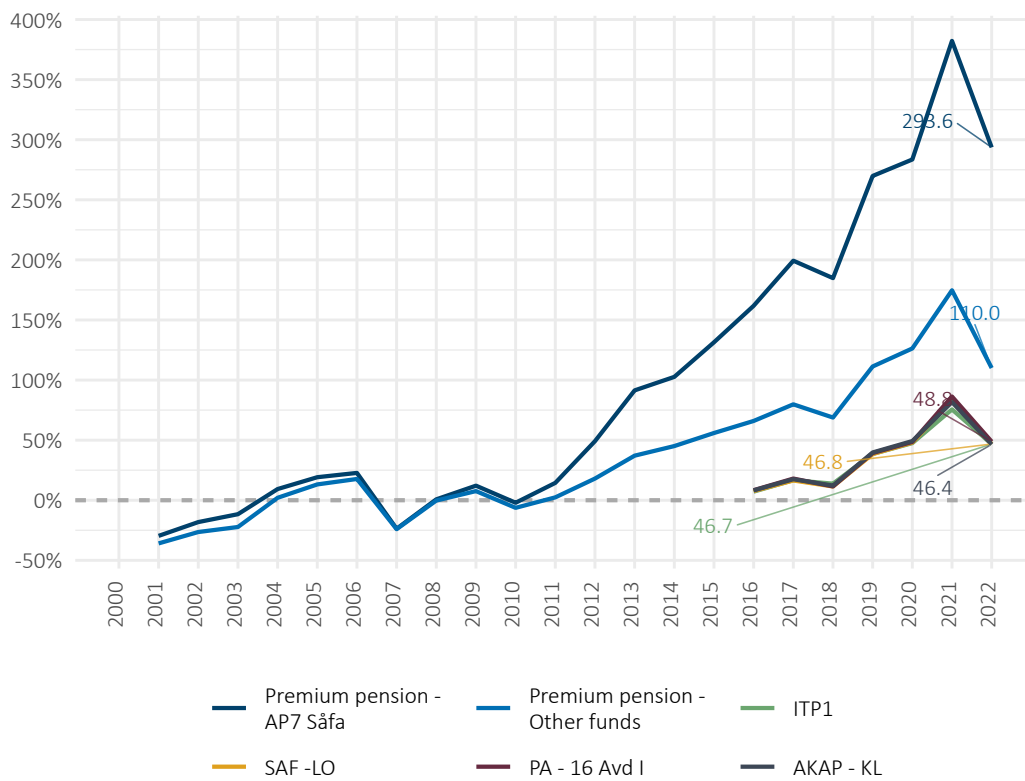
Data: The Swedish Pensions Agency, Eurostat; Calculations: BETTER FINANCE.

Figure SE.9 – Annualised returns of Swedish long-term and pension vehicles over varying holding periods (before tax, % of AuM)



Data: The Swedish Pensions Agency, Eurostat; Calculations: BETTER FINANCE.

Figure SE.10 – Cumulated returns of Swedish long-term and pension savings vehicles (2000–2022, before tax, % of AuM)



Data: The Swedish Pensions Agency, Eurostat; Calculations: BETTER FINANCE.

Do Swedish savings products beat capital markets?

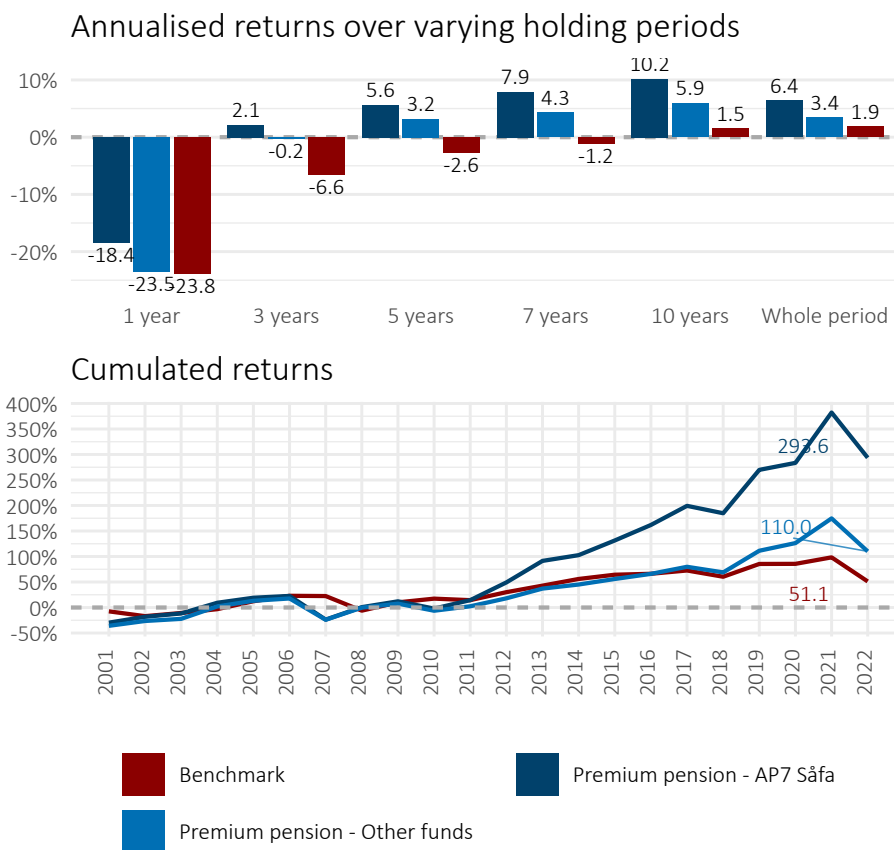
This section presents a comparative analysis of the real net returns for selected pension products in Sweden, specifically focusing on premium pension funds within Pillar I and ITP1 funds within Pillar II. The comparison is made against a “balanced” portfolio, comprised of 50% equity and 50% bonds, based on two Europe-wide indices, STOXX All Europe and Barclays Pan-European Aggregate Index. The assessment is based on annualized returns across various holding periods and cumulative real net returns.

Figure SE.11 and Figure SE.12 illustrate the performance of premium pension and ITP1 funds relative to the benchmark portfolio. Overall, the figures show that the real returns for the pension products in Sweden track the development of the capital markets and have been following a predominantly favourable trend over time. In addition, the results reveal a consistent overperformance of the savings products compared to their respective benchmarks since 2001 and across different investment horizons. For instance, over the 2001–2021 period, the annualized returns of AP7 Såfa and other funds (in Figure SE.11) were 3.4 and 1.8 times higher, respectively, than the benchmark fund. Over a similar period, the cumulative returns (second panel in Figure SE.11) for the default and other funds within the premium pensions exceeded the benchmark by 242% and 59%, respectively.

This trend extends to various asset classes, including occupational pensions, as shown in Figure SE.12. It’s worth noting that the performance of other Pillar II funds closely mirrors that of ITP1 funds. During the same period, ITP funds delivered an annualized return of 5.6%, surpassing the benchmark fund, which recorded a negative return of -1.2%. For ITP1 (second panel in SE.12, the cumulative return during this period was 46.7%, while the benchmark returned -8%.

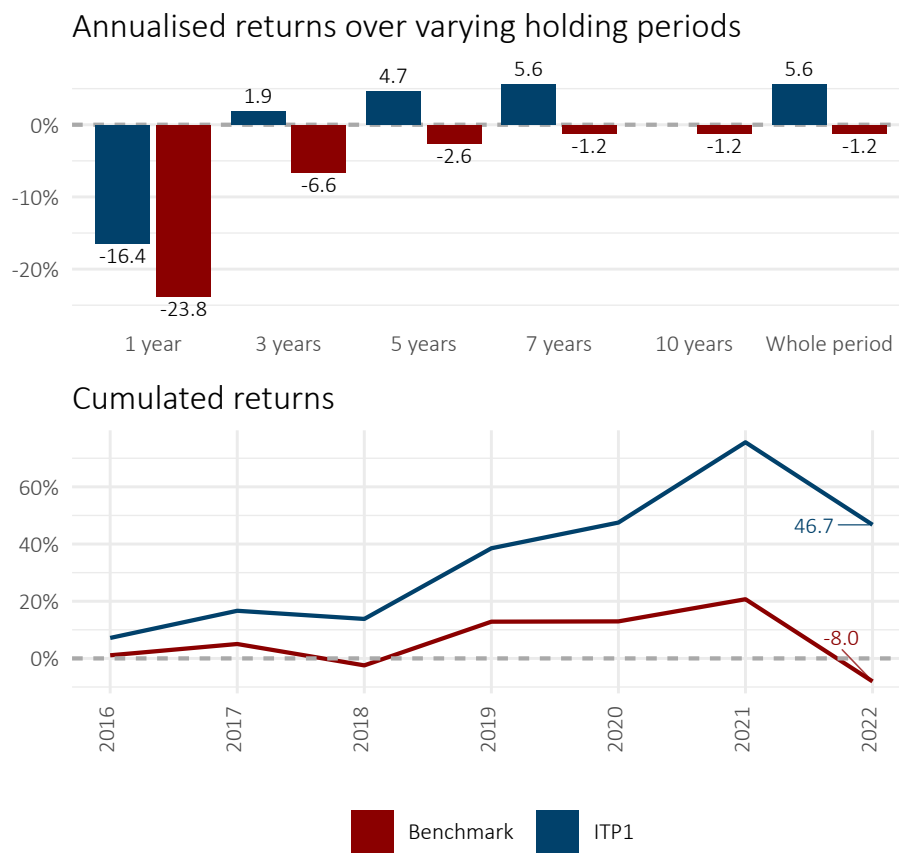
Despite premium pension funds and ITP1 registering negative real returns in 2022 due to falling stock markets, rising interest rates, and high inflation, pension products remained competitive relative to the benchmark. The losses incurred were considerably lower compared to benchmark funds. The strengthening of the financial position of the pension products can be attributed to the fact that the products contain a well-balanced portfolio across different products and exposure to the global and Swedish markets, making them positioned to benefit from the prevailing market situation.

Figure SE.11 – Performance of Swedish Premium pensions (returns before tax, after inflation, % of AuM)



Data: The Swedish Pensions Agency, Eurostat; Calculations: BETTER FINANCE.

Figure SE.12 – Performance of Swedish ITP1 (returns before tax, after inflation, % of AuM)



Data: The Swedish Pensions Agency, Eurostat; Calculations: BETTER FINANCE.

Conclusions

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 centers are necessary features in a complex pension system.

Although the Swedish pension system is considered robust and sustainable there is reason to be concerned. As life expectancy increases, the gap between wages and pensions will increase. The average exit age from the labour force has been increasing ever since the new public pension system was implemented in the late 1990s and is currently 64. However, the average claiming age has been constant.²⁴ The combination of constant claiming age, later labour force entry among youths, and indexation of pension benefits to life expectancy unavoidably means lower pension benefits.

The concern of decreasing replacement rates in the public pension system has spurred an intense political debate about raising the public pension. In June 2022, the parliament passed a historically large increase of the minimum guarantee equal to SEK 1,000 that will be implemented just prior to the national election of 2022. In addition to raising the minimum guarantee (and the

²⁴This 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.

means-tested housing allowance), the pension bill of 2022 also stipulates that a “pension gas” should be introduced in the income pension. The pension gas is the equivalent of the automatic balancing mechanism in the sense that it distributes excess capital to pension savers and retirees when system assets exceed system liabilities by a certain amount.

As calls for pension reforms have intensified, there are also recent reports that give a more nuanced picture of pensioners’ finances. A report by the Swedish Fiscal Policy Council²⁵ which was published on 6 May 2022 found that relative to the income development of the working population, the income of pensioners has also risen throughout the distribution since the reformation of the public pension system in the early 90s. Compared to the 34–64 age group, pensioners’ disposable income has developed favorably at both the bottom and top of the income distribution – while the development of those in the median income part of the distribution has been similar to the compared age group. According to the report, new pensioners have been able to sustain relatively high replacement rates mainly due to increased labor income and occupational pensions. Occupational pensions constitute 29% of outgoing pension payments and play a relatively more important role for high-income earners.

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

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

Policy recommendations

- Expand the portability right of second pillar pension capital.
- Improve information on historical net returns and other fund characteristics in second and third pillar pension plans.
- The digital pension tool www.minpension.se makes it possible for individual retirement savers to collect information on their total pension savings. Since 2019, there is a related tool for planning pension withdrawals. A useful extension would be to allow users to execute their pension fund choices from this site.

²⁵The main results and conclusions are reported by the Swedish Fiscal Policy Council (2022) while Hagen et al. (2022) contain the complete set of empirical analyses.

- 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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