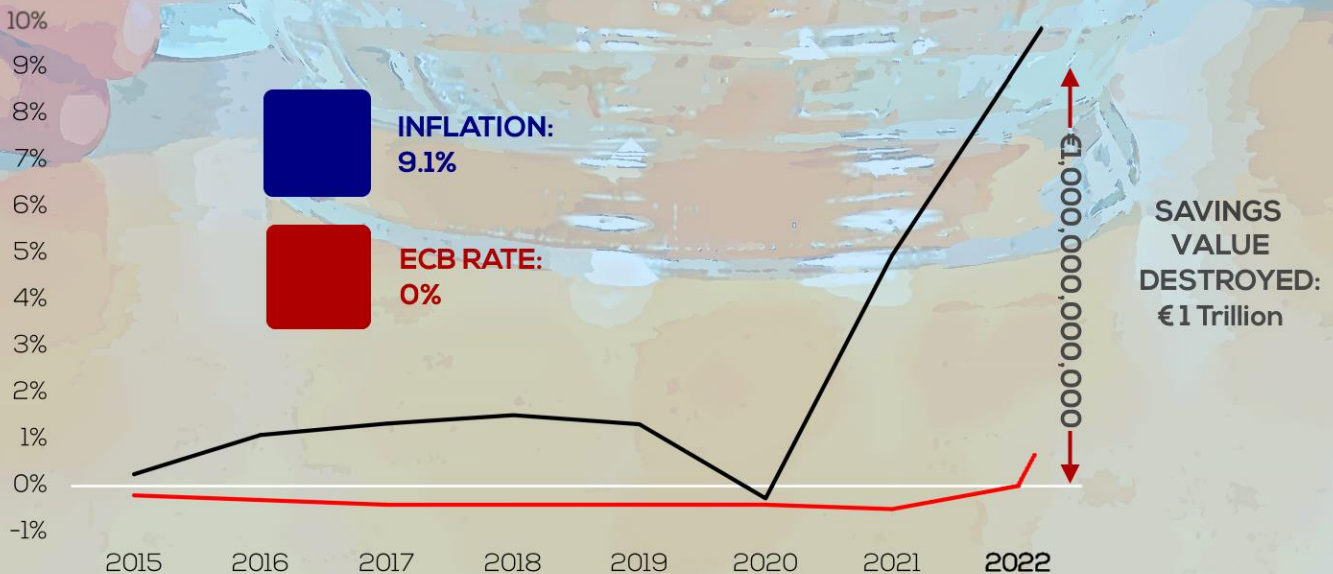


Long-Term & Pension Savings | The Real Return

2022 Edition

PENSIONS & LONG-TERM SAVINGS

FINANCIAL REPRESSION





Pension Savings: The Real Return

2022 Edition

A Research Report by BETTER FINANCE

COORDINATORS

Aleksandra Mączyńska
Ján Šebo
Ștefan Voicu

CONTRIBUTORS

Torben M. Andersen
Daniela Danková
Laetitia Gabaut
Johannes Hagen
José Antonio Herce
Arnaud Houdmont

Matis Joab
Gregoire Naacke
Guillaume Prache
Joanna Rutecka-Góra
Dr. Thomas Url

REVIEWERS

Ján Šebo
Daniela Danková
Aleksandra Mączyńska
Ștefan Voicu



DISCLAIMER

This report is an independent research publication, elaborated through the efforts of its independent coordinators, contributors, and reviewers.

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

The authors and contributors produce and/or update the contents of this report in good faith, undertaking all efforts to ensure that there are no inaccuracies, mistakes, or factual misrepresentations of the topic covered.

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



Pension Savings: The Real Return

2022 Edition

Executive Summary

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

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

How much did pension savers earn on average?

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

Aggregate summary return table			Pillar II						
	1 year		3 years		7 years		10 years		max. available*
	2021	2020	2019-2021	2018-2020	2015-2021	2014-2020	2012-2021	2011-2020	
Austria***	3.08%	1.40%	4.12%	1.23%	1.92%	2.35%	2.68%	1.79%	1.56%
Belgium	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Croatia	2.55%	8.06%	3.38%	2.81%	4.76%	4.99%	4.82%	4.10%	3.25%
Denmark	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Estonia	1.30%	7.97%	4.60%	2.10%	1.61%	2.13%	2.35%	1.31%	0.75%
France	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Germany	n.a.	3.53%	n.a.	2.23%	n.a.	2.63%	n.a.	2.46%	2.35%
Italy	1.44%	7.30%	3.96%	1.85%	1.97%	2.81%	3.30%	2.66%	0.86%
Latvia	2.21%	8.43%	4.22%	1.12%	1.15%	1.54%	2.30%	1.45%	0.05%
Lithuania	5.97%	14.92%	8.60%	4.72%	3.95%	4.07%	4.60%	3.52%	1.95%
Netherlands	0.85%	6.23%	6.58%	5.01%	3.84%	5.79%	5.00%	5.26%	2.80%
Poland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Romania	-2,58%	2,59%	1,64%	1,81%	1,23%	2,68%	2,83%	2,95%	2,04%
Slovakia	3.38%	5.37%	3.13%	0.70%	1.59%	1.50%	1.43%	0.79%	0.21%
Spain	1.52%	2.10%	2.25%	2.40%	3.02%	3.86%	2.56%	2.86%	0.86%
Sweden	13.50%	6.45%	17.44%	8.23%	n.a.	n.a.	n.a.	n.a.	10.59%
UK	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

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

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



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

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

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

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

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



Pension Savings: The Real Return

2022 Edition

General Report

One can supervise only what one can measure:

Why is this long-term savings performance report (unfortunately) unique?

I. INTRODUCTION

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

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

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

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

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

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

¹¹ Link for the print version available here:

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



Table GR1. Comparison BETTER FINANCE report with EIOPA/OECD

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

Source: BETTER FINANCE own research

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

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

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

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

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

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



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

Table GR2. BETTER FINANCE report structure and scope

Structure	<ol style="list-style-type: none"> 1. <u>Executive summary</u> 2. <u>General report</u> (overview of data and findings) 3. <u>Individual country cases</u> (Austria, Belgium, Bulgaria, Croatia, Denmark, Estonia, France, Germany, Italy, Latvia, Lithuania, Poland, the Netherlands, Romania, Slovakia, Spain, Sweden, UK until 2019), representing 87% of EU27 population
Time horizons	22 years (December 1999 – December 2021) or maximum available
Products covered	<ol style="list-style-type: none"> 1. <u>Occupational pension pillar</u> (pension funds, insurance-based pension products, other defined-benefit/contribution vehicles) 2. <u>Voluntary pension pillar</u> (pension funds, insurance-based pension products)
Public pensions	Structure, coverage, funding type, entry/pay-out conditions
Occupational pensions	Architecture (types of products offered), coverage, assets and/or asset allocation, costs, applicable tax regime(s)
Voluntary (individual pensions)	Architecture (types of products offered), coverage, assets and/or asset allocation, costs, applicable tax regime(s)
Returns	<ol style="list-style-type: none"> 1. Gross returns (before costs, tax, and inflation – where available) 2. Nominal net returns (before tax and inflation – where available) 3. Real net returns, before tax, inflation deducted 4. Real net returns, after tax (where available)
Data sources	Publicly available data and information sources

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

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

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

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



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

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

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

Public pension authorities typically stress two requisites to achieve “pension adequacy”:

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

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

¹⁴ World Economic Forum White Paper: ‘We’ll live to 100 – How can we afford it?’ May 2017



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

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

© BETTER FINANCE, 2018

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

What is pension adequacy?

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

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

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

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

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

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

¹⁶ Directorate-General for Employment, Social Affairs and Inclusion of the European Commission and the Social Protection Committee, *Pension Adequacy in the European Union 2010-2050* (May 2021) European Commission, available at: <file:///C:/Users/Stefan/Downloads/pension%20adequacy%20in%20the%20european%20union%202010-2050-KE3012757ENN.pdf>.

¹⁷ See Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions - "A renewed commitment to social Europe: Reinforcing the Open Method of Coordination for Social Protection and Social Inclusion" {SEC(2008) 2153} {SEC(2008) 2169} {SEC(2008) 2170} {SEC(2008) 2179}, available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52008DC0418>.

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



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

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

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

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

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

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

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

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

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

¹⁹ Art. 67 of Convention C102 on Social Security (Minimum Standards) of the International Labour Organisation, available at: https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C102; Art. 29 of the later adopted Convention C128 on Invalidity, Old-Age and Survivors' Benefits Convention of the International Labour Organisation (available here:

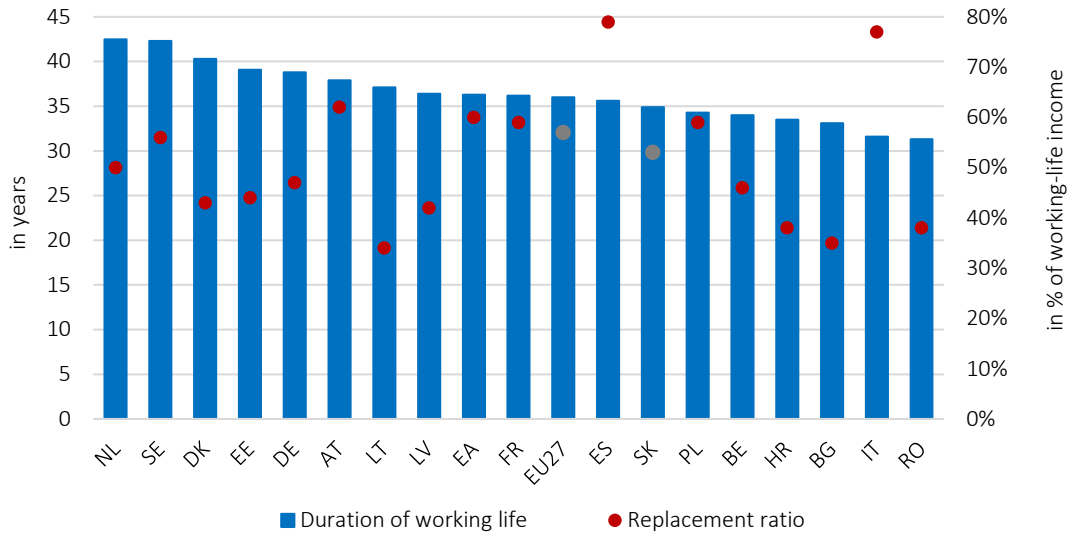
https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:55:0::NO::P55_TYPE,P55_LANG,P55_DOCUMENT,P55_NO_DE:CON,en,C128,/Document) required a higher threshold, i.e. 45%.

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

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



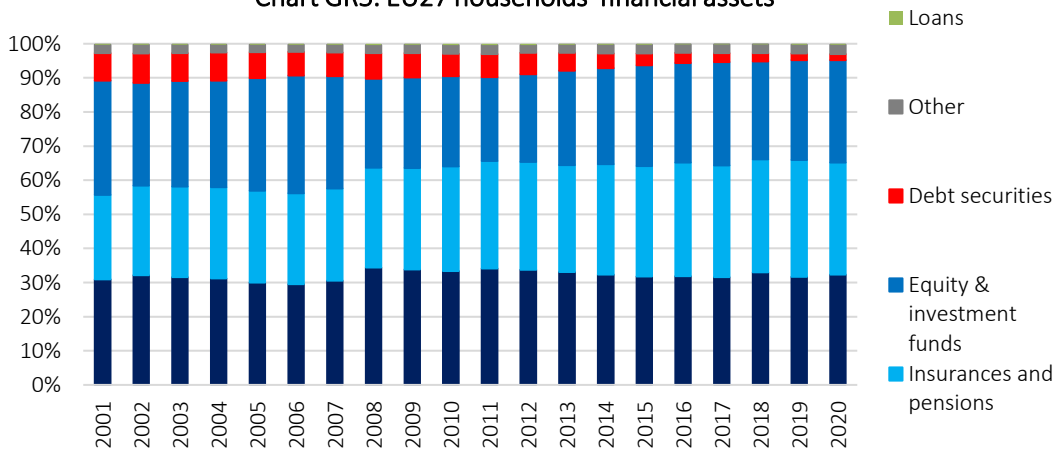
Chart GR4. Pension adequacy across jurisdictions



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

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

Chart GR5. EU27 households' financial assets



Source: BETTER FINANCE based on Eurostat data

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



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

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

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

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

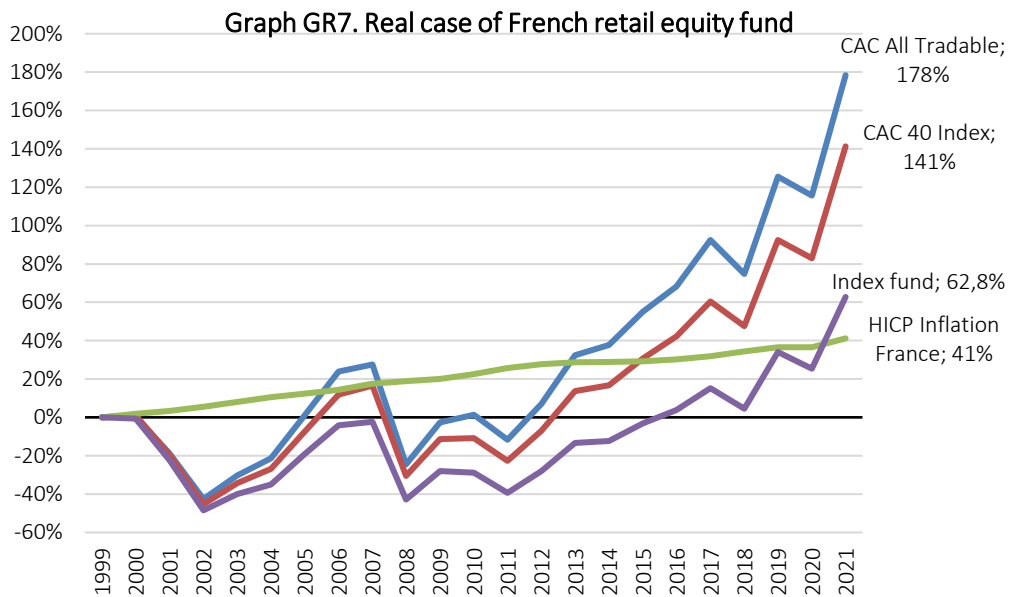
Table GR6. Real case of a Belgian life insurance (branch 23)

Capital markets vs. Belgian individual pension insurance 2000-2021 performance

Capital markets (benchmark index*) performance	
Nominal performance	288%
Real performance (before tax)	183%
Pension insurance performance (same benchmark)	
Nominal performance	182%
Real performance (before tax)	116%

*Source: Sources: BETTER FINANCE own computations based on Morningstar public website; *Benchmark is composed of 50% bonds (LP06TREU) and 50% STOXX All Europe Total Market Return*

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



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

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

4. European Pension returns outlook

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

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

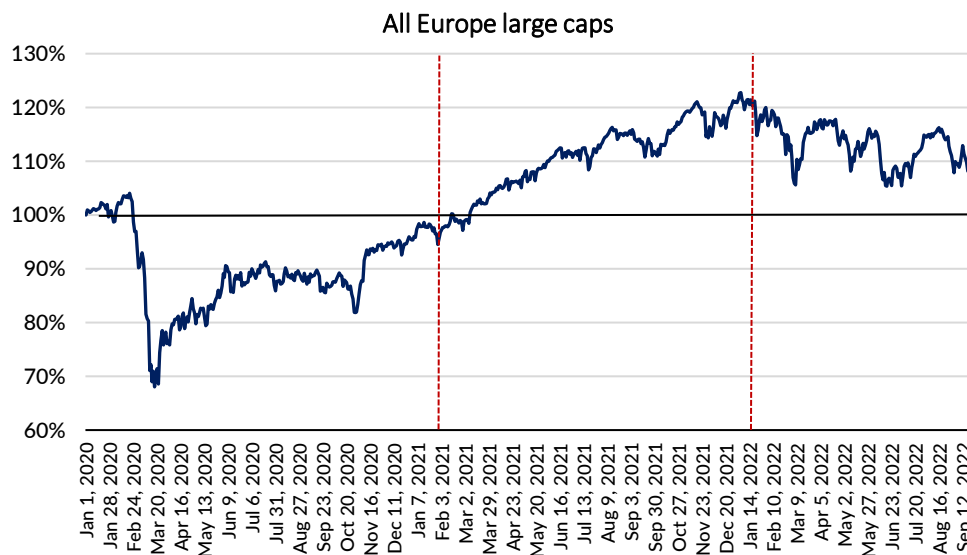
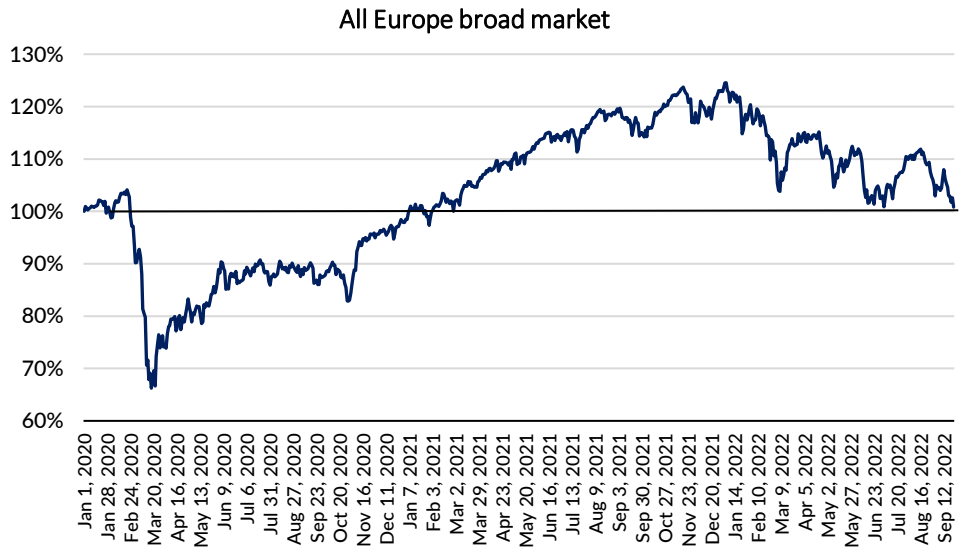
- a) it is unlikely that the European bond markets will come any closer to the extraordinary returns of the period ended in 2020 for bonds due to the continuous

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



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

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

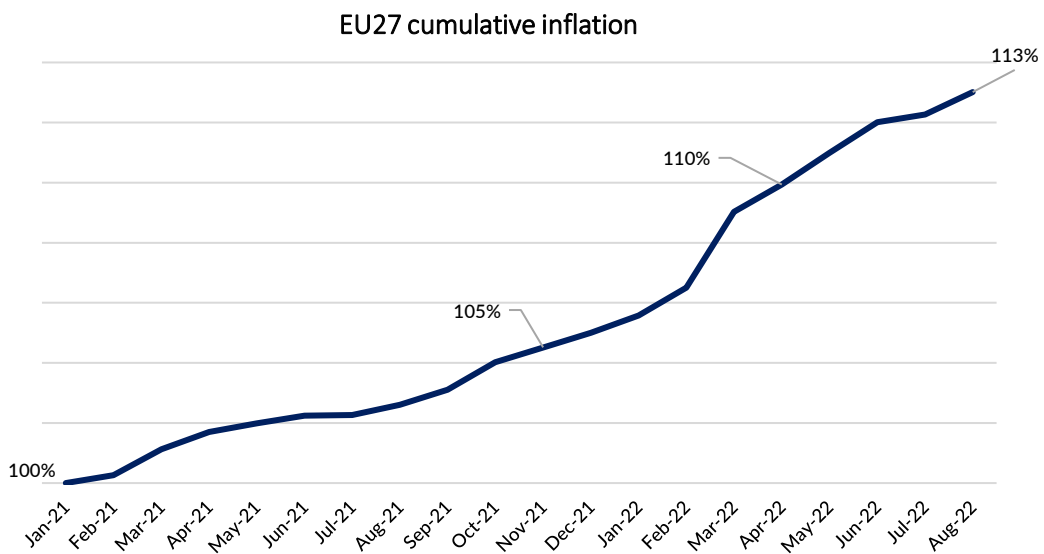
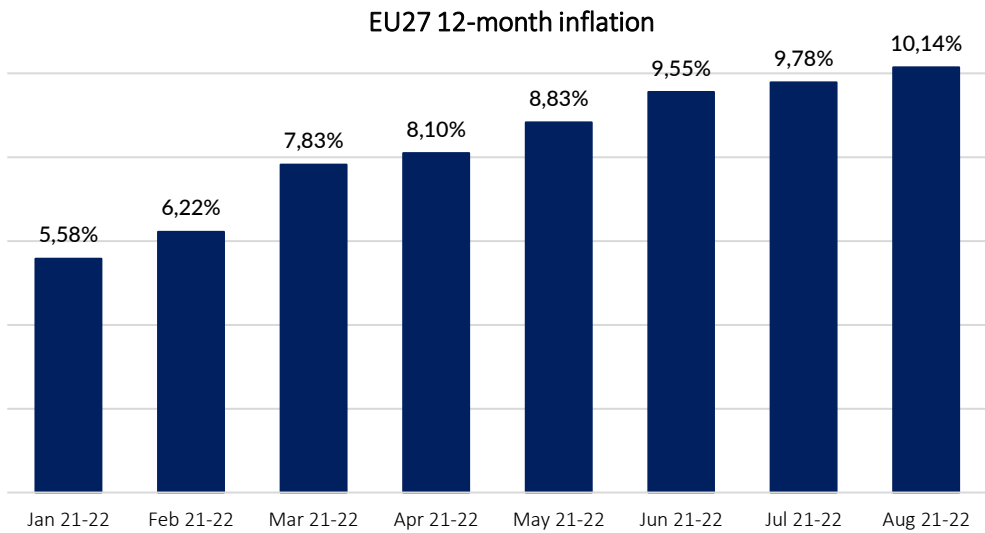


Source: Own composition based on MSCI data

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



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



Source: Own composition based on Eurostat data

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



Pension Savings: The Real Return

2022 Edition

Country Case: Latvia

Summary

Funded pension schemes have experienced negative average returns during their existence even the portfolio of pension funds in mandatory pension pillar is conservatively oriented. Pillar II pension funds recorded on average exceptional annual nominal return of 10.11% in year 2021, while Pillar III funds delivered also on average positive nominal return of 6.89%. A positive development could have been seen on the Pillar II market, where the introduction of passively managed funds contributed to further decrease of fees. The fees have decreased also in the Pillar III, however, complex fee structure and still higher fees of Pillar III pension funds play a significant role on the expected accumulated benefits.

Kopsavilkums

Fondēto pensiju shēmas savas pastāvēšanas laikā ir piedzīvojušas negatīvu vidējo ienesīgumu, pat ja pensiju fondu portfelis obligāto pensiju pīlārā ir konservatīvi orientēts. II pīlāra pensiju fondi 2021. gadā uzrādīja vidēji nelielu gada nominālo ienesīgumu 10.11% apmērā, savukārt III pīlāra fondi uzrādīja arī vidēji pozitīvu nominālo ienesīgumu 6.89% apmērā. Pozitīva attīstība bija vērojama II pīlāra tirgū, kur pasīvi pārvaldīto fondu ieviešana veicināja turpmāku komisijas maksu samazināšanos 2020. gadā. Maksa ir samazinājusies arī III pīlārā, tomēr III pīlāra pensiju fondu sarežģītā maksu struktūra un joprojām augstākas maksas būtiski ietekmē gaidāmos uzkrātos ieguvumus.

Introduction

Latvia is currently operating a multi-pillar pension system based on three pension pillars. The reform followed World Bank recommendations on creating a pension system with unfunded PAYG and funded pension pillars. Since 2001, the Latvian multi-pillar pension system includes:

- Pillar I (state compulsory PAYG pension scheme);
- Pillar II (mandatory state funded pension scheme) which is financed by a part of the social insurance contributions diverted from Pillar I;
- Pillar III (voluntary private pension scheme).

The introduction of the multi-pillar pension system has aimed its overall functionality on a different approach to each pension pillar operation, but with the overall objective of ensuring



an adequate pension for individuals under the demographic risks of an aging society, as well as the pension system's overall future financial stability.

The reform of the Latvian pensions system started in 1995, when it was decided to implement the three-pillar pension system. Firstly, the shift from the old Soviet-styled PAYG pension system to the notional defined contribution pension scheme (NDC PAYG Pillar I) was carried out. The new law on state pensions was adopted by the Parliament in November 1995 and came into force on 1 January 1996. The state mandatory-funded pension scheme (Pillar II) started operating in July 2001. The private pension funds (Pillar III) have been operating since 1998.²⁰⁷

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.

²⁰⁷ Groduma, M. 2002. Social insurance in Latvia: Seeking balance between financial stability and equity. In: European regional meeting "New and revised approaches to social protection in Europe". Budapest, 13 - 15 November 2002. [Online] Available: <http://www.issa.int/html/pdf/budapest02/2groduma.pdf>


Table LV 1: Multi-pillar pension system in Latvia

Pillar I	Pillar II	Pillar III
State Pensions	State Funded pensions	Voluntary private pensions
Mandatory	Mandatory	Voluntary
NDC PAYG	Funded	Funded
Financed by social insurance contributions	DC	DC
Benefits paid via State Social Insurance Agency	Financed by social insurance contributions	Privately managed two types of pension plans:
Publicly managed	Individual pension accounts	1. open (individual),
	Privately (and publicly) managed pension funds	2. closed (quasi occupational)
Coverage: generally, all population	Coverage: generally entire working population	Coverage: Cannot be calculated due to missing information about number of participants

Gross replacement ratio: 30% (1,435 € average wage; 432 € average old-age pension)

Source: Own elaboration, 2022

Pillar I – State Pension Insurance

State old-age pension (Pillar I) should guarantee the minimum income necessary for subsistence. It is based on an NDC PAYG principle of redistribution, i.e., the social tax paid by today's employees covers the pensions of today's pensioners. However, the amount of paid contributions for each saver are recorded on individual accounts.

The state old-age pension is paid out of the social insurance contributions. Total level of social insurance contributions is 34.09% of gross salary for employees (employers contributes 23.59% and employees 10.5%; self-employed persons pay 27.52%). Of the total contribution, 14% funded the Pillar I NDC pension and 6% was redirected to the individual's account under Pillar II. The remaining portion of contributions financed social security elements such as disability pension, sickness and maternity benefits, work injury benefits, parent's benefits, and unemployment benefits.

The **statutory retirement age**²⁰⁸ in Latvia in 2021 is 64 years both for men and women. However, the law stipulates a gradual increase of the retirement age by three months every year until the general retirement age of 65 years is reached in 2025. Early pension is possible in Latvia if two conditions are met: 1) an individual in 2021 reaches the age of at least 62 years (gradually rising by three months a year until 2025) and 2) an individual contributed for a period of at least 30 years.

²⁰⁸ <https://latvija.lv/en/PPK/socialie-pakalpojumi/sociala-apdrosinasana/p311/ProcesaApraksts>



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:
 - a. average insurance contribution wage from 1996 until 1999 (inclusive);
 - b. insurance period until 1 January 1996;
2. G – cohort unisex life-expectancy at the time of retirement.

Annual old-age pension (P) is calculated as follows:

$$P = \frac{K}{G}$$

It can be said that the Latvian NDC PAYG Pillar I has shifted in a direction where the average gross replacement ratio is lower than 35%. The average income replacement ratios for old-age pension in Latvia are shown in the table below.

Table LV 2. Latvian NDC PAYG pillar statistics					
Indicator / Year	Average Old-age pensions	Average Gross Monthly Wages and Salaries	Gross Replacement Ratio	Average Net Monthly Wages and Salaries	Net Replacement Ratio
2003	92	274	34%	196	47%
2004	101	300	34%	214	47%
2005	115	350	33%	250	46%
2006	137	430	32%	308	44%
2007	158	566	28%	407	39%
2008	200	682	29%	498	40%
2009	233	655	36%	486	48%
2010	250	633	39%	450	56%
2011	254	660	38%	470	54%
2012	257	685	38%	488	53%
2013	259	716	36%	516	50%
2014	266	765	35%	560	48%
2015	273	818	33%	603	45%
2016	280	859	33%	631	44%
2017	289	926	31%	676	43%



2018	314	1004	31%	742	42%
2019	340	1076	32%	793	43%
2020	367	1143	32%	841	44%
2021	432	1435	30%	1050	41%

*Source: Own calculations based on Central Statistical Bureau of Latvia (<http://data.csb.gov.lv>), 2022
<https://stat.gov.lv/lv/statistikas-temas/darbs/alga/tabulas/dsv030c-stradajoso-menesa-videja-darba-samaksa-pa-darbibas>*

Average monthly earnings of employees by type of activity (euro) (gross & net)
<https://stat.gov.lv/lv/statistikas-temas/darbs/alga/tabulas/dsv040-stradajoso-menesa-videja-darba-samaksa-regionos-eiro>

Average monthly earnings of employees in regions (euro)

A **Minimum old-age pension** mechanism is effective in Latvia. The minimum amount of the monthly old-age pension cannot be less than the state social security benefits (€80 monthly since January 2020) with an applied coefficient tied to the years of service (insurance period):

1. persons with insurance period up to 20 years - 1.1;
2. persons with insurance period from 21 to 30 years - 1.3;
3. persons with insurance period from 31 to 40 years - 1.5;
4. persons with insurance period starting from 41 years - 1.7.

The minimum old-age pension is calculated using the basic state social security benefit multiplied by the respective coefficient that is tied to the number of service (working) years (see table below).

Table LV 3: The amount of the minimum old-age pension according to the year of each insurance period in Latvia	
Years of service (Insurance period)	Minimum old-age pension since January 2021 (in €)
Insurance length 15 years	149.60
Insurance length 30 years	190.40
Insurance length 40 years	217.60
Insurance length 50 years	244.80

Source: Own elaboration based on Ministry of Welfare data, 2022 (www.lm.gov.lv/lv/vecuma-pensija)

Starting from 1 January 2021, the amount of the minimum old-age pension shall be determined by applying a coefficient of 1.1 to the minimum old-age pension calculation base of 136 euros (for persons with disabilities from childhood - 163 euros) and for each subsequent year exceeding the established old-age pension. the required length of insurance (currently at least 15 years), increasing the amount by two percent of the minimum old-age pension calculation base.



The amount of the minimum old-age pension is determined on the day of granting (recalculation) the pension, as well as by reviewing the calculation basis of the minimum old-age pension.

Pillar II –State Funded Pensions

Pillar II of the pension scheme was launched on 1 July 2001. As of that date, a portion of every individual's social contribution is invested into the financial market and accumulated on their Pillar II personal account. Everyone who is socially insured is entitled to be a participant of the Pillar II scheme as long as the person was not older than 50 years of age on 1 July 2001. Participation in the 2nd tier is compulsory for those who had not reached the age of 30 on 1 July 2001 (born after 1 July 1971).

Gradually all employees will participate in Pillar II. Persons who were between the ages of 30 and 49 (born between 2 July 1951 and 1 July 1971) at the time when the scheme was launched could and still can join the system voluntarily. Administration of Pillar II contributions are made by the State Social Insurance Agency, which collects and redirects 20% old-age pension insurance contributions between the NDC and FDC pillar pension scheme individual accounts. According to the Law on State Funded Pension, the State Social Insurance Agency also performs additional tasks connected to the Pillar II administration.

The Ministry of Welfare, according to the Law on State Funded Pension, performs the supervision of the funded pension scheme and has the right to request and receive an annual account from the State Social Insurance Agency regarding the operation of the funded pension scheme.

Total redistribution of old-age pension contributions between Pillar I and Pillar II of the pension scheme are shown in the table below.

Table LV 4. Redistribution of the old-age pension contributions between pillar I and pillar II

Years	Pillar I (NDC)	Pillar II (FDC)
2001-2006	18%	2%
2007	16%	4%
2008	12%	8%
2009-2012	18%	2%
2013-2014	16%	4%
2015	15%	5%
2016 and ongoing	14%	6%

Source: <https://www.manapensija.lv/en/pension-system/qa/>, 2022

Source: <https://www.vsa.gov.lv/en/services/for-employees/2-nd-tier-mandatory-state-funded-pension-scheme/>, 2022



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. Investing is performed by a third party: licensed fund managers.

Upon retiring, Pillar II participants will be able to make a choice: either add the accumulated pension capital to Pillar I and receive both pensions together or to entrust the capital accumulated in Pillar II to the insurance company of their choice and buy a single annuity.

Several changes have been made in the management of accumulated savings on personal accounts of Pillar II participants. Until 1 January 2003, there was only one public fund manager for the funds of Pillar II, the State Treasury. They invested the funds exclusively into the Latvian state bonds and into the deposits of the largest and safest Latvian banks. As of 1 January 2003, the private fund managers were involved, but today participants of Pillar II are in the position to choose their fund manager themselves. The private fund managers offer to invest the pension capital and into corporate bonds, shares and foreign securities. Participants of the system are entitled to change their fund manager once a year and, in addition, investment plans within the frame of one fund manager can be changed twice a year. Operation of private fund managers is supervised by the Finance and Capital Market Commission.

In 2019, the Parliament has adopted changes in Pillar II, where since January 2020, a saver could define any person, to which the accumulated capital on personal account can be inherited directly.

Pillar III – Voluntary private pensions

Voluntary private pension scheme, or pension Pillar III, was launched in July 1998, and it gives the opportunity to create additional voluntary savings in addition to the state organized Pillar I and II. Contributions that individuals and/or the employer regularly pay into the pension fund are invested in different securities, depending on the chosen investment strategy.

The Law on Private Pension Funds foresees that Latvian commercial banks, insurance companies and legal persons have the right to establish a private fund. Assets are invested by private pension funds with the aim not only to maintain the value of savings, but to increase it over a long-time period. There are generally two types of voluntary private pension funds in Latvia:

1. open pension funds (15 operational in Latvia in 2021)
2. closed 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.

Pension Vehicles

Pillar II – State Funded Pensions

Pension funds are the only pension vehicles allowed by the Law of State Funded Pensions for state-funded pension scheme. The law states that a funded pension scheme is a state-organized set of measures for making contributions, administration of funds contributed and payments of pensions which (without increasing the total amount of contributions for old age pensions) - provides an opportunity to acquire additional pension capital by investing part of the pensions' contributions in financial instruments and other assets in accordance with the procedures specified in the Law.

Currently (as of 31 December 2021), 28 state-funded pension schemes have been operational on the Pillar II market. There were several fund 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 investment strategy, nor any legal requirement to provide a specific investment strategy for pension funds. It is up to a pension fund manager to provide an in-demand type of pension fund in order to succeed on the market. However, every fund manager is required to develop a systematic set of provisions, according to which funds are managed. They are presented in a prospectus of the relevant pension fund and in a key investor information document (KIID, specific for UCITS funds, but with particular features) for participants of the scheme. The prospectus of a pension fund and the key information document for participants are an integral part of the contract entered into between the Agency and the manager of pension funds. Pension fund prospectus must clearly define the risk-reward profile and indicate proposed investment strategy of the respective expected portfolio structure.



Although there is no legal recognition of types of pension funds, they can be divided into three types based on their risk/return profiles:

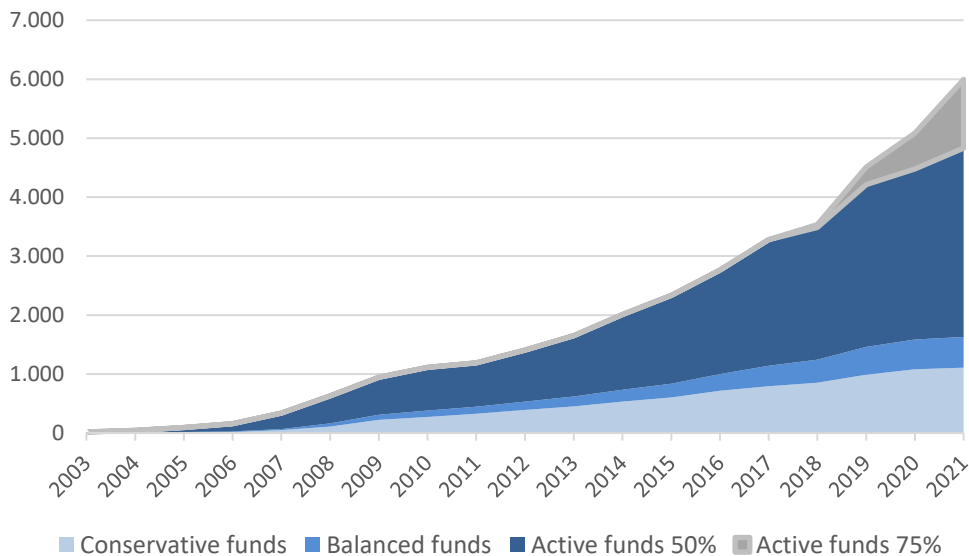
1. Conservative funds, with no equity exposure and a 100% share of bonds and money market instruments;
2. Balanced funds with bonds and money market instrument share of at least 50%; in addition, a maximum of 15% of the funds’ balances can be invested in equities;
3. Active funds with an equity share (resp. investments in capital securities, alternative investment funds or such investment funds that may make investments in capital securities or other financial instruments of equivalent risk) of up to 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.

Graph LV I. Assets under Management in State Funded Pension Scheme pension vehicles (in mln. €)

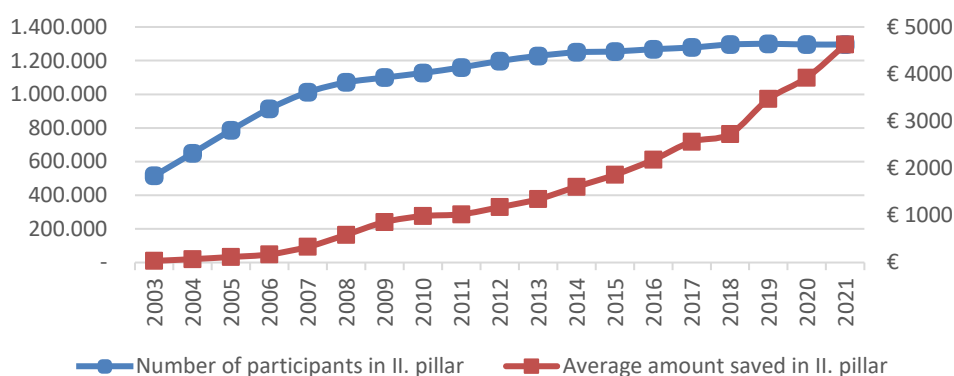


Source: Own calculations (<http://www.manapensija.lv/en/2nd-pensionpillar/statistics/data>), 2022



As the State Funded Pension scheme is mandatory for all economically active individuals in Latvia, the number of savers (as well as the average amount of accumulated assets on individual accounts) is rising. The chart below indicates that the Pillar II market is starting to be saturated in terms of the number of participants.

Graph LV II. Number of participants and average size of individual accounts in Latvian II pillar



Source: Own calculations (<http://www.manapensija.lv/en/2nd-pension-pillar/statistics/data>), 2022

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 pension funds' performance.

There are 28 pension funds operating by 9 providers (table below).

Table LV 5. List of State Funded Pension Funds

Pension Fund Name	Investment style of the pension plan	Inception day
CBL Aktīvais ieguldījumu plāns	Active 50	7.1.2003
CBL Universālais ieguldījumu plāns	Conservative	7.1.2003
Luminor Sabalansētais ieguldījumu plāns	Balance	21.2.2005
Ieguldījumu plāns „INVL Ekstra 47+”	Active 50	8.8.2006
Ieguldījumu plāns „INVL Komforts 53+”	Balance	8.8.2006
Ieguldījumu plāns „INVL Konservatīvais 58+”	Conservative	7.1.2003
Luminor aktīvais ieguldījumu plāns	Active 50	2.2.2009
Luminor konservatīvais ieguldījumu plāns	Conservative	2.2.2009
SEB aktīvais plāns	Active 50	7.1.2003
SEB konservatīvais plāns	Conservative	26.5.2003
SEB sabalansētais plāns	Balance	7.1.2003
Swedbank pensiju ieguldījumu plāns "Dinamika"	Active 50	7.1.2003
Swedbank pensiju ieguldījumu plāns "Stabilitāte"	Conservative	7.1.2003
Ieguldījumu plāns "INDEXO Izaugsme 47-57"	Active 50	21.6.2017
ABLV ACTIVE INVESTMENT PLAN	Active 50	2.8.2017
CBL dzīves cikla plāns Millennials	Active 75	24.4.2018

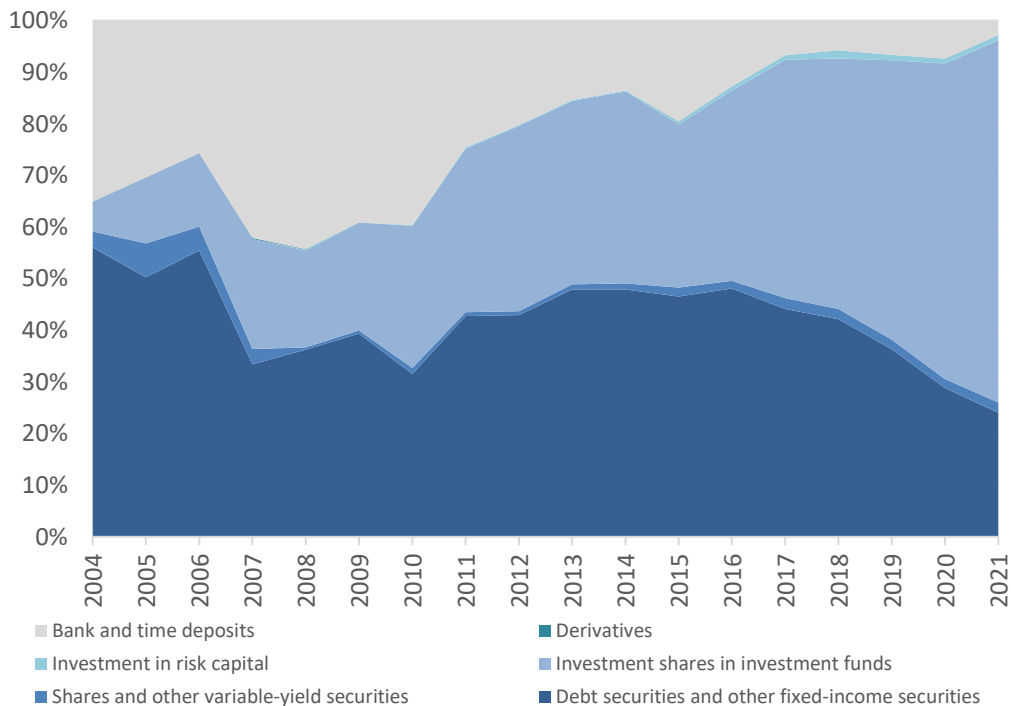


Ieguldījumu plāns "INDEXO Jauda 16-50"	Active 100	18.1.2018
Ieguldījumu plāns "INVL MAKSIMĀLAIS 16+”	Active 100	5.11.2018
Luminor Progresīvais ieguldījumu plāns	Active 75	6.4.2018
SEB dinamiskais plāns	Active 100	5.3.2018
SEB indeksu plāns	Active 100	5.3.2018
Swedbank ieguldījumu plāns 1990+	Active 100	9.2.2018
Ieguldījumu plāns "INDEXO Konservatīvais 55+”	Conservative	4.4.2018
Swedbank ieguldījumu plāns 1970+	Active 100	8.1.2019
Swedbank ieguldījumu plāns 1980+	Active 100	8.1.2019
CBL Ilgtspējīgu iespēju ieguldījumu plāns	Active 100	13.5.2019
Luminor indeksu ieguldījumu plāns Ilgtspējīgā nākotne	Active 100	3.6.2021
Swedbank ieguldījumu plāns Dinamika Indekss	Active 100	5.8.2021

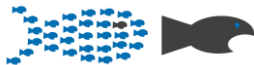
Source: <http://www.manapensija.lv/en/2nd-pension-pillar/statistics/>, 2022

The portfolio structure of Pillar II pension funds (figure below) shows that debt and other fixed income securities as well as investment funds (UCITS funds) remain the dominant investments. There is only limited direct investment into equities.

Graph LV III. Pillar II pension funds’ portfolio structure



Source: Own elaboration based on Financial and Capital Market Commission data, 2022 (available at: <https://www.fktk.lv/en/statistics/pension-funds/quarterly-reports/>).



Pillar III – Voluntary private pensions

There are two types of private pension funds in the Latvian voluntary private pension pillar:

1. closed, for fund founders' (corporate) staff;
2. open, of which any individual may become a participant, either directly or through an employer.

This distinction between private pension funds is rather significant, as closed private pension funds (only one operating in Latvia in 2021) could be recognized as a typical occupational pension fund. However, open private pension funds are more personal ones.

The law on Private Pension Funds provides a wide range of possibilities to organize and manage private pension funds. The law prescribes the accumulation of pension benefits (both in the specified contribution scheme and in the specified pay-out scheme), the types of private pension funds, the basis for activities thereof, the types of pension schemes, the rights and duties of pension scheme participants, the management of funds, the competence of holders of funds, and state supervision of such activities.

Pension vehicles (pension funds) can be created only by limited types of entities in Latvia, namely:

1. employers entering into a collective agreement with a pension fund, technically become founders of a closed pension fund;
2. for an open pension fund, two types of institutions can establish a fund:
 - 1) bank (licensed credit institution);
 - 2) life insurance company.

These founders usually hire a management company, who creates a different pension plan managed under one pension fund and manages the investment activities. Pension scheme assets can be managed only by the following commercial companies:

- a credit institution, which is entitled to provide investment services and non-core investment services in Latvia;
- an insurance company, which is entitled to engage in life insurance in Latvia;
- an investment brokerage company, which is entitled to provide investment services in Latvia;
- an investment management company, which is entitled to provide management services in Latvia.

The level of transparency in providing publicly available data for private pension funds before the year 2011 is rather low. Therefore, the analysis of the market and main pension vehicles has been performed with publicly available data starting from 31 December 2011. Currently (as of 31 December 2021), 15 open private pension funds and one closed private pension fund exist on the market.

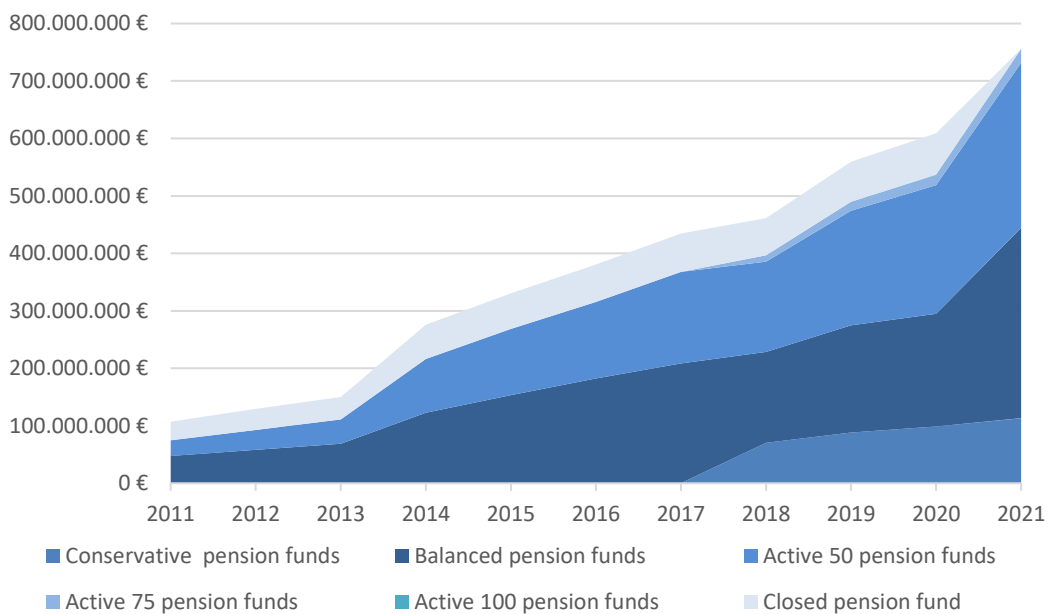


Table LV 6. List of Pillar III Supplementary pension funds		
Pension Fund Name	Investment style of the pension plan	Inception day
Swedbank pensiju plāns Stabilitāte+25	Conservative opened pension funds	14.7.2003
CBL Sabalansētais	Balanced opened pension funds	30.9.1999
Luminor sabalansētais pensiju plāns	Balanced opened pension funds	18.10.2011
"SEB - Sabalansētais" pensiju plāns	Balanced opened pension funds	31.7.2000
CBL Aktīvais	Active 50 opened pension funds	21.3.2000
"SEB Aktīvais" pensiju plāns	Active 50 opened pension funds	15.9.2004
Swedbank pensiju plāns Dinamika+60	Active 75 opened pension funds	1.8.2003
Swedbank pensiju plāns Dinamika+100	Active 100 opened pension funds	27.12.2006
CBL Aktīvais USD	Active 50 opened pension funds	1.4.2006
Swedbank pensiju plāns Dinamika+(USD)	Active 75 opened pension funds	14.7.2003
Luminor progresīvais pensiju plāns	Active 75 opened pension funds	18.10.2011
INVL MAKSIMĀLAIS 16+	Active 100 opened pension funds	8.10.2015
"Pirmais Pensiju Plāns"	Closed pension fund	1.12.1999
SEB Indeksu pensiju plāns	Active 100 opened pension funds	22.2.2021
Luminor Indeksu pensiju plāns	Active 100 opened pension funds	25.5.2021
Swedbank Dinamika Indekss	Active 100 opened pension funds	7.9.2021

Source: Own elaboration based on www.manapensija.lv, 2022

The structure of the pension vehicles according to the type of the fund and investment strategy offered is presented in the figure below.

Graph LV IV. Type of pillar III pension funds based on assets under management

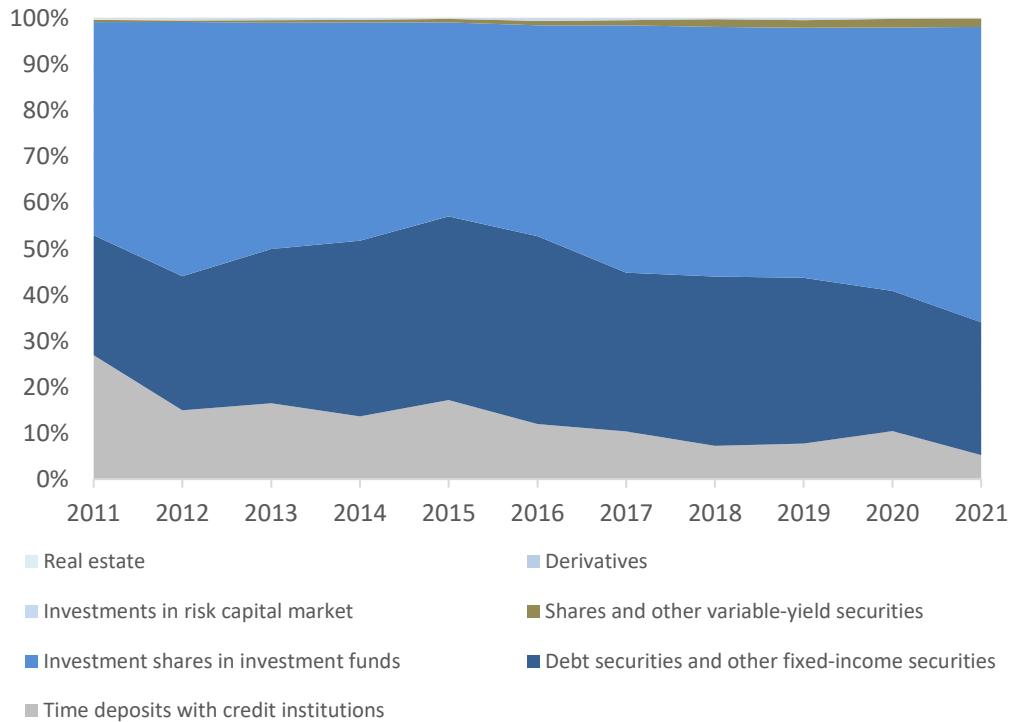


Source: Own calculation based on Manapensija data (<http://www.manapensija.lv/en/3rd-pension-pillar/history-and-statistics/>), 2022



The portfolio structure of Pillar III pension funds is presented in the figure below. Generally, Pillar III pension funds invest predominantly into debt securities, bank deposits and UCITS funds. Direct investment into equities, real estate or other long-term riskier investment constitute for less than 1% of total portfolio.

Graph LV VI. Pillar III pension funds' portfolio structure



Source: Own elaboration based on Financial and Capital Market Commission data, 2022 (available at: <https://www.fktk.lv/en/statistics/pension-funds/quarterly-reports/>).

Charges

Pillar II – State Funded Pensions

Latvia has adopted the cap on fees within Pillar II, which forces that the maximum amount of payment for the management of investment plan (including the fixed and variable parts of payment, calculating for the last 12-month period) to not exceed:

- 1) 1.50% of the average value of investment plan assets to the investment plans, where the investment plan prospectuses do not provide for any investments in the shares of commercial companies, other capital securities and other equivalent securities;
- 2) 2.00% of the average value of investment plan assets of all other investment plans.

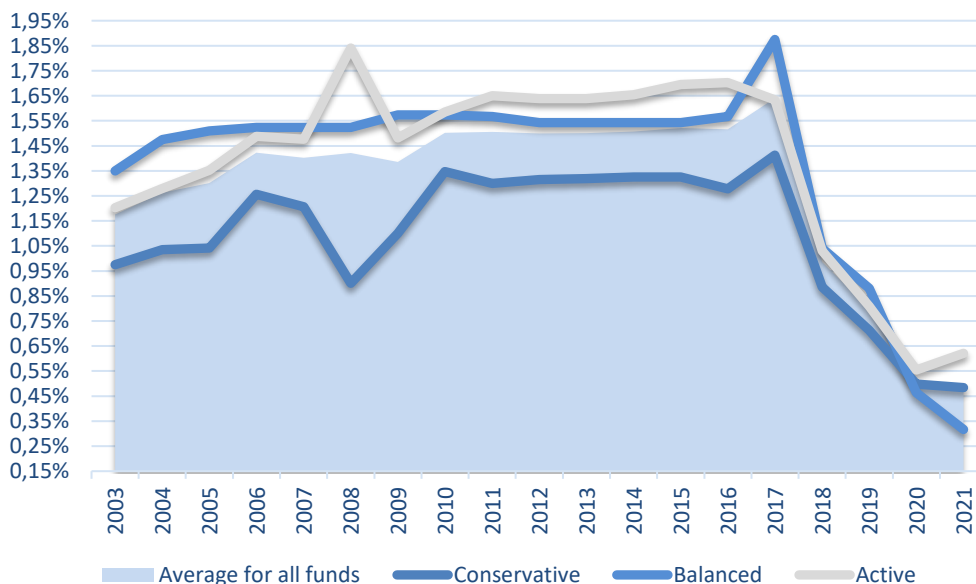


Fees that can be charged to pension funds by fund managers are recognized by law as having a fixed and variable part. The law stipulates that payment for the management of an investment plan shall include:

- a) fixed component of payment, which is 1% of the average value of investment plan assets per year and includes payments to the manager of the funds, custodian, as well as payments to third persons, which are performed from the funds of the investment plans (except expenses which have arisen upon performing transactions by selling the assets of the investment plan with repurchase);
- b) variable component of payment, which is remuneration to the manager of funds of the funded pension scheme for performance of investment plan, with its amount depends on the return of the pension plan.

The year 2021 brought stabilization 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.

Graph LV VII. Pillar II Pension Funds’ Charges



Source: Own elaboration based on the funds’ documentations, 2022



Pillar III – Voluntary private pensions

It cannot be said that such a positive trend seen in Pillar II charges is observed in Pillar III. Complex fee structure and high fees preserve in Latvian Pillar III even if slight decrease in custodian fees can be observed in Pillar III.

Voluntary private pension funds have typically lower level of transparency when it comes to fee policy. In most cases, only current fees and charges are disclosed. Historical data is almost impossible to track via publicly accessible sources. Charges of voluntary private pension funds for the last 5 years are presented in the table below. Administration cost, Fund Manager's Commission, and Custodian bank's commission are based on the assets under management. Funds managed by Nordea and Swedbank use mixed Administration costs, which are a combination of entry fees (fees on contributions paid) and ongoing charges (AuM based). CBL funds also use a performance fee if the fund returns outperform the benchmark (12-month RIGIBID).

Table LV 7. Voluntary Private Pension Funds' Fees and Charges

Voluntary Private Pension Funds	Type of the Charges	Year 2021
CBL Aktīvais	Administration Cost	0.20% - 1.50%
	Fund Manager's Commission	0,80%
	Custodian bank's commission	0.15%
	Performance fee	10.00%
CBL Aktīvais USD	Administration Cost	0.20% - 1.50%
	Fund Manager's Commission	0,80%
	Custodian bank's commission	0.15%
	Performance fee	10.00%
CBL Sabalansētais	Administration Cost	0.20% - 1.50%
	Fund Manager's commission	0.70%
	Custodian bank's commission	0.15%
	Performance fee	10.00%
INVL KOMFORTS 53+	Administration Cost	0.99%
	Fund Manager's commission	0.50%
	Custodian bank's commission	0.00%
INVL Klasika	Administration Cost	0.99%
	Fund Manager's commission	0.50%
	Custodian bank's commission	0.00%
INVL EKSTRA 47+	Administration Cost	0.00%
	Fund Manager's commission	0.00%
	Custodian bank's commission	0.00%
	Fee from contributions during the first year of participation	30.00%, max €200
INVL MAKSIMĀLAIS 16+	Administration Cost	0.00%
	Fund Manager's commission	0.00%
	Custodian bank's commission	0.00%



	Fee from contributions during the first year of participation	30.00%, max €200
Luminor progresīvais pensiju plāns	Administration Cost	0.45% per year from average assets.
	Fund Manager's commission	0.43%
	Custodian bank's commission	0.07%
Luminor sabalansētais pensiju plāns	Administration Cost	0.45% per year from average assets.
	Fund Manager's commission	0.43%
	Custodian bank's commission	0.07%
"Pirmais Pensiju Plāns"	Administration Cost	1.50%
	Fund Manager's commission	1.30%
	Custodian bank's commission	0.20%
"SEB Aktīvais" pensiju plāns	Administration Cost	0.12% - 0.85%
	Fund Manager's commission	0.35% - 0.40%
	Custodian bank's commission	0.07%
"SEB - Sabalansētais" pensiju plāns	Administration Cost	0.12% - 0.85%
	Fund Manager's commission	0.35%-0.40%
	Custodian bank's commission	0.07%
Swedbank pensiju plāns Dinamika+(USD)	Administration Cost	0.26%
	Fund Manager's commission	0.34%
	Custodian bank's commission	0.09%
Swedbank pensiju plāns Dinamika+100	Administration Cost	0.26%
	Fund Manager's commission	0.34%
	Custodian bank's commission	0.09%
Swedbank pensiju plāns Dinamika+60	Administration Cost	0.26%
	Fund Manager's commission	0.34%
	Custodian bank's commission	0.09%
Swedbank pensiju plāns Stabilitāte+25	Administration Cost	0.26%
	Fund Manager's commission	0.34%
	Custodian bank's commission	0.09%
INDEXO AKCIJU PLĀNS	Administration Cost	0.21%
	Fund Manager's commission	0.30%
	Custodian bank's commission	0.14%
INDEXO OBLIGĀCIJU PLĀNS	Administration Cost	0.21%
	Fund Manager's commission	0.30%
	Custodian bank's commission	0.14%
LUMINOR INDEKSU PENSIJU PLĀNS ILGTSPĒJĪGĀ NĀKOTNE	Administration Cost	0.45%
	Fund Manager's commission	0.25%
	Custodian bank's commission	0.07%
SEB-INDEKSU PLĀNS	Administration Cost	0.12% - 0.85%
	Fund Manager's commission	0.25%
	Custodian bank's commission	0.05%
SWEDBANK PENSIJU PLĀNS DINAMIKA INDEKSS	Administration Cost	0.26%
	Fund Manager's commission	0.22%
	Custodian bank's commission	0.09%

Source: Own research based on <http://www.manapensija.lv/en/3rd-pension-pillar/funds/> data and supplementary pension funds' Prospectuses and Terms, 2022



When comparing the charges applied to the voluntary private pension funds and to state-funded pension funds, the level of charges in Pillar III pension funds are significantly higher and the structure of fees is more complex. This limits the overall understanding of the impact of fees on the pension savings for an average saver. The total cost ratio of Pillar III funds starts at 0.8% p.a. and can reach as high as 3% p.a. on managed assets.

There are neither limitations nor caps on fees in the law. The legislative provisions only indicate that at least the following should be disclosed: general information on maximum fees and charges applied, procedures for covering the expenses of the scheme, information regarding maximum payments to the management of the pension scheme and to the manager of funds, and the amount of remuneration to be paid out to the holder of funds, as well as the procedures by which pension scheme participants shall be informed regarding such pay-outs of the scheme.

Taxation

Pillar II – State Funded Pensions

Latvia is applying an “EET” taxation regime for Pillar II with some specifications (deductions) to the pay-out regime taxation, where generally the “T” regime is applied for the pay-out phase in retirement.

Taxation of contributions

Contributions paid to the state funded pension scheme are made via social insurance contributions redirection. As such, these contributions are personal income tax deductible items, so the contributions are not subject to additional personal taxation.

Taxation of the Fund

The Corporate Income tax rate in Latvia is 15%. However, income or profits of the fund (investment fund as a legal entity) are not subject to Latvian corporate income tax at the fund level. Latvia applies a general principle for all investment and savings-based schemes to levy the income taxation on the final beneficiaries and not on the investment vehicles.

Taxation of pension benefits

Latvia has one of the lowest levels of income redistribution among EU countries. Personal income tax rate is 23% and the pension benefits paid from the NDC PAYG scheme (Pillar I) and state-funded pension scheme (Pillar II) are considered taxable income. As such, pension benefits are subject to personal income tax. Latvia applies a non-taxable minimum, which is recalculated and announced every year by Cabinet regulation.



Pillar III – Voluntary private pensions

Latvian tax legislation stipulates the use of the “EET” regime (like Pillar II) for voluntary private pension schemes as well, where the contribution by individuals is treated in a slightly different way. Payments made to private pension funds established in accordance with the Republic of Latvia Law on Private Pension Funds or to pension funds registered in another Member State of the European Union or the European Economic Area State shall be deducted from the amount of annual taxable income, provided that such payments do not exceed 10 % of the person’s annual taxable income. However, there is a limit on total income tax base deductible payments. The total of donations and gifts, payments into private pension funds, insurance premium payments and purchase costs of investment certificates of investment funds may not exceed 20% of the amount of the payer’s taxable income.

Pension Returns

Pillar II – State Funded Pensions

Pension funds’ performance is closely tied to the portfolio structure defined by an investment strategy (as well as investment restrictions and regulations) applied by a fund manager. Investment regulations differ, depending on whether pension plans are managed by the State Treasury or by private companies. The State Treasury is only allowed to invest in Latvian government securities, bank deposits, mortgage bonds and deposit certificates. Moreover, it can only invest in financial instruments denominated in the national currency. In contrast, private managers are allowed to invest in a much broader range of financial instruments. The main investment limits include the following:

- 35% for securities guaranteed by a state or international financial institution;
- 5% for securities issued or guaranteed by a local government;
- 10% for securities of a single issuer, except government securities; for deposits at one credit institution (investments in debt and capital securities of the same credit institution and derivative financial instruments may not exceed 15%); and for securities issued by one commercial company (or group of commercial companies);
- 20% for investments in non-listed securities;
- 5% for investments in a single fund (10% of the net assets of the investment fund).

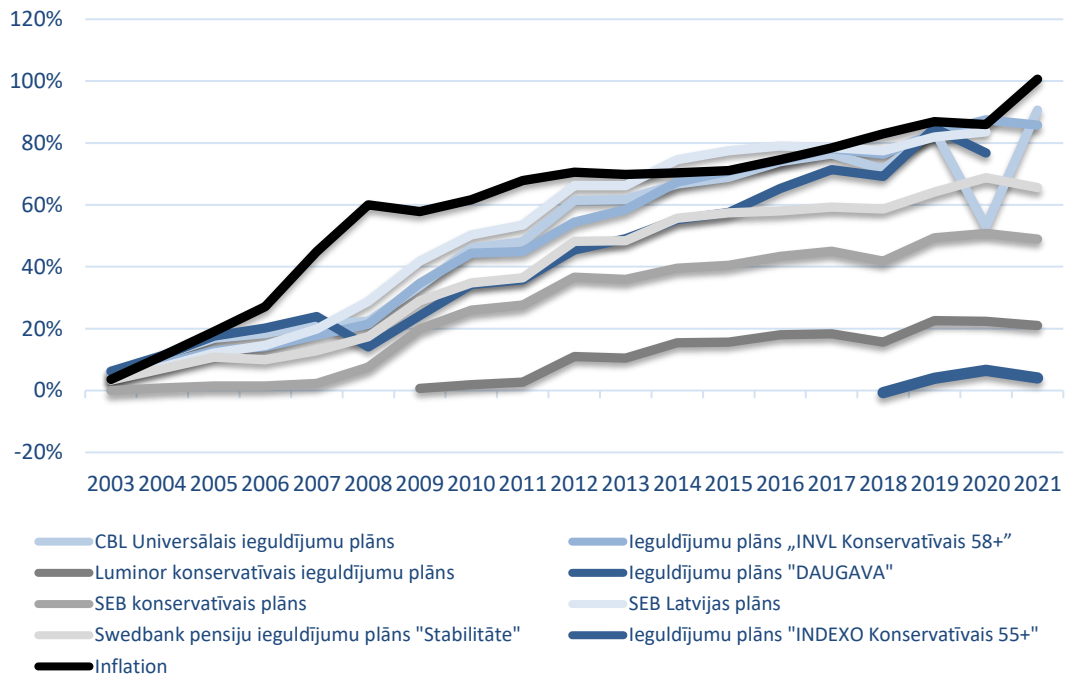
There is no maximum limit for international investments so long as pension funds invest in securities listed on stock exchanges in the Baltics, other EU member states, or the European Free Trade Area. However, the law stipulates a 70% currency matching rule. There is also a 10% limit for each non-matching currency. Investments in real estate, loans, and self-investment are not permitted.



All data presented on the pension funds' returns are presented in net values, i.e., after all fees charged to the fund portfolio. The graphs contain also inflation on an annual as well as cumulative basis.

Conservative mandatory pension funds' performance on a cumulative basis compared to the inflation is presented below.

Graph LV VIII. Conservative Pension Funds' Cumulative Performance

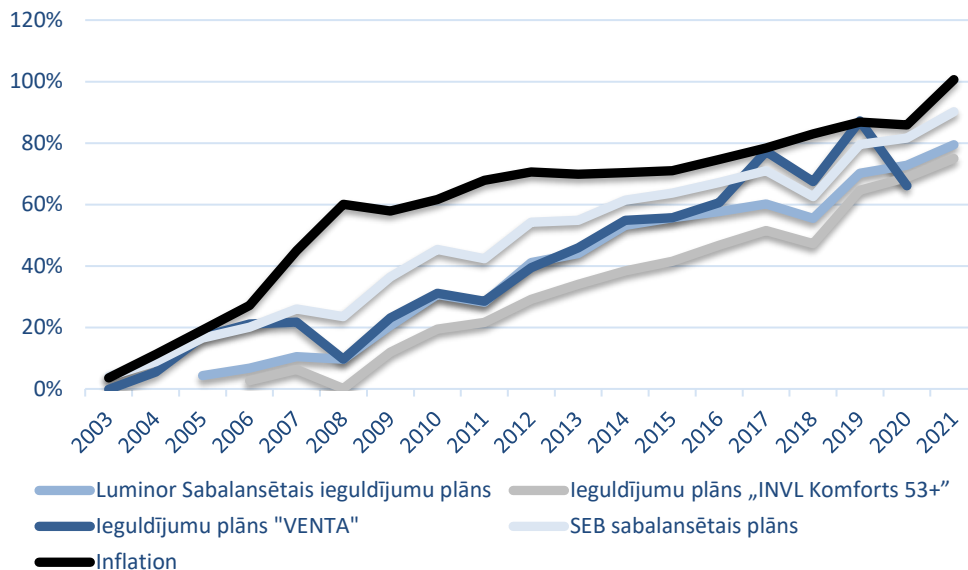


Source: Own calculation based on <http://www.manapensija.lv/en/2nd-pension-pillar/statistics/> and supplementary pension funds' Prospectuses and Terms, 2022

Balanced mandatory pension funds' performance on a cumulative basis compared to the inflation is presented below.



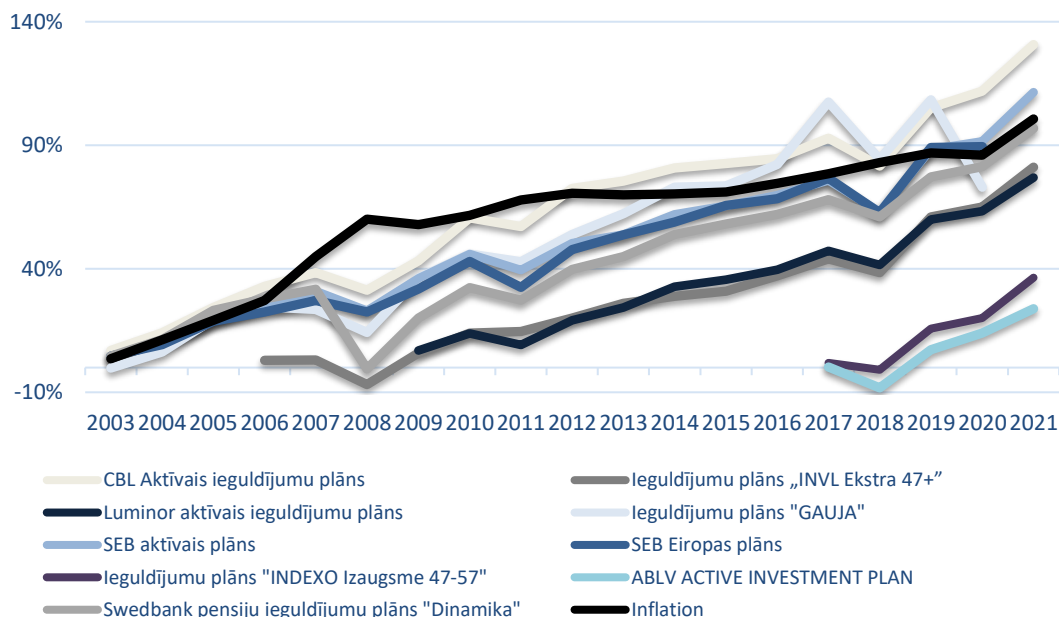
Graph LV IX. Balanced Pension Funds' Cumulative Performance



Source: Own calculation based on <http://www.manapensija.lv/en/2nd-pension-pillar/statistics/> and supplementary pension funds' Prospectuses and Terms, 2022

Active pension funds' performance on a cumulative basis compared to the inflation is presented in the graphs below.

Graph LV X. Active 50 Pension Funds' Cumulative Performance



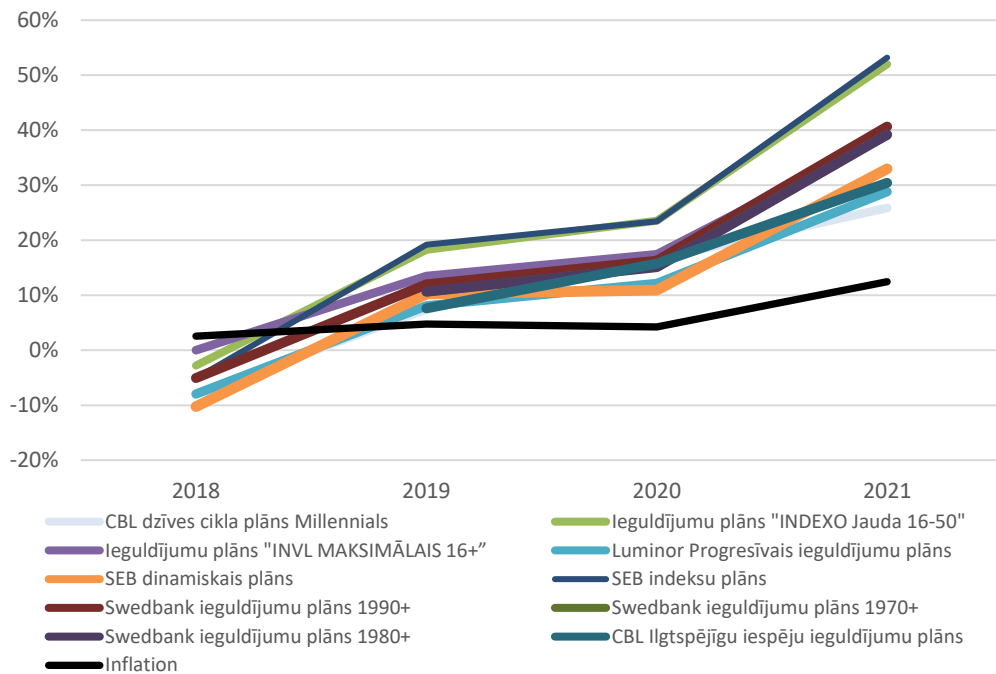
Source: Own calculation based on <http://www.manapensija.lv/en/2nd-pension-pillar/statistics/> and supplementary pension funds' Prospectuses and Terms, 2022



It should be noted that only few of the actively managed pensions were able to “beat” the inflation, and thus able to deliver the positive real returns to the savers.

In 2018, the Active 75 pension funds started operating on the market that invests major proportion of assets into the equities. Their cumulative performance is presented below.

Graph LV XI. Active 75 Pension Funds’ Cumulative Performance



Source: Own calculation based on <http://www.manapensija.lv/en/2nd-pension-pillar/statistics/> and supplementary pension funds’ Prospectuses and Terms, 2022

It should be noted that during the year 2021 several fully equity funds emerged (Luminor indeksu ieguldījumu plāns Ilgtspējīgā nākotne (Active 100) has started its operation since June 2021, Swedbank ieguldījumu plāns Dinamika Indekss (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.

Nominal as well as real returns of state funded pension funds in Latvia weighted by AuM are presented in a summary table below.


Table LV 8. Nominal and Real Returns of State Funded Pension Funds in Latvia

2003		4.86%			1.28%
2004		5.69%			-1.65%
2005		8.93%			1.80%
2006		3.91%			-2.83%
2007		3.51%			-10.52%
2008		-10.04%			-20.44%
2009		13.51%			14.88%
2010		8.45%			6.05%
2011	Nominal return after charges, before inflation and taxes	-2.10%	4.00%	Real return after charges and inflation and before taxes	-5.98%
2012		9.06%			7.47%
2013		2.32%			2.72%
2014		5.25%			4.97%
2015		1.93%			1.53%
2016		2.02%			-0.08%
2017		3.23%			1.07%
2018		-4.09%			-6.64%
2019		10.79%			8.65%
2020		1.44%			1.94%
2021		10.11%			2.21%

Source: Own calculation based on Manapensija data (<http://www.manapensija.lv/en/2nd-pension-pillar/statistics/>), 2022

Another view on the performance of the Pillar II pension funds allowing the comparison across EU pension schemes is using the holding period approach.

Holding Period	Net Nominal Annualized Performance	Real Net Annualized Performance
1-year	10.11%	2.21%
3-years	7.36%	4.22%
5-years	4.14%	1.33%
7-year	3.07%	1.15%
10-years	4.11%	2.30%
Since inception	4.00%	0.05%

Source: Own calculation based on Manapensija data (<http://www.manapensija.lv/en/2nd-pension-pillar/statistics/>), 2022

Pillar III – Voluntary private pensions

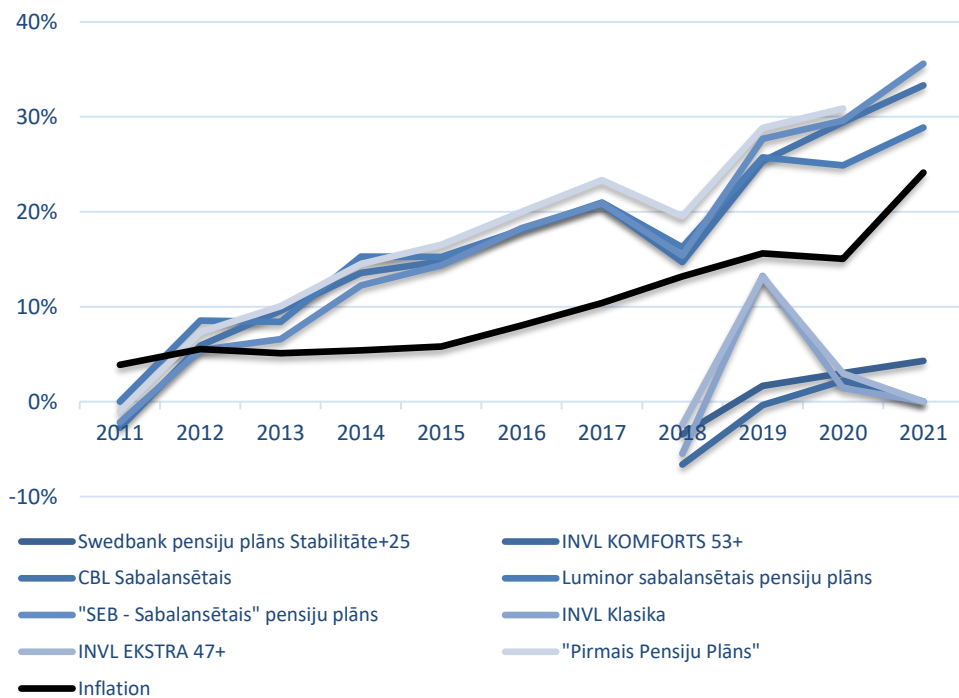
The analysis of voluntary pension funds' performance uses annual approaches as well as cumulative approaches, peer comparison and inflation.



Investment rules for private pension funds are similar to those for state-funded schemes but are more flexible. For example, investment in real estate is permitted (with a limit of 15%), the currency matching rule is only 30%, and limits for some asset classes are higher. Considering the structure of voluntary pension funds' portfolios in Latvia, a larger proportion is invested in structured financial products (mainly equity based UCITS funds) and direct investment in equities and bonds is decreasing.

Due to the lack of publicly available data before 2011, the performance of voluntary pension funds on an annual and cumulative basis starting from the year 2011 is presented in the charts below.

Graph LV XII. Balanced and conservative voluntary LV open and closed pension funds' cumulative performance



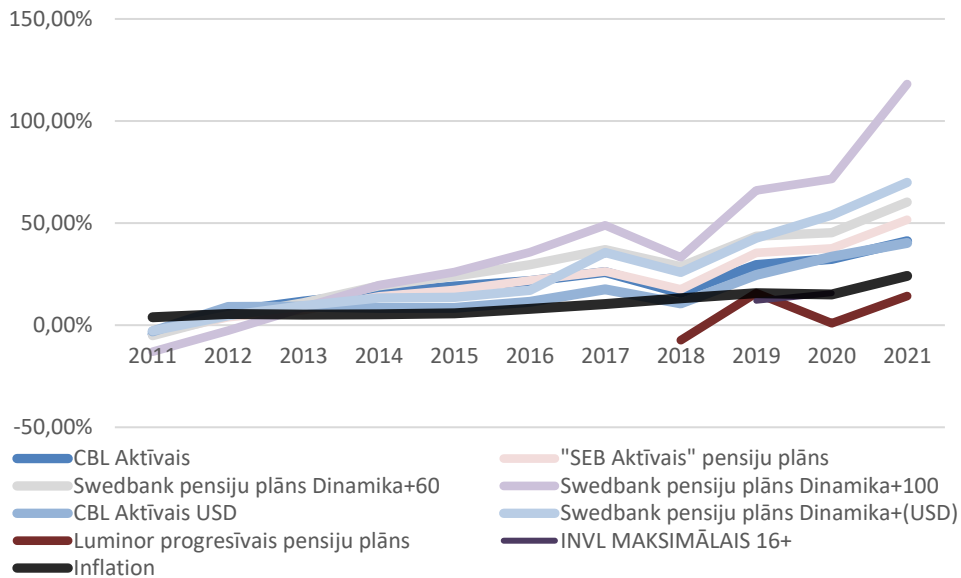
Source: Own calculation based on Manapensija data (<http://www.manapensija.lv/en/3rd-pension-pillar/history-and-statistics/>), 2022

Contrary to balanced Pillar II funds, balanced Pillar III funds all provide positive real returns (outperform inflation). Balanced Pillar III funds have a more aggressive portfolio structure. However, short historical data does not allow for a comprehensive conclusion to be drawn. There is a backward pressure of charges which might reverse the trend in future.



The performance of Latvian active voluntary private pension funds differs significantly, and the dispersion of annual returns and cumulative returns is higher. Performance of analyzed voluntary private pension funds on a cumulative basis is presented on the chart below.

Graph LV XIII. Active 50, 75 & Active 100 voluntary pension funds' cumulative performance



Source: Own calculation based on Manapensija data (<http://www.manapensija.lv/en/3rd-pension-pillar/history-and-statistics/>), 2022

Pillar III market experienced introduction of 3 new equity funds - Active 100 (SEB Indeksu pensiju plans (22.2.2021), Luminor Indeksu pensiju plans (25.5.2021) and Swedbank Dinamika Indekss (7.9.2021)) in 2021.

Nominal as well as real returns of voluntary pension funds in Latvia weighted by AuM are presented in a summary table below.



Table LV 9. Nominal and Real Returns of Voluntary pension funds in Latvia

Year	Nominal return after charges, before inflation and taxes	Real return after charges and inflation and before taxes
2011	-2.70%	-6.58%
2012	8.77%	7.18%
2013	3.08%	3.48%
2014	5.56%	5.29%
2015	2.28%	1.87%
2016	3.35%	1.24%
2017	3.62%	1.46%
2018	-5.12%	-7.67%
2019	10.80%	8.66%
2020	1.64%	2.14%
2021	6.89%	-1.01%
Average	2.90%	1.63%

Source: Own calculation based on Manapensija data (<http://www.manapensija.lv/en/3rd-pension-pillar/history-and-statistics/>), 2022

Additionally, we provide data on Pillar III (Voluntary) pension funds' performance according to various holding periods.

Holding Period	Net Nominal Annualized Performance	Real Net Annualized Performance
1-year	6.89%	-1.01%
3-years	6.38%	3.18%
5-years	3.43%	0.58%
7-year	3.25%	0.59%
10-years	4.00%	2.17%
Since inception	3.37%	1.34%

Source: Own calculation based on Manapensija data, 2022



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.

Policy Recommendations

Latvia has improved significantly its mandatory part of funded pension system. Together with its NDC scheme for pay-as-you-go pillar, mandatory funded part as well as NDC part form a well-designed pension system that motivates individuals to contribute as there is a clear connection between paid contributions and expected pension benefits. However, voluntary part of the pension system still suffers from very complicated fee structure, high fees and low transparency.

These limits, despite a generous fiscal stimulus, larger participation in voluntary pension scheme. Regulators should seek for modern fee policies that would on one hand decrease the fee structure and on the other hand introduce success fee tied to the market benchmark. Applying high-water mark principle could limit the risk appetite of asset managers as they will start to prefer low-risk investments where constant fee revenue could be expected. If the benchmarking principle is applied, where the asset manager is rewarded by higher fee when the market benchmark has been outperformed and penalized by lower fees if the fund performance is lower than the market benchmark, savers could benefit more and start trusting the voluntary pension providers on a larger scale.



Bibliography

- Groduma, M. 2002. Social insurance in Latvia: Seeking balance between financial stability and equity. In: European regional meeting “New and revised approaches to social protection in Europe”. Budapest, 13 - 15 November 2002. [Online] Available: <http://www.issa.int/html/pdf/budapest02/2groduma.pdf>
- Hernandez, D. G and Stewart, F. 2008. Comparison of Costs and Fees in Countries with Private Defined Contribution Pension Systems. *IOPS Working Paper No. 6*. 2008.
- Ministry of Welfare of Latvia. 2003. The State Social Insurance System in Latvia. *Financial Analysis*. Riga: Ministry of Welfare of Latvia. 2003.
- Rajevska, O. 2013. Funded Pillars in the Pension Systems of Estonia, Latvia and Lithuania. In: *Economics and Business 2013/23*.
- Volskis, E. 2012. Reforms of Baltic States Pension Systems: Challenges and Benefits. EBRD. [Online] Available: www.ebrd.com/downloads/news/pension-system.pdf
- Law on State Funded Pensions
- Law on Private Pension Funds
- Law on State Social Insurance



Acronyms

AIF	Alternative Investment Fund
AMC	Annual Management Charges
AuM	Assets under Management
BE	Belgium
BG	Bulgaria
Bln	Billion
BPETR	'Barclay's Pan-European High Yield Total Return' Index
CAC 40	'Cotation Assistée en Continu 40' Index
CMU	Capital Markets Union
DAX 30	'Deutsche Aktieindex 30' Index
DB	Defined Benefit plan
DC	Defined Contribution plan
DE	Germany
DG	Directorate General of the Commission of the European Union
DK	Denmark
DWP	United Kingdom's Governmental Agency Department for Work and Pensions
EBA	European Banking Authority
EE	Estonia
EEE	Exempt-Exempt-Exempt Regime
EET	Exempt-Exempt-Tax Regime
ETF	Exchange-Traded Fund
EIOPA	European Insurance and Occupational Pensions Authority
ES	Spain
ESAs	European Supervisory Authorities
ESMA	European Securities and Markets Authority
EU	European Union
EURIBOR	Euro InterBank Offered Rate
EX	Executive Summary
FR	France
FSMA	Financial Services and Market Authority (Belgium)
FSUG	Financial Services Users Group - European Commission's Expert Group
FTSE 100	The Financial Times Stock Exchange 100 Index
FW	Foreword
GDP	Gross Domestic Product
HICP	Harmonised Indices of Consumer Prices
IBEX 35	Índice Bursátil Español 35 Index



IKZE	‘Indywidualne konto zabezpieczenia emerytalnego’ – Polish specific Individual pension savings account
IRA	United States specific Individual Retirement Account
IT	Italy
JPM	J&P Morgan Indices
KIID	Key Investor Information Document
LV	Latvia
NAV	Net Asset Value
Mln	Million
MSCI	Morgan Stanley Capital International Indices
NL	Netherlands
OECD	The Organisation for Economic Co-Operation and Development
OFT	United Kingdom’s Office for Fair Trading
PAYG	Pay-As-You-Go Principle
PIP	Italian specific ‘Individual Investment Plan’
PL	Poland
PRIIP(s)	Packaged Retail and Insurance-Based Investment Products
RO	Romania
S&P	Standard & Poor Indexes
SE	Sweden
SK	Slovakia
SME	Small and Medium-sized Enterprise
SPIVA	Standard & Poor Dow Jones’ Indices Research Report on Active Management
Scorecard	performances
TEE	Tax-Exempt-Exempt Regime
TCR/TER	Total Cost Ratio/ Total Expense Ratio
UCITS	Undertakings for the Collective Investment of Transferable Securities
UK	United Kingdom



Glossary of terms

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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

²⁹² Ibid.

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



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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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



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

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

Normal retirement age* – is the age from which the individual is eligible for pension benefits.

Non-contributory pension scheme* – is a pension scheme where the members do not have to pay into scheme.

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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

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

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

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

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

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



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

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

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

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

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

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

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

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

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



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

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

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

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

Definitions with “*” are taken from OECD’s Pensions Glossary - <http://www.oecd.org/daf/fin/private-pensions/38356329.pdf>.



Imprint

Editor and Publisher

The European Federation of Investors and Financial Services Users
Rue d'Arenberg 44
1000 Brussels
Belgium
info@betterfinance.eu

Coordinators

Aleksandra Mączyńska
Ján Šebo
Ștefan Dragoș Voicu

Contributors

Torben M. Andersen
Daniela Danková
Laetitia Gabaut
Johannes Hagen
José Antonio Herce
Arnaud Houdmont

Matis Joab
Gregoire Naacke
Guillaume Prache
Joanna Rutecka-Góra
Dr. Thomas Url

All rights reserved. No part of this publication may be reproduced in whole or in part without the written permission of the editor, nor may any part of this publication be reproduced, stored in a retrieval system, or transmitted in any form or by any means electronic, mechanical, photocopying, or other, without the written permission of the editor.

Copyright 2022 @ BETTER FINANCE





Co-funded by the
European Union

BF BETTER FINANCE
The European Federation of Investors and Financial Services Users
Fédération Européenne des Epargnants et Usagers des Services Financiers

Copyright 2022 © BETTER FINANCE