# PENSION SAVINGS
# The Real Return

## 2019 Edition

BF BETTER FINANCE

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

# Pension Savings: The Real Return
## 2019 Edition

**A Research Report by BETTER FINANCE**


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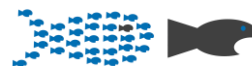
# Acronyms

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

| | |
|---|---|
| GDP | Gross Domestic Product |
| HICP | Harmonised Indices of Consumer Prices |
| IBEX 35 | Índice Bursátil Español 35 Index |
| IKZE | 'Indywidualne konto zabezpieczenia emerytalnego' – Polish specific Individual pension savings account |
| IRA | United States specific Individual Retirement Account |
| IT | Italy |
| JPM | J&P Morgan Indices |
| KIID | Key Investor Information Document |
| LV | Latvia |
| NAV | Net Asset Value |
| Mln | Million |
| MSCI | Morgan Stanley Capital International Indices |
| NL | Netherlands |
| OECD | The Organisation for Economic Co-Operation and Development |
| OFT | United Kingdom's Office for Fair Trading |
| PAYG | Pay-As-You-Go Principle |
| PIP | Italian specific 'Individual Investment Plan' |
| PL | Poland |
| PRIIP(s) | Packaged Retail and Insurance-Based Investment Products |
| RO | Romania |
| S&P | Standard & Poor Indexes |
| SE | Sweden |
| SK | Slovakia |
| SME | Small and Medium-sized Enterprise |
| SPIVA Scorecard | Standard & Poor Dow Jones' Indices Research Report on Active Management 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.[1]

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

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

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

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

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

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

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

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

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

**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.

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

**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 be also be issued by non-financial institutions (States, companies) and by financial non-banking institutions (asset management companies). In essence, bonds are considered more stable (the risk of default is lower) and in theory deliver a lower, but fixed, rate of profit. Nevertheless, Table EX2 of the Executive Summary shows that the aggregated European Bond Index highly overperformed the equity one.

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

**Collective investment schemes** – are financial products characterised by the pooling of funds (money or asset contributions) of investors and investing the total into different assets (securities) and managed by a common asset manager. Under E.U. law collective investment schemes are regulated under 6 different legal forms: UCITS (see below), the most common for individual investors; AIFs (see above), European Venture Capital funds (EuVECA), European Long-Term Investment Funds (ELTIFs), European Social Entrepreneurship Funds (ESEF) or Money Market Funds.[2]

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

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

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

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

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

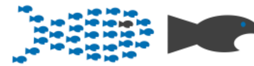
**Defered member*** – is a pension plan member that no longer contributes to or accrues benefits from the plan but has not yet begun to receive retirement benefits from that plan.

**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 Benefits schemes may be part of an individual employment contract or collective agreement. Pension contributions are usually paid by the employee and the employer".[3]

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

[3] Werner Eichhorst, Maarten Gerard, Michael J. Kendzia, Christine Mayrhruber, Connie Nielsen, Gerhard Runstler, Thomas Url, 'Pension Systems in the EU: Contingent Liabilities and



**"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 unfavorable plan experience. These are schemes where "the pension payment depends on the level of defined pension contributions, the career and the returns on investments. The employee has to bear the risk of longevity and the risk of investment. Pension contributions can be paid by the employee and/or the employer and/or the state".[4]

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

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

**Economic dependency ratio*** – is the division between the number of inactive (dependent) population and the number of active (independent or contributing) population. It ranges from 0% to 100% and it indicates how much of the inactive population's (dependent) consumption is financed from the active population's (independent) contributions.[5] In general, the inactive (dependent) population is represented by children, retired persons and persons living on social benefits.

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

**Equity** (or stocks/shares) – are titles of participation to a publicly listed company's economic activity. With regards to other categorizations, an equity is also a security, a financial asset or, under E.U. law, a transferable security.[6]

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Assets in the Public and Private Sector' EP Directorate General for Internal Policies IP/A/ECON/ST/2010-26.

[4] Ibid.

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

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

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

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

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

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

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

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

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

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

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

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

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

**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, shor-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).

**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.

**OECD gross replacement rate** - is defined as gross pension entitlement divided by gross pre-retirement earnings. It measures how effectively a pension system provides a retirement income to

replace earnings, the main source of income before retirement. This indicator is measured in percentage of pre-retirement earnings by gender.

**OECD net replacement rate** - is defined as the individual net pension entitlement divided by net pre-retirement earnings, taking into account personal income taxes and social security contributions paid by workers and pensioners. It measures how effectively a pension system provides a retirement income to replace earnings, the main source of income before retirement. This indicator is measured in percentage of pre-retirement earnings by gender.

**Old-age dependency ratio** - defined as the ratio between the total number of elderly persons when they are generally economically inactive (aged 65 and above) and the number of persons of working age.[7] It is a sub-indicator of the economic dependency ratio and focuses on a country's public (state) pension system's reliance on the economically active population's pensions (or social security) contributions. It is a useful indicator to show whether a public (Pillar I) pension scheme is under pressure (when the ratio is high, or the number of retirees and the number of workers tend to be proportionate) or relaxed (when the ratio is low, or the number of retirees and the number of workers tend to be disproportionate). For example, a low old-age dependency ratio is 20%, meaning that 5 working people contribute for one retiree's pension.

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

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

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

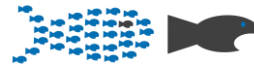
**Pension fund governance*** – is the operation and oversight of a pension fund. The governing body is responsible for administration, but may employ other specialists, such as actuaries, custodians, consultants, asset managers and advisers to carry out specific operational tasks or to advise the plan 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.

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



**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 can not 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 benefits.

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

**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.

**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*).

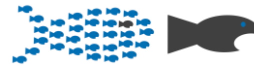
**Unfunded pension plans*** – are plans that are financed directly from contributions from the plan sponsor or provider and/or the plan participant. Unfunded pension plans are said to be paid on a current disbursement method (also known as the pay as you go, PAYG, method). Unfunded plans may still have 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.

# Contributors

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**Edoardo Carlucci** is Research and Policy Officer at Better Finance. He obtained a bachelor's degree in Economics, Finance and Management with Law at Sapienza University of Rome. In 2014, he graduated from the ULB University with a master's degree in European Studies with Economic Specialization. He previously worked in the European Institutions and Civil Society Organizations dealing with various aspects of economic issues and policies such as EU Internal Market, EU Competition Policies, Public Procurement and SMEs.

**Lubomir Christoff**, PhD, ChFC is co-founder and Chairman of the Institute of Certified Financial Consultants (ICFC) in Bulgaria, the only non-governmental body in Bulgaria granting financial planning certification to individuals. Christoff was a member of the Securities Markets Stakeholder Group at ESMA (European Securities & Markets Authority). Previously he has served as an Advisor to the Executive Director of the World Bank and Chief Economist of the Bulgarian National Bank.

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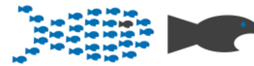

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# Pension Savings: The Real Return

2019 Edition

## *Country Case: Germany*

## Summarisch

Das deutsche Rentensystem gehört zu jenen, in denen das gesetzliche System der öffentlichen Hand (Säule I) eine relativ wichtige Rolle für das Alterseinkommen der deutschen Rentner spielt. Die Bruttorentenersatzrate aus dem obligatorischen öffentlichen System beträgt 38,2% des individuellen Einkommens (gegenüber durchschnittlich 39,9% in OCED-Ländern), während die Ersatzrate aus freiwilligen Systemen (Säule II und Säule III zusammen) 12,7% beträgt. Die Riester- und Rürup-Reformen von 2005 zielten auf eine stärkere Beteiligung deutscher Arbeitnehmer an betrieblichen und individuellen Altersversorgungssystemen ab, da die akkumulierten Ansprüche relativ gering waren. Die Riester-Rentenversicherung erzielte in den letzten 13 Jahren (2005-2017) eine jährliche Rendite von 1.54% (kumuliert 22%) und eine Rendite von 1.63% für die Rürüp-Rentenversicherung (kumuliert 23%).

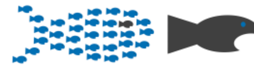
## Summary

The German pension system is among those where the mandatory public scheme (Pillar I) plays a relatively important role in German retirees' old-age income. The gross pension replacement rate from mandatory public scheme is equal to 38.2%[157] of individual earnings (against 39.9% on average in OCED countries), while the replacement rate from voluntary schemes (Pillar II and Pillar III together) is 12.7%. With a relatively low level of accumulated entitlements, the 2005 *Riester* and *Rürup* reforms were aimed at increasing participation in occupational and individual pension schemes for German workers. Voluntary personal pensions returned 1.54% annually (22% cumulatively) and 1.63% (Rürüp; 23% cumulative) over the last 13 years (2005-2017).

## Introduction

In 2007, the German government raised the statutory retirement age from 65 to 67. A transitional phase to attain the retirement age of 67 for individuals with less than 45 years of

[157] OECD Pensions Outlook 2018 - © OECD 2018
https://www.oecd.org/finance/oecd-pensions-outlook-23137649.htm



contributions was started in 2012, including a gradual increase of the working life of one month per year until 2029. For individuals with 45 years of contributions, the pension age had been lowered to 63 years in July 2014 but started to increase again in 2016 until it will reach 65 in 2028. The average effective age of labour market exit was about 64.6 years for men in 2017 and 64 for women[158].

The German pension system can be divided into three pillars:

- Pillar I: Mandatory State Pension Insurance
- Pillar II: Voluntary Occupational Pensions
- Pillar III: Voluntary Personal Pensions

The first pillar with the statutory and the civil servant pension system is mandatory for all employees and civil servants. Currently, the general pay-as-you-go (PAYG) earnings-related first pillar statutory pension scheme covers about 85% of the employed German population whereas the public civil servants scheme protects 5%. Both systems accounted for pension expenditures of about 10.1% of GDP in 2016.

At 50.9%, the gross pension replacement rate for average-wage workers was significantly lower than the OECD average at 58.6%. Increasing life expectancy and fewer children being born represents a challenging demographic shift in Europe, forcing younger generations to assure an adequate retirement income through private savings.

In the early 2000s, the German government executed an important pension reform to promote private pension savings through subsidies and tax incentives, as well as social security contribution savings in the case of occupational pension plans. In 2002, company pension plans (Pillar II) traditionally provided on a voluntary basis by employers, were transformed into an employee's right to have a part of its earnings paid into a company pension plan under a deferred compensation arrangement. That same year, *The Riester Reform* was introduced to boost personal pension savings, followed by The *Rürup* pension in 2005 to further complement personal pension plans.

[158] BMAS (Federal Ministry of Labour and Social Affairs) - Pension Projections Exercise 2018 - For the attention of the Economic Policy Committees' Working Group on Ageing Populations and Sustainability, November 2017 https://ec.europa.eu/info/publications/economy-finance/2018-ageing-report-economic-and-budgetary-projections-eu-member-states-2016-2070_en

| Introductory Table - Pension System Overview | | |
|---|---|---|
| **Pillar I** | **Pillar II** | **Pillar III** |
| Mandatory State Pension Insurance: | Voluntary Occupational Pensions: | Voluntary Personal Pensions: |
| all persons subject to social security charges contributed 18.7% of their gross income to the scheme | employees have the right to a deferred compensation arrangement - employers the right to choose the scheme | supplement to the statutory pension insurance |
| | Occupational retirement schemes that can be divided into two sub-pillars: 1) direct pension promise - 2) external occupational pension schemes | Riester pension or Rürup pension or life insurance |
| Mandatory for all employees who are subject to social insurance contributions | Voluntary or by tariff agreement | Voluntary |
| PAYG | DB and hybrid | DC |
| Quick facts | | |
| Coverage (active population): 90% | About half of today's retirees receive income from a private pension | |
| Gross replacement rate: 38.2% | Gross replacement rate: 12.7% | |
| | Membership: 20.09 million | 16.6 million *Riester* contracts |

*Source: BETTER FINANCE own composition*

In the table below we present the annualized real net rates of return for retirement provision vehicles in Germany.

| Table DE1. Aggregate summary annualised return table | | | | | |
|---|---|---|---|---|---|
| | | Riester | A.O.P.P.** | Rürup | Other pension insurances |
| 1 year | 2018 | n.a. | n.a. | n.a. | n.a. |
| | 2017 | 0.68% | 1.70% | 0.52% | 1.06% |
| 3 years | 2016-2018 | n.a. | n.a. | n.a. | n.a. |
| | 2015-2017 | 1.32% | 1.99% | 1.16% | 1.75% |
| 7 years | 2012-2018 | n.a. | n.a. | n.a. | n.a. |
| | 2011-2017 | 1.59% | 2.07% | 1.40% | 2.07% |
| 10 years | 2009-2018 | n.a. | n.a. | n.a. | n.a. |
| | 2008-2017 | 1.84% | 2.01% | 1.45% | 2.34% |
| Whole reporting period* | | 1.70% | 1.80% | 1.18% | 2.81% |

*maximum available in this report; **A.O.P.P. stands for autonomous occupational pension plans (Table DE8); (1) Riester pension insurances contracts. Acquisition charges are not included; (2) Classic pension insurance products or life insurance products. Acquisition charges are not included.

## Pension Vehicles

Private pensions are divided into Voluntary Occupational Pensions and Voluntary Personal Pensions. About half of today's retirees receive income from a private pension, however the proportion, currently at 16% (8% from occupational pension and 8% from personal pension) of a retiree's gross income, is currently rather low[159].

In general, there are no taxes on dividends, income or capital gains to take into account during the accumulation phase of the real return calculations. However, the calculations are considerably complicated by the fact that EET and TEE taxation formulas (or intermixtures) can still be found depending on the effective date of the pension promise and the type of vehicle. Consequently, the after-tax calculations are simplified and exclusively simulated as deferred taxation for the occupational *Pensionskassen* and pension funds, as well as personal *Riester* and *Rürup* insurance contracts. For that reason, the average retiree income tax rate is estimated from customised data provided by the German Federal Ministry of Finance for the year of 2012 - the most recent information available[160] - and set at 18%.

The classic pension insurance is not subject to deferred taxation but is (partially) taxed during the capital accumulation phase (see Taxation chapter). Furthermore, performance data is

[159] Bundesministerium für Arbeit und Soziales (2016).

[160] Data on income tax for a given year can only be completed three years later and is subsequently reprocessed by State Statistical Offices. The data also includes joint tax assessments.

available for a longer time span, so the results cannot be directly compared to *Riester* and *Rürup* insurance contracts.

## Voluntary Occupational Pensions

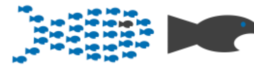
For a long time, occupational pension plans have typically been provided by employers on a voluntary basis. Since January 2002, however, employees have the right to occupational pensions through deferred compensation. This means that future salary or special payments, such as vocational benefits or salary increases for up to 4% of a variable contribution cap[161], can be converted to entitlements to a pension - if not regulated differently by a labour agreement. While employers have to comply with the demand for occupational pensions and execute them, they can choose when it comes to structuring the retirement provision, leaving little to no choice to beneficiaries. There are five types[162] of occupational retirement schemes that can be divided into two sub-pillars:

- one direct pension promise (book reserves); and
- four external types of occupational pension schemes (support funds, direct insurance, *Pensionskassen* and pension funds).

To some extent, the five different financing methods compete with each other, but it is also possible to combine two or more types. Both employers' and employee's contributions to occupational pensions are voluntary, however employers have to at least offer a direct insurance pension scheme so that employees may benefit from tax advantages (deferred taxation) and social security contribution savings if they choose to contribute. When there is a binding labour agreement, occupational pensions are generally organised for whole industrial sectors and there is no employee's right to demand divergent occupational pension provisions. Many collective agreements also oblige employers to participate financially in occupational pensions and withdraw the employer's right to choose the retirement scheme. Indeed, employer-funded pensions represent the largest share of occupational schemes, though an increasing number of deferred compensation arrangements can be found. If the occupational pension is structured as a deferred compensation and contributions are

[161] *"Beitragsbemessungsgrenze";* there are differences between "*West*" and "*Ost*" due to the difference of the general level of salaries, but the variable contribution cap is always 4%. The "*Beitragsbemessungsgrenze Ost*" will gradually be aligned from 2018 until 2025.

[162] The aba (Arbeitsgemeinschaft für betriebliche Altersversorgung e.V., German Association for Occupational Pensions) - Occupational Pension Landscape in Germany – January 2015 https://www.aba-online.de/en/docs/attachments/42616471-6d26-4abc-a4de-5aa328b5fc8c/20150121-Occupational-Pension-Landscape-in-Germany.pdf



subsequently exempt from taxation and social security contributions, this will in turn lower claims from the statutory pension insurance.

Occupational pensions in Germany are managed as defined benefit (DB) plans, either as traditional or hybrid ones that can take the form of contribution-oriented DB plans with an annual minimum return guarantee, or as contribution-oriented DB plans with a minimum guarantee of the sum of nominal contributions at the retirement. The German labour law requires employers to guarantee employee's given pension promises. All occupational pensions also have to cover at least one biometric risk, such as longevity, disability or death[163].

### Book reserves ("Direktzusage")

Book reserves are direct pension provisions that the employer realises on the company's balance sheet in order to pay an occupational pension once the employee reaches the retirement age. In recent years, an increasing number of employers' resorts to external funding of the provisions through Contractual Trust Arrangements (CTAs). The legislator obliges to protect claims from book reserves through the "*Pensions-Sicherungs-Verein*" (PSVaG) in the case of an employer's insolvency. Reserves via CTAs are protected from creditors in the case of insolvency through legal independency. Book reserves are usually designed as pure benefits given by employers, though deferred compensation arrangements are generally also possible. If an employee leaves the company, there is no possibility to continue the retirement provision through private funding, though deferred benefits are maintained. Book reserves are the most widely used type of occupational pension plans in terms of assets under management.

### Support funds ("Unterstützungskasse")

Support funds, one of the oldest forms of occupational pension schemes, are institutions funded by one or several companies to provide retirement provisions for employees. The latter have no direct legal claim to benefits from support funds, only from their employers. Support funds invest the deposited funds to pay a company pension at a later date. If there is not enough money in the support fund to meet retirement commitments, employers have to compensate for the difference. The "*Pensions-Sicherungs-Verein*" (PSVaG) protects employee's benefits in the case of an employer's insolvency.

### Direct insurance ("Direktversicherung")

These types of occupational pensions are life insurance contracts that an employer enters into with an insurance company for its employees. Only last-mentioned or surviving

[163] http://www.aba-online.de/glossar.html (Accessed on 14 June 2017).

dependents have claims to benefits from direct insurances. The insurance contracts can be continued with personal contributions if the employee leaves the company or, under specific conditions, be transferred to a new employer. If an employee solely contributes to a direct insurance, exemptions from taxation and social security contributions can be granted[164] or, alternatively, the employee can make use of the *Riester* support if the contributions are made from individually taxed income.

Regulated by the German occupational pension law, both the individual transfer of occupational pension claims and the application of the *Riester* support under above-mentioned prerequisite also apply to *Pensionskassen* and pension funds.

### "Pensionskassen"

*Pensionskassen* are institutions, formed by one or several companies, which take the form of special life insurance companies. They are legal entities that continue to pay benefits even in the case of an employer's insolvency and are supervised by the German Federal Financial Supervisory Authority ("*Bundesanstalt für Finanzdienstleistungsaufsicht*"; BaFin). In contrast with direct insurances, employees become direct insurees and often even members of the *Pensionskasse*. The traditional form ("*regulierte*") of *Pensionskassen* offers classic life annuity contracts that may invest a maximum of 35% of the capital in equity. They are allowed to implement divergent actuarial interest rates and even to change the applicable mortality table. The new ("*deregulierte*") *Pensionskassen,* in place since 2006, must act as life insurers with guaranteed interest rates and specific calculation standards.

### Pension funds ("Pensionsfonds")

Pension funds were introduced on 1 January 2002 as a new type of occupational retirement scheme. They are legal entities that grant employees a legal right to pension benefits. In contrast to *Pensionskassen* and direct insurances, pension funds are not subject to quantitative investment rules, hence their risk is generally higher. Pension funds are supervised by the BaFin, and entitlements of members and beneficiaries are protected by the PSVaG in case of insolvency of the sponsoring employer. Retirement payments can be fulfilled as lifelong annuities but there is also the possibility to have a lump-sum pay-out at the beginning of the retirement phase.

Overall, the growth of entitlements to occupational pension plans mainly took place between 2001 and 2005 and has lost momentum in recent years. Since 2005, entitlements only increased for direct insurances, *Pensionskassen* and pension funds raising the absolute

[164] For direct insurance, *Pensionskassen* and pension funds: 4% of the contribution cap "*Beitragsbemessungsgrenze West*" (BBVG-RV West) + €1,800 are tax exempt; 4% of the BBVG-RV West are exempt from social security contributions.

number to about 15 million. It should be noted that an individual can have several entitlements, lowering the number of effectively concerned employees. Surveys of the German Federal Ministry of Labour and Social Affairs have shown that individuals are often poorly informed about their occupational pension provision[165].

| Table DE2. Entitlements to active occupational pensions (in € millions) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2001 | 2003 | 2005 | 2007 | 2009 | 2011 | 2013 | 2015 | 2016 | 2017 |
| Book reserves and support funds | 3.9 | 4.0 | 4.7 | 4.5 | 4.5 | 4.6 | 4.8 | 4.7 | 4.7 | 4.8 |
| Direct insurance | 4.2 | 4.2 | 4.1 | 4.2 | 4.3 | 4.7 | 4.9 | 5.1 | 5.2 | 5.3 |
| Pension funds | - | 0.1 | 0.1 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| *Pensionskassen* | 1.4 | 3.2 | 4.1 | 4.5 | 4.5 | 4.6 | 4.8 | 4.8 | 4.8 | 4.7 |
| **Total** | **9.5** | **11.5** | **13.0** | **13.5** | **13.6** | **14.3** | **14.9** | **15.0** | **15.1** | **15.2** |

*Source*: Bundesministerium für Arbeit und Soziales (2016), GDV, own calculation; data for 2018 not yet available

The *Riester* support is rarely used within the framework of occupational pension schemes. It is registered in only 1-2% of cases[166].

While pure defined contribution (DC) plans cannot be found in Germany to date, a law introducing DC pension plans without guarantees, set up by collective bargaining agreements, passed legislation in the summer of 2017. This so-called "*Betriebsrentenstärkungsgesetz*" likewise allows for auto-enrolment of employees in a pension plan with voluntary opting-out within a specified time frame and incorporates measures to strengthen occupational pensions for low income workers through e.g. allowances and tax incentives.[167]

According to a proposal submitted to the Bundesrat by the ministers of the Land of Hesse in April 2018, employees not covered by a professional scheme would automatically be affiliated to an individual pension scheme created by the government.

## Voluntary Personal Pensions

Over the last few years, the German government has undertaken significant communication efforts to advertise personal provisions for old age to supplement the statutory pension insurance. Since 2002, *Riester* pension savings are being promoted by the government

[165] Bundesministerium für Arbeit und Soziales (2016).
[166] Bundesministerium für Arbeit und Soziales (2012).
[167] http://dip21.bundestag.de/dip21/btd/18/112/1811286.pdf (Accessed on 14 June 2017).

through two different channels: subsidies and taxation reliefs. In 2005, the *Rürup* pension was introduced to specifically support the self-employed through tax exemptions.

## Riester pensions

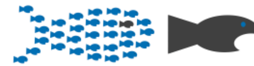
*Riester*[168] products are formally certified personal pension plans with the objective of building up a funded retirement pension supplement. They are subject to deferred taxation, and subscribers receive subsidies from the German state. The amount received depends on personally invested contributions. Subsidies are at their maximum if the total contributions to a *Riester* product (that is, personally invested contributions plus subsidies) reach at least 4% of the individual's previous year's income. The subsidies add up to €175 per adult (according to the pension law of summer 2017), plus €300 for each child born since 2008 and €185 for those born before 2008. The minimum contribution is €60 per year with accordingly fewer subsidies. Subscribers that are younger than 25 receive a bonus of €200 at the moment of subscription to a *Riester* product. Though rarely used in this context, the *Riester* support is also applicable to occupational pension plans for the following three types: direct insurances, *Pensionskassen* and pension funds. *Riester* subsidies and tax allowances are personal and can only be passed on to a spouse's *Riester* contract in the case of death.

*Riester* pension benefits can be paid out starting at the age of 62, or at the age of 60 for contracts concluded before 2012. The subscriber obtains the right to convert the invested capital into a life annuity, or a programmed withdrawal where up to 30% of the accumulated savings can be paid out as a lump-sum. Furthermore, one fifth of the accumulated savings is reserved for life annuities starting at the age of 85.[169]

The following types of investments are eligible as *Riester* products:

- Bank savings plan ("*Banksparplan*"): These contracts are typical long-term bank savings plans with fixed or variable interest rates.
- Pension insurance contract ("*Rentenversicherung*"): These *Riester* plans, offered by insurance companies, exist in two forms. There are typical pension insurance contracts consisting of guaranteed returns and a participation in profits. Additionally, there are also hybrid contracts where a fraction of the retirement savings is invested in investment funds. They consist of both a guaranteed part and a unit-linked part that depends on the performance of the investment funds.
- Investment fund savings plan ("*Fondssparplan*"): Savings are unit-linked, invested into investment funds chosen by the subscriber from a pool of funds proposed by a financial intermediary. The intermediary has to at least guarantee that the invested

[168] Named after former Federal Minister for Labour and Social Affairs: Walter Riester.
[169] Bundesministerium für Arbeit und Soziales (2014).



money plus the state's subsidies are available at the moment of retirement. In the case of premature withdrawals, a loss of capital is possible.

- Home loan and savings contract ("*Wohn-Riester/Eigenheimrente*"): These contracts take the form of real estate savings agreements. This most recent type of *Riester* scheme is based on the notion that rent-free housing at old age is a sort of individual retirement provision comparable to regular monetary payments.

At the end of 2018, about 16.6 million *Riester* contracts had been subscribed. After steady increases in the early periods following its establishment, considerably fewer contracts have been subscribed since 2012. The number of open contracts remained stable since 2015 and even decreased slightly for the first time in 2018. Suggested explanations include the financial crisis and the current environment of low interest rates along with less favourable media coverage of *Riester* products - reinforcing a general mistrust and doubt[170] concerning funded retirement savings. It should be noted that an individual can subscribe to several *Riester* contracts at the same time, so a direct inference of the number of individuals possessing a *Riester* contract is not possible. However, State subsidies (allocations and income tax reliefs) are only possible for up to 4% of the individual gross income (maximum €2,100 per year). In fact, a small number of non-subsidised *Riester* contracts exist. This is independent from the fact that many *Riester* policy holders "forget" to ask for state subsidies, and that others do not get the complete allocations. About two-thirds of *Riester* contracts take the form of pension insurance contracts, making it by far the most important type of *Riester* investment despite a decrease of subscriptions observed since 2015. Only the number of investment fund savings plans and home loan agreements continued to increase over the past four years, the latter also thanks to a booming real estate market in a low interest environment. According to Federal Ministry of Labour and Social Affairs, more than one fifth of the *Riester* contracts are currently put on hold - meaning that savers are suspending their contributions.[171]

Table DE3. Number of *Riester* contracts (in thousands)

| | Pension insurance contracts | Bank savings plan | Investment fund savings plan | Home loan and savings contract | Total |
|---|---|---|---|---|---|
| **2001** | 1,400 | N/A | N/A | | 1,400 |
| **2002** | 2,998 | 150 | 174 | | 3,322 |
| **2003** | 3,451 | 197 | 241 | | 3,889 |
| **2004** | 3,557 | 213 | 316 | | 4,086 |
| **2005** | 4,524 | 260 | 574 | | 5,358 |

[170] Evidence of this can be found in Hagen, Kleinlein (2012).
[171] http://www.bmas.de/DE/Themen/Rente/Zusaetzliche-Altersvorsorge/statistik-zusaetzliche-altersvorsorge.html.

| | | | | | |
|---|---|---|---|---|---|
| **2006** | 6,388 | 351 | 1,231 | | 7,970 |
| **2007** | 8,194 | 480 | 1,922 | | 10,596 |
| **2008** | 9,285 | 554 | 2,386 | 22 | 12,248 |
| **2009** | 9,995 | 634 | 2,629 | 197 | 13,454 |
| **2010** | 10,484 | 703 | 2,815 | 460 | 14,462 |
| **2011** | 10,998 | 750 | 2,953 | 724 | 15,426 |
| **2012** | 11,023 | 781 | 2,989 | 953 | 15,746 |
| **2013** | 11,013 | 805 | 3,027 | 1,154 | 16,000 |
| **2014** | 11,030 | 814 | 3,071 | 1,377 | 16,293 |
| **2015** | 10,996 | 804 | 3,125 | 1,564 | 16,489 |
| **2016** | 10,931 | 774 | 3,174 | 1,691 | 16,570 |
| **2017** | 10,881 | 726 | 3,233 | 1,767 | 16,607 |
| **2018** | 10,819 | 676 | 3,288 | 1,810 | 16,592 |

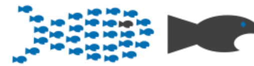
*Source: BMAS (Federal Ministry of Labour and Social Affairs)*
*Accessed on 1 July 2019. Changes in numbers from previous releases are due to revisions.*

### Rürup Pensions

Introduced in 2005, the *Rürup*[172] pension (or "*Basisrente*") is the most recent form of pension provision and, next to occupational pension plans and *Riester* pension plans, the third type of private pension that is supported by the German state through tax exemptions. The *Rürup* pension actually has similar characteristics to the statutory pension insurance. Contributions are utilised for monthly life annuities, starting with the retirement phase at the age of 62 (or at the age of 60 for contracts concluded before 2012), and there is no possibility of lump-sum payments. The benefits are personal, thus non-transferable, and cannot be disposed or capitalised either. Contributions are exempt from taxation up to a high deduction cap. *Rürup* pensions, specifically designed for self-employed persons and freelancers who could not benefit from state supported pension savings before its establishment, are beneficial for those with higher revenues because of the high tax-exempt savings amount. They take the form of pension insurance contracts that are, in contrast with *Riester*, irredeemable, for which invested funds cannot be regained before the retirement phase. It is also possible to subscribe to *Rürup* insurance contracts that invest in investment funds through savings plans. Such contracts can be designed with or without capital guarantees[173].

[172] Named after German economist Bert Rürup.

[173] http://www.bundesfinanzministerium.de/Content/DE/Standardartikel/Themen/Steuern/Weitere_Steuerthemen/Produktinformationsblatt/2016-12-12-Produktinformationsblatt-Basisrente.html



### Life insurance and pension insurance contracts

Retirement provision in Germany is also carried out through classic pension insurance products or life insurance products, possibly the ones that are unit-linked. However, if not certified within the framework of the *Riester* pension, the *Rürup* pension or as an occupational pension plan, these contracts do not benefit from initial tax deductions or allowances. Nonetheless, they do play an important role in personal retirement provisions with about 71 million contracts concluded at the end of 2018[174]. These contracts are of a diverse nature. They usually start paying out at the moment of retirement, though there are also contracts that pay immediately after conclusion ("*Sofortrente*"). It is possible to redeem both via lump-sums and annuities.

While the pension law of summer 2017 mainly aimed at strengthening occupational pensions, personal pensions are likewise impacted as the basic allowances for *Riester* contracts increased from €154 to €175 from early 2018.

## Charges

Information on the multifaceted types of charges for private pension products are rather hard to obtain and often non-transparent for individuals, which complicates the decision-making process.

Within Pillar II, due to the DB character of pension schemes, employers have an interest in cost-efficient pension provision, and the competition among different financing methods creates pressure on costs. In the case of book reserves and support funds, an employer has to meet the specified retirement commitments agreed upon, thus charges will not be discussed within the scope of these two types of occupational pension.

One of the main advantages of occupational pension schemes is that charges are usually lower than for personal pension plans because they are spread over larger groups. Employers often receive quantity discounts or customised rates with lower administrative charges. This is especially the case if rates are defined for whole industry sectors.

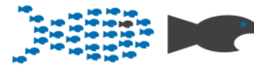
The following operating expenses data for autonomous occupational pension funds (*Pensionskassen* and pension funds) are available in the OECD Pension indicators database[175] and are provided by the Federal Financial Supervisory Authority (BaFin). Charges are expressed as a percentage of the funds' total assets. We did not find any charges data shown separately for occupational direct insurances. We did not find any data on acquisition costs

[174] https://www.gdv.de/de/zahlen-und-fakten/versicherungsbereiche/renten--und-kapitalversicherungen-24038
[175] http://www.oecd.org/daf/fin/private-pensions/globalpensionstatistics.htm

which are opaque in the case of occupational schemes and even prohibited by law for traditional *Pensionskassen*.

Operating expenses comprise all costs arising from the general administration of the plan/fund that are treated as plan/fund expenses (i.e. investment management costs and administrative costs):

- Investment expenses shall comprise all costs arising from investment management, such as: internal investment personnel costs; investment management fees (paid to external asset managers); trading expenses; legal fees (investment management related); custodian, accounting and performance measurement fees; property maintenance costs; asset consultant fees; other investment expenses.
- Administrative costs shall comprise all administrative costs, such as: interest expense; actuary fees; directors/trustees fees and expenses; personnel costs (excluding investment managers); external sales agents; total fees paid to audit firm; IT expenditures; rental costs; other legal fees (excluding those related to investment management); other administrative costs.



| Table DE4. Operating expenses as a % of total assets for autonomous occupational pension funds | | | |
|---|---|---|---|
| | Investment expenses | Administrative costs | Total |
| 2002 | *0.132* | *0.122* | 0.254 |
| 2003 | *0.393* | *0.363* | 0.756 |
| 2004 | *0.509* | *0.471* | 0.980 |
| 2005 | *0.304* | *0.281* | 0.585 |
| 2006 | *0.222* | *0.205* | 0.427 |
| 2007 | *0.163* | *0.151* | 0.314 |
| 2008 | 0.144 | 0.133 | 0.277 |
| 2009 | 0.139 | 0.119 | 0.258 |
| 2010 | 0.128 | 0.110 | 0.238 |
| 2011 | 0.118 | 0.101 | 0.219 |
| 2012 | 0.118 | 0.093 | 0.211 |
| 2013 | 0.114 | 0.094 | 0.208 |
| 2014 | 0.111 | 0.086 | 0.197 |
| 2015 | 0.122 | 0.088 | 0.210 |
| 2016 | 0.111 | 0.083 | 0.194 |
| 2017 | 0.108 | 0.077 | 0.185 |

*Source: OECD Pension Indicators database (Accessed on 1 July 2019) – For the years from 2002 to 2007, data are no more available on the OECD website, they are extracted from previous issues of the Better Finance publication – therefore, data for investment expenses and administrative costs between 2002-2007 are estimated. The breakdown of costs between investment expenses and administrative costs is not available for the years 2002 to 2007. To estimate investment expenses and administrative costs for these years, we used the breakdown observed in 2008, which is the first year for which the information is available*

| Table DE5. Life insurance expense ratios | | |
|---|---|---|
| | Acquisition charges (as % of total premiums for new policies) | Administrative charges (as % of investments) |
| 2000 | 5.6 | 0.40 |
| 2001 | 5.5 | 0.39 |
| 2002 | 5.4 | 0.38 |
| 2003 | 5.0 | 0.37 |
| 2004 | 4.5 | 0.35 |
| 2005 | 5.6 | 0.35 |
| 2006 | 4.9 | 0.33 |
| 2007 | 5.2 | 0.31 |
| 2008 | 4.9 | 0.30 |
| 2009 | 5.2 | 0.29 |
| 2010 | 5.1 | 0.27 |
| 2011 | 5.0 | 0.25 |
| 2012 | 5.0 | 0.25 |
| 2013 | 5.1 | 0.24 |
| 2014 | 5.0 | 0.23 |
| 2015 | 4.9 | 0.22 |
| 2016 | 4.8 | 0.21 |
| 2017 | 4.7 | 0.20 |
| 2018 | 4.7 | 0.19 |

*Source: German Insurance Association (GDV) (accessed on 1 July 2019)*

Charges for *Riester* products are often the topic of negative media coverage. It is frequently stated that the charges consume almost all of the state's subsidies. Especially challenging for individuals is the complicated cost structure and the lack of transparency of *Riester* contracts. For instance, there are internal costs, like acquisition costs, distribution costs and administrative costs, that are derived from differing and sometimes ambiguous determination bases, as well as external costs if parts are invested into investment funds. As of late, charges on capital withdrawals in the retirement phase are at the centre of criticism. This opacity has created a curious situation where even providers with favourable charges are unable to properly set themselves apart from those more expensive ones. From a legal standpoint, until 2016, the German legislator only dictated that acquisition costs of *Riester* products have to be spread over at least 5 years to alleviate the initial cost burden.

Calculations by the German government in the early 2000s estimated the total charges to be 10% of the yearly savings premium, and this has become the standard for *Riester* charges calculations ever since[176]. Our own research shows that estimations of total charges of, on

[176] Rürup–Kommission (2003).

average, 10% to 12% of the yearly savings premium can be assumed. However, one can observe an enormous cost span from 2.5% to 20% for insurance contracts[177].

With regard to the less-used *Rürup* contracts and their shorter history, information is even harder to obtain. For a long time, there has been very little transparency regarding the cost structure, as there was no obligation by law for detailed disclosures. In contrast to *Riester* products, there is no obligation to spread the initial acquisition and distribution charges over a defined period[178], but application of the same conditions as for *Riester* products is common. The total charges for *Rürup* pensions expressed as percentages of the yearly savings premium are estimated by practitioners to be a little lower than for *Riester* pensions. Other personal retirement provisions, such as classic pension insurance and life insurance contracts, are likewise often stated to have slightly lower total charges than *Riester* products.

Since 1 January 2017, in order to increase transparency and comparability, every consumer receives corresponding product information sheets before the subscription to a *Riester* or *Rürup* contract. These information sheets are standardised and contain, along with details of individual charges, actual costs illustrating a reduction in yield ratio which should allow for a better comparison among products of the same risk type. Also enforced from this date are charges arising from changes by *Riester* or *Rürup* providers for contracts after 1 January 2017, now subject to hard caps such as distribution cost application to only 50% of the transferred subsidised capital[179].

Average effective costs are not available for the periods under review within this study, hence for our calculations we only consider two types of charges at our disposal: acquisition and administrative charges. For the years 2016 and 2017, *Assekurata*[180] calculated average

[177] Gasche, Bucher-Koenen, Haupt, Angstmann (2013).
[178] ZEW (2010).
[179] http://www.bundesfinanzministerium.de/Content/DE/Monatsberichte/2013/07/Inhalte/Kapitel-3-Analysen/3-4-die-gefoerderte-private-altersvorsorge.html (Accessed on 17 July 2018).
[180] "ASSEKURATA Assekuranz Rating-Agentur GmbH" (www.assekurata.de) is a private company specialized in the quality assessment of insurance companies from a customer's perspective providing rating and analysis services. For instance, ASSEKURATA is the only rating agency incorporating policy holder's opinions on their insurers gathered from customer surveys directly into their verdicts. ASSEKURATA, as a licensed European rating agency, is supervised by the European Securities and Markets Authority (ESMA). Calculations by Assekurata are renowned and utilised by governmental, corporate and consumer structures.

effective costs of about 0.8%[181] per year, which would lead to a heavier charge burden than what our calculations can capture.

## Taxation

A reorganisation of retirement savings taxation has been instructed by a Federal Constitutional Court decision from 2002. This revision came into effect in 2005 whereupon taxation is based on a model that divides the different forms of retirement savings according to three groups.

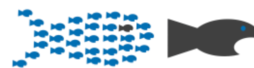
The statutory pension insurance and the *Rürup* pension belong to the first group. Funded pension schemes like occupational pensions and the *Riester* pension belong to the second group. The third group covers the standard pension insurance or life insurance products due to their likewise existent function as investment products.

Contributions to products from the third group always have to be paid from taxed income. The products from the first two groups are subject to deferred taxation. Contributions up to a deduction cap are exempt from taxation and generally subject to tax in its entirety during the pay-out phase.

While products from the second group have already been partially subject to deferred taxation before 2005, this has not been the case for products from the first group. A transitional phase towards complete deferred taxation started in 2005 and since then, every year, higher amounts of contributions can be deducted from taxation and consequently the amount of retirement pay-outs subject to taxation rises. In 2025, pension savings for up to €20,000 for individual insurees and €40,000 for spouses will be exempt from initial taxation. 60% of the maximal amount was tax deductible in 2005 which means the percentage rises 2% each year until the maximum is attained in 2025. The 50% contribution by employers is already tax exempt, so in 2016, 32% of an employee's total contributions to retirement savings were tax exempt.

The percentage of retirement pay-outs subject to taxation was 50% in 2005. Since then, for each year following, the percentage of retirement pay-outs subject to taxation for new retirees rises at a rate of 2%. This means that in 2020, new retirees will pay taxes on 80% of their retirement pay-outs. From 2020 onwards, the rate will rise at 1% annually and consequently retirees from 2040 onwards will have to pay full taxes on their retirement pay-outs[182].

[181] Assekurata (2017).
[182] Deutsche Rentenversicherung (2017).



## Voluntary Occupational Pensions

For occupational pension plans in 2013, and for commitments starting from 2005 on, the following taxation rules apply for the individual types of occupational pension schemes:

### Book reserves and support funds

Book reserve and support fund contributions through deferred compensation are fully tax exempt while up to 4% of a variable contribution cap is exempt from social security contributions. Benefits are taxed as income at the personal rate.

### Direct insurances, Pensionskassen and pension funds

Direct insurances, *Pensionskassen* and pension funds are treated identically according to taxation legislation. In 2017, contributions through deferred compensation were tax exempt for up to €4,848 (4% of the 2017 contribution cap, €1,800) and exempt from social security contributions for up to €3,048 (4% of the 2017 contribution cap)[183]. Investment income is tax exempt while benefits are subject to taxation.

## Voluntary Personal Pensions

### Riester pensions

Since 2008, total contributions to a *Riester* product of at most €2,100 are exempt from initial taxation even if this amount is more than 4% of the previous year's income. An automatic review by fiscal authorities within the framework of the income tax statement assures further fiscal relief on the difference originating if the tax deductions exceed the state's subsidies. During the savings accumulation period, investment income is likewise tax exempt, while benefits are taxed in the retirement phase but exempt from social security contributions.

### Rürup pensions

Contributions to *Rürup* pensions will be exempt from taxation for up to €20,000 per adult in the year of 2025. In the year of 2005, 60% of this ceiling was exempt from taxation and during a transitional phase, the percentage rises at a rate of 2% each year.

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[183] If the limits have not already been reached by employers' contributions.

| Table DE6. Tax exemptions for *Rürup* contributions | | | | | | | |
|---|---|---|---|---|---|---|---|
| Year of contribution | 2005 | ... | 2016 | ... | 2020 | ... | 2025 |
| Tax deductible | 60% | ... | 82% | ... | 90% | ... | 100% |

*Source: Bundesministerium der Finanzen (2016).*

Benefits from *Rürup* pensions are taxed in the retirement phase at the personal income tax rate. In 2005, 50% of the benefits were subject to deferred taxation. Until the year 2020, the taxable part of each year increases at 2%. From then on, the proportion will increase by 1% each year until finally, from the year 2040 on, benefits will be fully taxed[184].

| Table DE7. Taxation of *Rürup* benefits | | | | | | | |
|---|---|---|---|---|---|---|---|
| Year of benefit | 2005 | ... | 2016 | ... | 2020 | ... | 2040 |
| Tax deductible | 50% | ... | 72% | ... | 80% | ... | 100% |

*Source: Bundesministerium der Finanzen (2016).*

### Life insurance and pension insurance contracts

Other retirement savings products that are not particularly promoted by the German state are taxed as follows for all contracts subscribed to since 1 January 2005:

Contributions are no longer tax deductible as special expenses and have to be made from taxed income. Benefits are taxed at the personal income tax rate on corresponding earnings (the difference between contributions and total pay-outs) in the retirement phase. Furthermore, one has to differentiate whether the insurance benefit is carried out as a one-time lump-sum payment or if a lifetime annuity payment is chosen. In the case of lump-sum pay-outs, if the contract runs for at least 12 years and the insuree is older than 60 years, or 62 years (for contracts subscribed to after 31 December 2011), only 50% of the earnings are subject to taxation. If these conditions are not met, the full earnings are taxed. In the case of life annuities, even further tax reliefs are possible depending on the age of the first retirement pay-out, as defined in the tax table. For instance, if the retiree is 60 years old, 22% of the earnings are subject to taxation and at the age of 65 only 18%.

[184] Bundesministerium der Finanzen (2016).

# Pension Returns

Pension return calculations are not performed for book reserves and support funds. These are individual commitments to employees that will not increase or decrease depending on asset performances. The commitments are protected by the PSVaG, hence employees can estimate the exact amount they can expect in the retirement phase. Furthermore, we do not have data on performance or charges available for the 2nd pillar direct insurances - thus we cannot perform real return calculations for this occupational financing vehicle either.

These drawbacks should be kept in mind when interpreting real returns, as well as the impact of subsidies, such as allowances.

## Voluntary Occupational Pensions

### Pensionskassen and pension funds

The following table shows real return calculations for Pillar II aggregate *Pensionskassen* as well as pension funds supervised by BaFin.

Table DE8. Average annual rate of investment returns for autonomous occupational pension plans (in %)

| | Nominal return* before administrative costs, inflation and tax | Nominal return after charges and before tax, inflation | Real return after charges and inflation and before taxes | Real return after charges and inflation and after taxes |
|---|---|---|---|---|
| 2002 | 2.81 | 2.68 | 1.56 | 1.22 |
| 2003 | 4.58 | 4.20 | 3.07 | 2.54 |
| 2004 | 4.94 | 4.45 | 2.11 | 1.55 |
| 2005 | 4.89 | 4.60 | 2.42 | 1.84 |
| 2006 | 4.60 | 4.39 | 2.96 | 2.41 |
| 2007 | 4.16 | 4.01 | 0.90 | 0.40 |
| 2008 | 1.62 | 1.49 | 0.38 | 0.19 |
| 2009 | 4.76 | 4.64 | 3.73 | 3.15 |
| 2010 | 4.94 | 4.82 | 2.93 | 2.32 |
| 2011 | 3.01 | 2.91 | 0.66 | 0.29 |
| 2012 | 4.82 | 4.73 | 2.59 | 2.00 |
| 2013 | 4.29 | 4.20 | 2.94 | 2.41 |
| 2014 | 4.61 | 4.52 | 4.42 | 3.85 |
| 2015 | 3.37 | 3.27 | 3.07 | 2.65 |
| 2016 | 3.81 | 3.72 | 2.08 | 1.61 |
| 2017 | 3.76 | 3.68 | 2.16 | 1.70 |
| **Avg / Year** | **4.06** | **3.89** | **2.37** | **1.88** |

*Source: OECD Pension Markets in Focus (2018) for Norminal Returns; OECD Pension Indicators database (Accessed on 1 July 2019) for charges; Eurostat; OEE calculation; * Nominal return after investment management costs*

To simulate the impact of taxation on the real return of *Pensionskassen* and pension funds, the average income tax rate for retirees (18%) has been applied to the 70% of the pay-outs that were subject to deferred taxation in the year of 2015.

Since German pension funds and *Pensionskassen* are currently exclusively offered as DB or hybrid plans (see Pension Vehicles), employees bear minor risks when investments perform poorly[185].

## Voluntary Personal Pensions

Information on the performance of personal pension plans is hard to obtain and there are considerable controversies surrounding the proper estimation method, notably for *Riester* insurance contracts.

Calculations of real returns for Voluntary Personal Pensions are only executed for insurance contract types since information on returns and charges is not consistently available for other types of personal pension plans. Nonetheless, this provides an important insight into the most important part of promoted personal pension plans since about two-thirds of all *Riester* pensions are designed as pension insurance contracts, as are all *Rürup* pensions.

The following real return estimations are based on average return rates calculated by *Assekurata*. One has to keep in mind that the calculations made by *Assekurata* are based on voluntary participations. For instance, in 2016, 83 providers were asked to participate in the survey with 21 providers not responding, adding up to a participant's market share of 86%. This may lead to a bias based on voluntariness. The return rates provided by *Assekurata* are composed of a guaranteed interest part ("*Höchstrechnungszins*" or "*Garantiezins*"), set and capped by the German Federal Ministry of Finance, and a surplus sharing part ("*Überschussbeteiligung*")[186]. Furthermore, the return figures provided are related to the investment part of the gross premium which is only about 60% to 90% of the total premium depending on not only deductions of distribution and administrative charges, but also risk premium[187].

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[185] OECD (2016)

[186] Terminal bonuses and participation in valuation reserves are not included in these calculations as they are difficult to compare and not equally applied. Terminal bonuses are usually paid on the maturity of the policy or on death. Similary, valuation reserves only apply to about 5% of policy holders. One has to keep in mind that they account for, on average, 20% of the total return.

[187] In life insurers' advertisements, the return percentage figures that are published are always linked to the investment part of the premiums and, very often, the insurers do not differentiate between the gross premium and the investment part of the premium which is misleading from a consumer's perspective.

Though already introduced in 2002, data on investment return rates has only been available since 2005 for *Riester* pensions, just like for *Rürup* pensions which were introduced that year. Return rates for classic pension insurances are available for an 18-year period. For our real return estimations, we assumed that acquisition charges are spread over five years for all insurance contract types. Consequently, the charge burden in the first five years is more severe.

## Riester pension

Table DE9. Riester pension insurances' average annual rate of investment returns (in %) - Excluding Acquisition Charges

| | Nominal return before charges, inflation, tax | Nominal return after charges and before tax, inflation | Real return after charges, inflation and before tax | Real return after charges and inflation and after taxes |
|---|---|---|---|---|
| **2005** | 4.24 | 4.24 | 2.07 | 1.52 |
| **2006** | 4.18 | 4.18 | 2.76 | 2.21 |
| **2007** | 4.18 | 4.18 | 1.07 | 0.53 |
| **2008** | 4.36 | 4.36 | 3.22 | 2.65 |
| **2009** | 4.27 | 4.27 | 3.37 | 2.81 |
| **2010** | 4.19 | 4.19 | 2.31 | 1.76 |
| **2011** | 4.05 | 4.05 | 1.78 | 1.25 |
| **2012** | 3.92 | 3.92 | 1.80 | 1.29 |
| **2013** | 3.56 | 3.56 | 2.31 | 1.85 |
| **2014** | 3.35 | 3.35 | 3.25 | 2.81 |
| **2015** | 3.11 | 3.11 | 2.90 | 2.50 |
| **2016** | 2.78 | 2.78 | 1.16 | 0.79 |
| **2017** | 2.50 | 2.50 | 1.00 | 0.68 |
| Avg / Year | **3.74** | **3.74** | **2.23** | **1.74** |

*Source: Assekurata; Eurostat; GDV; OEE calculation*

It is important to note though that for *Riester* products, subsidies which are not included in these calculations can play an important role in determining their performance. This is especially the case for low earners or for families with many children. Average and high earners benefit significantly from tax exemptions.

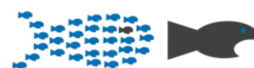
| Table DE10. *Rürup pension's average annual rate of investment returns (in %)* | | | | |
|---|---|---|---|---|
| | Nominal return before charges, inflation, tax | Nominal return after charges and before tax, inflation | Real return after charges, inflation and before tax | Real return after charges and inflation and after taxes |
| **2005** | 4.31 | 2.89 | 0.75 | 0.38 |
| **2006** | 4.20 | 2.81 | 1.40 | 1.04 |
| **2007** | 4.21 | 2.84 | -0.23 | -0.60 |
| **2008** | 4.37 | 3.00 | 1.88 | 1.49 |
| **2009** | 4.27 | 2.92 | 2.02 | 1.65 |
| **2010** | 4.21 | 3.93 | 2.05 | 1.54 |
| **2011** | 4.07 | 3.81 | 1.54 | 1.05 |
| **2012** | 3.90 | 3.64 | 1.53 | 1.06 |
| **2013** | 3.57 | 3.32 | 2.07 | 1.64 |
| **2014** | 3.36 | 3.12 | 3.02 | 2.61 |
| **2015** | 3.13 | 2.90 | 2.70 | 2.32 |
| **2016** | 2.81 | 2.59 | 0.97 | 0.64 |
| **2017** | 2.52 | 2.31 | 0.82 | 0.52 |
| Avg / Year | **3.76** | **3.08** | **1.58** | **1.18** |

*Source: Assekurata; Eurostat; GDV; OEE calculation*

As discussed in the Pension Vehicles chapter, the contributions to *Rürup* pensions are, in contrast to *Riester* pensions[188], not guaranteed and cannot be recalled or capitalised, which can lead to the following difficulty: *Rürup* pensions were especially introduced for self-employed people and freelancers whose income may vary considerably from year to year, in particular in times of crisis. If contributions can no longer be maintained, and with contracts that are concluded lifelong, ongoing administrative charges can gradually diminish invested retirement savings. Hence, consumer advice centres[189] usually only advice *Rürup* pensions if consumers are professionally established and if the payments of contributions are secured in the long run[190].

In order to simulate after-tax real returns, the average income tax rate estimation for retirees has been applied to the 72% of the pay-outs that were subject to deferred taxation in the year of 2016.

[188] Contributions (gross premiums) and state subsidies for all kinds of *Riester* contracts are guaranteed.
[189] Such as Verbraucherzentrale Hamburg e. V.
[190] Gasche, Bucher-Koenen, Haupt, Angstmann (2013).



### Personal pension insurance

The classic pension insurance is not subject to deferred taxation and data is available for a longer time span so one has to be careful with the comparison of investment returns within the Pillar III. Since contributions have to be paid from taxed income, classic pension insurances are generally less favourable than *Riester* or *Rürup* pensions with regard to the tax burden. However, the complexity of taxation in all three stages (contribution phase, accumulation phase[191] and pay-out phase) could not be taken into account within this study and consequently after-tax simulations are only executed for pension products with deferred taxation schemes. The following table shows real return calculations for Pillar III pension insurance contracts.

**Table DE11. Pension insurances' average annual rate of investment returns (in %)**

| | Nominal return before charges, inflation, tax | Nominal return after charges and before tax, inflation | Real return after charges, inflation and before tax |
|---|---|---|---|
| 2000 | 7.15 | 7.15 | 4.87 |
| 2001 | 7.10 | 7.10 | 5.65 |
| 2002 | 6.12 | 6.12 | 4.96 |
| 2003 | 4.84 | 4.84 | 3.70 |
| 2004 | 4.43 | 4.43 | 2.09 |
| 2005 | 4.31 | 4.31 | 2.14 |
| 2006 | 4.24 | 4.24 | 2.82 |
| 2007 | 4.25 | 4.25 | 1.14 |
| 2008 | 4.39 | 4.39 | 3.25 |
| 2009 | 4.28 | 4.28 | 3.38 |
| 2010 | 4.20 | 4.20 | 2.32 |
| 2011 | 4.07 | 4.07 | 1.80 |
| 2012 | 3.91 | 3.91 | 1.79 |
| 2013 | 3.61 | 3.61 | 2.36 |
| 2014 | 3.40 | 3.40 | 3.30 |
| 2015 | 3.16 | 3.16 | 2.95 |
| 2016 | 2.86 | 2.86 | 1.23 |
| 2017 | 2.56 | 2.56 | 1.06 |
| **Avg. / Year** | **4.37** | **4.37** | **2.81** |

*Source: Assekurata; Eurostat; GDV; OEE calculation*

[191] It can be considered that the contribution and the accumulation phases in reality are the same since the beneficiary is contributing normally for the whole duration of his professional career, but for the purpose of our study we are considering money-weighted returns and therefore we distinguish between the moment when the contribution is made, the period of the investment and finally the moment when the investment is redeemed.

The very favourable nominal returns in the early 2000s raise the annual average of classic pension insurances. Return figures from 2005 on resemble those of *Riester* and *Rürup* pensions.

## Conclusions

The performance of *Pensionskassen* and pension funds in real terms has been positive over the whole period from 2002-2017, with an annualised average return of 1.88% after taxation. Even the difficult years of 2007, 2008 and 2011 still recorded modest positive real returns. German Voluntary Occupational Pensions are currently exclusively offered as DB or hybrid plans but pension reforms, including the introduction of DC pension vehicles as early as January 2018, are under way. It remains to be seen if the abandonment of traditional guarantees which has already created much debate and uncertainty among employees and providers can boost participation in occupational pensions, in particular for SMEs.

The real annualised average returns of Voluntary Personal Pensions have also delivered positive results, about 1.6% for *Riester* and *Rürup* pension insurances over a 13-year span, and 2.22% for classic pension insurances over an 18-year span. Only the *Riester* and *Rürup* pensions recorded a year with negative real performances in 2007 (-0.26% and -0.23% respectively) due to the impact of high initial charges. The after-tax simulation for the State sponsored *Riester* and *Rürup* pension insurances recorded annualised real average returns of 1.2% each. Old-age provisions through Voluntary Personal Pensions have somewhat stalled over recent years and a considerable share of subscribed *Riester* pensions is put on hold for the time being. Persistent low interest rates, as reflected in the steadily falling guaranteed interest rate (from 2.75% in 2005 to 0.9% in 2017), contribute to render new contracts of these pensions less profitable. While more and more providers already undercut these minimum return guarantees, a definite abolishment of this regulated interest fraction is still under discussion. The other important return part of pension insurances, surplus sharing, has likewise been plummeting over the last years, if nothing else to fulfil commitments of former contracts with higher guarantees. Voluntary Personal Pensions, especially the bureaucratic and expensive *Riester* pensions, continue to be at the centre of controversial debates with new legislative stimuli in the shape of higher allowances being implemented in 2018.

## Policy Recommendations

Instead of trying to introduce new forms of old-age provisions, efforts should be focused on improving the existing products. The "Riester" product, with its licensing process, its strict legal framework, its exclusive number of categories and its comparability, is already an

existing standardised private product. Nevretheless, the contracts are often criticised for their high costs.

There is a lot of potential for reform within all three systems of old-age provision. Whereas the public pension system should be focused on its core purpose, both company and private pension schemes could be revamped by reducing excess bureaucracy, abandoning contradictory legislation and further enhancing transparency.

Proposals have been made by different stakeholders. It is up to the legislator to take them into consideration and to propel legislation to increase penetration and to make old age provision more sustainable.

An education effort should also be made to encourage people (notably Young people) to save for retirement and to promote existing products. A recent survey among young people highlighted that a decreasing number of young adults save for their old age, but an increasing number supports a stronger role of government in additional pension schemes. This obvious contradiction reveals a lack of knowledge regarding the pension system, options already available and the necessity to take responsibility for oneself.

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