PENSION SAVINGS
The Real Return

2019 Edition

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.

[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]

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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Michaël Deinema is Chief Commercial Officer and analyst at The Pension Rating Agency (TPRA) based in Amsterdam, The Netherlands. Before joining TPRA in 2015, Michaël worked as postdoctoral researcher and lecturer at the Social and Behavioral Sciences faculty of the University of Amsterdam. He holds a PhD degree in Spatial Sciences (Economic and Social Geography). The Pension Rating Agency (TPRA) is an independent data service firm, benchmarker and rating agency for the Dutch collective pensions sector. It was founded in 2014 as a joint venture by MoneyView, a renowned research agency which focuses on financial retail products, and the econometricians of Broiler. TPRA systematically gathers, utilizes and analyzes publicly available data on Dutch pension funds and pension schemes. It produces annual reports on operating costs, investment charges, returns, cover ratios and trustee compensations which are used by Dutch pension funds, pension service providers, life insurance companies and media outlets. TPRA also publishes The Netherlands' only comprehensive and independent Quality Rating for Pension Schemes.

Laetitia Gabaut is an economist who graduated from the Toulouse School of Economics. She joined the European Savings Institute in 2010, where she is in charge of the "Overview of Savings" publication. She has been involved in European projects related to savers' behaviour and to retirement savings.

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Alessandra Manis is Research Assistant at BETTER FINANCE and holds a master's degree in law, obtained from the University of Cagliari in Italy. She completed her studies with an in-depth look at "Consumer Protection in the sale of Financial Instruments". She was admitted to the Italian Bar and has prior professional experience in the field of banking, insurance and consumer law. She worked as a junior associate in a boutique law firm boutique specialized in banking and insurance law, carrying out both contentious and non-contentious activities.

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Pension Savings: The Real Return

2019 Edition

Country Case: France

Summary

The French pension system continues to rely heavily on the mandatory Pillar I and mandatory Pillar II income streams, with an average pre-retirement income replacement ratio of 60.5%,[117] and a total value of assets of 10% of the French GDP in 2017. Despite a rather dynamic asset allocation, corporate pension plans have a 19-year average annual real net return of +0.4% (+7.8% cumulative). Life insurance products - by far the most widely used personal product for pension purposes by French savers - had very contrasted long term pre-tax real returns: +39% (+1.8% annual average) for the still dominant capital guaranteed ones, but -24% (-1.4%) for the more promoted and faster growing unit-linked ones. The personal products specifically dedicated to pensions (PERP, Préfon, Corem, etc.) are much smaller, and their performances are less transparent and most often poorer.

Résumé

Le système francais d'épargne-retraite continue à reposer majoritairement sur les regimes d'assurance vieillesse de base et complementaire (Pilliers I et II), avec un taux moyen de remplacement du revenu d'activité de 60.5%, et une valeur totale des actifs représentant 10% du PIB en 2017. Malgré une allocation d'actifs plutôt dynamique, les plans d'épargne-retraite entreprise ont eu un rendement annualisé réel de +0.4% en 19 ans (+7.8% en cumulé). L'assurance vie – le produit individuel de loin le plus utilisé pour l'épargne retraite par les Français – a eu une performance très contrastée : +39% (+1,8% en moyenne annuelle) pour les fonds en euros (à capital garanti) encore dominants, mais -24% (-1.4%) pour les contrats en unités de compte qui sont davantage promus et se développent plus rapidement. Les produits individuels dédiés spécifiquement à l'épargne retraite (PERP, Préfon, Corem, etc.) sont beaucoup moins développés, et ont des performances plus opaques et le plus souvent plus mauvaises.

[117] In 2016, gross - https://data.oecd.org/pension/gross-pension-replacement-rates.htm.

Introduction

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

- **Pillar I** – the public pension, a defined benefit (DB) Pay-As-You-Go (PAYG) scheme, which is managed by the State and comprises the basic pension insurance;
- **Pillar II** – the occupational retirement provision (complementary component), also DB and privately managed and funded by both employer and employee contributions, to which participation and contribution rates are mandatory;
- **Pillar III** – composed of the voluntary retirement savings plan, also privately managed, to which participation is optional, and which can be set up by the employer (voluntary occupational plans) or by providers for the pension saver on his own (voluntary personal plans).

Introductory table FR. Pension System Overview		
Pillar I	Pillar II	Pillar III
Mandatory State Pension	Mandatory Private Pension	Voluntary Personal Pension
Basic pension insurance	Supplement of the 50% pre-retirement income target of Pillar I	Divided into different retirement savings financial producst
Divided into several sub-categories of pensions regimes for private sector, private service and special professions.	The complementary component contributions are collected by different designated paritarian institutions, depending on the sector.	Voluntary pension products are tax-incentivised in order to support participation in the third pillar and are mostly defined contribution
DB PAYG	DB PAYG	DC
Quick facts		
A relatively high old-age dependency ratio of 31.6%		
An average pre-retirement income replacement ratio of 74.5% (2016)		

Sources: DREES, World Bank, 2019

Summary return tables - Average real net returns of French pension savings					
Average real net returns*	1 year 2018	3 years 2016-2018	7 years 2012-2018	10 years 2009-2018	whole reporting period***
Life insurance - CG	-0.54%	0.08%	0.79%	0.78%	1.76%
Life-insurance - UL	-8.45%	-1.91%	1.48%	1.18%	-1.43%
Corporate plans	-6.71%	2.35%	1.91%	2.90%	0.40%
Public employee PS**	-1.92%	-1.59%	-1.19%	-1.51%	-1.40%

Source: Tables FR5, FR8, FR15 and graphs FR12 and FR13; **After tax returns*; ***Return proxy measurement*; ****different periods*

Pillar I

The French state pension system (Pillar I) is divided it into several sub-categories of pension regimes for:

- Private sector employees;
- Public service; and
- Special professions (such as the army or hospital workers).

Each pension regime is further organised into two sub-components: (1) *The base pension insurance,* which incorporates both the non-contributory pillar 0 and the defined benefit Pillar I to which all employees and self-employed individuals must contribute; and (2) *The complementary pension insurance*, which supplements the basic state pension allowance (Pillar II).

The average state pension for French retirees was €1532 (net) in 2016. A closer look reveals a significant gap between men and women: the average pension for men being €1760 compared to €1332 for women.[118]

To benefit from the basic pension allowance (*assurance vieillesse*) of the French social insurance system, a person must reach the standard retirement age, which is currently not the same for all cohorts, thus birth-date dependent.[119]

[118] https://www.la-retraite-en-clair.fr/cid3190613/information-retraite-retraite-france-quelques-chiffres.html.

[119] The standard retirement age for the basic allowance and for the full pension entitlement starts at 60 and 65 years, respectively (for those born before 1951) and grows by 5-months for each later year of birth until 1954. This is to say, all persons born after 1 January 1954 have a standard retirement age of 62 years (for the minimum allowance) and 67 years old (for full entitlement) – see Droit-Finances, 'Age de départ à la retraite en 2018'

The full pension entitlement from Pillar I is calculated by multiplying the mean annual gross income,[120] by the correction coefficient,[121] and by the insurance coefficient, the latter being calculated by dividing the total insured period (limited by a set ceiling in the form of a maximum insurable period) by the maximum insurable period (thus, it cannot be higher than 1).[122]

Pillar II – occupational pensions

The French Pillar II is a mandatory defined benefit, PAYG and privately managed pension scheme, designed to supplement the 50% pre-retirement income target of Pillar I.[123]

The complementary component contributions are collected by different designated paritarian institutions, depending on the sector. The largest part of complementary mandatory contributions, those for private sector employees, are collected and redistributed by ARRCO (employees' pension regimes association). Employer and employee participation in Pillar II is mandatory and usually set up through collective agreements.

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

Pillar III – voluntary occupational and personal plans

The third pillar of the French pension system is composed of the voluntary pension plans, divided into different retirement savings financial products, which can be sub-categorised into several groups, depending on whether they are occupational or personal, i.e.:

A. Voluntary occupational pension plans are:
   - Corporate plans, for private sector employees at large, which are set up by employers either through DC pension funds (*PERCO*) or through insurance-regulated plans (PERE);
   - Professional or sector-specific personal plans, such as the *Contrats Madelin (for self-employed), Madelin Agricole* (for the agricultural sector) or the *CRH* (for

https://droit-finances.commentcamarche.com/contents/1163-age-de-depart-a-la-retraite-en-2018.

[120] Which is the average of the highest 25 annual gross salaries.

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

[122] CNAV, "Elements de calcul de la pension" https://www.statistiques-recherches.cnav.fr/les-elements-de-calcul-de-la-pension.html.

[123] This is because, as indicated above, the full Pillar I pension entitlement at retirement is calculated by multiplying the average annual gross income and the insurance coefficient (which should be 1 in normal conditions) with a correction coefficient, which in normal conditions is set at 50%.

Public Health sector,) Préfon (mainly accessible to public employees), *Fonpel, Carel-Mudel* and *RMC*[124].

B. Personal pension products unrelated to occupation
   - PERP (People's Retirement Saving Plans), mainly sub-divided into contracts with capital guarantee and contracts linked to units in collective investment schemes (UCITS or AIFs), and Corem.

Voluntary pension products are tax-incentivised in order to support participation in the third pillar and are mostly defined contribution.

Life insurance contracts and bank accounts still represent the two largest blocks of financial savings products in portfolios held by French households. Total outstanding life insurance contracts reached €1,639 billion in 2018, whereas deferred annuity plans[125] grew by 1.2% to €200 billion, still only a very small portion of the financial assets of households:

Table FR1. Financial assets of French households at the end of 2018

	% of total financial savings	2018/2017
Currency and bank deposits	29.9%	4.5%
Investment funds	5.0%	-14.6%
Life insurance & pension funds	40.0%	-1.0%
Direct investments (direct holdings of bonds and shares)	25.1%	-5.4%
Total	**100%**	**-0.8%**

Source: Banque de France

The 2019 reform of French pension savings

The "PACTE" Law of 22 May 2019 reforms French pension savings. In summary, existing Pillar III products mentioned above and below will be progressively phased out from October 2019 on in favour of a new product called "Plan d'épargne retraite" (PER) or Pension Saving Plan. Basically:

- The collective non mandatory PER will succeed to the PERCO
- The mandatory PER will succeed to the PERE

[124] The *Fonpel*, *Carel-Mudel* and *RMC* are special pension vehicles and not covered by this report.

[125] Deferred annuity plans include personal pension products (PERP), pension products for the self-employed ("contrats Madelin") or farmers, sectorial collective pension plans ("Préfon" for public employees, CRH for hospital employees), and company pension plans, with either defined benefits ("article 39") or defined contributions PERE and PERCO).

- The individual PER will succeed to the PERP, Madelin, Préfon, Corem, etc.

The PER will be offered both by insurers and by asset management companies, and payout option will be free between annuities and capital withdrawals. All PERs will be freely transferable to other PERs. However, the new law lifted the 15-year ban on inducements for unit-linked personal pensions in order to try to boost their development. French savers organization FAIDER estimates that this will cost pension savers at the very least € 20 billion over the average life of the PER contract[126].

Pension Vehicles

Life insurance contracts

Ordinary life insurance contracts are not specifically designed for pension purposes. However, retirement is the main objective of French savers who subscribe to these insurance contracts, and they are by far the main long-term financial savings products used in France.

From 2013 to 2018, contributions to unit-linked contracts rose more than those to *"contrats en euros"* (capital guaranteed contracts – or misleadingly called "with profit policies" in the UK)) and their share in total mathematical reserves increased from 17% to 21%. This increase is due partially to capital gains, but more from net inflows (contributions minus benefits). Unit-linked contracts accounted for 30% of net inflows to life insurance in France in 2013 and 28% in 2018.

Table FR2. Life insurance mathematical provisions (in € billion)

	2013	2014	2015	2016	2017	2018	2018/2017
Capital-guaranteed contracts	1,195	1,235	1,269	1,282	1,280	1,298	1%
Unit-linked contracts	239	259	282	309	352	341	-3%
All contracts	**1,433**	**1,494**	1,549	**1,591**	**1,632**	**1,639**	0%

Source: FFA-Assurance

In 2014 a new life insurance contract, the "*Eurocroissance*, was created. The contract does not guarantee the invested capital in case of withdrawal until eight years following subscription. This new type of contract aims to incite savers to accept a higher level of risk in the short-term for potential better long-term return, for example by investing more on equity markets. By the end of 2018, those contracts amounted to only €2.5 billion of mathematical provisions,[127] probably at least partly due to the ultra low interest rates, making it challenging to generate a decent return. Since 2016, insurers are allowed to transfer unrealized capital

[126] Faider.org, 6 June 2019

[127] Source : FFA

gains from their general assets covering capital guaranteed contracts to the *Eurocroissance* contracts to boost returns.

Personal deferred annuity plans

"People pension savings plan" (PERP[128])

PERPs were launched in 2004 as insurance-regulated personal pension plans. Thanks to higher contributions and paid benefits remaining low, mathematical provisions in PERP personal pension plans increased from €7.5 billion in 2011 to €19.1 billion in 2018. However, the share of the PERP as part of the overall savings of French households remains very small.

The number of subscribers increased slowly from 2011 to 2018 from 2.1 to 2.5 million, (+18%), and -1% % in 2018 alone due to an exceptional ban on tax deductibility.

"Contrats Madelin" (for self-employed individuals)

Mathematical provisions related to "*contrats retraite Madelin*" increased by 2.2 % in 2018 to 36.7 billion.[129] There were 1.287 million outstanding contracts at the end of 2018 (+2.9%). The "*contrats Madelin*" are widely used by self-employed individuals because the PAYG system is less generous (and contributions lower) than for employees.

"Contrats Madelin agricole"

Mathematical provisions of "*contrats Madelin agricole*" (plan for persons working in the agricultural sector) increased by 4.4% in 2018, to €5.6 billion. 321,000 farmers had an open contract at the end of 2018.

Personal pension products exempted from governance rules

All personal pension products in France have to be subscribed by savers associations in which the participating pension savers are members of the General assembly, have the right to vote at the general assembly, have the right to propose resolutions to the general assembly. However French Law exempts the three biggest ones from all these governance rules protecting pension savers' rights.

Préfon

Préfon is a deferred annuity plan open to all current and former public employees and their spouses, had 392,000 participants at the end of 2018 (+0.8%% from 2017). Its assets under

[128] "*Plan d'épargne retraite populaire"*. Figures source: FFA, French Federation of Insurance.
[129] Source: Federation Francaise de l'Assurance (FFA)

management reached € 15.6 billion (market value) at the end of 2018, down from €16.1 billion at the end of 2017.

Corem

Corem is also a deferred annuity plan open to everyone but so far mainly subscribed to by civil servants, had 389,597 participants at the end of 2018 (down from 397,515 in 2016). Its assets under management grew from € 7.6 billion at the end of 2012 to € 9.2 billion (market value) at the end of 2018[130].

CRH

CRH (*"Complementaire Retraite des Hospitaliers"),* a deferred annuity plan open to all public employees from the public health sector and their spouses, had 360,000 participants in 2018. Its technical reserves amount to €4 billion (same as in 2016).[131] We could not find more precise publicly available information.

Collective deferred annuities

In total, mathematical reserves grewvery little, from €118.8 billion to 119.1 billion, from the end of 2017 to the end of 2018.

For insurance-regulated corporate defined contribution plans under "Article 83" of the French tax code ("PER Entreprises" or PERE), mathematical reserves stood at €59.6 billion at the end of 2019.

For insurance-regulated defined benefit plans ("Article 39" of the French tax code), mathematical reserves stood at €39,3 billion at the end of 2018.

Corporate long-term savings plans

The total assets of French defined contribution corporate savings plans (PEE[132] + PERCO) slightly decreased in 2018 to € 125.5 billion (-5% % over previous year) due to unfavourable equity market trends. The number of members in those plans increased (10.6 million people in 2018).

The *"Plan d'Epargne Retraite Collectif"* (PERCO), exclusively dedicated to pension investments, is still less "mature" than other pension plans as it started in 2004 but continues

[130] Combined participants and assets of Corem and "R1", "R3" and "Corem Co", closed pension plans *managed by the same provider (UMR)*.
[131] Source: *Guide d'information CRH* du CGOS – 2018.
[132] PEE: « *Plan d'épargne entreprise* » is a corporate savings plan where savings are typically blocked for a minimum of five years.

to grow quite rapidly. Assets under management amounted to € 15,9 billion at the end of 2017 and 16.6 billion end of 2018 (+4.3%). 2.6 million employees had a PERCO at the end of 2018 (an annual growth of +9%) and 217,000 companies propose this type of plan to their employees.

PERCO is quite similar to the US Corporate pension plans ("401k") in its design. However, it is generally not invested in general purpose investment funds like UCITS, but mostly in specifically dedicated alternative investment funds (AIFs) called *Fonds Communs de Placement d'Entreprise* (FCPEs).

Charges: opaque, high and rising

Available data on average annual charges for savings products are scarce in France. Overall annual fees for equity funds in France were 1.8% on assets in 2013[133]. These charges alone appear quite high: the average ongoing fund charge for all UK domiciled active funds (both equity funds and all other funds) was only 0.92 % in 2015 (1.38% for retail funds and 0.69% for institutional ones).[134]

For the first time in 2018, the Regulator ACPR published the annual average charge on Insurance capital-guaranteed contracts *("fonds en euros")*: 0.61% of assets[135], but that does not include:

- profit sharing taken by insurers (0,21% in 2018),
- underlying fund fees
- and the impact of entry and exit fees.

Neither ACPR or the Industry trade body disclose any information on the charges on Unit-linked insurance contracts, which cumulate the units' (investment funds) charges and those linked to the contract. Unit-linked contract fees alone account for 0.95% in fees on average per annum on assets according to private surveys[136]. Therefore, for unit-linked insurance contracts invested in equity funds, the total average fees are estimated at 2.75% (1.8 + 0.95) per annum. More than half of investment funds held by French households are through unit-linked insurance contracts.

[133] Source: La lettre de l'Observatoire de l'épargne de l'AMF - n° 13 - Juin 2015 http://www.lafinancepourtous.com/html/IMG/pdf/Lettre-AMF-juin-2015.pdf
[134] Source: UK Financial Conduct Auhtority – Asset Management Market Study, November 2016 https://www.fca.org.uk/publication/market-studies/ms15-2-2-interim-report.pdf
[135] Source: ACPR, 2019
[136] Source: dossiers de l'épargne n°152, 2014

These average fees are very high: assuming the equity funds performed on average like the French equity market did (see below), an investment made at the end of 1999 and held for 15 years would have been charged with more than 40% in accumulated fees. They also seem to be rising even more. For example, the biggest life insurance subscribing association announced in 2019 an increase of its units-linked contract annual fees by 35 basis points[137].

There are very few data available on charges for personal and occupational deferred annuity plans, as well as for corporate DC plans. When available, the data tell us that they are on average rather high. For example, Préfon charged 0.58% on assets (versus 0.54% in 2017) for asset management plus 3.90% entry fee in 2018. For unit-linked personal pension products, the French government has lifted the ban on commissions in 2019. This will massively increase their charges. FAIDER estimates the impact to be a minimum of € 20 billion over the life of the PPP contracts.

For the first time, ACPR published the 2018 average annual charges for personal and occupational differed annuities: 0,47% that year. But, like for life insurance, this does not include the profit sharing for the provider (0,24% on average), the underlying fund fees and the impact of entry and exit fees. Exit fees can be very heavy on annuities, typically 1 to 3%.

Taxation

For PERPs and Public Employee schemes (*Préfon, Corem, CRH*), contributions are deductible from taxable income up to 10% of total professional income with a tax deduction ceiling (€31,383 in 2017). For *Madelin* contracts, the ceiling is higher. Annuities are taxable like pensions with a 10% fixed haircut (with a ceiling of € 3,752 in 2017). They are also subject to a social contribution, currently limited to 7.4%. This tax will increase to a 9.1% maximum in 2018. In some cases, capital withdrawals are allowed up to a 20% maximum of total pension rights. In those cases, the current taxation is 7.5% income tax plus social contributions of 15.5% (raised to 17.2% in 2018).

Since August 2012, the taxation of employers' contributions to corporate savings plans (PEE and PERCO) and defined contribution plans ("Article 83") increased from 8% to 20%.

The general rise in taxation of savings also impacted life insurance. The law of 29 February 2012 increased the rate of "social contributions" from 13.5% to 15.5%[138]. This new rate applies as of 1 January 2012 to property income and financial capital gains, and from 1 July 2012 onward to interest, dividends and real estate capital gains. As such, the minimum tax

[137] Afer.fr, 2019
[138] Loi de Finance rectificative du 29 Février 2012 : LOI n° 2012-354 du 14 mars 2012 de finances rectificative pour 2012

rate on life insurance income is now 23% (7.5% income tax +15.5% social contributions). This rate applies to any divestments of € 4,600 and above per annum for an individual, and € 9,200 for a couple. Below these thresholds, the minimum overall tax rate falls to 15.5%.

The taxation of long-term savings has again been globally increased in 2018, with the creation of the "PFU" or "flat tax". It amounts to 30% except for life insurance contracts after eight years (24.7% in 2018 instead of 23% before). Direct long-term investments in equities will no longer be taxed at a lower rate than short term ones: the negative impact of inflation on long term investment values is no longer taken into account except for real estate investments.

On the other hand, the wealth tax has been abrogated on all financial assets from 2018 on.

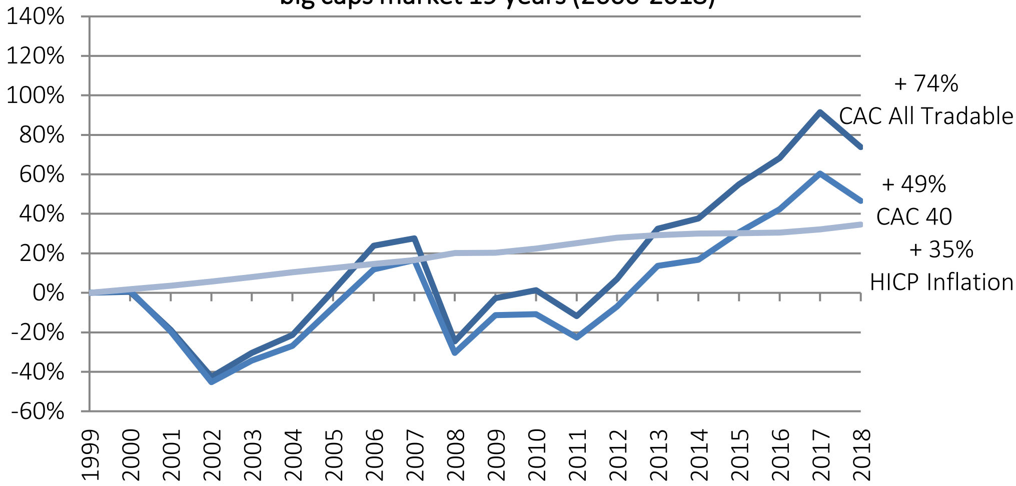
Pension Returns[139]

Shares and bonds (direct investment in securities)

In 2018, the French equity market (dividends reinvested) went down by -9.22 % (CAC all tradable GR index). Over the last 19 years (end 1999 to end 2018), it returned a total of (all shares) 74% % (3.68% annual average), while large capitalisations (CAC 40 index, dividends reinvested as well) returned less, only 49 % (2.65% annual average), demonstrating the very strong over-performance of small and mid-cap equities. Inflation over the same period was 35% (1.55% annual average). So, despite two sharp downturns (2000-2002 and 2007-2008), French equities delivered positive nominal and real returns over the whole period. However, the real (after inflation) performance of the mostliquid stocks started to be positive only since 2015.

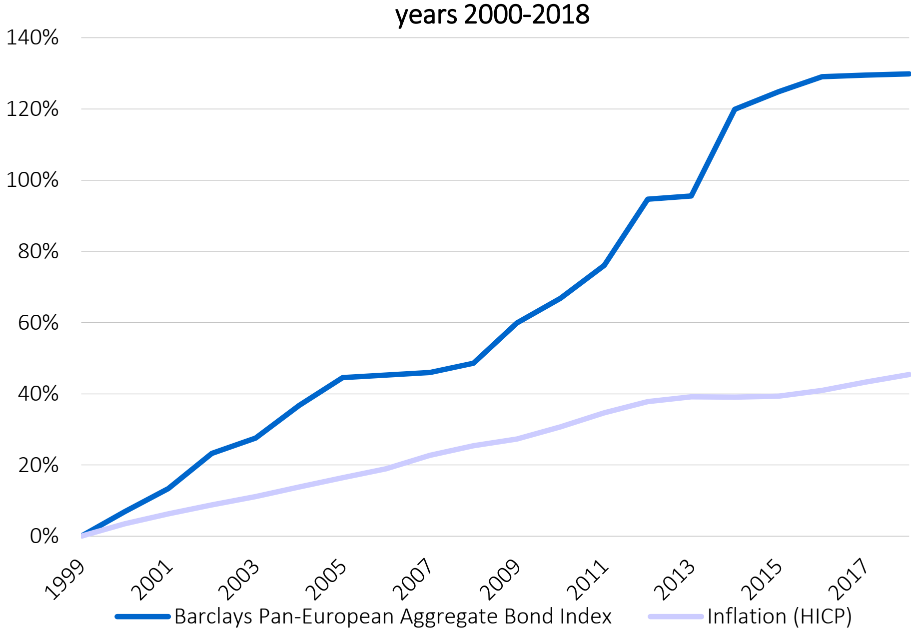
[139] Real Returns in the French case are calculated using Eurostat HICP monthly index annual rate of change (December to December)

Graph FR3 – French Equity market performance: broad market vs. big caps market 19 years (2000-2018)



Sources: Euronext, Eurostat 2019

Graph FR4. Cumulated Performance of Euro Area Bond Index - 19 years 2000-2018



Sources: Barclays Pan-European Total Returns & Eurostat HICP Europe 28 Monthly

Euro Bond markets became almost flat in 2017 and 2018, but still slightly positive, thanks to the quantitative easing policy of the European Central Bank. Overall, capital markets delivered significant positive returns[140] over the last nineteen years despite two major downturns in equity markets, in large part thanks to the continuous decline of interest rates and its positive impact on the value of bonds.

Life insurance contracts – capital guaranteed

The after-tax real returns of guaranteed life insurance contracts declined sharply again to a loss of -0.5% in 2018, due to the combined effect of very low interest rates, a resurgence of inflation, and increased taxation. This is its poorest performance in decades. Such returns should be assessed from a long-term perspective: the last data available from the industry trade body indicate that outstanding life insurance contracts were open for 11 years on average. These contracts – although of a long-term nature – are invested only 8% in equities[141].

Over a 19-year period, cumulated after-tax real returns of guaranteed life-insurance contracts reached 23.9%, and varied from a maximum annual performance of +3.1% in 2001 to a negative performance of -0.5% in 2018.

In the most favourable case, where savers do not redeem more than €4,600 per annum and at least eight years after the first subscription (see Taxation section above), real returns after tax are slightly better (-0.4% in 2018 and 30% cumulated over the last 19 years).

These returns do not take into account the changes in the insurers' reserves for profits sharing ("Provisions de participation aux bénéfices), which are legally required and are credited with the capital gains on sales of non fixed income portfolio assets. They have to be returned to the life insured within 8 years of their inception. They are then included in the annual return. The outstanding amounts of these reserves stood at 4.3% of mathematical reserves end of 2018.

[140] Of course, these market returns are without charges and without taxes. The closest retail investment products would be low-cost index funds using the same indices over the same period. As a reference, annual charges on the Lyxor CAC40 ETF index fund are 0.25%, and 0.25 % as well on the Vanguard Euro Government Bond Index Fund.
[141] Source: goodvalueformoney.eu, 2019

Table FR5. The returns of French life insurance contracts – capital guaranteed (%)

	Disclosed return	Real return before tax	Real return after tax	Real return after tax*
2000	5.3	3.5	2.7	3.1
2001	5.3	3.8	3.1	3.5
2002	4.8	2.6	2.0	2.3
2003	4.5	2.1	1.4	1.8
2004	4.4	2.1	1.5	1.8
2005	4.2	2.4	1.6	1.9
2006	4.1	2.4	1.6	1.9
2007	4.1	1.3	0.5	0.8
2008	4	2.8	2.0	2.3
2009	3.6	2.6	1.8	2.1
2010	3.4	1.4	0.7	1.0
2011	3	0.3	-0.3	-0.1
2012	2.9	1.3	0.7	0.9
2013	2.8	1.9	1.3	1.5
2014	2.5	2.4	1.8	2.0
2015	2.3	2.0	1.5	1.6
2016	1.9	1.1	0.7	0.8
2017	1.8	0.5	0.1	0.3
2018	1.8	-0.1	-0.5	-0.4

Source: Source: FFA, Eurostat (HICP inflation index); * for redemptions below € 4,600 per annum

Once again, contradictory factors impacted real returns after tax in 2018:

- Nominal returns remained flat, reflecting historically low interest rates. Following capital guaranteed life insurance reporting rules, capital gains or losses are not accounted for in the disclosed returns above.
- Inflation slowed down dramatically, from 2.7% in 2011 to a low of 0.1% in 2014 but rebounded to 1.25% in 2017 and to 1.9% in 2018.

In 2012, taxation increased by 200 basis points, as a result of the rise in social contributions from 13.5% to 15.5%. In 2018, social contributions rose again to 17.2%. As taxation is applied to nominal returns, any rise in inflation increases the real tax rate which reached 76% in 2017, as shown in the table below. In 2018 as the real income bedore tax was negative, taxing nominal income had the effect of multiplying the real loss for life insurance savers by almost five times, from -0.1% to -0.5%.

Table FR6. French nominal and effective tax rates on capital guaranteed life insurance returns (%)			
	Inflation	Nominal tax rate	Real tax rate
2000	1.8	13.4	20.5
2001	1.5	13.4	18.8
2002	2.2	13.4	24.8
2003	2.4	13.4	29.4
2004	2.2	13.7	28.6
2005	1.8	18.5	32.3
2006	1.7	18.5	32.0
2007	2.8	18.5	60.1
2008	1.2	18.5	26.6
2009	1.0	19.6	27.6
2010	2.0	19.6	48.9
2011	2.7	21.0	194.0
2012	1.5	23.0	49.4
2013	0.8	23.0	33.1
2014	0.1	23.0	23.9
2015	0.3	23.0	26.2
2016	0.8	23.0	39.9
2017	1.2	23.0	76.0
2018	1.9	24.4	-457.7

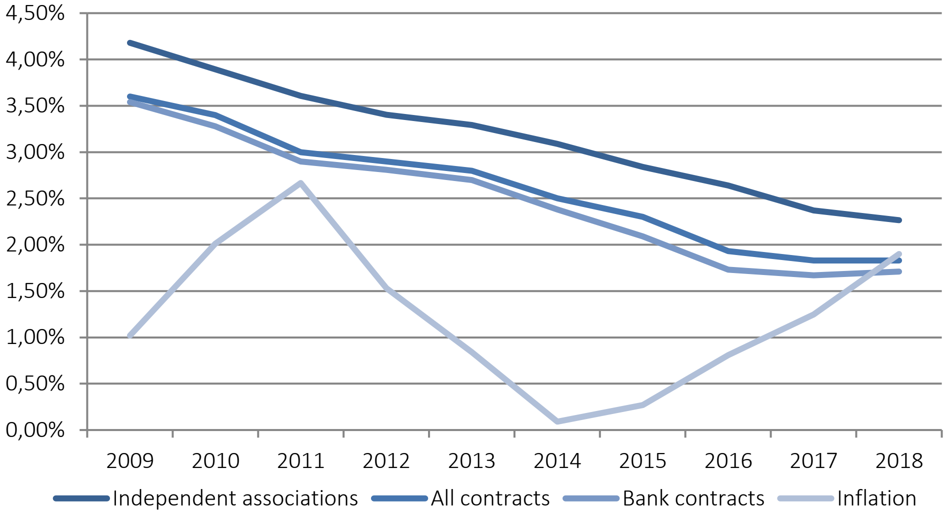
*Source: Eurostat (HICP index 2015 base), BETTER FINANCE computation; *Real tax rate = tax / real (net of inflation) income*

These average returns mask important differences depending on distribution networks and governance: for contracts distributed by banks, the 2018 average nominal return was only 1.71%[142], whereas the return of contracts subscribed by independent associations was 2.27%[143]. One reason is higher annual average fees for bank insurers (0,64% versus 0,45% for traditional insurers in 2018). Considering that contracts distributed by banks represent 61% of the French capital guaranteed life insurance market, this return gap constitutes an opportunity cost of €18 billion for the last three years (2016-2018) alone for savers getting their capital-guaranteed life insurance contracts from their bank instead of from independent savers' associations.

[142] Source: ACPR

[143] Source: Faider. Independent associations representing life insurance contracts holders included AGIPI, AMAP, AMIREP, ANCRE, ASAC-FAPES and GAIPARE in 2016. FAIDER is a member organisation of BETTER FINANCE.

Graph FR7. Nominal returns - all contracts versus independent life insurance associations



Sources: FAIDER (French Federation of Independent pension savers associations), FFA, ACPR

Life insurance contracts – unit-linked

Nominal returns were pushed upwards by the rise in stock prices from 2012 to 2017, against the background of declining inflation. Despite higher levels of taxation, after-tax real returns have been positive between 2012 and 2017. Despite the current long period of positive equity returns, unit-linked contracts still have a very negative cumulative return since the end of 1999 (see next section and table FR 6).

Over an 18-year period, real returns after tax of unit-linked life-insurance contracts were very volatile. The worst performance was recorded in 2008 (-23.9%) and the best one in the following year (12.2% in 2009).

Table FR8. The returns of French life insurance contracts – unit-linked (%)			
	Diclosed Return	Real return before tax	Real return after tax
2000	-2	-4.6	-4.6
2001	-9.5	-11.7	-11.7
2002	-15.2	-17.8	-17.8
2003	8.4	4.9	4.9
2004	6.4	3.1	3.1
2005	14.4	11.4	11.4
2006	8.8	6.0	5.8
2007	1.5	-2.2	-2.2
2008	-22.3	-23.9	-23.9
2009	14.4	12.2	12.2
2010	5.2	2.1	2.1
2011	-7	-10.3	-10.3
2012	11	8.3	8.3
2013	8.2	6.3	4.6
2014	5.9	4.8	3.7
2015	4.1	2.8	2.1
2016	2.9	1.1	0.7
2017	5.8	3.5	2.4
2018	-8.1	-10.7	-10.7

Source: FFA, Eurostat (HICP index), own calculations (deduction of the non-deducted fees, and of HICP price index variation from disclosed returns)

All life insurance contracts – 19 years returns (2000-2018)

In order to compute the real return achieved by an investor who would have subscribed to a life insurance contract at the end of 1999 and who would have withdrawn his funds 19 years later, one has to subtract the entry costs paid the year of subscription, as these fees are not taken into account in the disclosed returns. We estimate that entry costs in 2000 represented 2.76%[144] of the investment, to be deducted from real returns that year. Also, annual contract fees on assets are already taken into account for capital guaranteed contracts by the insurance industry body (FFA), but not for unit-linked ones.

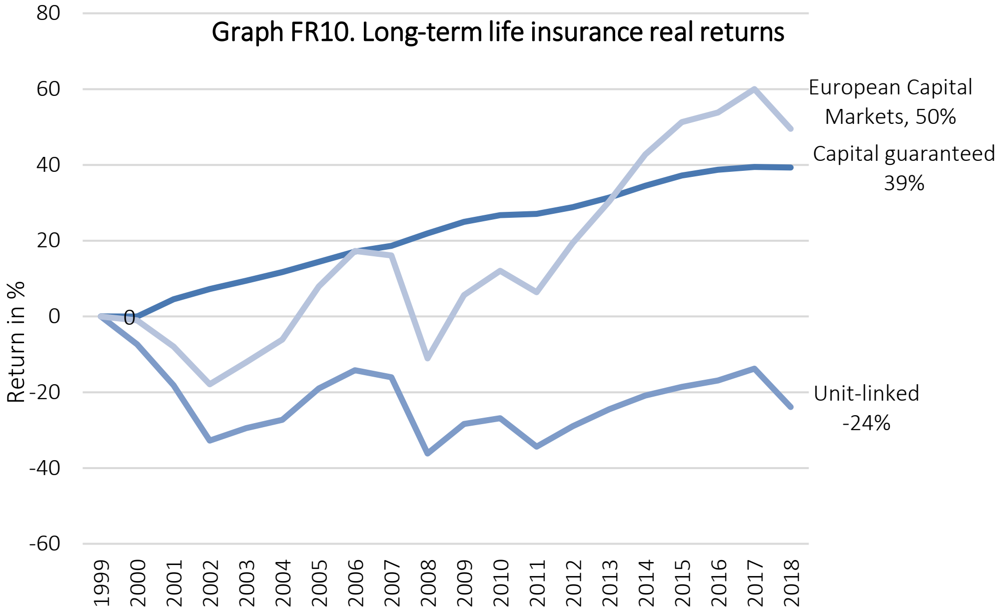
[144] Source: OEE

Table FR9. Real returns of all life contracts 2000-2018		
	19-year return	Average yearly return
Before tax returns		
Capital guaranteed contracts	39.3%	1.8%
Unit-linked contracts	-23.93%	-1.4%
All contracts (avg.)	28.5%	1.3%
After tax returns		
Capital guaranteed contracts	23.8%	1.1%
Unit-linked contracts	-27.7%	-1.7%
All contracts (avg.)	12.8%	0.6%

Source: FFA, own computations (based on the relative weight of both categories in the overall mathematical reserves)

A saver would thus get a cumulated net real after tax return of 23.8%[145] for this 19-year period of investment on guaranteed contracts, and a negative one of -27.7% on unit-linked contracts. On a yearly basis, the rates of returns would be 1.1% and -1,7% respectively. It is worth noting that, although unit-linked contracts are riskier for subscribers, they did provide returns that were significantly lower than those of the riskless guaranteed contracts. Such a significantly lower – and negative - real performance over 19 years is primarily due to much higher fees (see the fees and charges section above), as capital markets as a whole (bonds and equities) provided a positive real performance over the same period (see graphs FR I and FR II). Graph FR10 below shows that the pre-tax performance of unit-linked contracts is well correlated to that of capital markets, but massively underperforming those over time (minus 7,390 basis points over the last 19 years), making unit-linked a high-risk, low return offer.

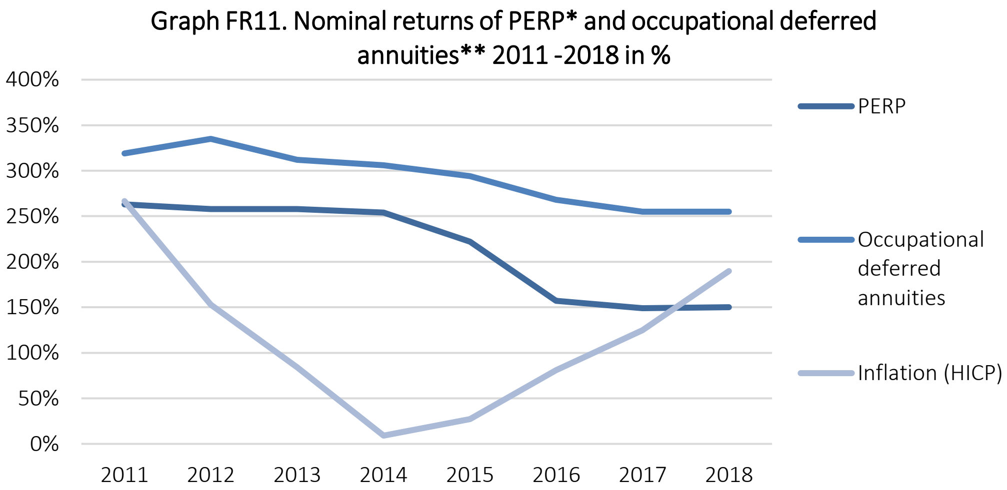
[145] +30,0 % with the most favourable tax treatment, see table FR 3 above



*Benchmark composed of 50% European equities and 50% European Bonds

Source: *FFA, Eurostat*, Stoxx All Europe Total Market (MSCI Europe for first 2 years) and Barclays Pan European Aggregate indices (Graphs GR1 and GR2 of this Report).

Personal and collective deferred annuities



* Capital guaranteed funds ("fonds en euros") only

** Those include PERE, Madelin and Article 39 contracts

Source: *ACPR, 2019*

PERP

A majority of PERPs are structured like ordinary life insurance contracts in the accumulation phase: a combination of capital guaranteed funds *("fonds en euros")* and "units" representing investment funds. A minority of PERPs are structured like deferred annuities, similar to the main pension savings products for public employees (see next section below).

It was again impossible to find global long-term return data on PERPs. The insurance industry body (FFA) publishes the average return of ordinary capital guaranteed *("fonds en euros")* and unit-linked life insurance contracts (see previous sections), but not that of insurance-regulated personal pension products such as PERPs. Based on the disclosed nominal returns of a majority of PERPs collected by the French Supervisor ACPR since only 2011, the weighted average nominal return of the capital guaranteed PERPs *("fonds en euros")* was only 1.50% in 2018, lower than the return of ordinary capital guaranteed life insurance contracts.

This can be surprising as PERPs enjoy a much longer duration of their liablities, which should allow for a higher allocaton to equities which have performed much better than bonds since 2011. The returns of PERPs should also be boosted by the rule unique to PERPs according to which the commissions (inducements) on units (funds) must be credited to the PERP, and, in practice they are credited to the capital guaranteed fund. On the other hand, PERPs are on average more recent than ordinary life insurance contracts and therefore their bond portfolio generates lower returns.

In addition, these returns do not take entry fees into account, which are probably comparable to those of ordinary life insurance (2.76% on average in 2000).

In 2018, pre-tax real returns of French personal pensions (PERP) are negative on average, as in 2011. They were already negative after tax on average in 2017.

Madelin, PERE and Article 39

The nominal returns of occupational deferred annuities were much higher (2.55% in 2018) and did not decline as much as for PERPs. This could be explained by older fixed income portfolios yielding higher rates, and by higher discount rates ("taux techniques") forcing insurers to deliver higher returns. Charges may also be lower than for PERPs, but cost data are missing specifically for these pension products. For the first time in 2019; the French supervisor ACPR published the average annual cost of 0.47% but that is for all personal and collective diffred annuity oproducts combined.

Unfortunately, it does not currently identify separately the historical returns and costs of the pensions products for self-employed individuals ("Madelin" - most of which are subscribed and supervised by independent pension saver associations), from the employer-sponsored

DC plans ("PERE") and DB plans ("article 39"). Following the European Commission's request for the European financial Supervisory Authorities to improve the transparency of past performances and fees, it is urgent to collect, analyse and disclose these data.

Deferred annuity plans exempted from governance rules (Préfon, Corem, CRH)

One difficulty in assessing real returns of deferred annuity plans is that up to 2010, it was not mandatory for those plans to disclose investment returns, Préfon being one example. Following action by BETTER FINANCE's French member organisations, a 2010 Law[146] made this a legal requirement from 2011 onward. However, since then Préfon only discloses an accounting return (taking into account only realised gains on sales of assets besides interest and dividend income) and does not disclose an economic return (taking into account the annual evolution of the market value of all assets in the portfolio).

Préfon

Préfon published an accounting return (net of fees) on its investment portfolio for 2018[147] of 2.80% versus 3.01% in 2017 However, as mentioned above, the accounting return does not take into account the changes in the market value of assets (unrealized capital gains stood at € 2.2 billion end of 2018 (14 % of the total market value). In addition, part of the investment return could be set aside in order to replenish reserves. In 2010, the French Supervisor (ACPR) decided that Préfon reserves were not sufficient and forced Préfon's insurers to contribute €290 million of their own funds (as of 31 December 2013) to help Préfon balance its assets and liabilities[148]. At the end of 2016, this contribution from the insurers amounted to €333 million[149] despite the massive cuts in pension rights for those who retire after age 60 decided in 2014 and 2017 (see below Graph FR12).

In 2017, in relation to the entry inot force of the Solvency II Directive, French Law was modified to move to use the market value of assets instead of their historical cost (accounting value). This enabled Préfon to show at last sufficient reserves and solvency ration, but – up to now – not enough to allow for increasing the nominal value of pensions (see below).

[146] Law n° 2010-737 of 1 July 2010 - art. 35 (V), which modified Article L441-3 of the French Insurance Code.

[147] For the first time, Préfon also disclosed a "cumulated portfolio performance" of 5.78% for 2016.

[148] *"Les Echos"* 27 December 2010. This information was not disclosed by *Préfon* to the participants.

[149] Source : Rapport de gestion Préfon Retraite 2016

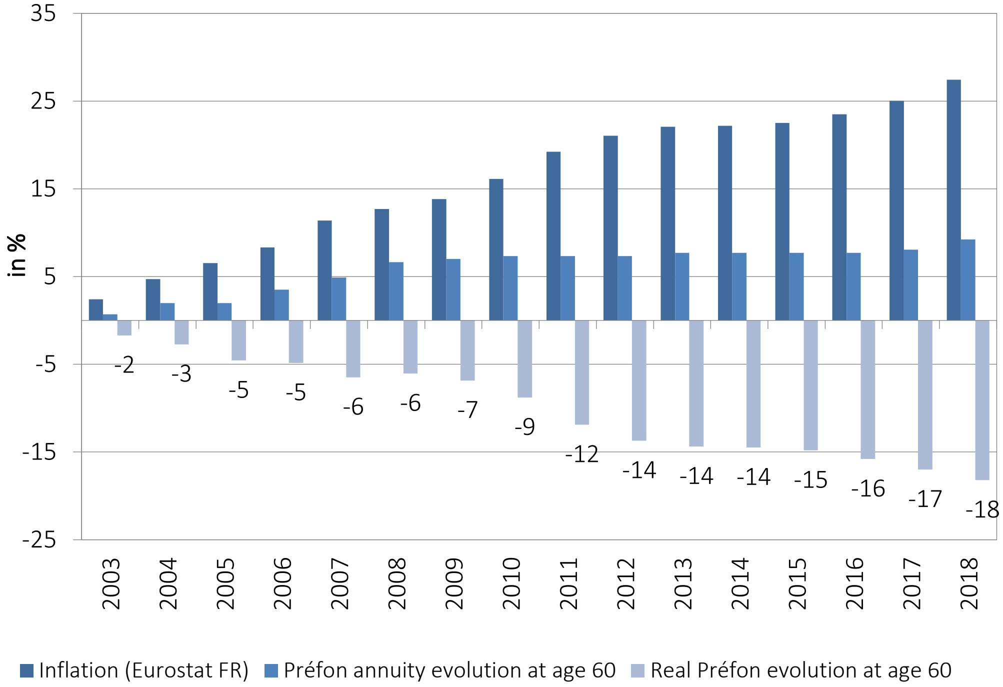
In addition, the value of the participants' accumulated savings is communicated individually to them only since 2012, and unfortunately with more than a one-year delay (this essential information should be released much sooner), and just as an "estimate"[150]. It is therefore impossible to compute a real rate of return individually and for all participants with the data currently made available by the Plan.

Thanks to the change in solvency rules, the ratio of assets to liabilities of Préfon increased from 97.5% in 2016 to 125.4% in 2018, allowing it for the first time in many years to increase the nominal value of its annuities, but still hurting their purchasing power (+1.08% versus +1.90% inflation).

Another difficulty for deferred annuity products is to translate the impact of portfolio returns (and other factors such as the capital conversion rate, into annuities, the discount rate and the evolution of annuities paid) on the actual long-term return for the pension saver. One proxy return indicator is the one computed and published by the French association of pension fund participants ARCAF. It has been collecting the annual rate of pension rights and annuities increases <u>before</u> tax for several years[151] (see graphs FRVI and FRVII). Since the end of 2002, Préfon participants who will retire at the age of 60 have lost 18% of the real value of their pensions (before tax[152]). The publicized objective of Préfon to maintain the purchasing power of pensions has not been fulfilled since 2002 and Préfon remains silent on the perspectives to reduce this loss of the real value of pensions in the future. This key performance information is not publicly disclosed[153].

[150] Besides, this "transfer value" does not include the 5% transfer fee Préfon charges for any transfer occurring within the first 10 years of the contract.
[151] This key data is not publicly disclosed.
[152] Savings into Préfon (like into PERPs and into Corem) are income tax deductible, but the annuities are fully taxable. Both savings and annuities bear social levies ("prélèvements sociaux").
[153] ARCAF, 2016

Graph FR12 - Préfon annuities real value : retirement at age 60
Compounded evolution in %

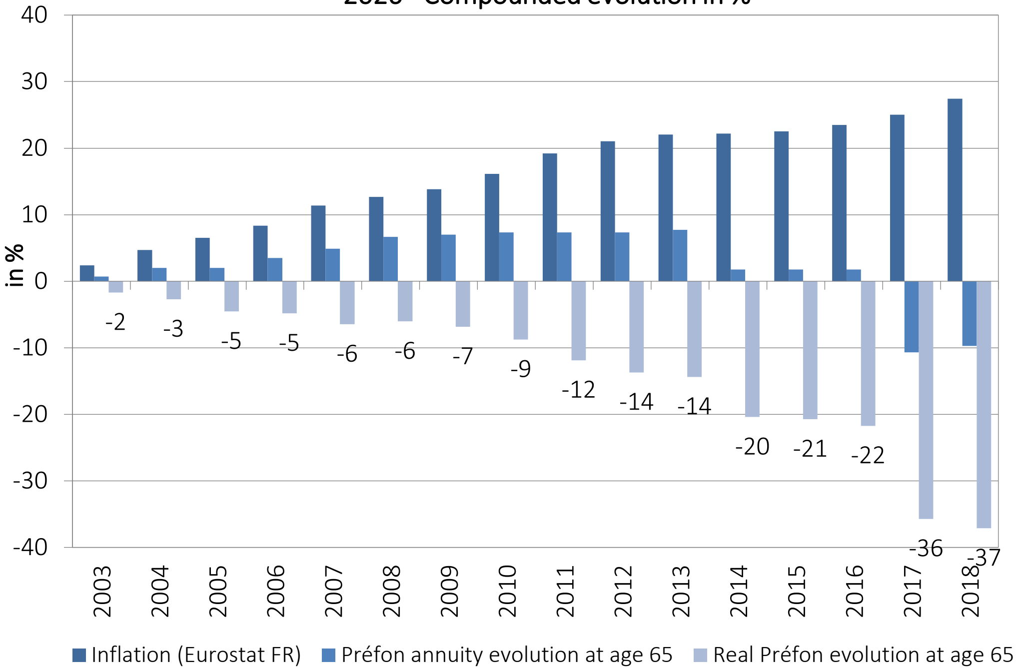


Source: ARCAF, 2019

This return indicator, however, does not include the discount rate embedded in the conversion ratio of accumulted savings to annuities. But this discount rate varies from one year to another, and also varies according to the actual retirement age - which is not disclosed.

Also, this indicator is only valid if one exercises his liquidation rights at age 60. But fewer and fewer people can retire at age 60 due to the postponement of the legal age to retire with full pension rights. For example, if one exercises these rights at the age of 65, starting from the year 2026 on, the initial annuities have been reduced by 17.3% in nominal terms from 2013 to 2017, although Préfon has always told its participants at subscription that its pensions could never be reduced in nominal terms. In real terms it is much worse, as shown by the graph below.

Graph FR13 - Préfon annuities real value : retirement at age 65 from 2026 - Compounded evolution in %



Source: ARCAF, 2019

It is difficult to compute the evolution of the Préfon annuities paid after tax, since they are taxed at the marginal income tax rate on pensions and salaries (plus social levies) and since contributions have been deducted from the taxable income for income tax purposes (but not for social levies).

Corem

Corem publishes the annual accounting return on its investments but does not specify if these are gross or net of fees. The accounting return for 2018 was +3.35%, slightly down from +3.92 % in 2017. However, this accounting return does not take into account the changes in the market value of assets. In addition, and more importantly, all the investment return of the Corem assets is set aside in order to replenish reserves. It is therefore impossible to compute a collective real rate of return.

The deferred annuity mechanisms of Corem are similar to those of Préfon, with the same difficulties in estimating the real return for the pension saver. Therefore, we also use the evolution of the annuities' values as a proxy return indicator here, as computed by ARCAF (Graph FR14 below). Corem has been in deficit for a very long time; the main – undisclosed

– tool of its recovery plan in place since 2002 is not to increase the nominal value of annuities served. As a result, the annuities served by CREF have lost 24% of their real value before tax (purchasing power) over the last 16 years (see graph FR14), as Corem has not increased them for many years, pocketing the return on its portfolio for other purposes. These figures are before tax. This key performance information is not disclosed to the public and to new participants. The reality is even worse as, in November 2014, Corem announced new measures to reduce its reserve gap by further reducing the returns for participants (they now need to be 62 years of age to get the full pension rights instead of 60 years of age, and the minimum guaranteed return on pension contributions was lowered from 2.3% to 1.5% from 2015 on).

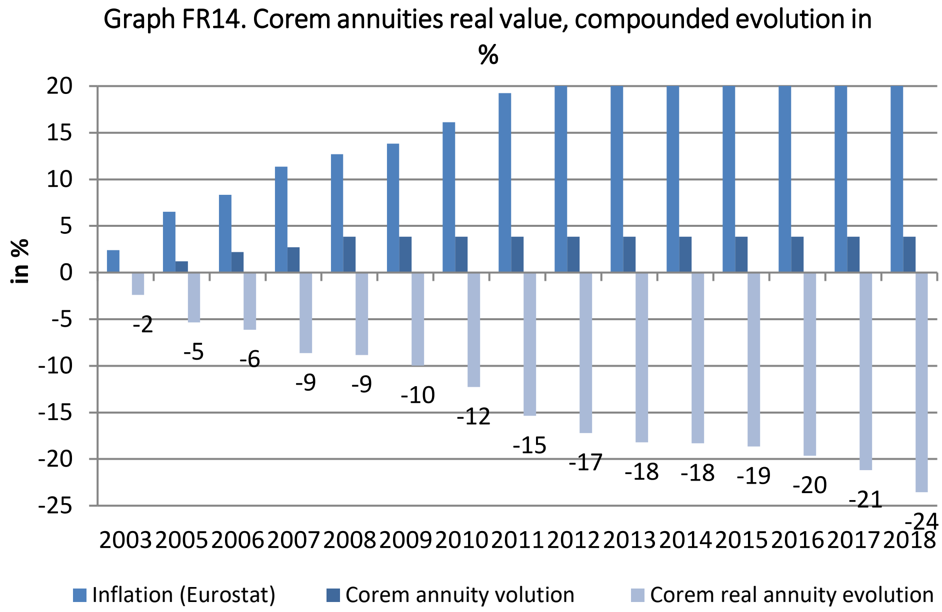
The situation, however, is still difficult as its reserve gap (difference between its assets and the present value of its pension liabilities) reached €2.9 billion at the end of 2014, as measured using French common prudential rules at that time[154]. At the end of 2015, Corem obtained permission from the French Government to use a minimum discount rate of 1.50% (instead of 0.59 % according to the previous rule) to compute the present value of its liabilities, helping it to reduce its reserve gap to €1.3 billion at the end of 2016.

In 2017, the French Government allowed deferred annuity schemes such as Corem to use the market value of assets instead of the accounting (acquisition cost mostly) one, to compute its assets/liabilities coverage ratio. This new rule improved ed its coverage ratio to 98.2 % at the end of 2018. Otherwise, Corem would have been in breach of its Recovery Plan which required it to cover at least 90% of its liabilities.

Since 2016, the Corem rules also allows it to reduce the nominal value of annuities under certain conditions, contrary to the commitment that was provided to particpatns when they joined.

The distribution of new Corem contracts is currently suspended but is planned to resume in 2019, despite the continuously escalating losses borne by its participants.

[154] Until 2017, *Corem*'s recovery plan allowed it to exceptionally use a discount rate of 3% and an older mortality table to compute the present value of its pension liabilities instead of the regulatory 0.78% at the end of 2014 and 1.5% end of 2015. Using the 3% discount rate, *Corem* assets cover 107.5 % of its liabilities at the end of 2015.



Source: Source: ARCAF 2019

Overall, BETTER FINANCE estimates the loss of purchasing power over the last sixteen years (2002-2018) of participants to the French Public Employee Pension Schemes to be at -20.2% (-1.5% per annum), based on the relative asset portfolio size of Préfon and Corem, assuming that Préfon participants retire at age 60 and not later.

CRH

CRH does not disclose an annual report or financial data publicly. Even its pre-contractual publications do not disclose past performance. Because of an on-going restructuring that started in 2008, the real returns of this plan are probably low and below inflation. For the last four years, CRH annuities value has increased by 1.8%, against an inflation of 4.3%.

Defined contribution corporate plans

Table FR15. French corporate savings plans - 19 years returns before tax 2000-2018					
Fund ("FCPE") category	Equity	Bond	Money market	Diversified	All funds
19Y Nominal return	22.1%	68.8%	28.3%	44.8%	45.2%
Yearly average	1.1%	2.8%	1.3%	2.0%	2.0%
19Y Real return	-10.2%	25.8%	-4.6%	7.4%	7.8%
Yearly average	-0.6%	1.2%	-0.2%	0.4%	0.4%

Source: AFG/Europerformance

We combine information provided by "Europerformance" on the performance of each category of funds with data from AFG on their total outstanding relative weight[155] to estimate the overall returns of corporate savings.

Real returns of corporate DC-based (Defined Contribution) plans before tax over an 19-year period, from the end of 1999 to the end of 2018, were overall positive: the yearly average real performance before tax of the aggregate of all funds was 0.4%, which makes French DC plans the second best performing pension savings product after life insurance capital-guaranteed contracts, and way ahead of life insurance unit-linked contracts.

The overall real returns before tax are influenced predominantly by the surprisingly heavy weight and negative return of money market funds (25% of assets; -4.6%), and the slightly negative real return of DC equity funds (despite a 9.7% real return in 2017 alone, but -14.3% in 2018). Equity funds, which account for about 18% of total outstanding assets (excluding company stock), greatly underperformed equity markets over the last 19 years: +22% versus +74% for French equities for example; see graph FR1 above. Also, DC Bond funds (around 22% of total assets) returned +69% in nominal terms over the period versus +130% for the European bond market (see graph FR4).

Like for unit-linked insurance contracts, the primary factor for this underperformance of DC equity and bond funds could be the level of fees charged.[156] Unlike the US corporate DC

[155] Data published by AFG relate to "FCPE L214-39". These funds are diversified funds which do not invest in the own shares of the concerned company ("company stock"). There is another category of corporate savings funds, the "FCPE L214-40" dedicated funds which can invest without limit in the own shares of the concerned company but there are no data available on the returns of these "FCPE L214-40" funds. The "FCPE L214-39" assets represented 61.5% of all FCPE assets at the end of 2017.

[156] The average management fees represented between 1.6 and 2% of managed assets for European equity FCPEs on average in 2013/2014 according to the « Observatoire de l 'épargne de l'AMF » (Nr. 14, July 2015) but it is difficult to know whether this includes fees on underlying funds in the case of FCPE funds of funds.

pension plans ("401k"), the French ones do not invest in general purpose mutual funds, but in special purpose alternative investment funds (AIFs) called FCPEs, especially dedicated to these plans. Consequently, French savers are faced with an additional offering of investment funds (about 2,500 FCPEs in addition to the about 3,500 UCITs funds already domiciled in France),the average size of these AIFs is quite small, and many FCPEs are merely wrappers of other – general purpose – funds, adding a lyer of fees. Another factor is that equity FCPEs are not 100% invested in equities.

A limitation of such computations is that performance indices provided by "Europerformance" only relate to diversified funds inside the corporate savings plans. They do not take into account the part of corporate long-term savings which is invested in shares of the concerned company ("company stock"), accounting for 37% (€ 46 billion end of 2018) of all corporate savings plans.

Return of regular identical investments over 18 years

Also – same rule whenever possible for the whole research report – the computed returns relate to a one-time investment at the end of 1999 and kept up to the end of 2018. Many pension savers will tend to invest regularly every year or every month. With the help of the French trade association AFG, we computed the annualized returns from 2000 to 2018 for the same amount invested every year over the last 19 years. This provides a slightly higher before tax return of 8.6% instead of 7.8%. Also, this return is less volatile with time, as it is spread over many years instead of only one.

After-tax returns are often higher

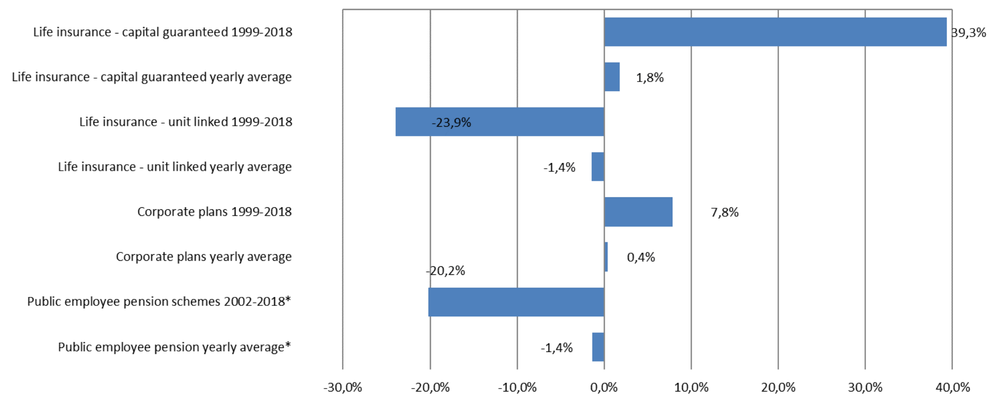
Finally, after-tax returns of French corporate long-term savings plans are difficult to compute globally, but they can often be higher than before-tax ones, since their taxation is the most favourable of all long-term and pension savings products in France (redemptions are exempt from income tax and are only subject to "social" levies of 17.2% of net gains). Also, most of these savings come from non-taxable profit-sharing income contributed by employees ("*intéressement*"and "*participation*") and employers' matching contributions.

Conclusions

After a year of negative real returns before tax in 2011, for the main long-term and pension savings product in France, subsequent years were more favourable to pension savers. Against the backdrop of bullish stock markets and lower inflation, unit-linked life insurance contracts showed a positive real performance every year from 2012 to 2017. However, their 19-year performance is still negative. The real performance of capital-guaranteed life insurance contracts *("contrats en euros")* has been positive for every year since 2011, but the continued decrease of interest rates, and increases of taxation, have turned it negative in 2018.

Over a 19-year period, from the end of 1999 to the end of 2018, capital-guaranteed life-insurance contracts show on average a positive yearly after-tax performance of +1.8% in real terms, whilethe unit-linked contracts show a negative yearly return of -1.4%. Corporate DC plans delivered 0.4% on an annual basis before tax. After-tax returns would typically be higher for those due to a favourable tax treatment.

Graph FR 16. French Pension Savings Real Returns before tax, 2000-2018



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