PENSION SAVINGS
The Real Return

2019 Edition

BF BETTER FINANCE

The European Federation of Investors and Financial Services Users
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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]

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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Aleksandra Mączyńska is the Executive Director of BETTER FINANCE. She is a member of the EC Financial Services User Group (FSUG) and she was recently appointed by EIOPA as a member of its Occupational Pensions Stakeholder Group (OPSG). Previously she worked for the Polish consumer and competition watchdog and was an expert on various EU Council Working Parties such as the WP on Financial Services and the WP on Competition.

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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Country Case: Spain

Resumen

Los trabajadores españoles no ahorran para su pensión. Más del 70% de sus activos totales son "ladrillos y cemento", que de ninguna manera puede considerarse un "activo previsional". Cuando las pensiones de Seguridad Social sustituyen más del 80% del salario previo a la jubilación, ¿por qué deberían ahorrar para ello? Como resultado de estos y otros factores, la "industria de las pensiones" (Pilares II y III) en España es pequeña y menos eficiente que si fuese tan grande como las de Holanda, Dinamarca o el Reino Unido. Los activos previsionales de los Planes de Pensiones no llegaban en 2018 al 9% del PIB, y los activos y compromisos de una amplia gama de productos asegurados para la jubilación (o similares) apenas alcanzaban el 15% del PIB. Por estas razones, la gestión de estos activos no es barata, aunque puede llegar a serlo, y mucho, en los esquemas del Pilar II. La Fiscalidad de los activos y rentas de ambos pilares en España responde al régimen EET común en la mayor parte de los países. El rendimiento cumulativo medio general de los esquemas del sistema de Planes de Pensiones una vez descontada la inflación, ha sido del 0,0% en el periodo 2000-2018. Poco se sabe de los rendimientos medios de los esquemas asegurados y su estimación no ha sido el objeto de este informe. Todos los datos utilizados provienen de las fuentes oficiales habituales (INVERCO, DGSFP, INE y Banco de España).

Summary

Spanish workers don't save for their retirement. "Bricks & Mortar" make more than 70% of a typical Spanish household's portfolio. And there is no way to think of this asset as a retirement one. As Social Security old-age benefits replace more than 80% of lost labour income at retirement, why Spanish workers should save with this purpose? As a result, Spanish Pensions Industry (Pillars II and III) is small and less efficient as that of Denmark, Nederland or the UK. Retirement assets in 2018 hardly reached 9 percentage points of GDP, and if insured retirement or retirement-like vehicles were added to this, an extra 15 percentage points could be found. These and other reasons imply that asset management in this industry is not cheap. To be sure, Pillar II assets are as cheap to manage as in advanced countries, but this is not the case with Pillar III assets. Taxation of retirement assets and income in Spain responds to the EET regime, as in most countries. Average cumulative returns since 2000, in the standard Pension Plans system, once inflation adjusted, has been

just 0.0%. Little is known about average returns to insured vehicles' assets, albeit its computation has not been the purpose of this report. All data used can be found on readily available official sources' web sites (INVERCO, DGSFP, Spanish Statistical Office -INE- and Bank of Spain).

Introduction

The Spanish pension system is composed of three pillars:

- Pillar I – Public, with a pay-as-you-go major branch of compulsory, contributive pensions (old-age, invalidity and survivors' benefits) and a minor, means-tested assistance branch for over 65 years old individuals (old-age and invalidity).
- Pillar II – Voluntary, defined benefit and defined contribution employer-sponsored pension plans (restricted de facto to large companies).
- Pillar III – Voluntary, personal (or associated) defined benefit pension plans and a variety of other qualified retirement savings vehicles.

A more detailed structure of these three pillars is presented in the following table.

Introductory Table. Multi-pillar pension system in Spain (2018)			
	Pillar I National Social Security	**Pillar II Employer-Sponsored Pension Plans**	**Pillar III Personal Pension Plans**
Participation	Mandatory	Voluntary	Voluntary
Type of funding	Financed by social contributions (Insured persons 4.7%, employers 23.6%)	Fully funded. Financed normally by employers' contributions (no standard rate)	Fully Funded. Financed by insured persons
Type of benefit entitlement	Accumulation of pensionable wage pension points	DB and DC	DC
Management	Publicly managed; Benefits paid via State Social Insurance Agency (INSS)	Managed by independent bodies under Companies' Social Partners supervision	Managed by Plan's Promoters (Financial, Insurers or Associations)
Products	Contributory state pension, Non-contributory state pension	Pension Plans (dominant product), Insured Pension Plans (PPA), Life Insurance, Individual Saving Plan (PIAS) and Long-term Individual Saving Insurance (SIALP).	
Average pension	Contributory pension (14 payments per year): € 1,420 (old-age, newly retire red workers, General Regime) Non-contributory pension (14 payments per year): € 367 (average, old-age and invalidity)	Pension Plans (12 payments per year): € 403,17 (old-age, income only plans, 2017)	
Coverage	Social Insurance is compulsory for all workers. All persons 65 and over are eligible for Social Assistance.	Barely 8.8% of active population are covered by Employer-sponsored Pension Plans	Slightly above 15% of population aged 16 and more is covered by Individual Plans
Net replacement ratio (2016)	81.8% (both sexes, average wage)	20.0% (both sexes, average wage) (a)	

(a) This ratio is a net "benefit ratio" rather than a carefully computed replacement ratio. Own estimation based on data from DGSFP. Only 186,000 beneficiaries are currently entitled to obtain monthly Pillar II and III old-age benefits. A large number of beneficiaries opt for lump-sum payments at retirement, thus disappearing from beneficiaries' records.

Source: Own elaboration based on INSS, DGSFP, INE and OECD

	Average nominal and real net returns of Spanish pension funds				
	1 year	3 years	7 years	10 years	
	2018	2016-2018	2012-2018	2009-2018	since 2000
nominal	-4.08%	0.20%	3.41%	3.04%	2.22%
real	-5.82%	-0.97%	2.46%	1.87%	0.001%

Source: Table ES19, own computations

Pillar I

The National Institute for Social Security (INSS, in its Spanish acronym) is the national agency for pensions run by the central government. The Spanish Social Security protects all workers against old-age, invalidity and (their dependants) survivorship (widowhood and orphanhood). It has two separate branches: the insurance branch and the assistance branch sharply differentiated by its size, nature and functions.

The insurance branch of Social Security is, by far, the dominant scheme in the Spanish pension's arena. It is contributory, compulsive for all workers and firms and is financed through social contributions that, within each current year, are used to pay for current pensions. The financial method of the system is thus of the Pay-As-You-Go variety. As of 31st December 2018, The INSS was paying 9.7 million pensions (to about 8.8 million beneficiaries) at a rate of € 961 each per month (14 payments in a year, all pension categories, all beneficiaries). Of that total, 6 million pensions were old-age at a rate of € 1,107 per beneficiary and month (14 payments in a year).

As for workers' coverage, as of 31st December 2018, 18.9 million workers were affiliated to the national Social Security scheme. Out of these, 14.4 million (76.2%) were wage earners covered by the General Regime of SS and 3.3 million (17.5%) independent workers covered by the Self-employed Special Regime. The remaining few, a mere 6.3% of workers, belonged to different sub-regimes within Social Security. Around half of unemployed workers continue to be covered under Social Security through social contributions paid on their behalf by the Spanish Employment Agency for as long as they receive unemployment benefits.

Besides social insurance pensions, the Spanish Social Security, through its assistance branch, as of 31st December 2018, paid 451.8 thousand pensions of which 257 thousand pensions were old-age and the rest were invalidity pensions. Non-contributory (assistance) pensions are subject to means tests and are clearly a minor scheme since autonomous regions in Spain offer a wide range of basic benefits to those individuals and households in need. This type of pensions are paid by Social Security although fully financed out of general taxation.

Within the contributory pensions class, social contributions provide, as of 2018, for 98.5% of total financing of Social Security pensions. The total contribution rate is 28.3% of gross pensionable wage. This rate splits in 23.6 pp paid by employers and 4.7 pp paid by workers. The self-employed must pay the whole 28.3% rate on their pensionable earnings. Pensionable wage (and earnings) track effective wages closely through a scale with a minimum pensionable wage (as of 2018) of € 858.6 and a maximum pensionable wage of € 3,806.7 per month. Employees cannot choose their contribution base but self-employed can do it and the majority of them do choose the minimum pensionable earnings base which results in their retirement pensions being too small. Many of these benefits will have to be latter complemented with an assistance top in order to reach the statutory minimum retirement pension. This resulting, paradoxically, in a larger internal rate of return over their past contributions compared to the higher or maximum pensions payable by Social Security.

Pillar II

As shown in the Introductory Table above, Social Security old-age benefits in Spain replace pre-retirement wages with one of the highest rates in the world and against a rather high pay-roll tax mostly paid by employers[230]. So, there is little margin left for occupational and personal retirement accounts to step substantially into the retirement arena[231]. And, indeed, what we observe in Spain is a very limited landscape for marketed retirement solutions despite the fact that the modern regulation for these products was enacted around 1987 last century.

Pillar II in Spain embraces employer-sponsored retirement accounts for wage earners and other occupational pensions for the self-employed (and associate pension plans, a minor category). These products are financed through contributions by employers and workers themselves, sometimes on a matching basis and/or with direct or indirect government help. There is a variety of retirement vehicles that employers may offer their employees, or available for self-employed workers as well. Amongst them, tax-qualified Pension Plans are the standard and most prevalent vehicle. These Pension Plans are capitalisation retirement accounts of either Defined Benefit or Defined Contribution class to which employers contribute with a percentage of wage. Workers can also contribute. Contribution rates may vary considerably, but their average rate can be estimated at around a modest 2.5% of average gross wage[232], or around € 635 per account and year (2018). Employers are not obliged by law to offer these accounts, although some may be obliged by Collective Bargaining agreements in an industry or sector. And indeed, very few companies, but the large ones, offer them to their workers as only 2 million accounts of this type where

[230] This said, however, pay-roll taxes to Social Security or other welfare programs are deferred wages and, were they to be entirely supported by employees, gross wages should be accordingly updated to accommodate this wedge.
[231] See Introductory Table above.
[232] Estimation based on data from INVERCO and INE.

registered through 2018, to a total active population of 22.8 million that same year (a mere 8.8%, many of them non active). As of 31st December 2018, total assets under management (AuM, in what follows) to these accounts totalled € 34 billion (down from € 35.8 bn one year earlier), that is, a small 2.8% of Spanish GDP.

Pillar II retirement accounts are fiscally qualified by the government. Contributions by employers or employees are tax free up to a general limit of €8,000 per person per year. Benefits, no matter whether retrieved in form of monthly income or as a lump-sum, are taxed under the existing personal income taxation rules (a dual personal income taxation system). When benefits are retrieved in form of an income stream, beneficiaries are obliged to buy an annuity.

Often in Spain and in many other countries, and this is a crucial issue of understanding for our industry, layman savers and even experts refer to this fiscal treatment as "incentives" or even "a fiscal gift". The truth is that not taxing contributions and taxing benefits is the world standard for tax deferral, rather than the opposite or, even worst, double taxation of pensions. Tax deferral, as opposed to an "incentive", is not a gift from government or from the rest of society is a just treatment for income won after decades of efforts and frugality.

Pillar III

Pillar III embraces personal, or individual Pension Plans, the latter being again the dominant type within a large variety of types (see the Introductory Table above). These plans are personal, voluntary and "complementary" to both Pillar I and Pillar II arrangements. These accounts are equally treated, as Pillar II accounts, from the tax point of view or, in what concerns other features, are virtually the same product as employer-sponsored Pension Plans. As of 31st December 2018, Pillar III accounts included 7.6 million accounts that belonged to around 6.5 million individuals. Total AuM for these plans totalled € 73 billion (slightly € 0.1 Bn up from one year earlier), that is, a mere 6.1% of Spanish GDP.

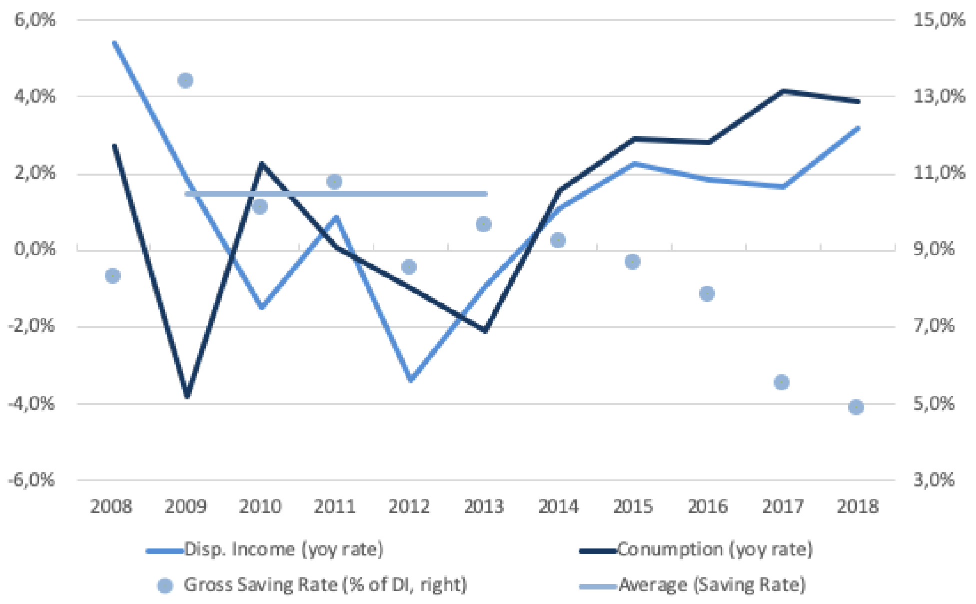
Household Savings

Personal (financial) saving in Spain is not a salient feature of its economy's financial side. But for the fact that it is so low because Spaniards love to save "*autrement*", in "bricks & mortar". This said, households are still able to spare some money by the end of the year and have so far managed to accumulate a financial buffer. Only a small part of these assets, however, are dedicated to retirement purposes. The reason for this is that Social Security forces Spanish workers to save through pay-roll taxes paid in large part by their employers. This reduces the disposable income households could save. Besides, in exchange for heavy pay-roll taxation (28.3% of gross -pensionable- wages only for retirement and associated contingencies), public pensions replace lost wages due to retirement at a higher than 80% net rate. This, definitely, reduces to ashes the desire and/or capacity to save for retirement of Spanish households.

As for real estate, it is well known that it is hardly a retirement asset at all. Yet many owners, that in Spain tend to own more than one house or apartment, think that eventually they could use their houses as a source of retirement income. However realistic this may be, the fact is that an astonishing three fourths of Spanish households' total wealth is made of "bricks & mortar", its value representing around four times the value of Spanish GDP. So, housing is "the" retirement asset in Spain and retirement solutions providers would better think on how to develop sound retirement income products based on housing rather than hope for households to start accumulating proper retirement assets, at least for a while.

The overall picture on households' Gross Disposable Income (year-on-year change), Consumption (year on year change) and Gross Savings (rate over Disposable Income) is shown in Graph ES1 below. During the crisis (2009-2013), the savings rate oscillated amply around an average of 10.5% of Gross Disposable Income. 2009 and 2013 were precisely the most recessive years of the period. Pre-crisis years (since mid-90s in the last century) savings rate was low reflecting the strong dynamics of private consumption, fuelled by cheap debt and intense employment creation coupled with wage increases. After 2008, the big recession and a twin recession in 2011-2013, lead Spanish households to increase their savings ratio to the top, above 13% in 2009, and keep it close to 10% in the following recessive years. Meanwhile, wages stagnated, and employment continued to fall bringing the unemployment rate above 25% in the through of the second recession, at mid-2013.

Graph ES1. Evolution of household spending and (financial) savings rate



<u>Source:</u> own elaboration based on Banco de España data bank from Boletín Estadístico

By the end of 2018, financial assets owned by Spanish households (and non-profit institutions serving households - NPISH) amounted to € 2.15 trillion, according to the Spanish Central Bank financial balance sheets statistics. That amount represented three times households' Gross Disposable income and almost two times Spanish GDP. They also decreased their investments in financial assets by € 34.5 billion, representing a fall of 1.6% compared to 2017.

If we take a closer look at the distribution of financial assets owned by households in 2017-2018, as shown in Table ES1 below, one can immediately observe that the "cash and bank deposits" class of assets, with € 880.6 billion, takes up to 40.9% of all financial assets held by Spanish households. "Equity" being the second most important financial asset in households' portfolios at € 543.4 billion and 25.3% of total financial assets.

Table ES2. Financial assets held by Spanish households 2018							
	2017			2018			Change (%)
	€ Bn	%	% of GDI	€ Bn	%	% of GDI	
Cash and bank deposits	856.4	39.2%	120.4%	880.6	40.9%	120.0%	2.8%
Investment Fund shares	312.4	14.3%	43.9%	304.6	14.2%	41.5%	-2.5%
Equity	601.8	27.5%	84.6%	543.4	25.3%	74.1%	-9.7%
Pension entitlements	169.2	7.7%	23.8%	163.6	7.6%	22.3%	-3.3%
Insurance schemes	186.8	8.5%	26.3%	193.1	9.0%	26.3%	3.4%
Other	59.2	2.7%	8.3%	66.2	3.1%	9.0%	11.8%
Total	**2,185.8**	**100%**	**307.4%**	**2,151.5**	**100%**	**293%**	**-1.6%**
Pro-memoria: GDI (a)	711.3		100.0%	733.8		100%	3.2%

(a) GDI: Gross Disposable Income
Source: Banco de España

Spanish households suffered a sharp decline in their equity holdings in 2018 (a fall of 9.7% with respect to 2017) and kept their pension entitlements (apart those included in insurance contracts, *vid infra*) slightly below 8% of their total financial assets.

With respect to households' Gross Disposable Income, that increased at a healthy 3.2% in the year, total financial assets decreased their amount by 1.6 pp, keeping notwithstanding their relative nominal size at around three times that magnitude.

Pension Vehicles

Even if, due to the overwhelming presence of Social Security, the room for Pillars II and III is not a very large one in Spain, there is a variety of marketed retirement products. The most standard retirement vehicles are Pension Plans and Insured Pension Plans. Normally, retirement vehicles are provided by financial entities and insurers although a number of professional associations have since long created *Mutualidades* (Mutual Funds) some of which operate even as official alternatives to Social Security for these occupational groups.

Current laws regulating modern Pillars II and III were enacted around 1987-1988. Occupational pensions, that were directly provided by employers to their employees before then, were gradually taken out of company books and entrusted to newly created operators

(*Planes de Pensiones*) and/or integrated into standard vehicles also created by those laws (*Fondos de Pensiones*).

Notwithstanding the fact that Spanish households choose to hold their financial assets in form of bank deposits (and cash, see Table ES2 above), collective investment vehicles kept their place in 2018 at a 26% share of total financial assets, slightly above equity. In 2018, however, total investment in this class of assets diminished for the first time after almost a decade. Holdings of all sub classes, within the broad collective investments class, decreased with pension funds giving a 3.6% of their value away to other investment vehicles and/or to losses.

Table ES3. Total assets managed by *Instituciones de Inversión Colectiva* 2009 – 2018 (€ Mn)

	Investment Funds					Pension Funds	Total
	Investment Funds		Investment Companies		Foreign Inv. Funds		
	Financial	Real Estate	Financial	Real Estate			
2009	163,243	6,774	25,925	309	32,200	84,920	313,371
2010	138,024	6,123	26,155	322	48,000	84,750	303,374
2011	127,731	4,495	24,145	316	45,000	83,148	284,835
2012	122,322	4,201	23,836	284	53,000	86,528	290,171
2013	153,834	3,713	27,331	868	65,000	92,770	343,516
2014	194,818	1,961	32,358	826	90,000	100,457	420,420
2015	219,965	421	34,082	721	118,000	104,518	477,707
2016	235,437	377	32,794	707	125,000	106,845	501,160
2017	263,123	360	32,058	620	168,000	111,123	575,284
2018	257,514	309	28,382	555	168,000	107,033	561,793

Source: INVERCO report on Investment Funds and Pension Funds 2018

Spanish households continue to increase their financial savings, albeit at a slower rate since 2016 when net flows reached levels unseen since 2010. In 2018, particularly, it was deposits, investment funds and insurance (this order) that took the lead while direct investments (for a sixth year in a row) and pension savings (for a fourth year in a row) continued their decline as a preferred saving option. Annual flows for a variety of assets, however, display some volatility in the decade, but pension funds, and more risky assets like direct investments, seem to be losing ground in a more structural way.

Table ES4. Annual flows into financial investments by class 2010 – 2018 (€ Mn)						
	Deposits	Direct investments	Investment Funds	Insurance	Pension Funds	Total
2010	22,897	10,042	-14,603	6,057	2,695	27,088
2011	-1,251	20,618	-4,494	-0,033	-1,697	13,143
2012	3,470	6,707	-8,794	2,843	0,410	4,636
2013	22,072	-39,971	21,140	7,809	0,770	11,820
2014	-11,791	-34,974	36,676	8,638	0,982	-0,469
2015	-3,944	-25,913	34,561	4,129	-0,039	8,794
2016	11,494	-13,738	14,330	10,003	-0,258	21,831
2017	-1,549	-17,667	28,171	5,516	-0,120	14,351
2018	13,000	-16,500	11,000	5,000	-0,500	12,000

Source: INVERCO report on Investment Funds and Pension Funds 2018

Pension Plans

Pension Plans (Planes de Pensiones) are the standard retirement saving vehicle in Spain, albeit only one of many different retirement vehicles. They can be promoted by employers on behalf of their workers, professional associations on behalf of their members or financial institutions for the general public (workers included, of course). Insurance companies also promote Insured Retirement Plans (Planes de Previsión Asegurados, PPA) for the general public and Insured Employers Retirement Plans (Planes de Previsión Social Empresarial, PPSE). These vehicles are basically equivalent to their non-insured counterparts.

Pension Plans are voluntary and complementary to Social Security benefits. They are not integrated in whatsoever way with Social Security. Plans created after 1987 legislation are DC plans but many of previously existing occupational plans, that had to be latter segregated from their parent companies, continue to be DB plans.

Pension Plans may integrate into Pension Funds (Fondos de Pensiones) to reach scale and financial synergy. This is the case of small II Pillar plans and of III Pillar or personal plans. Pension Funds are legal entities, linked or not to financial institutions, obliged by law to contract out their managing and a depositary functions with specialized agents.

Pension Plans in Spain, like in most countries, are tax qualified retirement vehicles. All payments by participants (or in their behalf) are tax-exempt up to a limit, so that compounded interest may play its full magic over larger savings during many years. Benefits are taxed (vid infra). In exchange for this tax treatment, funds cannot be cashed in in advance of retirement, unless some major contingencies happen (redundancy, sickness or long-term unemployment), albeit some extra flexibility has been added recently (*vid infra*). Accrued rights, however, can be switched between managing institutions and/or depositaries at no cost within the individual accounts scheme.

Table ES5 below presents the number of participants (accounts, see note at the bottom of the table) to Pension Funds as of 31st December 2010 and 2018. That decade sums up the recent trajectory of this important complementary retirement income institution in Spain. As of December 2018, slightly more than 9.6 million accounts were integrated in the whole scheme. The individual accounts sub scheme totalled almost 7.6 million accounts, 78.6% of total number of accounts.

Table ES5. Number of participants* (thousands) to Pension Funds 2010-2018

Type of scheme	December 2010		December 2018		
	Accounts*	% of total	Accounts*	% of total	Change 10-19
Associate	78.1	0.7%	62.3	0.6%	-20.2%
Employer-sponsored	2,149.3	19.8%	1,999.8	20.8%	-7.0%
Individual*	8,601.8	79.4%	7,568.8	78.6%	-12.0%
Total	**10,829.2**	100%	**9,631.0**	100%	**-11.1%**

** In the Individual scheme a number of participants tend to have more than one accounts*
Source: INVERCO

The most salient feature displayed in the above table is the drop in the number of accounts since 2010, an 11.1%, shared by all sub schemes but especially relevant (in absolute terms) in the individual accounts sub scheme, that lost more than 1 million accounts in the period.

Correspondingly, as Table ES6 shows, the number of pension plans displays an almost regular decrease al through the present decade. Total number of plans totalled 2,964 in 2010 and 2,523 at the end of 2018, a 14.9% decrease averaging over sub schemes, but most relevant again (in absolute terms) for the individual accounts sub scheme.

Combining these data tells us that the average size of Pension Plans increased in the period from 3.2 thousand accounts per plan to 3.8 thousand, likely making the system more efficient. Even if one cannot get rid of the feeling that the whole scheme has in a way reached a ceiling.

Table ES6. Number of Pension Plans by type of scheme				
As of December 31st	Individual schemes	Employer-sponsored schemes	Associate schemes	Total
2010	1271	1484	209	2964
2011	1342	1442	198	2982
2012	1385	1398	191	2974
2013	1384	1350	187	2921
2014	1320	1330	178	2828
2015	1257	1312	172	2741
2016	1189	1305	164	2658
2017	1107	1291	156	2554
2018	1079	1293	151	2523
Change 2010-2017	-15,1%	-12,9%	-27,8%	-14,9%

Source: INVERCO

If Pillar II schemes (employer-sponsored and associate) represented, as of December 2018, 21.4% of total accounts and 57% of total plans, implying that individual accounts sub schemes are considerably larger than Pillar II plans in terms of number of accounts managed, the former had 32.5% of AuM (Table ES7). This, in turn, implies that average retirement assets per account are also larger within the Pillar II schemes than within Pillar III. Actually, € 9,386 per account in the latter versus € 16,860 per account in the former.[233]

[233] Using standard mortality tables for Spain and assumptions about returns, these amounts yield very low pure lifetime annuities. The annuity a typical individual account could buy retiring at 65 amounts to around € 47 per month and increases up to € 84 in the case of the typical occupational account. This said, retirement savings under these two modalities tend to be larger at retirement age and, within the occupational variety, around half a million

Coming to total AuM for the whole Pension Plans and Funds industry, as of December 2018, this indicator showed a worrying decline, at 3.7% over the preceding year after six consecutive years of increase (Table ES7 below). First, note that a decline has only happened three times in the present decade, now and in 2010-2011, a couple of very critical years. Second, that That AuM for Pension Plans today barely represents 8.9% of GDP.

It can also be seen that around 67.5% of total AuM in these retirement vehicles belong to the Individual accounts sub scheme, representing a mere 6% of GDP. This category of assets has given away a 2.86% of its value over the previous year, compared to a -5.26% for occupational pensions assets.

accounts belong to civil servants and these accounts have almost no vested assets. On the other hand, some associate and employer-sponsored plans, covering dozens of thousands of employees in industry and advanced services, notably in the Basque Country (industry), but also all across Spain for certain services (lawyers or engineers), hold large average retirement accounts.

Table ES7. Evolution of Pension Plans' AuM by scheme (31st December, 2009-2018)							
	Individual schemes		Employer sponsored schemes		Associate schemes		Total
	AuM (Mn)	%	AuM (Mn)	%	AuM (Mn)	%	AuM (Mn)
2009	53.227,99	62,62%	30.783,76	36,21%	992,24	1,17%	85.003,99
2010	52.551,99	62,01%	31.271,99	36,90%	926,27	1,09%	84.750,25
2011	51.141,92	61,51%	31.170,27	37,49%	835,43	1,00%	83.147,62
2012	53.159,83	61,44%	32.572,45	37,64%	795,45	0,92%	86.527,73
2013	57.953,93	62,47%	33.814,83	36,45%	1.000,78	1,08%	92.769,54
2014	64.254,37	63,96%	35.262,11	35,10%	940,16	0,94%	100.456,64
2015	68.011,51	65,07%	35.548,45	34,01%	958,37	0,92%	104.518,33
2016	70.487,41	65,97%	35.436,96	33,17%	920,63	0,86%	106.845,00
2017	74.377,84	66,93%	35.842,91	32,26%	902,53	0,81%	111.123,28
2018	72.247,30	67,50%	33.956,67	31,73%	828,70	0,77%	107.032,67

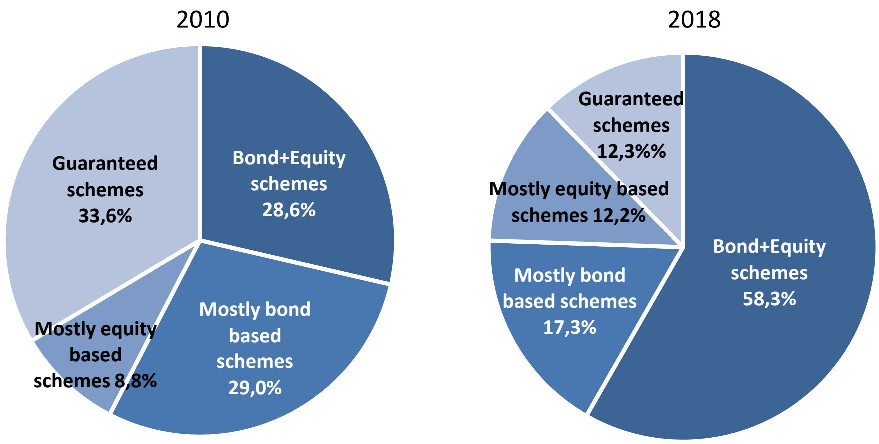
Source: INVERCO

Even if the type of assets in which Pension Funds' assets are invested vary regularly with time, in an effort to increase overall returns for participants, the primary objectives of managers is to do their best respecting the choices of participants concerning the class of assets fonds are invested in.

Typically, Pension Funds offer a variety of risk profiles that participants generally adhere to for some time until they decide to switch their risk profile. This is generally the case of individual schemes, where participants can switch regularly between schemes albeit these schemes remain relatively specialized as for their risk profile as participants come and go. The above implies that all standard asset class must be present in overall portfolios at minimum and maximum thresholds, ranging from mostly bond based schemes to mostly equity-based schemes. Occupational schemes, however, are set with the risk profile established (if at all) by their sponsors and fund managers (or control boards, where employers and workers representatives sit) will have certain freedom to change the risk profile of the fund according to market conditions. Over large period of time then, both participants, with their regular scheme choices, and managers and social partners may induce relevant changes in the asset allocation of pension funds.

Graph ES8 below shows that Spanish Pension Funds are relatively conservative, as one should expect, and allocate more than half their assets to a combination of mostly bond-based and mixed (equity + bond based) schemes. Mostly equity-based schemes have a reduced stance, however.

Graph ES8. Individual scheme's Pension Funds' Investments by asset class 2010 - 2018



Source: *INVERCO*

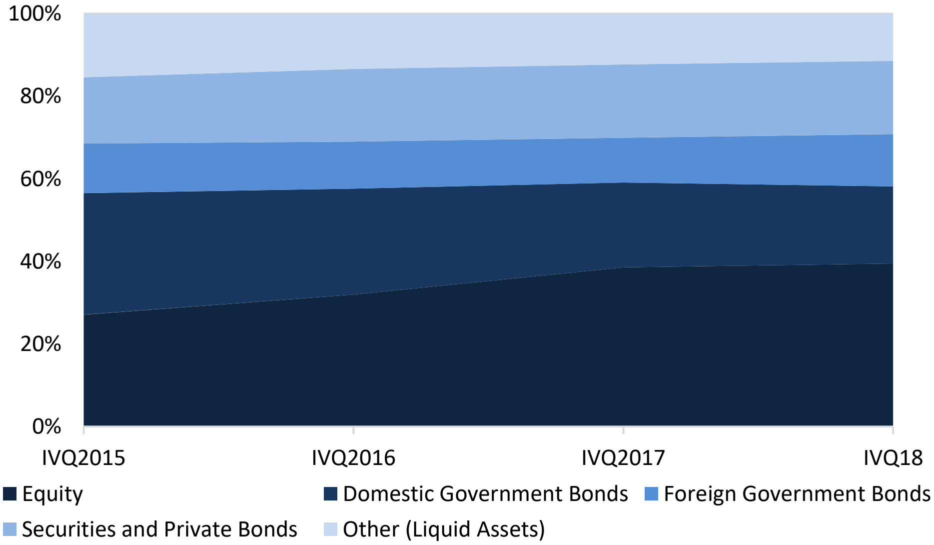
On a shorter-term perspective, asset allocation structure of Pension Funds (all schemes) is more stable and even if relatively biased towards equity (than Individual schemes Funds) as a single asset class, less risky investments continued to dominate the allocative structure by around 60% during 2018.

Table ES9. Pension Funds' Asset Allocation 2018				
	IQ	IIQ	IIIQ	IVQ
Equity	39,8%	40,2%	41,2%	39,5%
Domestic Government Bonds	20,6%	20,1%	18,8%	18,7%
Foreign Government Bonds	11,1%	11,6%	12,1%	12,7%
Securities and Private Bonds	17,2%	17,4%	17,6%	17,7%
Other (Liquid Assets)	11,4%	10,8%	10,2%	11,4%
Total	100%	100%	100%	100%

Source: DGSFP

Even if, as shown in Graph ES10, as a mid-term perspective is adopted, this relative dominance of equity in Pension Funds' allocation is the result of a gradual switch from bonds in the last few years after sovereign debt became less and less rewarding in an ultra-low interest rate scenario. A switch that given 2018 trends in stock markets performance still remains to be seen as a good bet (*vid infra*).

Graph ES10. Pension Funds' Asset Allocation 2015-2018



Life Insurance

Measured by own AuM, the Insurance Industry is a major retirement income vehicles provider in Spain, both for Pillars II and III. Also, a substantial part of Pension Funds' assets is managed by insurers. A salient feature of this trade is the large variety of retirement vehicles that are marketed by the industry. Some of these vehicles are indistinguishable from genuine retirement or pension plans, but for their insurance side, and quite a few are genuine life-saving insurance solutions marketed since old times by the industry and turned into retirement vehicles through a progressive assimilation with the standard vehicle (Pension Plans) firstly regulated in Spain some thirty years ago (*vid supra*). This assimilation has been fuelled by converging fiscal treatments for all these products even if some of them continue to have distinctive features of their own also in this realm.

According to UNESPA, the Spanish Insurers Association, the total life and saving assets under management of the entire insurance sector at the end of 2018 amounted to € 229.65 bn, representing a 1.38% increase over 2017. As for the number of insured persons, 2018 ended with 33.11 million. Not all insured persons and assets under management were covered by retirement and/or pension vehicles, as about 14.7 million insured persons and € 4.7 bn worth of assets were covered by life and savings products not strictly related to retirement. Still, within the retirement and pensions category, around 3.3 Mn insured persons belonged to Pension Plans whose assets, around 41.1 bn, were managed by insurance companies albeit they did not own direct insurance vehicles. Most of the details of these gross numbers can be seen in Table ES11 below.

Table ES11. Insured Retirement and other Retirement-like vehicles 2018							
	Type of Vehicle*	Number of Persons insured (x000)			Assets and technical provisions (Mn Euros)		
		Pillar II	Pillar III	Both Pillars	Pillar II	Pillar III	Both Pillars
Deferred capital	Insured Pension Plans (PPA)		959.9	959.9		12,522.1	12,522.1
	Company Retirement Plans (PPSE)	33.5		33.5	319.2		319.2
Pension Accruals and Insured Saving Vehicles	Life (risk) insurance	2,210.0		2,210.0	506.6		506.6
	Regular Individual Saving Plans (PIAS)		1,679.9	1,679.9		13,161.1	13,161.1
	Individual Long-term Saving Insurance (SIALP)		608.3	608.3		3,769.1	3,769.1
	Deferred capital	267.5	2,833.5	3,101.0	2,817.9	44,376.3	47,194.2
	Annuities**		1,597.2	1,597.2		63,685.1	63,685.1
	Deferred Annuities	215.6		215.6	10,737.6		10,737.6
	Instant Annuities	307.4		307.4	11,651.6		11,651.6
	Unit/Index- Linked	24.6	626.1	650.6	1,351.2	10,169.2	11,520.4
Other Group Insurance Arrangements (retirement-like)	Life (risk) Insurance	3,275.3		3,275.3	1,074.4		1,074.4
	Deferred capital	256.2		256.2	2,311.0		2,311.0
	Life-savings (acc. phase)	21.5		21.5	1,314.6		1,314.6
	Life-savings (pay-out phase)	55.7		55.7	3,275.5		3,275.5
	Unit/Index-Linked	19.8		19.8	699.4		699.4
Total		**6,687.2**	**8,304.8**	**14,992.0**	**36,059.2**	**147,682.8**	**183,742.0**
YoY change		**-3.15%**	**0.10%**	**-1.35%**	**-1.79%**	**3.65%**	**2.58%**
Pro-memoria	Standard Pension Plans (Accounts and AuM)	3,335.09 (YoY change: -5.52%)			41,178.29 (YoY change: -3,91%)		

Note: Individual life insurance and long-term care insurance are not included in these figures.

** Major categories are explained below in the main text*

*** Pillar III Life and Term Annuities, including tax-qualified asset's conversions into annuities in the year*

Source: UNESPA. https://unespa-web.s3.amazonaws.com/main-files/uploads/2019/05/NdP-Seguro-de-Vida-Q1-2019-FINAL.pdf

Table ES11 above also shows indeed a large variety of retirement and pension vehicles offered by the insurance industry and, it can be seen, that even as they share an insurance feature that makes then quite different from the purely financial vehicles (as they try to cope with death uncertainty through actuarial techniques) each vehicle responds to a different need by consumers concerning their risk profiles, fiscal rules applying to them, etc. In what follows, some of these different products are explained.

Insured Retirement Plans (PPA)

The Insured Retirement Plans (PPA or *Planes de Previsión Asegurados*, in Spanish) are the insured counterpart of standard Pension Plans previously discussed. Among all insured retirement (or retirement-like) vehicles, PPAs are the most proper for this purpose. Their features concerning taxes, redeemability or other are thoroughly the same as with Pension Plans, but for the fact that interest and principal risks are taken by the insurer, at a cost naturally. In particular, a known and certain interest rate is attached to this product. Once retirement happens, the insured person gets a life annuity (a lump-sum is also an option). In a way, technically at least, a PPA is basically a pure deferred annuity. Table ES8 shows that almost 1 million individuals have adopted this Pillar III retirement vehicle, with assets amounting to 12.5 bn, a mere 12.5 thousand euros per account.

Company Retirement Plans (PPSE)

Employer-sponsored Group Insurance aiming a complementary retirement benefit, basically deferred capitals type. They are the insured counterpart to the Employer-sponsored Pension Plans (Pillar II), albeit more flexible as they adapt better to SMEs conditions. Table ES8 shows that only 33 thousand workers have been opted in this Pillar II retirement vehicle by their employers, with assets amounting to 319.2 Mn, again a mere 9.5 thousand euros per account.

Regular Individual Savings Plan (PIAS)

Regular Individual Saving Plans (PIAS or Planes Individuales de Ahorro Sistemático, in Spanish) are, again, insured saving plans to which individuals can contribute regularly. If certain conditions are met and savings are not removed after a long period of time, accumulated assets must be converted into a permanent income at very low (and decreasing with age) fiscal cost (interest or capital gains). Table ES11 shows that almost 1.7 million individuals have adopted this Pillar III retirement vehicle, with assets amounting to 13.2 bn, again a mere 7.8 thousand euros per account.

Long-Term Individual Saving Plans (SIALP)

Long-term Individual Saving Plans (SIALP or Seguro Individual de Ahorro a Largo Plazo, in Spanish) are PIAS-like retirement vehicles. The major difference with a PIAS being that they can be cashed both as an annuity or as a lump-sum. 608 thousand individuals have this product totaling € 3.8 bn assets, barely € 6,250 per account.

Charges

Since inception (19987/1988), the current Pension Plans market in Spain has been characterized by large average charges. This said, there are three aspects that need to be cleared right away: (i) the market has always been and continues to be very small and this entails a cost, (ii) Pillar II schemes bear internationally competitive low fees that, given market size, must be cross subsidized with significantly higher fees charged in Pillar III markets, and (iii) fees have been decreasing in the last years due to regulatory pressure on companies.

Data discussed below is eloquent enough about the consequences for savers that stem out of these market conditions. Average fees[234] have been oscillating in the last decade at around 1% of assets under management. Using this figure as a proxy for Total Expense Ratio (TER or total cost ratio for investors), and under basic assumptions, typical investors could bear a Reduction in Yield (RIY) rate of 13%.[235]

As for the insurance part of the retirement market, little is known referring to data directly usable for harmonized comparison, although all relevant data are available in raw from the regulators and the industry itself. The large variety of retirement and pension products available in this market segment, and their varied features complicates enormously the task, however. The work to be done in order to produce directly comparable data cannot be made in the context of this chapter and any initiative to reach that goal should be most welcomed.

Even if regulation itself accounts for part of the extra burden that management and depositary fees pose on consumers, the fact is that a too large chain of intermediaries (managers, commissioners and retailers) end up by adding to the overall cost for the participant. Recently, and regularly, management and depositary fees have been limited by law.[236] These regulations however allow variable fees to be set based on yields, within certain limits.

Table ES12 and Graph ES13 show the evolution of effective average fees charged on Pillars II and III Pension Funds to Plan participants by both managers and depositaries. Note that

[234] management and depository, all classes combined, weighted by market shares
[235] It is assumed that a typical investor increases his or her annual savings in retirement assets at 2% per year, for 35 years; total annual fees (TER) are 1% of AuM at the end of the year. Gross yields of AuM are assumed at 2% per year. Total Expenses (TE) from previous year are detracted from AuM for the next year. RIY ratio is then computed as accumulated TC at year 35 as a percentage of gross AuM at year 35.
[236] Royal Decree 304/2004 established specific limits to management and depositary fees. Royal Decree 681/2014 modified this.

within management fees, as said before, non-straight management fees, but rather retailing fees, may also be included.

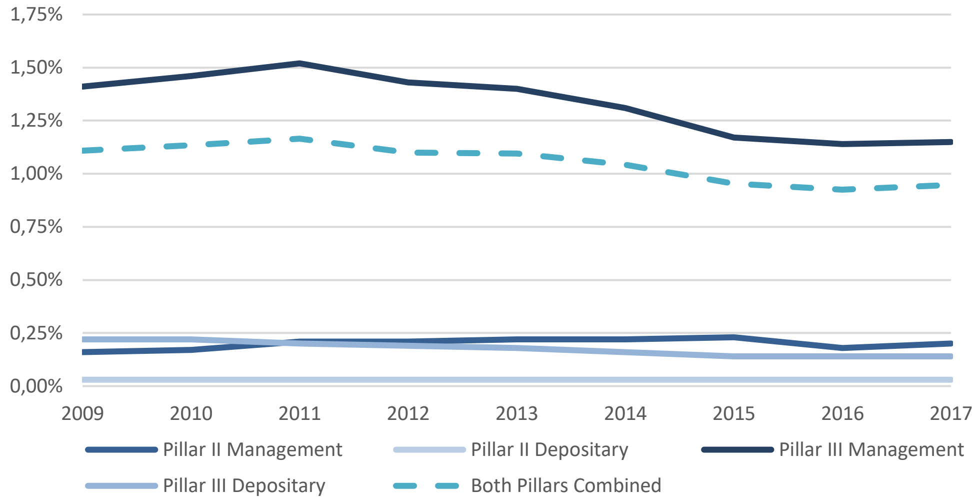
The most salient feature of the data below is, clearly and immediately appreciated at first sight. Pillar II assets (employer-sponsored pension plans) are considerably cheaper to manage. Up to almost 6 times cheaper in recent years, whereas depositary fees, that are comparatively lower in both pillars, continue to be 5 times cheaper in Pillar II as compared to Pillar III. The question remains whether just market scale grants such a seemingly large differences and, ultimately, large fees.

Table ES12. Charges in Pension Funds (as a % of AuM)

	Pillar II		Pillar III		Both Pillars (Weighted average)		
	Manage-ment	Deposi-tary	Manage-ment	Deposi-tary	Manage-ment	Deposi-tary	Both Charges
2009	0,16%	0,03%	1,41%	0,22%	0,96%	0,15%	1,11%
2010	0,17%	0,03%	1,46%	0,22%	0,98%	0,15%	1,13%
2011	0,21%	0,03%	1,52%	0,20%	1,03%	0,14%	1,17%
2012	0,21%	0,03%	1,43%	0,19%	0,97%	0,13%	1,10%
2013	0,22%	0,03%	1,40%	0,18%	0,97%	0,13%	1,10%
2014	0,22%	0,03%	1,31%	0,16%	0,93%	0,11%	1,04%
2015	0,23%	0,03%	1,17%	0,14%	0,85%	0,10%	0,95%
2016	0,18%	0,03%	1,14%	0,14%	0,82%	0,10%	0,93%
2017	0,20%	0,03%	1,15%	0,14%	0,84%	0,10%	0,95%
2018	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Source: DGSFP, Annual Report 2017 (latest available)

Graph ES13. Charges in Pension Funds (as a % of AuM)



Source: Table ES12.

Within this context, industry transparency requirements at the international scale are starting to provide a framework within which generate a comprehensive understanding and common ground for comparison about the cost and the advantages of retirement vehicles as they become increasingly necessary to help cushion the hard landing of Social Security benefits everywhere.

All Pillar III vehicle providers are obliged to advance a Key Information Document (KID) package to their customers. These KID packages are firmly rooted on PRIIPS regulation that is not binding however for pension products. Pillar II products are not obliged to advance a KID package to their customers, albeit they must of course provide information akin to this package.

Taxation

With charges and returns (*vid infra*) taxation is one of the hottest issues around retirement products. But it shouldn't be, think twice. Income must be taxed, but not double taxed. This is unjust and inefficient. One could also admit easily that labor and capital income can be differently taxed, or that tax bases can convey certain policy objectives. But definitely not that the same income concept is taxed twice.

In the absence of ordinary tax allowances for retirement vehicles, as practiced by virtually all countries, that part of income saved for years for future retirement, and the interest earned on that income, would be taxed twice.

This treatment is often referred to as "tax incentives" or "tax gifts", an also often questioned by certain social or political agents as unjust or regressive tax benefits. Nothing less true. The conventional tax treatment to which pension assets and products are subject is generally and admittedly the best way to avoid what otherwise would be a case of odious double taxation of personal income.

The pensions industry must be clear and strong on this if their members want to be perceived as truly looking after the best interest of those who entrust their savings to them. As much as they must be clear and strong, by the way, on transparency, open competition and best efforts concerning charges and returns.

Normally, taxing retirement vehicles means exempting income as it is saved (as well as interest earnings on this income) and taxing benefits as they are cashed. That's the "Exempt-Exempt-Tax" or EET paradigm, the most commonly used in the world. Another way to avoid double taxing of income is to tax contribution and interest and make benefits tax exempt (TTE), but this paradigm is rarely used. In truth, neither pure extreme is actually being used as all countries have some limits to contributions exemption and also some limits to benefits exemption.

Normally too, tax allowances at accumulation of savings are justified because these retirement savings can't be cashed or converted into non-retirement savings before retirement age. Yes, this a legitimate way to justify EET schemes. But again, tax authorities only have to claim unpaid taxes back when savings conversion occurs instead of forcing savers to stay fixed on their products.

Taxing retirement savings and benefits remains in the literature and in practice a much debated issue, just because we don't realize that the best and most fair taxing schedule for these bases should be exactly the same tax regime that Social Security social contributions and benefits enjoy, that is full (or almost full) EET.

Even if standard Pension Plans set the tax norm for many other retirement vehicles, there remain important differences, especially at the pay-out phase, among the pension plans and insurance vehicles. Some of these peculiarities are analyzed below.

Pension Plans

The fact that tax exemptions during accumulation are important is well reflected in the Spanish market as most of the payments into these vehicles happen at the end of the year when investors seek to improve their tax bills by deciding up to what limit bring their contributions to retirement saving plans. This has contributed to locate the only and most important attractive of saving for retirement into the tax treatment of this kind of investments. The limit up to which income saved for retirement under a Pension Plan is free to pay taxes in Spain is currently € 8,000.

When withdrawal of benefits at retirement occurs, there are three possible cases:

(i) Retirement income is retrieved as a lump-sum: after a deduction of 40% from this sum the rest is taxed at the marginal personal income tax rate. No distinction is made between principal and interest earned during accumulation phase.

(ii) Retirement income is retrieved as a life (or term) annuity: this income is considered as wages or labour income and taxed at the marginal personal income tax rate.

(iii) Retirement income is retrieved both as a lump-sum and an annuity (“mixed income”): both tax regimes apply, each of them to the corresponding part of the retirement benefit in the first year.

This said, depending on where each retiree has his or her fiscal residence, the tax bill may change. Spain has its Personal Income Tax scheme split between the Central Government and its seventeen Autonomous Regions. While the Central Government sub scheme applies uniformly for the whole nation, the regional sub schemes have different income brackets and marginal tax schedules, as it is shown in Tables ES14 and ES15.

Table ES14. Personal Income Tax scale and rates - Central Government*		
Tax Base (€)		Nominal Tax Rates**
From	To	
€ 0,000	€ 12,450	9,50%
€ 12,450	€ 20,200	12,00%
€ 20,200	€ 35,200	15,00%
€ 35,200	€ 35,200	18,50%
€ 60,000	-	22,50%

* Spain has several government levels and PIT is roughly split in half between Central and Regional Governments (See Table ES11)

** Only Central Government, only labor income. Interests and dividends are thoroughly taxed at 19%. Effective rates are sensibly lower

Source: Spanish Tax Office (AEAT): *https://www.agenciatributaria.es/static_files/AEAT/DIT/Contenidos_Publicos/CAT/AYUWEB/Biblioteca_Virtual/Manuales_practicos/Renta/ManualRentaPatrimonio2018_V7_es_es.pdf*

Table ES15. Personal Income Tax - Autonomous Regions		
Region*	Top Income Bracket (ordered)	Top Marginal Tax Rate beyond Top Income Bracket
Madrid	53,407.20	21.00%
Castila y León	53,407.20	21.50%
Catilla-La Mancha, Galicia, Ceuta y Melilla	60,000.00	22.50%
Murcia	60,000.00	23.50%
Canarias	90,000.00	24.00%
Cantabria	90,000.00	25.50%
Extremadura	120,000.00	25.00%
Andalucía, La Rioja, C. Valenciana	120,000.00	25.50%
Aragón	150,000.00	25.00%
I. Balears	175,000.00	25.00%
P. de Asturias, Cataluña	175,000.00	25.50%

* Two historical Autonomous Regions (Navarra and The Basque Country) are exempted from the Common Tax Regime. Two Autonomous Towns are included (Ceuta and Melilla)

Source: Spanish Tax Office (AEAT, See Table ES14 for reference link)

Life insurance products

Since 1999 premiums paid into insured saving are not tax exempt. Retirement capitals or income from these vehicles are not taxed except in its interest and capital gains part. These capital gains are integrated into the savings tax base and subject to a tax rate schedule of

19% up to the first € 6,000, 21% from € 6,000 to € 50,000 and 23% beyond € 50.000. When benefits are paid as annuities, the tax rate depends on the life of the annuity and the age of the annuitant when payments began. In case of death of the annuitant, with remaining capital reverting to them, heirs will have to pay inheritance tax, which may vary considerably depending on the region they have their fiscal residence, as this tax lies within the regional jurisdiction.

Insured Retirement Plans (PPA)

This vehicle has a similar tax treatment as standard Pension Plans, Contributions to these plans are tax exempted up to an annual limit of € 8,000 and benefits are taxed as labor income taking into account the recipients age at retirement. Capital gains are subject to a dual income tax scheme. The tax regime of this vehicle thus can be said to be of the EET kind.

Regular Individual Savings Plan (PIAS)

PIAS are a more flexible vehicle than Pension Plans and PPAs, also from the point of view of taxation. As a retirement saving vehicle, annual contributions to it are fully tax deductible up to a limit of € 8,000 per year, as with Pension Plans and PPAs. There is also a global limit for this type of saving plan: € 240,000. Savers can only own one PIAS. At the pay-out phase, if income is received as a lump-sum, taxation intervenes as usual through the dual income tax for labour income (principal) and capital gains income (returns).

But if retirement income is retrieved as a life annuity, capital gains are 100% exempt and principal is taxed according to a rapidly diminishing rates schedule. PIAS can be cashed in well before ordinary retirement age, but when cashed after age 65 the tax rate is 20% falling to 8% when cashed after age 70.

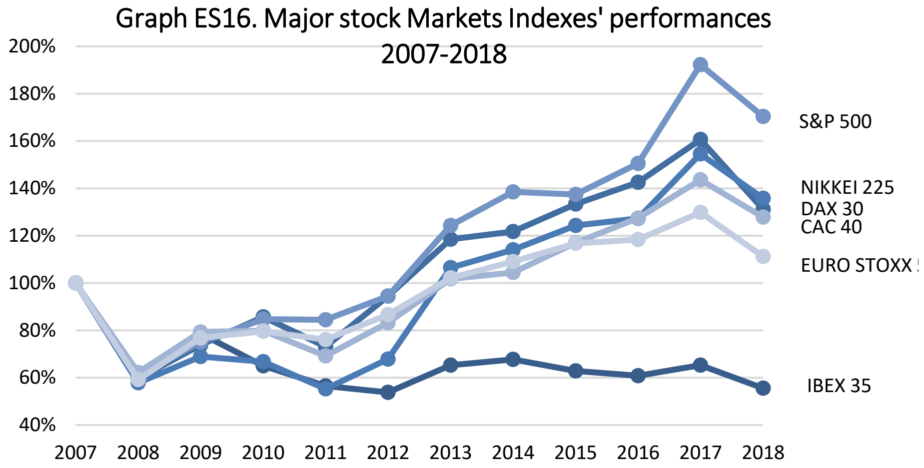
The € 240,000 limit for total saving under a PIAS is relevant here for as from 2015 individuals aged 65 or more who liquidate any asset they may own (financial, real estate, art works, etc) to buy a life annuity have related capital gains fully exempted from the dual income tax.

Returns

Spanish capital and debt markets returns

In 2008 major world stock indexes suffered a 40% loss with respect to the previous year. That was a catastrophe. All asset classes linked to stock suffered accordingly. Hundreds of thousands of workers in advanced countries had to postpone their retirement because these losses would mark the value of their retirement incomes for the rest of their lives nearing them to poverty at old age. Most of these stock markets recovered the 2007 line by 2012-

2013, But the Spanish stock market has not yet recovered even the 2008 bottom-line. This can be seen in Graph ES16 below.



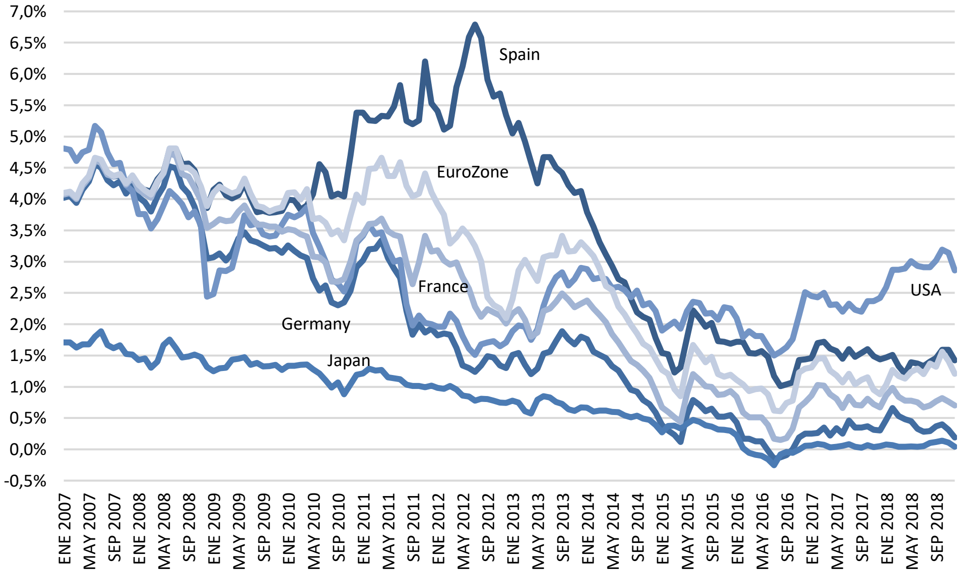
Source: INVERCO and WSJ Database

Happily enough (unfortunately), Spanish workers have their retirement savings well away from the stock market. In fact, Spanish workers have no (relevant) retirement assets at all as we have been arguing so far. Spanish workers have no relevant retirement savings because they have large Social Security implicit wealth as pension benefits replace gone labour income above 80%. But that's a mere expectation.

In the period 2007-2018 the S&P 550, for instance, grew by around 70%, or 30% in the case of the German DAX 30. The Spanish IBEX 35, in 20118, stood on average at 55% of its 2007 value.

Sovereign debt markets in advanced countries, on the other hand, haven't been less turbulent. Provoking real roller coaster effects in associated assets and savings. Spanish 10y bond yields, in particular, reached intervention levels in 2012, at 679 bpts in August. Only a financial sector rescue package saved the sovereign market from Brussels intervention, at a cost naturally. See Graph ES17 below.

Graph ES17. Major Sovereign Bond Yields (10 years) 2007-2018



Source: Bank of Spain

Since May 2015, the ECB succeeded calming lenders and sovereigns entered into a considerably quieter environment. As for now (June 2019) USA, Japanese and German 10y bonds are quoted at around 2.0%, -0.14 and -0.32% respectively. Spanish 10y bonds are quoted at 0.4%.

All in all, any retirement vehicle has to be invested in a mix of stocks, debt and monetary assets and the performance of these underlying assets determines the returns of those savings. As for vehicles set in advanced countries, the recovery of Stock markets and the strong appreciation of bonds has undoubtedly been a blessing provided that management has profited efficiently from these conditions. In Spain, stock and bond markets have performed quite differently than elsewhere and retirement savings returns have followed suit. The hope, and rather the hope, for the Spanish market is that stocks initiate a clear recovery soon and the challenge is that the recovery of debt yields, if it comes at all in the foreseeable future, do not take bond investments to a crash. Some degree of non-cushioned hard landing lies ahead.

Retirement assets' performance (standard Pension Funds)

One of the salient features of the Spanish retirement vehicles market is the large variety of solutions marketed and the small size of the overall market, let apart the small significance of some of its segments. This may seem hard saying, but a way must be found to substantially enlarge the number of workers covered and the size of per account assets.

So far, as it is shown in the tables below, savings have managed to maintain their purchasing power with few exceptions performing better. Undoubtedly, even if a crude one, the key factor calling into or keeping Spaniards in the complementary retirement savings system is tax deferral (and the locking-in effect it creates), and not as much the real, after fees yields of these assets.

However, all the evidence produced below belongs to the standard Pension Plans system, not to insured retirement vehicles, due to data limitations. All data comes basically form the web site of INVERCO, the Spanish body representing Mutual Investment Institutions and Pension Funds.

Notice, nevertheless, that retirement products insurance comes at an additional cost (with respect to purely financial vehicles) due to the intrinsic nature of both guaranteeing assets' value, on the one hand, and mutualising longevity, on the other. Even if insurers are good performers also in terms of assets management and enjoy the very long-term premiums of the underlying matching assets they invest in, they need to beat the insurance extra cost that these products embody.

Table ES18 contains the basic information concerning Pillars II and III Pension Funds. Returns are labelled "gross", "net" and "real". Gross means before management and depositary fees and commissions (retailing and other transaction costs are disguised here), net means after management and depositary fees and commissions, being nominal returns, and real means after fees and inflation. At first glance, positive net nominal returns dominate the landscape, and even net real returns, with some years at really good returns on assets invested. On historical basis, average cumulative real returns continue to be clearly positive (INVERCO).

2018, however, was a bad year for investments returns of all sorts, particularly the stock market, with two digits negative returns in some classes, but debt markets also performed on the negative (*vid infra*).

Table ES18. Returns of Spanish Pension Funds (before taxes)						
	Pillar II			Pillar III		
	Gross Return	Net Return	Net Real Return	Gross Return	Net Retrn	Net Real Return
2009	9.47%	9.28%	8.38%	10.39%	8.76%	7.86%
2010	2.21%	2.01%	-0.86%	0.25%	-1.43%	-4.30%
2011	0.24%	0.00%	-2.35%	0.50%	-1.22%	-3.57%
2012	8.28%	8.04%	5.03%	7.29%	5.67%	2.66%
2013	7.95%	7.70%	7.39%	10.30%	8.72%	8.41%
2014	7.39%	7.14%	8.27%	7.77%	6.30%	7.43%
2015	3.14%	2.88%	3.01%	2.52%	1.21%	1.34%
2016	2.95%	2.74%	1.33%	2.97%	1.69%	0.28%
2017	3.42%	3.19%	1.97%	3.85%	2.56%	1.34%
2018	-2.96%	-3.19%	-4.42%	-3.19%	-4.48%	-5.71%

Note: Gross Returns are returns before management and depositary charges, Real Returns are computed using the Spanish HCPI published by Eurostat. See Table ES19 for cumulative and average returns

Source: INVERCO

A more vivid landscape emerges when overall returns are followed through time with the help of average cumulative returns computations as presented in Table ES19. This time overall returns for the entire Pension Funds' system are presented and the cumulative perspective is based in 2000. Average cumulative returns at any particular year are thus for the period "2000-that year".[237]

In the period 2000-2018, cumulative nominal returns for Pension Funds reached a 151.66 level (base 100 in 2000) and an annual cumulative nominal return of 2,34%. This return is net (after charges) for savers, but inflation must be taken into account. When this is done, cumulative real returns are virtually equal than the base (100 in 2000) so that nominal returns just helped to match inflation since 2000 to present. The corresponding average cumulative real rate is thus 0,06% for the period. Note that inflation has been negative in four years in the period and moderate over the rest of years. Actually, at an average rate of exactly 2.34%, that is the average net nominal rate of return in the period previously discussed.

[237] Average cumulative returns for the last 3, 5, 10 or 15 years at 2018 or at any other year can be easily computed using the cumulative return data in the corresponding column in Table ES13.

Table ES19. Returns of Spanish Pension Funds (after charges and before taxes)							
	Nominal Returns*			Real Returns*, **			Harmonised Consumer Price Index
	YoY Return	Cum. Return	Average since 2000	YoY Return	Cum. Return	Average since 2000	
2000	2.95%	102.95	2.95%	-1.05%	98.95	-1.05%	4.00%
2001	-2.07%	100.82	0.82%	-4.58%	94.41	-5.59%	2.51%
2002	-4.77%	96.01	-2.02%	-8.78%	86.12	-7.20%	4.01%
2003	5.79%	101.57	0.52%	3.10%	88.79	-3.89%	2.69%
2004	4.51%	106.15	1.50%	1.23%	89.88	-2.63%	3.28%
2005	7.21%	113.80	2.62%	3.49%	93.02	-1.44%	3.72%
2006	5.23%	119.75	3.05%	2.51%	95.36	-0.79%	2.72%
2007	2.08%	122.25	2.91%	-2.20%	93.25	-0.99%	4.28%
2008	-8.07%	112.38	1.47%	-9.52%	84.38	-2.10%	1.45%
2009	7.70%	121.03	2.14%	6.80%	90.11	-1.15%	0.90%
2010	-0.13%	120.88	1.91%	-3.00%	87.42	-1.34%	2.87%
2011	-0.76%	119.96	1.67%	-3.11%	84.70	-1.50%	2.35%
2012	6.59%	127.86	2.07%	3.58%	87.73	-1.08%	3.01%
2013	8.36%	138.55	2.54%	8.05%	94.80	-0.41%	0.31%
2014	6.92%	148.14	2.85%	8.05%	102.44	0.17%	-1.13%
2015	1.78%	150.78	2.78%	1.91%	104.39	0.29%	-0.13%
2016	2.04%	153.85	2.73%	0.63%	105.05	0.31%	1.41%
2017	2.77%	158.11	2.73%	1.55%	106.68	0.38%	1.22%
2018	-4.08%	151.66	2.34%	-5.31%	101.02	0.06%	1.23%

* *Cummulative and average returns (since 2000) are non-weighted.*

** *Real Returns are computed using the Spanish HCPI published by Eurostat*

Source: INVERCO

The overall picture shown in the table above, however, hides a much richer detail of returns by type of retirement scheme and asset class it is invested in. Tables ES20 to ES22 offer this detail.

Pillar II Pension Funds are much cheaper to manage, as seen before, and obtain a larger net nominal return as seen in Table ES20. Particularly those of the associate segment, a minor one, nevertheless. Average cumulative nominal returns are 1.67, 2.91% and 2.70% over the 2000-2018 period for, respectively, individual, associate and employer-sponsored plans. A 34.61%, 67.64% and 61.60% cumulative return over the entire period. Once inflation adjusted, average real returns are only slightly above overall system return, namely 0.39, 0.63% and 0.41% for, respectively individual, associate and employer-sponsored plans.

Table ES20. Returns of Spanish Pillars II and III Schemes (after charges and before taxes)						
	Individual PLANS		ASOCIATE PLANS		OCCUPATIONAL PLANS	
	Nominal	Real	Nominal	Real	Nominal	Real
2000	-2.70%	-6.70%	0.93%	-3.07%	-3.62%	-7.62%
2001	-3.36%	-5.87%	0.10%	-2.41%	0.64%	-1.87%
2002	-5.45%	-9.46%	-3.84%	-7.85%	-3.72%	-7.73%
2003	5.10%	2.40%	5.61%	2.92%	6.73%	4.04%
2004	3.78%	0.50%	6.56%	3.28%	5.52%	2.24%
2005	6.41%	2.69%	9.49%	5.77%	8.39%	4.67%
2006	5.04%	2.32%	8.16%	5.44%	5.36%	2.64%
2007	1.80%	-2.48%	3.05%	-1.23%	2.44%	-1.84%
2008	-6.44%	-7.89%	-11.10%	-12.55%	-10.50%	-11.95%
2009	8.76%	7.86%	9.23%	8.33%	9.28%	8.38%
2010	-1.43%	-4.30%	0.95%	-1.92%	2.01%	-0.86%
2011	-1.22%	-3.57%	-1.11%	-3.46%	0.00%	-2.35%
2012	5.67%	2.66%	6.94%	3.93%	8.04%	5.03%
2013	8.72%	8.41%	9.51%	9.20%	7.70%	7.39%
2014	6.30%	7.43%	6.88%	8.01%	7.14%	8.27%
2015	1.21%	1.34%	2.57%	2.70%	2.88%	3.01%
2016	1.69%	0.28%	2.45%	1.04%	2.74%	1.33%
2017	2.56%	1.34%	2.99%	1.77%	3.19%	1.97%
2018	-4.48%	-5.71%	-4.32%	-5.55%	-3.19%	-4.42%
Cum. 2000-2018	34.61%	7.33%	67.64%	11.95%	61.60%	7.70%
Average 2000-2018	1.67%	0.39%	2.91%	0.63%	2.70%	0.41%

Source: INVERCO

Given the performance of Pillar II pension funds and the overall system performance just discussed, the conclusion emerges that Pillar III funds must have performed in the period at below zero rates of return once inflation properly factored in in the corresponding computations.

Being this, indeed, the case, it is interesting to look at the asset class these funds are invested in as these schemes' managers have more flexibility than occupational schemes' managers, rather more constrained by social partners' presence in control boards of these Plans.

Table ES21 shows returns of debt-based Individual Funds (Pillar III). Due to higher charges (already netted out in table's data), net returns are sensibly poorer to those of occupational funds, were charges are typically 6 times lower. After inflation adjustment, real returns show a dominant negative pattern that, in averaged cumulative terms over the 2000-2018 period, translate into real investment returns that range between -0.4% for Long-term debt-based funds to -1.54% mixed debt-based funds. Average nominal returns cannot beat the 1.8% mark in the best performing case, that od the long-term debt-based funds. Before charges, however, returns for Pillar III funds' investments aren't that different from returns for Pillar II funds' investments.

Table ES21. Returns of Individual Pension Plans - (After charges and before tax)

	Short-Term Debt		Long-Term Debt		Mixed Debt	
	Nominal	Real	Nominal	Real	Nominal	Real
2000	3.83%	-0.17%	0.68%	-3.32%	-2.20%	-6.20%
2001	3.64%	1.13%	0.62%	-1.89%	-2.41%	-4.92%
2002	3.83%	-0.18%	0.73%	-3.28%	-5.16%	-9.17%
2003	1.95%	-0.74%	2.62%	-0.07%	3.92%	1.23%
2004	1.77%	-1.51%	1.92%	-1.36%	3.16%	-0.12%
2005	1.04%	-2.68%	1.78%	-1.94%	5.33%	1.61%
2006	1.26%	-1.46%	0.34%	-2.38%	3.58%	0.86%
2007	1.94%	-2.34%	0.75%	-3.53%	1.32%	-2.96%
2008	2.13%	0.68%	2.03%	0.58%	-8.79%	-10.24%
2009	1.80%	0.90%	3.96%	3.06%	6.05%	5.15%
2010	0.64%	-2.23%	0.47%	-2.40%	-1.54%	-4.41%
2011	1.38%	-0.97%	1.39%	-0.96%	-2.21%	-4.56%
2012	3.47%	0.46%	4.79%	1.78%	5.41%	2.40%
2013	2.08%	1.77%	4.66%	4.35%	6.11%	5.80%
2014	1.37%	2.50%	8.93%	10.06%	3.61%	4.74%
2015	-0.20%	-0.07%	-0.46%	-0.33%	0.78%	0.91%
2016	0.20%	-1.21%	1.25%	-0.16%	0.71%	-0.70%
2017	-0.11%	-1.33%	0.11%	-1.11%	1.50%	0.28%
2018	-1.79%	-3.02%	-2.01%	-3.24%	-4.78%	-6.01%
Cum. 2000-2018	134.72	89.85	140.15	93.14	113.57	75.18
Average 2000-2018	1.58%	-0.56%	1.79%	-0.37%	0.67%	-1.49%

Source: INVERCO

As for Pillar III funds mostly invested in stock, Table ES22 contains further and final evidence telling us that by no means returns for this category can be said to be better than those of debt-based investments. Indeed, average real returns to mostly stock-based investments, as shown in Table ES22 below, border the -2% threshold over the 2000-2018 period. Only guaranteed funds manage to obtain a healthy 1.09% real return in the last two decades, a 3.28% nominal return and a cumulative 84.7% cumulative nominal return over the entire period.

Table ES22. Returns of Individual Pension Plans - (After charges and before tax)

	Stocks Mixed		Stocks		Guaranteed	
	Nominal	Real	Nominal	Real	Nominal	Real
2000	-4.97%	-8.97%	-10.60%	-14.60%	9.22%	5.22%
2001	-7.73%	-10.24%	-16.30%	-18.81%	0.35%	-2.16%
2002	-17.20%	-21.21%	-30.10%	-34.11%	5.04%	1.03%
2003	8.70%	6.01%	16.18%	13.49%	5.67%	2.98%
2004	5.60%	2.32%	8.88%	5.60%	4.66%	1.38%
2005	12.16%	8.44%	18.73%	15.01%	4.64%	0.92%
2006	10.09%	7.37%	18.30%	15.58%	1.44%	-1.28%
2007	2.96%	-1.32%	3.93%	-0.35%	1.48%	-2.80%
2008	-23.80%	-25.25%	-38.40%	-39.85%	0.68%	-0.77%
2009	14.21%	13.31%	27.20%	26.30%	3.77%	2.87%
2010	-0.82%	-3.69%	1.63%	-1.24%	-3.96%	-6.83%
2011	-7.01%	-9.36%	-10.40%	-12.75%	1.15%	-1.20%
2012	8.62%	5.61%	10.43%	7.42%	5.48%	2.47%
2013	12.51%	12.20%	22.19%	21.88%	9.41%	9.10%
2014	4.77%	5.90%	7.63%	8.76%	11.37%	12.50%
2015	2.50%	2.63%	5.58%	5.71%	0.27%	0.40%
2016	2.70%	1.29%	4.34%	2.93%	2.12%	0.71%
2017	4.54%	3.32%	8.83%	7.61%	0.41%	-0.81%
2018	-6.55%	-7.78%	-10.10%	-11.33%	0.41%	-0.82%
Cum. 2000-2018	111.97	73.74	72.42	70.19	184.70	123.62
Average 2000-2018	0.60%	-1.59%	-1.68%	-1.85%	3.28%	1.12%

Source: INVERCO

Investment strategies

Returns discussed in the previous section are indeed varied. Their diversity, of course, is rooted in a couple of basic factors: (i) the assets in which retirement funds are invested in and (ii) the strategies managers deploy, given the portfolio, in order to get a high return for their customers. In general, few facts can be established concerning the data described above:

- For the for the 2000-2018 period, overall nominal (after charges) returns for Pillars II and III pension funds combined have been 2.34% and real returns have been 0.06%, nominal and real respectively, that is, a 228 basis points difference given to inflation.
- In the last decade (2009-2018), for Pillar II pension funds, with (unweighted average) gross nominal returns of 4.21%, net returns of 3.98% and real returns of 2.28%, 23 basis points have been given to management and depositary costs and 120 basis points to inflation.
- For Pillar III pension funds, in the same period, with (unweighted average) gross real returns of 4.27%, net returns of 2.78% and real returns of 1.58%, 149 basis points have been given to management and depositary costs and 120 basis points to inflation. So that charges have been 126 basis points larger for Pillar III vehicles than for Pillar II ones.
- Normally, in Spain, up to six different regular portfolio classes exist ranging from almost-only debt to almost-only stocks and guaranteed funds. Returns (net of charges) within these broad categories, for the 2000-2018 period, (annual cumulative) nominal returns have been 1.58%, 1.79% and 0.67% for, respectively, short-term, long-term and mixed debt vehicles and 0.60%, -1.85% and 3.28% for, respectively, mixed stocks, almost-only stocks and guaranteed funds.

As a clue for the reasons behind the widely varied results just discussed, several ones are rather canonical irrespective of managers' success. Long-term debt yields more than long-term debt, debt is less volatile than stocks and thus less risky and managers' fees are smaller for Pillar II vehicles than for Pillar III ones. The superior returns of guaranteed funds however defy common sense as these should bear some extra cost due to the guaranty they embody.

So, to what extent managers have been responsible for the less than mild results that pension funds have obtained in Spain in the last two decades since 2000? To answer this question, one should go fund by fund and manager by manager, which is not the purpose of this chapter[238], but few general comments can be made. Guaranteed funds, that accounted for 12.3% of Pillar III total assets in 2018 (33.6% in 2010) have been much more profitable for participants than the rest, while assumedly they are more expensive to run due to the insurance coverage they embody. On the other hand, Pillar III vehicles are considerably more charged by management fees than their Pillar II counterparts.

Managers in Spain may be restricted by the rigid asset structure in the established portfolios within Pillar III, but they are rather more free (within the limits set by internal control bodies)

[238] See Fernández y Fernández-Acín (2019).
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3319461

in what concerns Pillar II vehicles, and indeed, yields in this two broad categories differ by 103 basis points in favour of the latter. All categories or retirement vehicles invest rather shyly in foreign assets with only few funds specialising in these assets. Superior returns in foreign assets however are by no means assured and this investment strategy has extra costs anyway. Guaranteed funds' managers, finally, which are considerable more free than their non-guaranteed counterparts (being the same managers eventually) and, besides, do not have to face internal control bodies like their Pillar II counterparts, seem to have profited from this conditions to obtain a considerably larger returns for their vehicles' participants.

Conclusion

Spanish retirement assets, through standard Pension Plans are a mere 8.9% of GDP. Insurance retirement (and retirement-like) assets and provisions, a large array of different products not equally qualified as retirement vehicles) could add another 15% GP points to standard Pension Plans. This, by all standards, is a small pensions industry even if some 9 million individuals participate in Pension Plans and some 15 million individuals are covered by insurance vehicles. Assets, technical provisions or other retirement rights barely reach € 10,000 per person making the whole system an insufficient complement, let alone an alternative, to Social Security pensions. Unfortunately, this state of affairs is common to many other European countries.

The retirement vehicles market in Spain, however, has a rich structure of agents, products and retirement schemes that, on paper, should be able to cover the entire work force and beyond. Two tightly related factors prevent this to happen: the pervasive presence of Social Security pensions, whose old-age variety replaces lost labour income at retirement by above 80% and the reluctancy of employers to sponsor retirement schemes for their employees because of costs reasons.

This Spanish pension report, apart general descriptions of the landscape, has gone with a certain detail through some of the most salient features of our Pillars II and III arrangements on, basically, three crucial dimensions: (i) charges, (ii) taxes and (iii) returns.

On charges, we find that these are rather large on average, only because the Individual schemes are considerably costlier to manage than occupational ones. The latter keep their charges very low in line with what is observed in other more advanced countries. Actually, thanks to intense regulatory effort in the last few years, charges to the Pillar III schemes have decreased clearly. A continuation of this trend, without a significant increase in market size, seems far less clear.

On taxation, Spain has an EET tax regime for retirement assets and incomes, which is the standard in most countries in the world. This is the right way to avoid odious double taxation and no tax expert would have any doubt about its convenience. This means that tax treatment of pensions should not be seen as gifts or favours, but as mere tax deferral. And also, it means that some ceilings to tax deductibility may be too low or even arbitrary. Less understandable is still the push among political and social agents to dismantle this deferral. This said, tax deferral in Spain is seen by most agents participating in the system, be they workers, insured persons or even managers and retailers, as the only reason to buy/sell these products. A cultural trait that may explain, jointly with the abovementioned ones, the poor development of Pillars II and III in our country.

On returns, it has to be admitted that performance to date, since 2000, has been barely enough to just beat inflation. A result that many will find poor. Nominal returns are loaded with heavy charges, as mentioned before, but before charges returns are not that terrible. Again, it is taxes that come in to help many participants to reach the conclusion that it is still worth putting their money into this vehicle, despite the illiquid nature of most of these schemes. Participants' *revanche*, however, takes the form of a strategic game in which they allocate just enough money every year to these investments as to exhaust the fiscal way, no more. And this just for some of them, as the rest of participants cannot perhaps afford to put more money into their complementary pension pots.

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