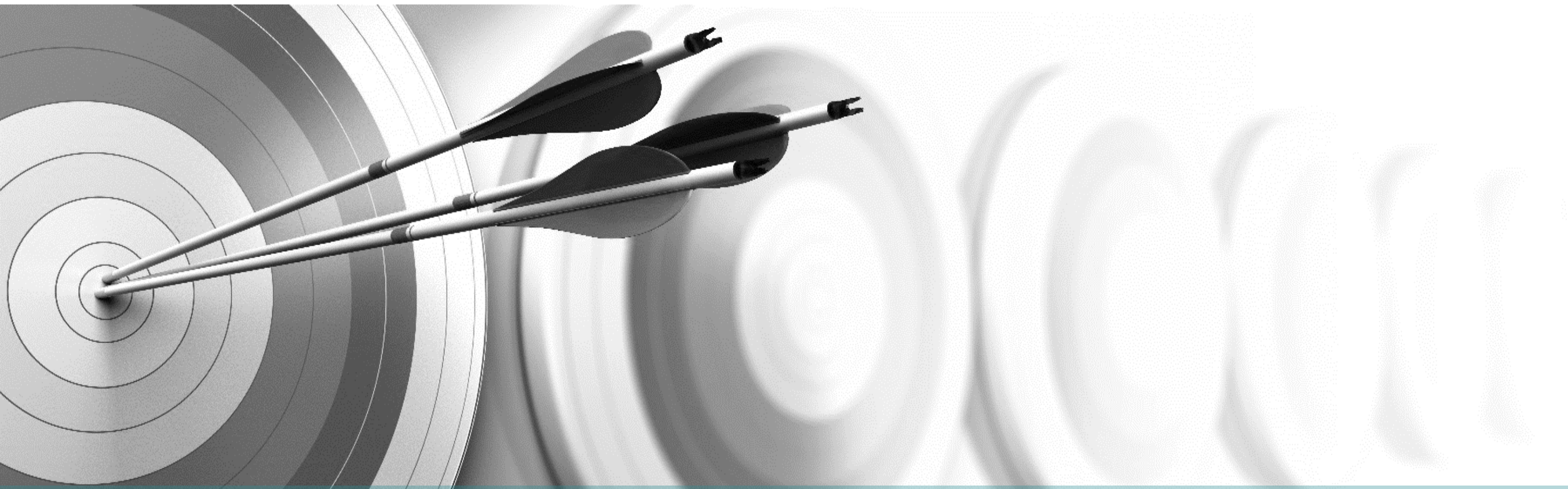

Task Force Report | April 2020

ASSET ALLOCATION IN EUROPE

Reality vs. Expectations

CHAIRMAN Jean-Pierre Pinatton RAPPORTEUR Cosmina Amariei

Contents

Disclaimer

This Task Force was organised by CEPS and ECMI as part of an independent research agenda.

A set of sound and clear principles has guided the entire proceedings in order to preserve an impartial approach to divergent opinions. The Chairman steered the dialogue among the various stakeholders in a constructive manner and provided valuable guidance throughout the entire drafting process. The Members were given ample opportunity to provide input at various stages and make sure their views are accurately reflected in the report. However, the content of this report should be attributed solely to the Rapporteur and not to ECMI, CEPS as institutions or any individual member/expert, observer or guest-speaker.

The report relies extensively on the discussions from dedicated meetings and workshop, bilateral consultations/review, secondary/desk research and empirical findings from recent external studies at ECMI. In addition, a series of debates on sustainable finance was organised separately from the main Task Force. The policy recommendations follow closely relevant market practices and regulatory developments.

It is beyond the scope of this report to suggest any specific savings or investment strategy to address the impact of the health crisis on the real economy and the financial sector at large.

Note. The external experts featured in the annex participated in their personal capacity and may not necessarily endorse the report in its entirety or subscribe to the full list of recommendations and/or overall conclusions.

Amariei, C. (2020). Asset Allocation in Europe: Reality vs Expectations, CEPS-ECMI Task Force Report, Brussels, April 24.

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FOREWORD

Our economic, social, financial and political environment is in a constant state of flux.

Changes are taking place at an ever-faster pace and sometimes in a brutal fashion. This results in substantial volatility in financial markets and the investment vehicles available to investors seeking to manage their savings efficiently. It also explains why asset allocation has become a key factor for anyone trying to generate a satisfactory return for a given level of risk. Changes in asset allocation have become as important as arbitrage between individual securities.

What does Asset Allocation mean and for whom?

Retail investors must first choose where their savings are going to be placed: in a securities account with a bank or a broker? In a life insurance contract? Via contributions to a pension fund public or private system? They will then have to decide to invest directly in securities or through mutual funds and ETFs.

Numerous criteria are used in the decision-making process: safety, liquidity, FX risk, taxation, estate, trust in their advisor. Retail investors must also decide whether they have the time and expertise to manage their investment or if they prefer instead to give a discretionary mandate to a professional. But even in this case, they will have to guide the manager by expressing their criteria in terms of risk and investment horizon.

For professional fund managers, asset allocation criteria are a direct consequence of the investment strategy disclosed in the documentation of the vehicle that they manage. The manager of a UCITS fund that signalled the intention to try and beat the market by investing in large-cap stocks will have to suffer market downturns; his/her options are limited to the choice of stocks and the possibility of acquiring an edge if this has been authorised in the documentation. The manager must also consider the constraints resulting from the liquidity offered to the units' holders.

In contrast, a portfolio manager in a pension fund can take advantage of the considerable stability offered by the long-time horizon adopted by its subscribers.

The manager of discretionary accounts or of a diversified investment fund will have to achieve the level of volatility expected by the client by mixing equities, fixed income securities, cash, alternatives as well as the choice of the individual security in each category.

Asset allocation for insurance companies is impacted by prudential and accounting rules, which in turn may limit their ability to invest in equity instruments.

Faced with this immense diversity of situations, the present report does not aim to provide guidance for asset allocation but rather to describe the various aspects that affect asset allocation in Europe.

With an unwavering focus on the protection of retail investors, European regulation tries to provide for the harmonisation and quality of products across the European Union. It is, however, confronted with the diversity of local situations: tax treatment, pension systems, distribution networks, securities market development, levels of financial knowledge, etc. It is therefore difficult, at the European level, to guide savings in any one specific direction, for example, towards the financing of SMEs.

Asset allocation is, furthermore, increasingly set to include ESG factors, which are often requested by investors. A global approach is therefore necessary to remove barriers and encourage efficient asset allocation that will protect investors and finance the development of all types of companies.

This will be the challenge of the new Capital Markets Union.

Finally, I wish to express my gratitude to the several experts and numerous members of the Task Force, as well as observers and guests, who have actively contributed throughout the proceedings. A special thanks goes to Cosmina Amariei who, as Rapporteur, coordinated all the contributions and wrote the final report.

Jean-Pierre Pinatton
Member of the Supervisory Board, ODDO BHF

INTRODUCTION

In Europe, capital markets are expected to play a more prominent role in corporate financing, retail/institutional saving/investment and private risk-sharing altogether.

In the current institutional cycle, CMU remains as relevant as ever. However, it needs rethinking at EU level and real commitment from member states. The capacity of capital markets to enhance the resilience of our societies as a whole, especially when confronted with unprecedented shocks, should certainly be given more thorough consideration.

In order to contribute to the public debate, CEPS and ECMI invited relevant stakeholders– policymakers, supervisors, consumer associations, industry representatives, and academics – to take part in a dedicated Task Force on "Asset Allocation in Europe: What challenges and opportunities lie ahead?".

The main objective of our initiative was to explore meaningful ways of activating long-term savings and investment channels across the EU, with a focus on households, asset/fund managers, insurers and pension funds, under the overarching theme of sustainability in the real economy. The recent developments related to COVID-19 were also taken into account.

To this end, we invite you to read the analytical sections in this final report as well as the accompanying list of recommendations.

Cosmina Amariei
Researcher, European Capital Markets Institute

EXECUTIVE SUMMARY*

RETAIL INVESTORS

- There is significant potential for activating retail savings in capital markets across Europe. Less advantaged households should be prevented from making allocation mistakes and protected against the mis-selling of products. Public and private efforts on the financial education front should be complemented by progress on delivering affordable/unbiased investment advice and more open distribution channels.

- The extent to which retail investors can easily gain access to equity (public or private markets) should be carefully analysed, i.e. identifying market and regulatory hurdles and promoting investment solutions at national and EU levels. Retail investment could also be channelled into assets that establish stronger links with the needs in the real economy, such as the growing funding gap for SMEs.

- As regards specific financial instruments, policymakers and consumer associations have drawn attention to the limited participation in the ETF market. In Europe, these could provide individuals with low-cost vehicles to pursue opportunities generally confined to institutional investors. However, ETFs cannot 'miraculously' solve the problem of household portfolios being under-diversified.

- It is paramount that ESAs and NCAs effectively oversee the interaction among the different sectoral EU rules affecting households (banking, asset management, insurance, pension funds) and assess their impact on how they allocate assets. This is also linked to a holistic assessment of the cumulative impact of product governance, prudential and tax rules and the need to ensure a level playing field among providers.

- A horizontal regime in manufacturing, distribution and advice should be benchmarked against the extent to which retail investors benefit from increased access, transparency and suitability. Comparison-tools for different savings/investment products, statistics on performance, costs and net returns and a public online database (in the long run) should be designed at EU and/or national level.

- PEPP could offer a tangible improvement for European citizens. If sufficiently attractive for both providers and savers, PEPP could become a 'quality label' for a vehicle for long-term investments delivering stable returns over time. Life-cycle strategies and financial guarantees for the default option, competition as well as partnerships among different providers, and preferential tax treatment are key elements.

* THIS EXECUTIVE SUMMARY SETS FORTH A NON-EXHAUSTIVE LIST OF POLICY AND MARKET PRIORITIES.

ASSET MANAGERS

- Asset managers will have to re-examine their strategies for organic growth in retail and/or institutional assets given the prolonged low interest-rate dynamics, increasing costs (research, regulatory, data) and fee pressure, i.e. revisiting portfolio construction (traditional and alternatives) and the range of funds/solutions as well as fine-tuning the quality of trade execution and advisory services.

- Retail investors need a more balanced, diversified asset allocation. Fund managers are expected to bring institutional capabilities to private wealth management through bespoke/customised solutions but also to develop fully scalable, simple, high-quality and cost-efficient retail products. Sourcing assets on a cross-border basis and optimising distribution networks will play a key role in penetrating local/regional markets.

- Institutional investors are looking at their investment portfolios in a holistic manner and rethinking the mix of alpha-seeking, index-based, cash management as well factor-based strategies. For liability-driven mandates, asset managers will need to double the risk-adjusted returns analysis with capital consumption/absorption for each asset class, over multiple time frames and scenarios.

INSURANCE COMPANIES

- The Solvency 2 regime must remain risk-based, work for the insurance industry as a whole and ultimately achieve its key objective of policyholder protection. Any changes should be assessed against wider policy objectives, such as supporting long-term savings and investment in Europe, while monitoring their impact on asset allocation and the overall product mix.

- Encouraging buy-and-hold behaviour should not be seen as the unique approach to ALM; the capacity to actively rebalance portfolios over market/economic cycles is equally important. Recalibrating the risk weights for listed equity as well as exploring alternative accounting to fair value measurement should have a sound prudential basis, beyond the economic and political considerations of CMU.

- As part of search for yield, the shift in exposures should be grounded in the illiquidity profile of liabilities and complemented by enhanced risk management. Where asset management is outsourced, mandates will require returns in capital-adjusted and cost-effective terms. This will allow insurers to improve operational efficiency and have access to specialised research/investment portfolio capabilities.

PENSION FUNDS

- The product mix (and underlying asset allocation) will have to accommodate demographic trends, in particular the longevity risk. Exposing participants to maximum market risk in the early stages of their professional life and minimising the risks progressively towards mid-career and retirement (but ideally still invested into equity after the retirement age) through life-cycle strategies should be actively promoted.

- Pension plans should provide 'good value for money' by setting fair, affordable contribution levels and implementing adequate investment strategies. Policymakers should create and maintain benchmarks for DB and DC providers (peer groups, default funds) that include information on administration costs and service levels and investment cost, risk and return, depending on the specificities of their markets.

- The challenging market environment will continue to put funding positions of pension plans under pressure. Recovery mechanisms at national level are able to mitigate only the short-term effects on financial stability. In the longer run, the feasibility of measures at EU level should be analysed provided that the specificity of the pension sector and diversity of players within and across member states is taken into account.

SUSTAINABLE FINANCE

- Raising the bar for company disclosure and third-party assurance by establishing integrated and standardised frameworks at EU level is the way forward in order to achieve greater consistency, comparability and reliability. Large companies tend to report more comprehensive ESG metrics and dominate investors' portfolios compared to SMEs, for which requirements should be adequately calibrated.

- On the duties to explicitly consider ESG factors, the roles of asset owners and asset managers should not be conflated. A priority should be given to avoiding an unwarranted market segmentation between individual and institutional investors by making product marketing and distribution as well as portfolio management more responsive to sustainability preferences, i.e. standardisation vs customisation.

- ESG risks are characterised by deep uncertainty, non-linearity and endogeneity. Pricing them in investors' portfolio requires moving from the backward-looking nature of traditional financial risk assessment and conventional market benchmarks to a forward-looking approach through scenario-analysis. The ESAs should provide detailed guidance, in addition to adjusting sectoral stress tests and monitoring interconnected exposures.

ASSET ALLOCATION IN EUROPE: What challenges and opportunities lie ahead?

1. Background

Capital markets have reached various stages of development in Europe. As a consequence, the degree of retail investors' participation in capital markets as well as the size and structure of the non-bank financial sectors vary significantly across member states. Matching supply and demand cross-border is far from a seamless process. Linking local/national capital markets to regional liquidity pools could also lead to a more organic growth and bottom-up integration.

The Capital Markets Union (CMU) initiative has set out initial priorities in the area of asset allocation, namely fostering retail participation, promoting sustainable investment, and removing barriers to cross-border activities. Capital markets, in particular equity and long-term oriented investors, are best suited for supporting innovation and productivity. Higher cross-border holdings are also needed in order to better isolate households and financial intermediaries from country-specific shocks.

Many factors – changing economic/financial conditions, evolving demographics, market fragmentation risks, regulatory and technological developments, and new political priorities – will impact asset allocation in the coming years. A renewed agenda for the financial sector, anchored in the needs of the real economy, as well as regulatory quality and strengthened enforcement are crucial in the current institutional cycle. CMU 2.0 should not only address the immediate crisis but also pave the way for recovery and return to growth and stability.

From June 2017 to December 2019, the Task Force Members participated in dedicated meetings, workshops, bilateral consultations, targeted reviews with the objective of: identifying the factors at macro- and micro-level that will drive investment decisions in the short, medium and long run; analysing their impact on households and on different categories of financial intermediaries; and putting forward a list of recommendations to strengthen the long-term savings and investment channels in Europe.

The research agenda explored the following broader questions:

- What topics are likely to dominate the savings/investment space in Europe in the medium to long run?
- How to foster the participation of households in capital markets? Does the current supply of products meet their needs?
- Are asset managers and institutional investors equipped for major markets/regulatory/technological shifts? How will these impact their business models and asset allocation strategies?
- Does the current regulatory framework provide adequate incentives for sustainable investment, on a cross-border basis?

A detailed overview of the overall proceedings is available on this dedicated webpage.

2. Rationale

Asset allocation

Asset allocation has been the cornerstone of investment planning and execution for decades. With foundations in Sharpe's Capital Asset Pricing Model (CAPM) and Markowitz's Modern Portfolio Theory (MPT), both the theory and practice in the field of quantitative finance and behavioural economics have evolved considerably since 2008. The main objective of asset allocation is to increase risk-adjusted returns through diversification, with exposure to a variety of instruments that perform differently during various market conditions.

The methods for measuring portfolio diversification fall into three major categories: indicators that rely on portfolio weighting, approaches based on contribution to risk and measurements based on exposure to fundamental factors. Portfolio diversification, calculated on the basis of contribution to risk, depends on volatility and on correlations. Risk has many dimensions (credit risk, interest rate risk, liquidity risk, maturity risk, market risk, volatility risk, currency risk, inflation risk, country/region risk). While diversification has brought many benefits to investors, some academics believe it has also encouraged an obsession with relative performance and benchmarks and short-termism in financial markets.

Over the last decade, the investment climate in the real economy has been characterised by falling short- and long-term interest rates, with cyclical and structural drivers reinforcing each other (see for example the hypotheses of secular stagnation and the financial cycle drag over the business cycle). Market conditions have tested historical assumptions, for example the value of negatively yielding European bonds reached nearly €3tn in 2018 and has hit record highs of nearly €8tn in 2019, intensifying the search for new sources of yield and diversification.

Most financial intermediaries have had to re-examine the notion of risk-free assets, make changes to the composition and risk/return profile of their portfolios and question whether their asset allocation techniques were still working. Higher cross-asset correlations increased the sensitivity of returns to market-wide factors. Investment strategies in fixed-income markets have also become more crowded. Instead of looking for uncorrelated investments, the focus has been on slight reductions in correlations. Some institutional investors have shifted to lower-rated securities and less liquid assets and increased the duration of their portfolios.

Regime shifts

The report by the CGFS (2018) considered three scenarios: the baseline, which was intended to be consistent with mainstream economic forecasts, the low-for-long (L4L), which involves a persistently lower level of interest rates, and the snapback, which is a variant of the L4L with a steep increase in rates after 2022. The BIS Annual Economic Report (2019) highlighted that policy actions that yield clear benefits in the near term may risk generating costs in the longer term, i.e. intertemporal trade-offs. Accommodative monetary policy should not substitute structural reforms and fiscal discipline efforts. Just as there is a business cycle and a financial cycle, there is also a regulatory cycle; policymakers and supervisors should continue with implementation of financial regulation. In Europe, several critical factors would have had to materialise, such as strong economic growth based on higher productivity levels and substantial inflationary pressures, in order for steeper yield curves to return.

However, the spread of the COVID-19 brought the European economy to a standstill and has heightened market volatility. Macro-economic projections (IMF, OECD, ECB) have been revised downwards given the uncertainty around this cross-cutting shock. The immediate priority, of course, remains the public-health response. Moreover, fiscal and monetary stimulus packages are being rolled-out in an effort to minimise the negative consequences on the real economy. Regulators and supervisors are implementing a range of financial policy measures and monitoring the financial stability implications. This shock is affecting both supply and demand; certain businesses, households and individuals are more vulnerable than others, with a race against time between liquidity and solvency problems. It is also imperative to avoid any negative spill-over in the financial sector. 'Normalisation' is likely to be slow and dependent on many variable factors, including the magnitude and duration of the crisis and the approach to lifting the containment measures across the EU.

As regards the impact on asset allocation, structural changes in the real economy may put into question hardwired assumptions on credit/equity/liquidity risks as well the mix of fundamental and technical analysis across sectors/companies. Certain sectors and companies may benefit from increased protection. In this context, the strength of the public/private sector support (fiscal, financial, structural) will matter at least as much as corporate balance sheet quality. An altered investment landscape is expected to emerge in the recovery and growth period. During contraction, investors are re-positioning through defensive strategies in equity (high quality, low volatility), coupled with targeted ESG factors in addition to investment grade credit/government bonds and cash/liquidity buffers. Investors that were locked into highly leveraged products suffered large one-off financial losses, impossible to recoup overtime. Diversification is the most effective hedge, and the demand for alternatives/real assets will continue to be strong.

Savings & investment channels

Financial intermediaries engage in maturity and liquidity transformation on behalf of their clients. In recent years delivering satisfactory returns for retail investors in a consistent manner has been challenging given the low yield environment. Financial institutions started to go beyond the traditional asset classes (cash, equity, bonds) and to move into the unlisted/illiquid space and other alternatives (private debt, equity, infrastructure and direct lending). Maintaining stable returns also often involves downside protection. But if volatility is accepted in individual years, an overall positive outcome could be obtained in the long run. ESMA and EIOPA issued statements on actions to mitigate the impact of COVID-19 for the sectors under their remit, highlighting the market risks associated with a prolonged period of uncertainty.

Long-term investment (LTI) is a concept that appears simple to understand but proves surprisingly difficult to explain. Yet, it has a major impact not only from an operational standpoint but also for putting into place the appropriate regulatory framework. The LTI Task Force led by Gérard de la Martinière (2018) proposed the following definition: "Long-term investment is the financial investment strategy deployed by any operator holding stable resources which at the same time allows for and requires asset allocation able to generate an economic return over time".

Asset class, type of liability, category of financial intermediary, investment horizon, all these elements have been used to describe such investment approaches. Admittedly, certain asset classes lend themselves better than others to long-term investment. The existence of stable liabilities is a prerequisite but that does not within itself equate to LTI. Surely, LTI is not limited to own account investments and should include also third-party discretionary mandates. It should also not be the prerogative of a single category of financial intermediaries (buy-and-hold strategies) or reduced to an investment horizon/holding period in the strictest sense.

It may seem a luxury to think about the long-term when faced with an unprecedented crisis. On the contrary, LTI also needs to be looked at more broadly in the context of the sustainable finance agenda, and most importantly supporting recovery and growth in Europe. This is linked to the twin transition towards a greener and digital economy that is fair and inclusive. Developments in the ESG space can be transformative for asset & liabilities management (ALM), risk/return assessments and long-term value creation. Investors will also have to face the realities of a L4L environment, with consistent returns harder to generate.

Financial integration & stability

The recent crises showed that not only the 'intensity' but also the 'quality' of overall financial integration matters. Private risk-sharing channels are not sufficiently developed in the EU, with cross-border asset holdings not contributing sufficiently to consumption smoothing. There has been a renewed emphasis on initiatives aiming at 're-equitising' the retail/institutional investment culture. The home bias in equity holdings has been diminishing in recent years, with the intra-euro area accounting for a greater share of this reduction than the extra-euro area.

Even though a number of reports/studies assessing risk-taking by insurance companies and pensions funds, this is difficult to do in a comprehensive manner, not only because of the lack of historical or sufficiently granular data, but also because insurance companies and pension funds (ICPF) tend to rebalance slowly, so trends only surface over long periods of time. Investment funds have also increased their holdings of lower-rated debt securities and the residual maturities of their portfolios. While there are no general misalignments across asset classes in the euro area, valuations appeared stretched in some high-yield segments.

The increasing size of the non-bank financial sector has also been accompanied by greater interconnectedness within this sector. These intra-sectoral holdings have doubled over the past five years. ICPF represent by far the largest and most rapidly growing investor base for investment funds. Furthermore, investment funds themselves invest a large portion of their assets in other investment funds. Institutional investors must manage the funds adequately, even if the market cycle is not favourable. They also have to take into consideration the 'volatility' of the investors/end-beneficiaries. From that point of view, pension funds should be able to invest more into long-term assets than mutual funds or insurers. The financial stability implications of COVID-19 are linked to the ability of financial intermediaries, markets and infrastructures to continue to channel funds to the real economy but also to manage effectively any emerging liquidity, counterparty and operational risks.

3. Retail investors

3.1 Context

European savers should remain at the core of the CMU project. To this end, a more diversified allocation of their financial assets is needed. Compared to the US, European households have more than double the amount of their savings in deposits, but only half as much in investment funds and shares. Moreover, the composition varies considerably across Europe for multiple reasons: savings rates/net financial wealth, market structure and access, investor preferences/behavioural aspects, regulatory/supervisory frameworks and tax regimes. Retail capital markets services are also barely developed on a cross-border basis, and this translates into very limited cross-border holdings.

- What are the main criteria influencing the demand of retail investors? How to foster their (in)direct participation in capital markets, particularly in equity?
- Is the current supply fit-for-purpose? Should policy makers favour certain products and/or investment strategies over others?
- Are the developments in manufacturing, distribution and financial advice moving in the right direction? How can we tackle the lack of financial literacy?
- How effectively are the ESAs and NCAs overseeing the interaction among the different horizontal/sectoral rules affecting retail investors?

3.2 Analysis

Decision-making by individuals

Any discussion about asset allocation should start from the basic principles of financial planning and how these apply in the complex environment faced by households with various savings/investment/spending capacity at different stages in their life. Employment patterns, inter-generational responsibilities and many exogenous variables are affecting the way households interact with financial services. Financial decisions are taken in an inherently 'noisy' environment, and should not be simply reduced to the choice of financial products and/or vehicles, namely 'a means to an end', but focus instead on the underlying asset classes that could deliver performance in line with specific financial goals. Many relevant criteria are already hardcoded in legislation. But in practice, the available capital, the degree of liquidity required, the acceptable level of volatility, the need for diversification, all these stand out.

Depending on time horizon (short, medium, long) and risk tolerance/sensitivity (risk takers or risk adverse), households generally place their money in bank savings accounts (limited risk, low/negative returns) or go into capital markets to gain access to equity (ownership in companies, dividends/capital gains, higher volatility, riskier investment), bonds (direct corporate/government debt, fixed returns, less volatility, credit risk), alternatives or various other hedging/speculative instruments (derivatives). They must also decide how best to proceed. The 'do-it-yourself' investors will select their own allocation (and the consequent financial instruments) in accordance with general economic/financial conditions, currency risk, liquidity, volatility, taxation, etc. Others prefer instead to seek financial advice and delegate to a professional fund manager (insurer, pension funds, asset manager, private banking, robo-advisor). A diversity of products/vehicles are currently available: direct securities (stocks, bonds), UCITS, ETFs, specialized funds – AIFs, insurance/pension contracts.

From the start, it should not be presumed that households necessarily benefit more by interacting with financial markets indirectly, through financial intermediaries, rather than by buying financial products directly. Asset allocation and net returns are pre-requisites for any retail investor. Therefore, ensuring that they enter into fair deals – products with a rewarding risk-return profile that give exposure to a balanced asset mix – is key. For specific asset classes, the empirical evidence also documents households facing various constraints that reduce their ability to participate in public or private equity markets, e.g. information barriers but also direct transaction costs. More broadly, under-diversification in household portfolios also impacts intertemporal consumption decisions, real investment, aggregate growth, and social welfare, i.e. macroeconomic effects for the aggregate economy. This in turn raises questions about the quality of the advice and portfolio delegation.

Normative household finance research studies how households should take financial decisions by building models of optimal portfolio allocation and financing decision over the life cycle. Positive household finance research investigates empirically what households actually do in practice with their money. Whether suboptimal household choices are the result of financial mistakes and market/regulatory failures or systematic behavioural biases also leads household finance to border on behavioural finance (patterns, inertia, biases, etc.). This type of research requires high-quality microeconomic data, and the progress in recent years has been driven in part by the increasing availability of such data. Traditional household surveys have been enhanced by administrative data from public authorities, financial institutions/intermediaries, and, most recently, tech companies that aggregate financial information as well as mystery shopping exercises and on-site inspections by supervisors.

However, some of the most fundamental issues are still open. Feeding such evidence back into regulatory design is not an easy task and often requires a continued interplay between theory and empirics that struggles with the incomplete and often conflicting findings on why, how, how much, and how well households make asset allocation choices. On top of that, there is the comparative dimension, i.e. how to measure the differences in financial behaviour across countries given the heterogeneity of the degree of consumer sophistication and of the quality of direct access or financial intermediation. And further, how best to isolate the cultural and institutional determinants and look into the possibility of transferring successful design features across national boundaries.

More sophisticated households seem to display behaviour closer to the prescriptions of normative models compared to that of less advantaged households, which often struggle to manage their financial affairs (predominantly those with low income, wealth, and education). In addition to market developments and investor sentiment, socio-demographic characteristics play a very important role. The regulatory frameworks should protect less sophisticated households from making portfolio allocation mistakes. The use of default options or auto-enrolment may help households to manage their savings better.

The objective of enhancing financial education continues to be emphasised by consumer associations, industry and policymakers. At EU level, there are no specific public initiatives. There is, of course, the caveat that education remains strictly a member state competence. Many argue that the Commission should be more ambitious and propose allocation from the EU budget to the co-legislators. But this should be complemented by private sector initiatives. The ESAs are also required to review and coordinate financial education initiatives by the national supervisors. However, this mandate is rather modest compared to others, for example supervisory convergence.

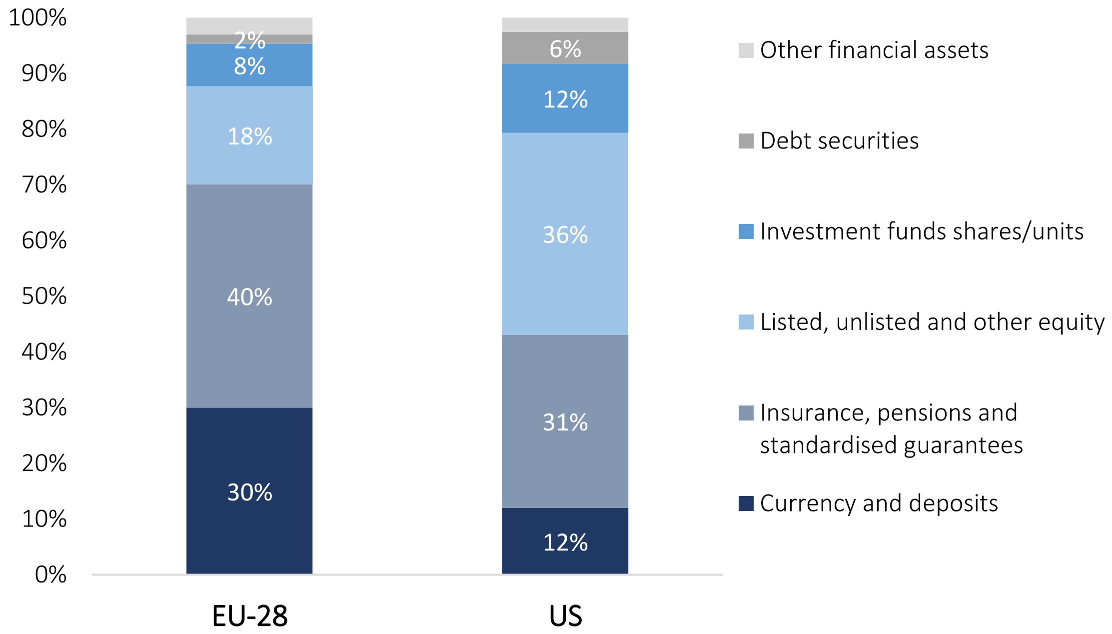
Campbell (2016) argues that the effectiveness of financial education can be measured by finding a source of exogenous variation in educational exposure. Moreover, that the provision of unbiased financial advice can be understood as a more specific and outcomes-oriented version of financial education. Von Gaudecker (2015) shows that households experiencing lower risk-adjusted returns tend to be less literate. Bianchi (2017) explored the relationship between financial literacy and portfolio choices, focusing in particular on portfolio rebalancing, by matching administrative panel data on portfolios with survey measures. More literate households hold riskier positions when expected returns are higher. They also actively rebalance their portfolios to keep the risk exposure relatively constant over time.

Giglio et all (2019) combined a 'beliefs' survey of a large panel of individual retail and pension investors with anonymised administrative data on their portfolio holdings and trading behaviour. The sensitivity of portfolios to beliefs is small on average, but varies significantly with investor wealth, attention, trading frequency, and confidence. Beliefs are mostly characterised by large and persistent individual heterogeneity; demographic characteristics explain only a small part of why some individuals are optimistic and some are pessimistic. These findings challenge the rational expectations framework for macro-finance, and provide important guidance for the design of behavioural models.

Asset allocation trends

The households' financial assets have increased substantially in the last decade (valued at €37tn in Q3 2019). However, the breakdown has remained relatively constant. Asset growth reflects both valuation effects and net financial asset acquisitions by investors. Examining the flows in addition to the stock values can give further insight into allocation decisions.

Figure 1. Asset allocation by retail investors (EU-28 vs US)



Sources: Eurostat (Q3 2019) and US Fed (Q4 2019)

On average, these savings were held in the form of insurance, pensions and standardised guarantees (40%), currency and deposits (30%), listed, unlisted and other equity (18%), investment funds shares/units (8%), debt securities (2%) and others (3%). With respect to public capital markets, listed shares and bonds represent 6% of total household financial assets. The share of household savings locked in currency and deposits is above the EU average in 21 out of 28 member states. In Greece, Cyprus and Slovakia, this is considerably higher (around 60%). By contrast, this accounts for less than 16% in the Netherlands and Denmark, while the lowest share was recorded in Sweden (13.7%). Insurance, pensions and standardised guarantees are the principal financial assets in the Netherlands, United Kingdom, Denmark, Ireland and France. Estonia, Bulgaria, Finland, Sweden exhibit the largest proportional holdings of equity instruments (over 36%), while for Belgium, Spain, Luxembourg and Italy it is in investment funds (over 10%). Malta and Hungary exhibit the largest proportional holdings of debt securities (over 10%) followed by Italy (6%), Austria and Slovakia (over 4%). In Germany, currency and deposits, as well as insurance, pensions and standardised guarantees, are the main category of financial assets (40% and 37%, respectively) followed by equity and investments funds (over 10% each).

A notable trend is the reduction in direct investment more broadly. For example, there has been a dramatic decrease in the weight of individuals in the share ownership of European-listed companies over the last 25 years. While high risk aversion but also misconceptions about the long-term performance of equity are often cited as drivers, the lack of direct access or via financial intermediaries but also dissuasive taxation of dividends/capital gains have significantly contributed to these shifts. The ability to measure direct share ownership by individuals (on the share registry) is often difficult as holdings are habitually kept in broker nominee accounts (not those of the underlying individual owners). This may understate the true level of direct share ownership.

The reduction in individual share ownership is also a direct consequence of market maturation in Europe. Institutional investment has grown and outstripped the growth of retail/individual investment. Investing directly requires information about individual securities. Most retail investors lack the time or knowledge to obtain this properly. This contrasts with institutional investment via funds, with typically little or no up-front cost, access to a diversified portfolio in a single investment, professionally managed, low barriers to entry (online brokers and fund supermarkets, etc.).

Instruments at national level

Solutions at national level to foster a more ‘equity-oriented’ investment culture include investment savings accounts and employee share-ownership/savings schemes. Some particularities can be observed in some member states where certain products are wrapped in a tax-efficient manner. For example, the investment savings account (ISK) has reached over 20% penetration among Swedish households over a 5-year period. As a result of cooperation among relevant stakeholders, a comparison website has been launched where multiple providers list their products. Taxation is easy to understand, and the management fees are reasonably low. In terms of asset allocation, an analysis of a top-5 bank (used as a market proxy) shows that around 68% is invested in equity (direct holdings and investment funds) between 2015-2019. It remains to be seen whether this model could be exported to other member states or established at EU level.

More recently, individual savings plans – known as PIRs – have been launched in Italy, carrying a full exemption from 26% capital gain tax if retail investors stay invested for at least 5 years. PIR funds have sparked some criticism for the less-than-expected incidence in providing capital to real economy and SMEs, with a low portion of portfolios invested in the lowest end of the liquidity spectrum. Most, if not all, of the PIRs were implemented via open-end investment funds that must comply with liquidity constraints. A change in regulation in 2019 imposed new criteria for eligibility, which is to invest a portion of the fund in venture capital and start-ups.

In the EU, the overall participation in employee share-ownership schemes is still relatively low and varies across member states. These are mainly developed in large and listed companies and used considerably less by small and medium-sized companies. Such schemes may also entail concentration risks and double exposure and there are employees that prefer their savings to be diversified away from their employer. By comparison, in the US, Employee Stock Ownership Plans (ESOP) are more widely developed.

For example, France, with a long tradition of employee financial participation, has some of the highest fiscal benefits and the most developed employee share-ownership schemes in the EU. In contrast, in Germany, fiscal benefits are low as is the use of employee share-ownership schemes. Also, in Denmark, fiscal incentives were phased out in 2012 and most companies decided to no longer offer employee share-ownership schemes following the changes in legislation. In Spain, the 'Sociedades Laborales' are exempted from taxes in connection with company formation and transformation, as well as capital gains.

Available financial instruments

At present, there is a proliferation of products, and the race to complexity should be avoided. Consumer organizations are calling for further improved transparency and comparability of products. Retail financial services remain highly fragmented in Europe given the concentration of providers at national level, less harmonised supervisory approaches and tax rules. While some national markets exhibit reasonable levels of competition, this does not hold true throughout the EU. Cross-border activity remains limited.

An EU-wide desk analysis (Deloitte) showed that investment funds (excluding ETFs) are by far the most widely-available product category on the websites of the distributors analysed – over 75% of all identified products, namely equity funds (32%) followed by bond funds (20%) and mixed funds (18%). ETFs represented about 12%, pension products around 9% and life insurance products up to 4% of all products identified on distributor websites. Generally, availability varies greatly across member states, but it is much more country-specific in the case of ETFs, pension products and life insurance policies. However, EU households allocated only 7% of their financial assets to UCITS (excluding indirect holdings through insurance and pension contracts). In contrast, US households from all income and age groups increased their mutual fund ownership exponentially since 1980, mainly for access to the equity market through stock funds (domestic and international, indexed and actively managed) and through balanced funds, including target-date funds.

The mystery shopping exercises revealed that seeking advice from non-independent advisors via banks and insurers remains the norm for the average retail investor. The products offered are mainly in-house investment funds, with the exception of France where life insurance policies dominate as an investment vehicle. Independent Financial Advisors (IFAs) in the UK usually propose investing in ETFs on top of investment funds and pension products. To a great extent, financial intermediaries have been constructing an *ex ante* portfolio of products to cover the needs of different retail investors. MiFID 2 is expected to drive rationalisation in product catalogues and distributor lists as a result of the trade-off between coverage, quality and complexity.

Furthermore, ESMA analysed a sample of UCITS funds (Refinitiv Lipper) sold to retail investors, accounting for €4tn in AUM at end-2018. Equity (37%), mixed (27%) and bonds (26%) were identified as the most relevant asset classes. At national level, 60% of retail UCITS domiciled in Belgium and Italy and around 50% of those domiciled in Spain were invested in mixed assets. 75% of the UCITS domiciled in the Netherlands and over 50% in Sweden were invested in equity. For other domiciles (e.g. France) there was a higher balance between equity and mixed UCITS. In Luxembourg, equity UCITS accounted for 35% while mixed UCITS were 30% of the national market. In Ireland, equity and mixed UCITS were around 35% of the national fund value.

The same analysis showed that of the 6,282 funds domiciled in Luxembourg, more than 4,000 funds could also be sold in Germany, more than 3,000 in Austria, France and Italy and more than 2,000 in the Netherlands, Spain and Sweden. Of the 1,040 funds domiciled in Ireland, more than 800 could also be sold in the UK and more than 700 in Germany. Most funds domiciled in Italy, Portugal and Spain could be sold only in the country of domicile. Of the 718 funds domiciled in Austria, 429 could also be sold in Germany. Of the 406 funds domiciled in Sweden, 86 could also be sold in Finland.

In Europe, participation of retail investors in the ETF market is limited (10% - 15% compared to institutional investors). Equity funds represent the bulk of the ETF industry (70%) followed by bond funds (25%). Other asset classes are marginal. Ireland-domiciled UCITS ETFs hold the majority of assets (63%) in the European market, followed by Luxembourg (24%), Germany (7%) and France (5%). According to Lipper-Refinitiv (2019), the top ten promoters accounted for 93% of the overall European ETF market. In terms of availability, ETFs are accessible to retail investors through online investment platforms or robo-advisors, while mainstream distributors/advisors such as banks or insurance companies offer mostly mutual funds. ETFs require a choice of asset allocation by the investors and are subject to arbitrage as single securities. ETFs trade very differently from mutual funds and entail transaction fees.

Financial advice

The guiding principle in the interaction with any prospective client should be understanding their overall financial situation before recommending financial products, for example taking into account credit cards/overdraft, rent or mortgage/consumer loans, insurance policies, cash buffers for emergencies, inheritance, tax advantages, etc. Only after this assessment of the capital available can exposure to a multi-asset, risk-managed solution be realistically proposed.

At present, the average EU retail investor does not fully understand the remuneration systems of non-independent advisors, and the associated benefits or risks. All in all, advisers should remain faithful to the client and present risk-return considerations fairly. There have been instances in which advisers have been incentivised from an economic standpoint to place products rather than offer suitable financial services. The full ban on inducements in the UK and the Netherlands has led to a shift from obtaining advice through banks and insurers to execution-only platforms or IFAs. However, some industry representatives argue that a roll-out in other member states may accelerate centralisation of portfolio construction and product standardisation to the detriment of customised, tailored wealth planning for retail investors. There were also concerns about the emerging ‘advice gap’ for those clients with modest portfolios (and millennials in particular), a segment that would no longer benefit from crosssubsidisation. In its Technical Advice on MIFID 2 (March 2020), ESMA did not recommend the introduction of an EU-wide full ban on inducements but further investigation of market developments.

Households need access to clear and reliable information in an affordable manner. This will notably require a comprehensive overhaul of not only what is communicated to investors, but also of how it is communicated. New digital solutions and innovative comparative tools could help individual investors. In recent years, many robo-advisors have entered the market with the promise of positively impacting retail investors, though reduced costs, improved access to advice and better product choices. If a robo-advice tool qualifies as investment advice or portfolio management, the provider has to be MiFID 2-compliant.

The UK and Germany lead in terms of current user adoption of robo-advice. Investments are generally limited to ETFs, followed by mixed funds (Spain, UK, Germany) and life insurance products (France). Disruption in the current distribution models by stand-alone robo-advisors is not yet evident due to the high cost of client acquisition. However, retail banks and asset managers are developing new digital solutions in-house or with partnered/acquired specialised companies.

Distribution channels

Investment funds are for the most part distributed through captive and third-party channels; the proportion largely depends on the member state. More broadly, continental Europe is dominated by banks and insurers in contrast with the UK where IFAs and online platforms are prevalent. The EU-wide analysis of retail distribution channels has estimated that captive channels are dominant in Spain (representing almost 75%), equally represented in Italy, Germany and the Netherlands (50%) and substantially lower for France (30%), the UK (25%) and Sweden (15%). This will be further altered by MiFID 2: fund selectors will reduce the number of distribution partners as a result of them placing more business in-house.

These findings were confirmed in the ESMA survey with NCAs (March 2020). Austria, Croatia, Germany, Greece, Italy, Romania and Spain highlight banks as the main channel for distributing funds. Belgium, Finland, Hungary, Latvia and the Netherlands highlighted additional channels, for example investment companies. Insurance service providers were identified among the main distribution channels in France and Ireland. In Denmark, trading platforms, fund supermarkets, insurance service providers as well as IFAs are all mentioned as alternative marketing channels (but representing less than 10%). Luxembourg refers to the cross-border distribution of funds and to a variety of distribution channels: bank branch networks, IFAs, life insurance companies or the management company directly.

Insurance products are sold either directly by insurers or through a number of different channels (brokers, agents and bancassurance) depending on the specificities of the market and the type of insurance product. In Europe, fund managers retain 42% of the total recurring fees while distributors are paid 41% through retrocessions. Around 17% is used to cover operating services such as custody, administration and transfer agency. In the case of insurance products, distributors receive on average 46% of fund management charges (between 25% and 75%).

Some consumer associations have argued that this type of sales-driven distribution regime reduced the attractiveness for distributors to propose mutual funds and ETFs to retail investors. Unlike Europe, most investment funds in the US are sold with an unbundled fee structure. No-load share classes (no entry/exit fees) are the dominant pricing structure through which individuals access mutual funds. Outside pension/retirement accounts, 80% of households are paying intermediaries directly out of their pockets (for example, discount brokers, fee-based advisers, full-service brokerage platforms) through asset-based fees. The sheer scale of the mutual fund industry in the US has also enabled pioneering innovations in fund delivery, such as fund supermarkets, several of which administer over $100bn that cater to do-it-yourself investors.

In Europe, there are high expectations that online channels and fintech companies will change the way retail investment products are distributed. National competent authorities (NCAs) indicated that the ban on inducements in the Netherlands and the UK has triggered the development of more fund supermarkets, online brokers and online investment platforms of incumbents. While online brokers are present in almost all countries, fund supermarkets are only available in the UK, France, Germany and the Netherlands, followed by Italy and Spain to a lesser degree. Generally, fund supermarkets and online brokers focus on non-complex products, with basic suitability and appropriateness testing. The distribution of life insurance and pension products through online channels remains marginal across Europe.

Returns, costs and charges

The same EU-wide desk analysis (Deloitte) showed the disparity in the level of fees not only across the EU but also within the same member state. Information on fees for investment funds was considered relatively easy to gather on the webpages of distributors. Distributors in the Netherlands and the UK offered the lowest ongoing charges for all types of funds that can be explained by the unbundling of certain fees from the reported cost.

In some member states, information on fees for life insurance and pension products could not be found on the webpage of any distributor. When displayed, it was not always possible to assess whether the fees indicated include or not the costs related to underlying assets. While the coverage for some categories of products may not yet be enough, the situation should change in the next years due to the full implementation of the pre-contractual disclosure and reporting requirements introduced by MiFID 2, IDD, PRIIPS.

In their statistical reports, the ESAs highlighted several data challenges/analytical limitations. While the focus has been so far on disclosure, other items (fee levels) could also gain more prominence in the new institutional cycle. Such actions must be measured against the objective of preserving single market and ensuring investor protection. These should not only be to enhance competition pressure and drive pricing discipline, but also identify market segments and regions where investors are in a suboptimal situation.

One step would be to build publicly available comparative databases with comprehensive information on retail investment products to be run by independent bodies. For example, the SEC prioritises investor education and financial literacy through a dedicated portal, and FINRA runs an online database free of charge, providing comparison tools, statistics and investment research resources for more than 30,000 investment funds registered in the US, as well as the statutory documentation. In the context of the MiFID 2/MiFIR Review, the Commission is consulting stakeholders about their support for developing of an EU-wide database (e.g. administered by ESMA) and if so, what investment products should be prioritised.

The ESMA Reports (2019, 2020) show that for retail UCITS (based on Refinitiv Lipper, 2009-2018), gross performance largely follows the dynamics of the underlying investment depending on the time horizons (1y, 3y, 7y, 10y), risk category and fund domicile. Overall costs fluctuate less than the gross performance. The largest impact comes from ongoing costs (on average, 80% of the total cost), while entry and exit fees are less significant. Costs are higher for equity and alternative UCITS, followed by mixed, bond and money market UCITS. The reductions in gross performance for actively managed and retail funds tend to exceed those of passively managed and institutional funds.

Active equity UCITS accounted for around 75% of the overall segment in 2018, with passive and ETF equity UCITS representing 10% and 15%, respectively. The bond UCITS segment is mostly composed of actively managed funds (around 96%). Across all time horizons, except for 1y, gross performance was on average slightly higher or equal for actively managed equity funds. However, these underperformed passive and ETF equity UCITS in net terms. Moreover, active equity and bond UCITS also underperformed in net terms their own prospectus benchmarks.

Focusing on the top 25% performers, there is significantly better gross and net performance of actively managed equity funds at short-term horizons. However, the group changes materially over time, with limited opportunity for investors to pick consistently outperforming funds. On average, larger funds have higher performance in both gross and net terms, possibly related to economies of scale.

The fund industry in the EU is often compared to the situation in the US. According to the 2020 ICI Factbook, the average expense ratios (TER) incurred by mutual fund and ETF investors, on an asset-weighted basis, have fallen substantially in the last two decades in the US (ranging from 35% - 75% decline). This can be explained by the continuous growth in assets and relative stability of fixed costs included in the expense ratios and in addition by the shift towards no-load share classes, particularly institutional, which tend to have below-average expense ratios as well as changes in how investors pay for services from brokers and other financial professionals. But most importantly, this is the result of economies of scale and competition.

For Europe, ICI Global (2019) also reported that average ongoing charges, on an asset-weighted basis, fell by about 20bp for equity and fixed income UCITS and remained stable for mixed UCITS from 2013 to 2018 (analysis based on Morningstar Direct). This was also confirmed in the ESMA Report (2020): at the aggregate level, ongoing costs have been slightly declining for equity and bond funds, while remaining stable for mixed funds from 2012 to 2018 (analysis based on Refinitiv Lipper). In its Technical Advice (March 2020), ESMA indicated that there is not yet enough evidence to assess which model would be most effective to illustrate the impact of costs on returns for retail investors.

ESMA has also undertaken convergence efforts on performance fees, with guidelines for UCITS and certain types of AIFs (March 2020) on calculation methods, consistency between the fee model and the fund's investment objectives, strategy and policy, the crystallisation frequency, payment circumstances, and model disclosure. Empirical work on equity funds by Servaes & Sigurdsson (2019) highlights that investors should pay particular attention to the benchmarks employed to compute whether performance fees are paid.

EIOPA reports (2019, 2020) look into investment-based insurance products (IBIPs) and personal pension products (PPP), either unit-linked (UL) or profit-participation (PP). For the period 2014-2018, the compounded weighted average net return for IBIPs varied between -6% and 6% for UL products and between 1% and 7% for PP products across member states. Riskier classes also delivered higher net returns on average. In terms of Reduction in Yield (RIY), the gap between UL and PP appears to be slowly closing, on average 2.3% versus 1.6% in 2018. Ongoing costs (administration, distribution, investment management) account for 80% and 70% of total costs for UL and PP, respectively. Entry costs are higher for PP. Exit-costs are minor for both types of products. The investment management costs of UL products sold to retail investors broadly matched the UCITS costs for institutional investors in 2017.

Trends in net returns for PPPs are similar to the ones highlighted for IBIPs. On average, PPP-UL offer a lower return (0.7%) than PP products (1.4%) over the period 2014-2018, but mainly due to the weak performance recorded in 2018. In terms of costs, RIY for PPP-UL are higher than for PPP-PP (on average 2.0% versus 1.8% in 2018). For riskier classes, PPP-UL have lower net returns and higher costs while for PPP-PP net returns and costs are higher.

The real returns on pension provision have also come under increasing scrutiny in recent years. Most national personal pension products have reported a net return just above the inflation rate or even in negative territory. In the case of DB (defined benefit) and DC (defined contribution) schemes, investment expenses, which can absorb as much as 90% of total costs, are very sensitive to a scheme's asset allocation. In several jurisdictions, transparency measures have been successful in encouraging pension fund providers to monitor, compare and control their costs and charges, but insufficient to achieve real optimisation, i.e. lower costs for the same product or better products for the same costs.

Regulatory & supervisory framework

Many studies show significant weaknesses in the EU regulatory regime for retail financial products due to gaps in implementation, supervision and enforcement, which result not only in different levels of investor protection across the EU but also market segmentation and regulatory arbitrage. In their own report on supervision of retail financial services, the ESAs have outlined institutional and organisational issues (e.g. distribution of responsibilities between home and host supervisors, notifications and exchange of information), supervision and enforcement failures (aggressive and misleading cross-border marketing of complex financial products, prioritisation of national markets) and regulatory gaps and arbitrage (e.g. considerable differences in the implementation at national level, insufficient harmonisation and/or clarity of some EU laws, hindering the level playing field).

Financial products that have similar economic characteristics and risk-return profiles should be treated in the same way when it comes to disclosure requirements, conflict of interest rules in their promotion and sale, and the product intervention powers of the supervisor. Consumer financial protection, in terms of institutional structure and mandates, varies across Europe. IDD also provides specific rules on investment advice which largely follow MiFID 2 but with some differences. For example, the standard for the use of inducements is different, namely the so-called 'detrimental impact test' as opposed to the 'quality enhancement test' under MiFID 2.

The current EU legislation regarding retail investment protection is mostly product-specific. The current disclosure framework (MiFID 2, IDD, PRIIPs) is expected to lead better-informed decisions by households and to more market discipline by financial intermediaries. Affordability, accessibility and effective consumer redress, all remain priorities. A single regime (e.g. through a cross-cutting EU Regulation) could help with the comparability of retail products and de-fragmentation of retail markets. To this end, DG FISMA will commission an external study to assess the fitness of the current disclosure, inducements, and suitability of EU rules for retail investors, i.e. potential redundancies, inconsistencies, overlaps or gaps.

In the MiFID 2/MiFIR Review, the investor protection regime is featured prominently, more specifically in relation to retail access to simple and transparent products as well the relevant and adequate information. For financial services providers, these concern product oversight, governance and inducements as well as reporting on best execution. MiFID 2/MiFIR differentiates between retail clients, professional clients and eligible counterparties. The Commission is seeking feedback on the creation of a new category of semi-professionals clients. ESMA (2020) advised against a new category of sophisticated retail clients, but for instead for them to be treated as professional clients on request. The CMU-Next High-Level Group (2019) recommended the creation of a new category of experienced high-net-worth individuals (HNWI) with tailor made investor protection rules.

The realm outside of simple, plain vanilla products is covered by the PRIIPs Regulation. This is supplemented by a Delegated Regulation specifying the presentation and contents of the KID, a mandatory, three-page A4 information document (also fit for the digital age) applying to investment funds, unit-linked and with-profits life insurance contracts, and structured products and deposits. The co-legislators formally agreed to extend the exemption for UCITS KIID until 31 December 2021 (amendment to Article 32 of the PRIIPs Regulation).

Given the heterogeneity of the products under scope, the difficulty in comparing products across providers and communicating information in a clear and meaningful way to retail investors became evident. The ESAs published a Final Report February 2019 and decided not to propose any targeted amendments on PRIIPs Regulation (level 1). However, a full review is timetabled in the new mandate of the European Commission. Instead, the ESAs initiated work on the PRIIPs Delegated Regulation (level 2), with a prior consultation paper (October 2019 to January 2020) on amendments to the KID covering performance scenarios and past performance, presentation and calculation of costs (summary tables and methodology for transactions costs), and a range of options for investments. The final proposals are subject to endorsement by the Commission.

The use of future performance scenarios continues to be heavily debated, in particular if the current methodology is procyclical in nature. Some questioned their predictive accuracy. Others proposed a more qualitative approach/narrative based on the underlying performance drivers. Moreover, many regretted altogether the decision of not including information about past performance, with an appropriate disclaimer. For example, the UK FCA recommended that when firms selling or advising on PRIIPs have concerns that the performance scenarios in a particular KID may mislead their clients, they should consider how to address this, for example by providing additional explanation as part of their communications with clients. Regardless of the chosen methodology (future or historical scenarios), the real challenge remains the usability in practice by retail investors and how to maintain accuracy, consistency and comparability across such a wide spectrum of products.

As part of the review of the PRIIPS KID, an online consumer testing exercise was conducted by DevStat (2020), on behalf of DG FISMA, covering 7,684 participants from 5 countries (France, Germany, Italy, Poland, Sweden). Only 10% had a correct understanding of the probabilistic information for different scenarios. Nonetheless, this increased the number of correct answers to product identification/selection questions. Most participants ascertained that past performance is not necessarily a predictor of future performance. Lastly, the cognitive load of the most complex version (probabilistic information and past performance with 3 elements) seemed to have a negative impact.

Another area concerns the presentation and content of the PRIIP KID, including methodologies for the calculation and presentation of risks, rewards and costs. According to industry estimates, around 8% of equity funds and 13% of bond funds sold across Europe are reporting zero or negative transaction costs, which makes some funds look artificially cheap. ESMA argues that these are just individual cases and that the calculation method is fundamentally sound. Fund turnover is a key input to transaction cost, and the negative results may be due to calculating turnover in different ways.

The Dutch AFM guided managers to use an alternative simplified calculation methodology if they lacked the historic 36-month detailed record of trades needed to complete the transaction cost estimates. This guidance is not intended as a general exemption from the so-called 'slippage' calculation methodology. Furthermore, calculation methodologies for transactions costs currently differ between financial actors, depending on whether they are regulated by the MiFID 2 or IDD. The introduction of a common methodology would allow for a clear, efficient comparison of transaction costs between asset classes ultimately beneficial for the retail investor.

Another example concerns the significant reduction in the availability of corporate bonds to retail investors. The ESAs have been made aware of analysis in some member states: there was more than a 60% reduction in the number and overall volume of low denomination issuances by NFCs Q1 2018 compared to Q1 2017. It has also led to difficulties for retail investors to trade their bonds when these were issued before the introduction of PRIIPs regime, with evidence of up to a 25% reduction in some secondary markets. To the letter dated 19 July 2018, in which the ESAs sought the assistance of the Commission with regard to the treatment of bonds, the official reply was that the assessment whether a particular bond made available to retail investors is a PRIIP or not, should be performed on a case-by-case basis and consider all features of a given bond, regardless of the bond's type or name.

In consequence, even categories of bonds that could seem to fall outside the scope of the PRIIPs Regulation could still be based on contractual terms and conditions that would qualify those bonds as PRIIPs. Therefore, it was deemed neither feasible nor prudent to agree *ex ante* and in abstract terms whether some categories of bonds fall under the PRIIPs Regulation or not. Finally, it was argued that the PRIIPs Regulation should preserve neutrality in relation to business models, product designs or legal forms by imposing no specific requirements in this regard. In consequence, manufacturers also remain free to offer retail investors exposures or features through a process of wrapping or packaging, in particular in situations where investment strategies would otherwise be inaccessible for their investors. While most of the focus has been on the demand side, the impact on the supply of underlying securities should be monitored, e.g. not create unnecessary reporting burdens for corporate issuers.

Pan-European Personal Pension Product

The PEPP makes the case for a product with a European added value. In Europe, the personal pension products market is underdeveloped (2.3% of the financial assets of European households) and dominated by insurers (90% of personal pension assets). In only 5 member states did more than 15% of the population buy a personal pension product. PEPPs could be particularly attractive to mobile citizens and self-employed individuals. According to the Commission's impact assessment the personal pension market is expected to reach €2.1tn in size by 2030, provided that national tax relief is granted to the PEPP.

The PEPP Regulation harmonises core product features (authorisation, distribution, investment rules, portability, switching) and allows for flexibility in decumulation options. A PEPP can be designed by a wide range of providers, including insurance companies, banks, asset managers, certain investment firms and certain occupational pension funds (IORPS). It can be subscribed to by a PEPP saver, or by an independent PEPP savers association on behalf of its members. The distribution regime of the PEPP follows a sectoral approach. PEPP providers may offer up to six investment options to PEPP savers. The investment options must include the Basic PEPP as well as alternative investment options.

For the basic PEPP with a guarantee, providers will have a legal obligation to ensure that PEPP savers recoup at least the capital invested. For the basic PEPP with other risk mitigation techniques, it has to be consistent with the objective of allowing PEPP savers to recoup their capital, but without any legal obligation. There are no prescriptive rules to the asset allocation, i.e. the prudent person principle will apply, except for the default option. The assets are to be invested in such a manner as to ensure the security, quality, liquidity and profitability of the portfolio as a whole. At EU level, it was also argued that the PEPP should provide the ideal wrapper for investments in equity and ETFs on a cross-border basis.

With respect to capital protection, some argued that the life-cycle investment strategies mostly used by asset managers and pension funds may fall short of the financial guarantees offered by life insurers. During the legislative process, it was essential that the competitive advantage of certain providers like insurers would not be reinforced and that both options to be considered for the default investment option. Initiatives such as PEPP should enable all types of products to compete to meet investors' needs and their appetite for risk. Investors need diversification, in PEPP's case to build savings in the long term. The design of the default investment option will to a significant extent determine the success of PEPP.

The Bocconi study, commissioned by EFAMA, makes the case for eligibility of life-cycle target-date strategies as the default option. It showed that life-cycle strategies could ensure that 99.9% of the savers end up with an accumulated pension wealth greater than the inflation-adjusted capital invested, under both a 40- and 20-year accumulation period. The study also illustrated advantages in terms of risk management and performance enhancement.

In addition, Better Finance conducted an independent study of 20 life-cycle funds. In the EU, it was found that there is too much divergence between the start/end asset allocation, rebalancing strategies and performance. In the EU, pension products are not always labelled as life cycle funds (UCITS or AIFs). In the US, retirement savings products are consistently labelled as life cycle or target retirement funds enabling increased accessibility and comparison. Fund documentation in the US also contains more and far clearer information. The average annual fee was found to be above 1.6% in the EU versus about 0.6% in the US.

All PEPP providers will need to offer an affordable default investment option (called the "Basic PEPP") with costs and fees capped at 1% of the accumulated capital per year. The cap will be reviewed every two years and potentially changed by the European Commission. It should be noted that the PEPP Regulation was the first of its kind where a fee cap was introduced at product level. Some industry representatives argued that this will enhance the oligopoly of index/ETF providers and put additional strain on smaller/mid-sized asset managers. Others indicated that they will not be able to develop viable products with an all-inclusive fee cap and proposed to exclude distribution and advisory fees.

The conditions related to the accumulation phase as well as decumulation phase and the out-payment of the national sub-accounts will be determined by member states unless they are specified in the regulation. PEPP providers can offer PEPP savers one or several type of out-payments (annuities, lump sum, regular drawdown payments or a combination of these). PEPP savers have the flexibility to choose the form of out-payments for the decumulation phase at the conclusion of a contract and when opening a new sub-account.

The sub-account should be used to keep a record of the contributions made during the accumulation phase and the out-payments made during the decumulation phase in compliance with the law of the member state for which the sub-account has been opened. This is in order to allow providers to adapt to national laws and meet the criteria for tax relief in case of comparable products. Many industry representatives still argue that the PEPP market will only take off if there is a shared tax approach across member states, and that this should therefore feature as a top priority for the new European Commission.

Three years at the latest after the entry into application of the Regulation, each PEPP must offer national sub-accounts for at least two member states. In the view of the portability service, partnerships between PEPP providers to offer sub-accounts for different member states are also envisaged. Providers may also consider having administrators for the different sub-accounts, maybe externalising this to specialised companies – across the EU. In that case, the contributions made to and withdrawals from the sub-account may be subject to separate contract terms. This is expected to also allow smaller providers to enter the PEPP market while maintaining portability as a key feature.

The PEPP saver will be able to switch PEPP provider after a minimum of 5 years. Where the PEPP provider is not able to ensure the opening of a new sub-account corresponding to the PEPP saver's new Member State of Residence, the PEPP saver shall be able to switch PEPP provider immediately and free of charge. The total fees and charges shall be limited to the actual administrative costs incurred by the PEPP provider and not exceed 0.5% of the corresponding amounts or monetary value of the assets-in-kind to be transferred.

EIOPA will maintain a central register in which it will register PEPPs, on the basis of the decision taken by NCAs. This is a long way from its initial authorisation role as proposed by the Commission and retained by the European Parliament. The PEPP Regulation sets out a number of empowerments for EIOPA, in consultation with EBA and ESMA as well as the ECB, where relevant, to develop technical standards. Further, EIOPA will provide technical advice for two areas where delegated acts are required. In July 2019, EIOPA also decided to set up an Expert Practitioner Panel on PEPP to test policy proposals and to act as sounding board supporting EIOPA delivering on its mandate.

In December 2019, EIOPA published a Consultation Paper (that ran until March 2020) on information documents (PEPP KID and the PEPP Benefit Statement), a cost cap for the Basic PEPP, risk-mitigation techniques, supervisory reporting and product intervention powers. The proposals on the information documents are built on experiences with PRIIPs and IORP2, yet tailored to the specificities of PEPP, in particular its long-term nature, while making the PEPP ready for digitalisation and the incorporation of sustainable/ESG factors.

The three areas of 'past performance', 'summary risk indicator' and 'performance scenarios'/ 'pension benefit projections' have been approached in a consistent manner. The role of inflation should be made transparent, i.e. returns in real terms. For an effective application, consumer and industry testing is particularly important. The envisaged cost breakdown would follow three broad categories: administration costs, distribution costs, investment costs (costs of safekeeping of assets, portfolio transaction costs other investment costs). The cost of guarantees (if any) are assumed to be outside the cost cap and will be disclosed separately.

From an allocation perspective, ensuring the effectiveness of the chosen risk-mitigation techniques (life-cycling, establishing buffers/reserves from contributions and/or investment returns, guaranteeing minimum-return) is key. This will determine the exposure to equity compared to fixed income, the ability to reap illiquidity premiums from alternative asset classes in order to deliver adequate returns.

The first PEPPs are expected to come onto the market within approximately two and a half years after the date of entry into application of the Regulation. This takes into account the time necessary for the preparation and adoption of the RTS and for providers/distributors to adapt to the new framework. Sound and workable level 2 measures will be key. The success of this product will largely depend on its attractiveness for savers as well as the capacity of providers to design competitive products in terms of costs and performance with an EU value added.

3.3 Policy & market implications

- There is significant potential for activating retail savings in capital markets across Europe. Less advantaged households should be prevented from making allocation mistakes and protected against the mis-selling of products. Public and private efforts on the financial education front should be complemented by progress on delivering affordable/unbiased investment advice and more open distribution channels.

- The extent to which retail investors can easily gain access to equity (public or private markets) should be carefully analysed, i.e. identifying market and regulatory hurdles and promoting investment solutions at national and EU levels. Retail investment could also be channelled into assets that establish stronger links with the needs in the real economy, such as the growing funding gap for SMEs.

- As regards specific financial instruments, policymakers and consumer associations have drawn attention to the limited participation in the ETF market. In Europe, these could provide individuals with low-cost vehicles to pursue opportunities generally confined to institutional investors. However, ETFs cannot 'miraculously' solve the problem of household portfolios being under-diversified.

- It is paramount that ESAs and NCAs effectively oversee the interaction among the different sectoral EU rules affecting households (banking, asset management, insurance, pension funds) and assess their impact on how they allocate assets. This is also linked to a holistic assessment of the cumulative impact of product governance, prudential and tax rules and the need to ensure a level playing field among providers.

- A horizontal regime in manufacturing, distribution and advice should be benchmarked against the extent to which retail investors benefit from increased access, transparency and suitability. Comparison-tools for different savings/investment products, statistics on costs, charges and net returns and a public online database (in the long run) should be designed at EU and/or national level.

- PEPP could offer a tangible improvement for European citizens. If sufficiently attractive for both providers and savers, PEPP could become a 'quality label' for a vehicle for long-term investments delivering stable returns over time. Life-cycle strategies and financial guarantees for the default option, competition as well as partnerships among different providers, and preferential tax treatment are key elements.

4. Asset managers

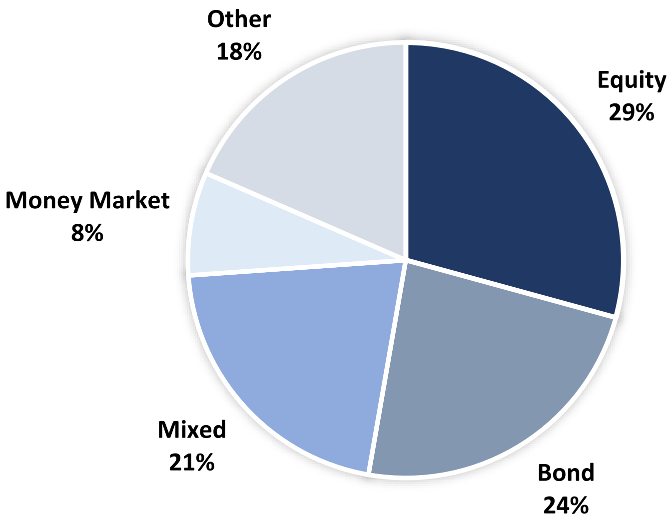
4.1 Context

The asset management industry is undergoing fundamental changes due to competition, regulation, and evolving demographics. The shift to passive and alternatives funds is well understood. Active managers are facing growing fee pressures, struggling with alpha generation or underperforming their market benchmarks. Crossing over into illiquid and lower-rated alternatives and factor-based investing are also broader trends in asset allocation. Institutional investors are rethinking their strategies regarding in(out)-sourcing of assets and co-investment/partnerships. Retail investors will continue to emphasise consistency in delivering satisfactory net returns, in real terms, over time.

- What factors will affect the asset managers’ value proposition to both retail and institutional investors, respectively, in the medium to long run?
- What is the outlook for asset allocation (equity, fixed income, alternatives) and investment strategies (active, passive, factors) for the next five years?
- How are asset managers complying with a new regulatory framework (MiFID 2, PRIIPs)? How is the business model affected?
- Will fintech (robo-advisers, big data, DLT) bring about operational efficiencies in the fund industry and expand the client base?

4.2 Analysis

Figure 2. AuM of investment funds – UCITS and AIFs (by type, aggregated basis)



Sources: ECB, EFAMA, ESMA - Q4 2019.

Asset allocation

For professional fund managers, asset allocation is a direct consequence of the investment strategy disclosed in the prospectus, also taking into account the liquidity profile of the fund. For discretionary accounts/segregated mandates, the exposures to specific asset classes is in line with the investment policies agreed with the asset owner/end-investor. The European asset management industry has experienced strong growth in the last decade, reaching over €23tn in assets under management (AuM) at the end of 2018. The UK is the largest asset management centre, followed by France and Germany (together accounting for over 63% of the total AuM). Over 40% of registered investment funds (IF) are domiciled in Ireland and Luxembourg. Around €2.7tn of funds domiciled in Europe are managed outside Europe.

The asset mix is different for discretionary mandates (DM) and IF, respectively, across countries. Whereas 42% of the universe of total IF assets were invested in equity at end-2017, the share of equity in DM was only 22%. Conversely, bonds accounted for 51% of DM, compared to 30% in IF. Interestingly, the share of equity in DM does not seem to have returned to the pre-crisis level (35%) in contrast to the IF (40%) There are multiple drivers behind this change, including growing maturities of pension liabilities but also accounting, tax and prudential treatment of equity exposure. The holdings of cash/money market instruments have continued their decline (6% and 8%, respectively), whereas there has been a sustained increase in the share of other assets – 21% for both DM and IF (real estate, infrastructure, hedge funds, structured products, private equity/debt).Taking on more credit and duration risk over the past few years has helped asset managers generate attractive returns on a risk-adjusted basis. However, the low-volatility environment has also endangered risk-taking by asset managers in the form of short volatility and long-carry strategies.

The size of the EU Alternative Investment Funds (AIF) universe expanded to reach €5.8tn in 2018, accounting for 40% of the EU-wide fund industry. Among AIF types, funds of funds (FoF) represented 14%, followed by real estate (RE) (12%), hedge funds (HFs) (6%,) and private equity (PE) (6%). The category of 'other AIFs' accounted for over 60%. AIFs are mostly used by institutional/professional investors, yet retail investor share is significant at 16%, with more participation in FoF and RE. Money market funds (MMFs) are more common among institutional investors (less than 6% for retail investors).

At the global level, BCG (2019) estimates the value of AuM at $74tn at end-2018. Traditional core active strategies represented 33% of AuM, compared with 57% in 2003. Solutions, specialties, and alternatives accounted for 48% of the market, versus 1/3 in 2003. Passive assets (including ETFs), representing 19% of AuM ($14tn) and 6% of the industry's total revenues. Interestingly, 43% all the management fees went to alternative asset managers. Top portfolio applications for such investments include diversification, risk/volatility, alpha generation, inflation hedge, stable income, lower correlation, mitigation. However, these involve unique risks compared to traditional investments, including illiquidity and the potential for amplified losses or gains but also crowding effects given the limited supply. In terms of performance, top-quartile asset managers are either small, niche-market players that were able to sustain higher margins (alternatives or specialties) or very large firms, typically with strong growth in passives and distribution powerhouses. Mid-size traditional core-asset managers are most likely to continue the decline in market share.

According to Morningstar, the assets of mutual funds domiciled in Europe fell from €9.5tn to €8.2tn (February-March 2020) or from €10.8tn to €9.5tn (when including MMFs). Over the same period, long-term fund redemptions amounted to €246bn, coming from bond funds (€140bn), equity funds (€56bn), index funds (€28bn). Similar results were found by Refinitiv Lipper, with overall net outflows of €254bn, mostly driven by outflows in bond funds (€135bn), followed by equity (€50bn), mixed (€40bn) and alternatives (close to €30bn); this aggregate includes ETFs and MMFs. For Q1 2020, the overall fund outflows were estimated at €125.9bn, with the AuM in the European fund industry decreasing from €12.3tn to €10.6tn.

Retail vs. institutional investors

For both investment funds and segregated accounts, institutional investors represent the largest client category of the European asset management industry accounting for 70% of total AuM at end-2017, of which pension funds and insurance companies accounted for 28% and 25% of total AuM, respectively. Retail clients, including high net worth individuals (HNWI) represent 30% of the total AuM. There are differences across member states, and this reflects also the diversity and specialisation of the asset managers in Europe.

When looking solely at investment funds, EFAMA highlights that insurance companies and pension funds remained the largest holders in 2017 (€ 4.9tn), with a combined share of 41.7%. Households have seen their direct share of investment fund assets decrease from 32.3% in 2008 to 25% in 2017 (€2.9tn). However, since 2012, this share has remained stable. Investment fund assets held by other financial intermediaries (long-term investment funds, and other types of intermediaries) rose to €2.7tn in 2017 from €0.8tn in 2008.

Institutional investors will continue to renegotiate their contractual terms (fee levels, schedules and structures). Greenwich (2019) stress the need for further transparency into pricing of institutional mandates, in particular access to reliable benchmark data. The margins on institutional investors are two to three times lower than for retail investors. Asset managers have to provide value-added services beyond customised portfolio construction and risk management. Insurance companies' mandates entail accessing new sources of yield, releasing capital from their legacy books, developing new retail investments products but also supporting marketing, distribution and after-sales efforts. Pension plans require a well-curated selection of high-performing asset management solutions at the lowest possible cost. Their investment strategies refer to real assets, themed funds (e.g. ESG), alternative investments, bottom-up asset picking. The key asset allocation tools include diversification by risk factors, absolute return investing, buy-and-hold investing as well as dynamic investing. Ignites Europe estimated that European asset managers are facing a drop in fee revenues of more than €11bn following COVID-19 market falls and client outflows.

Only 8% of European households' total financial assets are directly invested in investment funds. ETFs have been used for a long time by institutional investors (for tactical positioning or hedging portfolios) but not really accessible to the retail segment. In some countries, a considerable number of AIFs is offered to the retail sector. Developing new solutions for millennials remains a priority, with more asset managers focusing also on financial education tools. Also, it is important to differentiate among retirees, for example age groups, and the type of asset allocation to best address longevity risks.

The direct/indirect access of retail investors to asset classes connected to the real economy, in particular equity markets, should be carefully analysed. At the same, it is important to assess the liquidity of real assets and if this in line with risk tolerance, time horizon, and return objectives of retail investors. In some instances, channelling retail savings directly towards SMEs or infrastructure assets may not be well suited given the illiquid/high risk nature of the investments. On the supply side, the number of stocks is shrinking every year, as companies prefer to stay private longer or do not go public at all.

The access of mass retail investors to these private markets and capacity-constraint strategies (with high alpha generation) is very limited. Such solutions cannot be manufactured at the price points of UCITS/ETFs. European long-term investment funds (ELTIF) are generally accessible only to high-net-worth individuals (HNWI). Perhaps something on UCITS/ETF – ELTIF spectrum should be conceived as well as equity crowdfunding for individual investors willing to accept exposure to underlying assets with higher illiquidity premia.

Cross-border dimension

The passport regimes under UCITS and AIFMD have facilitated significant improvements in cross-border activity. However, a range of regulatory barriers, e.g. marketing requirements, fee calculations, notification process, local presence and supervisory practices, alongside distribution models, tax regimes, and investor home bias, are causing market fragmentation. In practice, the national nature of the distribution channels and the general public not being properly informed impact negatively the take-up of non-domestic financial products.

In the Commission impact assessment (2018), only investment funds registered for sale in at least two other member states than their fund domicile are considered to be cross-border. Statistical data collected by ESMA from NCAs indicates that on average only 22% of UCITS domiciled in a member state are marketed in other member states. While in Luxembourg, 85% of the UCITS domiciled there were marketed in other member states, this percentage is significantly lower for all other member states. For example, in Germany this was only 5%. In only six member states, more than 100 of the funds domiciled there were also marketed cross-border. Five member states reported that none of the UCITS domiciled in their country were marketed on a cross-border basis.

Data retrieved from Morningstar (June 2017) indicated that the proportion of UCITS funds that are registered for sale in at least three member states is 37% (which excludes round-trip funds) with 46% domestic and 17% in 2 countries only. The proportion of AIFs that are registered for sale in at least three member states is 3% with a prevailing 91% domestic and 6% in 2 countries only. According to EFAMA, in the last decade, the share of cross-border funds (including round-trip) held by European investors has increased, from 25% in 2008 to 32% in 2017. PwC (2019) estimated the number of cross-border funds at around 14,000 in 2018. These results reflect the fact that EU investment fund market is predominantly organised along two business lines: the distribution of cross-border funds domiciled in Luxembourg and Ireland (around 55% at end-2017), and the distribution of home-domiciled funds at national level, which remain dominated by local distributors.

These findings were confirmed by ESMA (2020) in their analysis of cross-border activity (at share-class level, by domicile) over the last ten years (2008-2018). Luxembourg and Ireland are global platforms of distribution. For Austria, Germany and France, the distribution between domestic funds and those also marketed abroad is more even. Fund domiciles like Italy and Spain market mostly domestically. However, round trip funds are significant for Italy where domestic funds represent only a small part of the retail market. ICI Global (2019) highlighted that cross-border funds often incur additional marketing or registration costs. Based on Morningstar Direct data, the average estimated fixed cost for cross-border equity funds was 22% of the total ongoing charges compared with 15% for single country funds in 2018.

According to the ECB's Financial Integration Report (2018), euro area equity and bond funds tend to hold relatively diversified portfolios, investing less than a quarter of their assets in securities issued in their own domicile. Recent ECB research by Molestina Vivar (2020) linked fund investors' countries of origin directly to their fund-specific holdings based on a look-through approach. In this case, the average home bias across euro area countries is nearly three times lower than the literature often suggests. This can be explained by investments in funds domiciled in financial centres, namely in Luxembourg and Ireland, which invest in more diversified portfolios relative to funds domiciled in other euro area countries.

Another dimension of fragmentation is reflected in the high number of funds with a suboptimal size (AuM). There are also many questions around whether consolidating /pooling smaller funds of different asset managers. According to Lipper research, European fund promoters liquidated 563 funds while 576 funds were merged into other funds over the course of H1 2019. Some fund promoters merged funds with similar investment objectives to strengthen their product ranges but also closed funds due to low profitability resulting from insufficient AuM and the high costs of maintaining such funds. In contrast, 1,182 new funds were launched. This means the European fund market increased by 43 funds. A more detailed view shows that equity funds experienced the highest number of mergers (220), liquidations (173), and fund launches (383).

Consolidation/rationalisation trends also involve industry transition risk that need to be managed properly. Smaller asset managers may face execution risk on certain end-clients exiting the market. At the business level, a recent report by KMPG (2019) foresees an uptick in M&A deals involving independent pure-play managers, renewed divestiture activity among banks and insurers, and an increase in cross-border transactions. Consolidation will be driven by different objectives: to deliver greater scale in core offerings, to diversify product lines and fill strategy gaps, to expand the client base and geographic footprint, to enhance distribution channels and asset-gathering efforts, and create operational efficiencies and cost takeout opportunities.

Active vs. passive investment

Irrespective of the type of fund and its asset allocation, the choice to use active or passive investment strategies or a combination of both will depend on the end-investor/asset owner. Investors are also looking beyond a binary choice. Dispersion (reduced market correlation) and a path towards less accommodative monetary policy should in principle favour active management. But this may not become evident in the coming years as central banks remain committed to additional monetary stimulus in the aftermath of the pandemic. However, active management/selection will be used for managing the trade-off between performance and liquidity during the transition phase and extracting alpha potential in the medium to long run.

The shift from active to passive management has occurred more quickly in the US than in Europe. Data from ESMA and BIS shows that, in Europe, passive funds (index mutual funds and ETFs) accounted for 25% of the aggregate investment funds assets and about 4.2% outstanding securities (3.3% in equities, 0.7% in bonds) at end-2018. According to McKinsey (2019), Europe has so far not experienced as much displacement of active strategies by passive as in the US, with significant variance in the adoption rates across markets and client segments, and cumulative net flows during 2013-2018 estimated at around €475bn (€285bn in fixed income, €180bn in equities). Active strategies still play a relevant role in capturing net flows (over €3tn), especially in fixed income, alternatives, and multi-assets. Even with a less structural move to passive strategies, pricing pressure will occur across all asset classes in Europe. The organic revenue growth (net of capital market performance) is not expected to exceed the overall cost growth in the next 5 years. Active products will have to defend their pricing premium.

The way securities markets could be affected by a massive shift toward passive funds continues to be debated. First, whether this would propel a higher correlation of returns across asset classes and return predictability. Second, whether it would drive price distortions because of less security-specific information. At this stage, the relatively small share in the total securities holdings suggests limited impact. Monetary policy conditions as well as supply and demand factors make more compelling arguments. Others argue that the inflows into passives tend to over inflate the valuations of index components, disconnect them from their fundamentals and make indices more informationally inefficient over time, making it even ever harder for active funds to beat their benchmarks.

The focus should be on the resilience of funds during market downturns, i.e. a structural breakdown in the funds around a market event, and how the managers will the handle the outflows and the flexibility in rebalancing their portfolio. So far, index funds have proved their mettle in quite a few market circumstances/episodes. And end-investors may not be settling for 'market returns' during a longer market downturn and this might prompt them to look again at active, alpha-seeking funds to maintain positive returns.

With regards to the recent market volatility (March 2020), industry representatives argue that certain investors were still able to use ETFs in order to transfer/hedge risks in stressed markets or to gain/shed risk exposure to various asset classes. However, the observed unprecedented dislocations in ETF prices raise questions on whether the arbitrage mechanism may have temporarily faltered. According to Refinitiv Lipper, the AuM of the European ETF industry decreased from €839.9bn (end-Feb) to €719.2bn (end-March), driven by the negative performance in the underlying markets (-€95.3bn) as well as net outflows (-€25.4bn), primarily driven by equity and bonds funds.

In a global survey by Natixis (2018), over 70% of institutional investors indicate that active management is better at providing downside protection and better suited to for delivering better risk-adjusted returns. Active is deemed better suited to provide exposure to non-correlated asset classes (74%), access emerging market opportunities (75%), generating stable income (58%), and implementing ESG strategies (68%). In the same survey, over 60% identify the following problems associated with flows into passive strategies: artificially suppressing volatility, distorting relative stock prices and risk-return trade-offs or increasing systemic valuation risk.

In another survey by CREATE-Research (2018), 52% of pension plans reported that passives could undermine the very diversification they have long promised. 42% reported that passives make booms and busts more likely due to their strong price momentum in both directions. The asset class coverage of passive funds is, somewhat uneven. Three asset classes appear to currently dominate: equities (cited by 82% of our respondents); fixed income (54%); and multi-asset class funds (20%). Moreover, passives are increasingly treated as part of the buy-and-hold portfolio. In a Blackrock (2018) global survey, more than half of the DB pension plans indicated that over 40% of their equities are managed passively and more than a quarter manage over 40% of their fixed income passively. Nearly 75% of pension plans are investing in factor-based strategies.

According to BIS analysis (2018), most active equity funds failed to outperform the market benchmarks over longer time horizons. In the UK, the FCA found that on average actively managed funds underperform their benchmark after costs and that there is no clear relationship between price and performance – the most expensive funds do not appear to perform better than other funds before or after costs. But when analysing their respective performance, one should look beyond averages and in particular at the underlying assets. In general, active funds are more expensive than passive funds, but they are more likely to outperform passive funds in the case of small- and mid-caps or corporate bonds as opposed to large caps or sovereign/government bonds.

On the retail side, Prometeia (2019) found that less than one in five of the funds sold in continental Europe outperformed their benchmark after fees were considered (the 3-year record of 2,500 equity, bond and money market funds, with combined assets of €1.8tn). Better Finance (2019) also measured the performance over the last 10 years (up to 2017) of EU equity retail funds (1,733 UCITS and 353 AIFs) from Belgium, France and Luxembourg and found that only 27% of surviving funds outperformed their benchmark on any 5-year holding period.

The Active/Passive Barometer (2019) by Morningstar compared active funds against a composite of actual passive funds (10,840 funds, €2.7tn in assets). Active managers' success rate was less than 25% in nearly two-thirds of the 66 examined categories (51 equity and 15 bond categories). Active funds' 10-year success rates in the largest equity categories among the lowest of all the categories. Less than 25% active fixed-income managers managed to both outlive and outsmart their average passive peer in 11 of the 15 categories. In the US, Dimensional Fund Advisors (2019) studied the net performance of 4,576 mutual funds, over $8tn in assets, against the benchmarks defined in the prospectus over the 20-year period (1998-2018). Only 42% of equity mutual funds and 41% of fixed income funds were still standing 20 years later; moreover, just 23% of equity funds and 8% fixed income funds survived and managed to beat their benchmarks.

Oliver Wyman (2019) estimates the industry revenue pool for core active management will drop by 1/3 in developed markets due to a combination of factors (asset depreciation, fee compression, product mix shift) by 2023. However, active managers outperforming their benchmarks can still expect inflows in high-fee funds, especially if their products are at the aggressive end of the alpha spectrum. Price competition along with product innovation will allow new entrants to compete with the top-3 passive providers.

Factor investing

At the most fundamental level, factors can be described as quantifiable characteristics of assets. Factor-based investors are expected to have slightly longer horizons and a more broadly diversified portfolio than that of active managers. Factor valuations, relative strength, and dispersion are among the signals than can be used to predict future style returns and position portfolios accordingly, e.g. which factors to select, which data to apply, and when to unweight, down weight, redefine or switch off a factor. To date, equities have been the most popular testing ground supported also by a wealth of academic research. Factors are also gradually being used in multi-asset class investing but the adoption has not carried over to fixed income.

Many strategies have been developed in order to address the limits of traditional cap-weighted indices, e.g. concentration in few stocks or sectors. There are certain factors (size, value, momentum, quality, carry, and volatility) that can be captured systematically and have historically demonstrated outperformance across asset classes and geographies. Value, Momentum and Size are considered cyclical as they are more sensitive to economic growth and investor risk appetite. Volatility and Quality are typically considered defensive, and do well as investors become increasingly risk averse. Dividend yield is a hybrid factor.

When it comes to fixed income, Brooks et al. (2018) developed a common style-based framework for capturing excess returns for both government and corporate bonds. From an investor perspective, these styles are highly diversifying with respect to term and credit risk premia, exhibiting low and negative correlations between style premia and market premia as well as low sensitivities to macroeconomic and financial conditions (inflation, growth, real yield, liquidity & volatility). Research by Brière (2017) on factor versus sector investing in US stocks highlights that negative correlation is only true if these factors are played as long-short portfolios. Otherwise these factors display a strong positive correlation (between them, but also with the market). When short selling is authorised, factor investing outperforms sector investing in all respects. For long-only portfolios, factor investing tends to be more profitable than the benchmark during expansion times, but less attractive during recessions when diversification is needed the most.

The FTSE Russell (2018) survey of asset owners across North America, Europe and Asia found that risk reduction remains the number one reason for embracing factor investment strategies. Return enhancement continues to be firmly in second place, followed by improved diversification. Focus on fees and cost savings as well as budgetary considerations continued to play a significant role in investment planning. Around 87% of those who have implemented a smart beta strategy for the first time within the past two years are using a multi-factor approach (this has been growing rapidly from $3.8bn at the end of 2009 to $70bn as of March 2018). So far, the industry's large passive players are dominating the smart beta space.

Many argue that the increased use of smart beta will pose a substantial threat to traditional active players maybe even greater than the overall shift to passives. Smart beta is effectively a hybrid of passive (systematic, transparent, low-fee) and active (using rules-based perspectives and research to determine asset allocation). Although smart beta is still a small category, with just $430 billion in AuM or 0.5% of the global total, it has grown by 30% a year since 2012. Fee levels for smart beta equity funds average about 35bp, well below the average of about 50bp for active equity products. Thematic investing is even more specific and offers a certain decorrelation with traditional betas and with investment factors.

Regulatory framework

In June 2019, a new legal framework for the cross-border distribution of funds (Regulation and Directive) was formally adopted (applicable to UCITS, AIFs, EuVECA, EuSEF). These should further unlock the potential of the single market, reduce market fragmentation, increase competition, and ultimately provide more opportunities to end-investors. The new rules include a harmonised definition of pre-marketing, create a central database on cross-border marketing, modify the marketing communications requirements, set common principles concerning fees or charges, and specify new requirements regarding facilities available to local investors. In March 2020, ESMA released for consultation the draft Implementing Technical Standard (ITS) with regard to publication by NCAs of marketing requirements as well as regulatory fees and charges (standard forms, templates and procedures).

Undoubtedly, the UCITS framework has successfully contributed to the widespread expansion of investment funds as one of the main investment vehicles in Europe. In January 2019, the Commission released a report that confirms that AIFMD has significantly contributed to creating a single market for alternative investment funds but also identified areas that require further analysis, such as diverging interpretations of the rules by NCAs and overlaps in reporting requirements and with other EU disclosure rules. In 2020, the Commission will report to co-legislators on the AIFMD Review. Industry representatives advocate for a better alignment between UCITS and AIFMD as well as extending AIFMD reporting requirements to UCITS.

Most notable in the context of the ESAs Review, is a more stringent scrutiny of the NCAs on the delegation or outsourcing arrangements of key functions to third-country entities. Delegation in the asset management sector, namely portfolio/risk management, trading, research, advisory and administration services, is currently rather widespread in what is a highly specialised industry landscape but some advocate closer control in order to keep the activity within the EU. Before deciding, at least an impact assessment and data collection effort are needed to map the functions and volumes that are delegated and the cost and efficiency gains for end-investors as a result of delegation practices to enable a better understanding of the value chain in the EU fund industry.

At the heart of MiFID 2 lies investor protection that covers all phases of the product/service cycle. Many aspects related to the abstract/effective target market, suitability tests, (non-) independent investment advice, research/trading account separation, best execution obligations, transparency will continue to reshape the relationship between manufacturers, allocators and distributors. In particular, 'captive' and third-party distributors (banks, insurers, independent financial advisers and online platforms) will play an even more important role in the relationship with end-clients. Standardising the flow of information between product manufacturers and distributors is also key. In relation to MiFID 2, an industry-wide agreement (FinDatEx) is found in the form of the European MiFID Template (EMT).

The pressure on fund managers to offer low-cost, high-quality funds to retail investors through a variety of distribution channels is expected to continue. There are still many very expensive funds as result of legacy model in captive distribution channels. But the regulatory context will also have to evolve in order to: increase proportionality in the treatment of smaller, more specialised asset managers, which have more difficulty in covering research, data and regulatory costs, and incentivise equity investment, especially towards SMEs. Despite no formal ruling by regulators, MiFID 2 seems to be embraced in the US. TABB Group (2019) reports that US equity asset managers are increasingly turning to research unbundling for cost savings and focus on best execution. In particular, large asset managers are seeking to implement a more globally consistent approach.

Research is a crucial input for securities selection and asset allocation decisions. At EU level, gathered evidence on the impact of MiFID 2 rules on SME equity and fixed income research. This is examined from both the demand side (asset managers, portfolio managers and institutional investors – referred to as the 'buy side') and the supply side (as investment banks, brokers and financial analysts – referred to as the 'sell side'). Most concerns were raised by certain parts on the sell side arguing that unbundling makes it very difficult to spread the cost of research across large companies. Nonetheless, this could also open up the market to high-quality, value-added research by independent research providers (IRP).

When it comes to small and mid-caps, which have historically been less covered, the market for research has yet to find its balance. Furthermore, the new rules seem to reinforce many of the structural barriers already affecting this segment. The Giami-Eli Namer Report (2020) commissioned by the AMF Board shows that research on these stocks is declining and has in some cases become insufficient in the French market. In view of the targeted review of MiFID 2, the AMF has drawn up an action plan concerning the issuer-paid analysis, pricing, proportionality, third-party research and ESG research. In particular, it was recommended to undertake a cost-benefit analysis in order to determine the level of proportionality that is most likely to boost the coverage of small and mid-caps and to encourage IPOs. In the

The multi-firm review by UK FCA (2019) shows that MiFID 2 has so far improved asset managers' accountability over costs that resulted in investors in UK-managed equity portfolios saving around £70m in the first six months of 2018. The FCA's survey found that budgets set by firms to spend on research have fallen on average by 20%-30% but that they use the acquired research in a more efficient manner and an environment of increased competition from providers. Spending is re-deployed to niche/specialist research providers, contributing to alpha generation. Research coverage of SMEs in the UK has not seen a material reduction; this is also due to strong local corporate brokerage culture, e.g. medium-sized issuers often have 1-2 corporate brokers. The surveyed independent research providers (IRPs) expressed concerns over the competitive nature of the research market. The low level of pricing on the sell-side (large banks cross-subsidising internally their research), over-cautious approach to the inducement rules by the buy-side and limited take-up of trial periods have reduced their ability to access prospective clients.

CFA Institute (2019) also sought to assess the state of the research marketplace through a survey of investment professionals. Asset managers are overwhelmingly absorbing research costs against their profit and loss, and they are scaling back research budgets accordingly. Investment banks also appear to be scaling back analyst headcount, with most of survey respondents opining that there has been a reduction in sell-side analysts employed. Overall, the findings suggest that research provision is retrenching and focusing on the large-cap segment. Across all asset classes, less than 10% of respondents say research quality/coverage has increased. Moreover, the results show a perceived reduction in research quality and coverage for small and mid-cap equities.

For the purpose of the MiFID 2/MiFIR Review, the Commission is seeking feedback on the effectiveness of various policy proposals, for example overturning unbundling rules exclusively for SME research. Others refer to introducing a specific definition of research in MiFID Level 1, excluding IRPs from inducements in relation to research, preventing under-pricing of research, amending rules on free trial periods or on issuer-sponsored research. Alternative ways of financing research are also considered, i.e. creating a programme to finance SME research set up by market operators, funding SME research partially with public money or creating an EU-wide database on SME research run by ESMA.

Financial stability

It is crucial to make sure that the asset management/fund industry is resilient and able to absorb economic shocks. To this end, policymakers and supervisors started to the different risks involved, including risks to the system, to individual institutions and to clients. So far, the focus at international and EU level (FSB, IOSCO, ESRB, ESMA) has been on liquidity risks and leverage measures. ECB called for extending the macroprudential framework, developing policy tools to address emerging risks but also monitoring the interconnectedness with other parts in the financial sector. Specific macroprudential tools would include mandatory liquidity buffers, mandatory leverage limits, and redemption gates and suspensions, etc. Industry representatives advocate for a 'products and activities' approach by narrowing the focus to categories of funds that present unusual risks, following up with product-specific measures applied at the level of the fund while raising standards on liquidity risk management and finding suitable measures of leverage. Moreover, any system-wide stress test would have to include the assets managed in-house by asset owners in order to capture the dynamics of the asset management ecosystem and how various entities interact with the financial system.

In September 2019, ESMA published the Guidelines on Liquidity Stress Testing (going into effect September 2020). The accompanying study showed that bond funds (other types will be focussed on in the future) are largely resilient to severe outflows resulting from redemptions. In the case of high-yield and emerging markets bonds, fund sales could have a material impact, ranging from 150-300bp. Second-round effects are significantly larger when fund managers sell their assets using the slicing approach. In contrast, when they use their cash buffers first (waterfall approach), the price impact is limited, and second-round effects are very low. This does not account for the use of liquidity management tools (swing pricing, gating) by fund managers. During the COVID-19 market stress, around €100bn in assets at investment funds (other than MMFs) were subject to redemption halts and other liquidity management tools, according to ESMA analysis.

Since its TRV Report (Sept 2019), ESMA raised the credit and liquidity risk outlook for the asset management sector. This followed two liquidity events affecting UCITS in June 2019 and significant outflows affecting several funds holding illiquid exposures in Q1 2019. While the level of credit risk was stable, the deteriorating quality of outstanding corporate debt will continue to be monitored. The average share of BBB-rated corporate bonds downgraded to high-yield has been historically below 5%. The exposure of investment funds to leveraged loans (LL) and collateralised loan obligations (CLOs) remains limited at this stage, around €130bn (less than 1% AuM). The risks may be concentrated in some categories of AIFs such as hedge funds using leverage or real estate funds exposed to liquidity mismatches.

Recent ECB studies demonstrate how investors in leveraged funds react more sensitively to negative fund returns than investors in unleveraged funds. Besides AIFs, excessive leverage can also amplify procyclicality and fragilities in the UCITS bond fund sector. In March 2020, ESMA published for consultation the guidelines on the assessment of leverage-related systemic risk in the AIFs sector in order to ensure that NCAs adopt a consistent approach as well as how to operationalise and calibrate leverage limits in order to ensure their effectiveness and their efficiency.

IOSCO started to collaborate with the FSB to assess potential financial stability risks arising from ETFs, in particular amplifying market volatility. Concerns focus on the resilience of the arbitrage mechanism and the risk that the authorised participants (APs), which ensure the liquidity of the ETF market, withdraw during a market crisis as they are not legally obliged to carry out this function. Another concern for regulators is whether ETFs have the potential to exacerbate broader liquidity problems in underlying markets, especially when ETFs invest in less liquid, not easily tradable assets. Industry representatives argue that ETFs have been tested in several events in the last 10 years in which they provided additional liquidity, by increased trading volumes, materially tighter spreads and no forced selling.

Sushko & Turner (2018) compared the stability of fund flows across passive fund types (index mutual funds and ETFs) and active mutual funds during three recent periods of stress. It was observed that index mutual funds were least volatile, in both absolute and relative terms, compared to active mutual funds and ETFs – exercising a stabilising influence. ETFs exhibited the largest inflows and outflows, relative to their asset size, although in some cases their flows offset each other over the weeks within an episode. Although relatively volatile, the relationship between ETF trading and underlying security prices is less straightforward than for other fund types. In particular, secondary market arbitrage could constitute an additional price transmission channel.

FinTech

Technology is expected to play a significant role in enhancing both investment and trading processes (such as asset allocation and portfolio management, where AI and machine learning will displace certain tasks, enabled by big data) and product distribution and marketing (providing more customised solutions and lower cost access through platforms and digital developments). In addition, asset managers can deploy data and analytics throughout the investment value chain. In particular, leveraging new sources of data will be key to unlock opportunities in the ESG and thematic investing space.

Many robo-advisors have entered the market, mostly based on passive investments/ETFs. Their AuM are still very small compared to traditional players. The field is presently populated with hybrid models combining algorithm-based investment techniques with traditional professional advice from financial advisors. Robo-advisors are expected to positively impact mass affluent investors in terms of reduced costs, improved access to advice and better product choices. It is also highly likely that institutional investors and or high net-worth individuals with large portfolios and complex investment needs will continue to favour tailored, personalised solutions. Asset managers are also advancing with the use of distributed ledger technology (DLT) for fund distribution.

Lastly, typical biases afflicting asset management are overconfidence, loss aversion, or the false analogy. With advanced analytics, security selection, security weighting, and selling timing would be captured as well as all activities and actors that developed and maintained the portfolios. Research teams typically presenting the macroeconomic views on cyclical and secular trends will also have derive concrete implications for current holdings and future investments based on the results of the de-biasing techniques.

4.3 Policy & market implications

- Asset managers will have to re-examine their strategies for organic growth in retail and/or institutional assets given the prolonged low interest-rate dynamics, increasing costs (research, regulatory, data) and fee pressure, i.e. revisiting portfolio construction (traditional and alternatives) and the range of funds/solutions as well as fine-tuning the quality of trade execution and advisory services.

- Retail investors need a more balanced, diversified asset allocation. Fund managers are expected to bring institutional capabilities to private wealth management through bespoke/customised solutions but also to develop fully scalable, simple, high-quality and cost-efficient retail products. Sourcing assets on a cross-border basis and optimising distribution networks will play a key role in penetrating local/regional markets.

- Institutional investors are looking at their investment portfolios in a holistic manner and rethinking the mix of alpha-seeking, index-based, cash management as well factor-based strategies. For liability-driven mandates, asset managers will need to double the risk-adjusted returns analysis with capital consumption/absorption for each asset class, over multiple time frames and scenarios.

5. Insurance companies

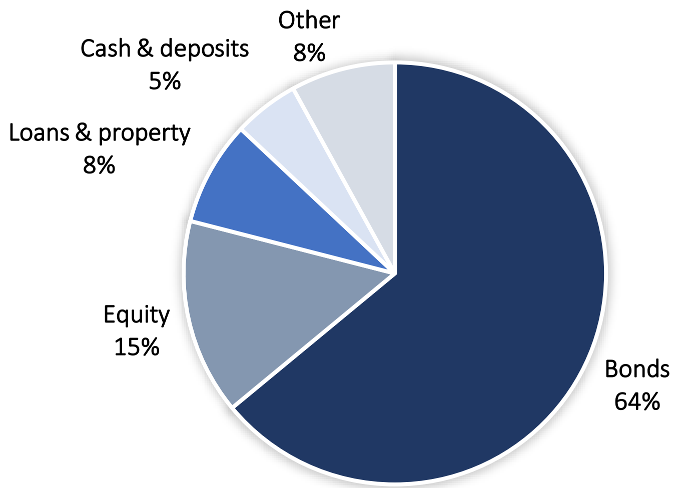
5.1 Context

Despite a shift towards products featuring lower guarantees and a more flexible return structure, traditional business still constitutes the bulk of the policies. Insurers' portfolios are heavily invested in fixed income assets; an abrupt re-pricing in this segment could expose them to higher interest rate risk. The process of de-risking has come to a halt and has started to reverse in recent years primarily due to the low interest rate environment. Some insurers have been gradually increasing their investments in higher-yielding debt instruments but also in infrastructure, private equity and direct lending.

- What are the most relevant constraints/opportunities on the balance sheets of insurers?
- Are the concerns about the increasing duration mismatch and re-investment risk warranted? What types of risk management strategies are currently being employed?
- What are the main drivers behind externalising portfolio management and other types of services (reporting, data analytics, etc.)?
- Should prudential regulation incentivise investment in certain asset classes? Is the current regulatory framework (Solvency 2) conducive to long-term investment?

5.2 Analysis

Figure 3. Asset allocation by insurance companies



Source: EIOPA, Insurance Europe - Q2 2019 (look-through, unit-linked excluded)

Asset allocation

The insurance sector is the largest institutional investor in Europe (with over €10tn in assets), highly concentrated in a small number of countries (United Kingdom, France, Germany, Italy). EIOPA data (Q2 2019) shows that traditional portfolios consist of government bonds (31.4%), corporate bonds (32.2%), listed and unlisted equity (15.1%), cash and deposits (5.2%), mortgages and loans (5.7%), property (2.2%) and other assets (8.2%).

Typically, investments are selected in order to allow the service of the payments to the policyholder and optimise the financial performance for the insurer. Life insurers rely most heavily on fixed-income assets, which represent around 2/3 of their total investment portfolio. The share of equity investments (listed and unlisted) is almost double for non-life insurers (19.9%) compared to life insurers (9.4%)

In some countries (Germany, France, Italy and Spain), bond investments (government or credit) dominate while in other countries, the proportion of equity (Sweden, Denmark) and other assets (Finland), is notably higher. Estonia and Luxembourg have the highest exposures in corporate bonds. The Netherlands and Belgium have relatively high investments in mortgages and loans. Insurers also continue to show significant home bias for government bonds investments, corporate and equity investments are too driven by the need to manage balance sheets locally but to a lesser extent. Direct exposures of the European insurance sector towards emerging markets are very limited. Insurers in certain countries remain highly interconnected with banks, while exposures to real estate markets are also substantial.

With regards to the non-traditional, index and unit-linked (UL&IL) business, AuM have gradually increased since 2016 amounting to €2.8bn in Q2 2019 (with 40% represented by UK). As expected, UL&IL portfolios exhibit a significantly larger allocation to mutual funds (over 67%) compared to direct investments. Applying a limited look-through reveals that more than 60%

of the UL&IL portfolios invest in equity and mutual funds, while the largest share of Non-UL&IL portfolios in bonds. In other words, the main difference between traditional and non-traditional policies is the inverse relevance of bonds and equity. Nonetheless, a certain degree of heterogeneity can be observed across countries as well.

Recent debates have put a spotlight on equity investments. About 65% of total equity investments correspond to holdings in related undertakings, including participations in other insurers/reinsurers or real estate companies of the same group (intra-group). Direct equity holdings (excluding intra-group participations and collective investments undertakings - CUIs) represent only around 4-5% of the total investment portfolio. The Commission has committed to investigating the factors impeding investment in equity (listed vs. unlisted, directly vs. through funds, domestic vs. cross-border, in large caps or SMEs), including their relevance (market conditions, asset and liability management, undertaking characteristics, prudential and accounting rules, taxation etc.) and take additional action if warranted.

Based on OECD data (2009-2015), the OECD estimated a potential shortfall in equity investments at €350bn (traditional business). However, in the Solvency I data from 2009-2015, there is no clear decrease or an evidence of a potential shortfall. The share ownership of insurers and pension funds dropped from more than 25% of the EU stock market capitalisation in 1992 to 8% at the end of 2012. Although equity investments have increased in absolute amounts between 2008 and 2015, the share of these investments in insurers' portfolios has been declining over that period (euro area only, including unit-linked). This could be partly attributable to the portfolio de-risking in view of the introduction of the Solvency 2 regime in 2016, which came to a halt and tended to reverse in 2017, but also market valuation.

This type of assessments needs to be put in a broader context but also take into consideration the lack of consistency/comparability across different data sources (OECD, ECB, EIOPA etc). The structural data break due to the Solvency 2 introduction in January 2016 also poses significant obstacles for trend and empirical analyses. The downward trend in equity investments over the last 20 years could be explained by further granularity in the data reported by insurers over time. Initially, funds tended to be reported as variable-return investments and therefore mixed with equity. The increasing look-through of funds may have automatically reduced the share of real equity reported. In addition, reclassification effects between direct equity and non-money market funds may have played a role. Empirical results confirm that both macroeconomic and company specific variables can explain the different allocation of equities in insurers' investment portfolios. However, most academic studies indicate that it is too early to empirically assess insurers' investment behaviour under Solvency 2.

Industry representatives argue that the current calibrations are based on the assumption that insurers invest like traders and are prone to liquidating their entire portfolio in worst case scenarios. In their view, the capital charge for listed equity should be reduced from 39% to 22% in the case of long-term investment. In addition, risks could be measured net of management actions and other mitigating tools and using a going-concern principle. Other barriers include not considering the capacity of dividends to offset potential capital losses over time and the accounting treatment in IFRS 9 (in conjunction with IFRS 17). In March 2020, IASB staff recommended deferring the application of IFRS 17 and IFRS 9 by insurance companies to 1 January 2023.

At the end of 2016, the total value of strategic participations for insurers using the standard formula totalled €238bn (on average 3% of total investments). In 50% of the cases, the average holding period exceeds 10 years. The reduced capital charges (22%) apply nearly exclusively to investments in the financial sector and real estate, and therefore are unlikely to support insurers' equity investments in SMEs.

With respect to other asset classes, most European companies have publicly expressed their intention to increase the average weight of infrastructure projects to as much as 5-10%. Total investments are above €171bn (ca. 2.3% of total investment assets), with only quarter as qualifying infrastructure investments under Solvency 2 as of Q4 2017. Even though prudential requirements have been re-calibrated, additional concerns remain over insufficient pipelines, quality of the deals and price competition, but also the concentration risk.

Investment trends

In its first report on changes and trends in the investment behaviour of insurers, EIOPA (2017) noted no major reattribution across asset classes over 5 years (before or after Solvency 2) across the examined sample. A small decrease in the debt portfolio was observed as against a small increase in other investments between 2015 and 2016. Equity allocation has remained broadly unchanged. A shift from listed to non-listed equity has been identified, but with no clear trends in the preferences for financial or non-financial companies. According to EIOPA's Financial Stability Report (Dec 2019), insurers' investments remained broadly stable in the last three years (Q4 2016 - Q2 2019), with a slight move towards less liquid investment such as unlisted equity and mortgage and loans.

When analysing the process of re-risking in the past years, it is worth distinguishing between an increased level of investment into illiquid assets as part of yield enhancement strategies (private equity/debt, hedge and absolute return funds, real estate, infrastructure, mortgages and other loans, direct lending) and re-risking in the traditional sense (e.g. buying more equities, which was not necessarily the case.) At the same time, there are also insurers that shifted their allocation towards more liquid assets (in particular in the traditional business). Liquid assets are necessary in order to meet payment obligations and the overall share remains high for European insurers.

In addition, it is important to differentiate between taking more risk outright and investing in riskier assets based on the liabilities profile, i.e. their so- called illiquidity characteristics, which enable insurers to invest long-term and to decide the timing of buying and selling. While life insurers are often considered the ideal candidate for this, non-life insurers argue that their liabilities (own funds, technical reserves that cannot be lapsed and policy renewal rates) also qualify for such investments.

In the 2019 Report on LTG measures, 21 NSAs have identified no relevant and significant trends in the investment behaviour of the insurance undertakings they supervise. A search-for-yield was identified by 7 NSAs, with 2 observing a re-allocation from government bonds to corporate bonds and mortgage loans. Moreover, 3 NSAs mentioned a general trend towards more illiquid investment, with infrastructure assets, bonds of local, unrated undertakings and property market investment vehicles. 5 NSAs mentioned specific trends regarding the holding of equities, with 3 of those identified a slight increase of equities, one a slight decrease and one a move to illiquid assets.

To date, there is no factual evidence of significant links between the use of LTG-measures and the investment behaviour of insurers. At end-2018, volatility adjustment (VA) was used by undertakings representing 67% of the overall amount of technical provisions at EEA level. The transitional on technical provisions and the matching adjustment (MA) representing 25% and 15%, respectively. Both the transitional on the risk-free interest rates and the duration-based equity risk sub-module have negligible market share in technical provisions.

EIOPA also provides information about the reference portfolio used to calculate the VA and the corresponding portfolios for the MA. In the currency representative portfolios, most of the VA assets are euro-denominated: 86% of government bonds and 79% of corporate bonds. In the corporate bond portfolios, direct corporate bond investments constitute around 60% of assets, followed by CIUs and mortgages and loans. In the UK, 58% of MA assets are corporate bonds and 21% are government bonds while mortgages and loans account for 15%. In Spain, government bonds represent more than 80%, predominantly domestic.

With regard to investment behaviour, EIOPA estimates that over the course of one year (Q1 2016 to Q1 2017), insurers kept on average 80%, 77% and 78% of their investments in government bonds, corporate bonds and equity. In the corresponding survey, only 40%, 37% and 30% of insurers, irrespective of business line, found that these preliminary results reflected their asset management practices. Based on the 3-year observation period (Q1 2016 to Q1 2019), EIOPA estimated the holding period at 5 years for government bonds, 4.3 years for corporate bonds and 4.5 for equity investments. On average, 94% of the Non-UL&IL initial portfolio of direct investments is usually kept each quarter, while this share is lower for UL&IL portfolios (91%), suggesting that insurers are rebalancing unit-linked portfolios more actively than others.

Additionally, the results of the equity-holding period test based on a sample of 191 undertakings show that although 58% of companies can hold their equities for at least up to 5 years, most of them (65%) are sold during the first 5 years. Of those undertakings that are exposed to forced sales, 15% sell in the first year and 23% sell in the years after. The features to generate better results could be the share of illiquid liabilities, the presence of buffers and the existence of a liquidity plan. However, the available sample size does not make it possible to establish a clear link. To complete its investigations on forced selling, EIOPA also asked undertakings to indicate whether they use specific tools in their asset-liability management and/or risk management.

Liabilities structure

The liability side features technical reserves, namely obligations to policyholders, and own funds. It is a reflection of the business models (life, non-life, composite), and the markets covered (national and/or cross-border). The quality of own funds remains high in the European insurance sector. While traditional policies continue to dominate, insurers have been reducing the selling of financial guarantees or altering their features but have also gradually switched towards unit- and index-linked products (UL/IL). In such cases, it is the policy holder rather than the insurer that bears the investment risk, and the implications of such shifting behaviour are currently being analysed.

Investor/consumer protection is a major issue at hand, in particular for those individuals who do not have large amounts of savings and/or the financial knowledge to build a properly diversified portfolio and monitor it. There is also the risk of retail investors being procyclical in terms of market timing of their (dis)investment. When it comes to the risk of mass lapses of UL policy holders, it was argued that such sales are probably less likely (because of insurance wrappers) than similarly motivated sales by mutual funds. However, currency denominated guaranteed products (traditional life insurance) are even less prone to lapses.

While most insurers have stopped offering guarantees on new insurance policies, the legacy products still make up the majority of technical provisions in the EEA (approximately 2/3 of life business has some form of guarantee). There is still a strong demand for guaranteed products, but one the industry cannot longer serve, at least economically and/or prudentially. The trend for fewer guarantees in commercialised products compared to products in run-off can be seen for all types of guarantee, except guaranteed annuity benefits. The countries with a low proportion of products with guarantees have significant volumes of unit-linked products.

Understanding insurance products, in particular their illiquidity, duration or short-term volatility, is a necessary starting point for deriving the ALM spot and then taking active investment decisions. In the stress test exercise, the weighted average Macaulay duration of the technical provisions (TP) or the participating groups equals 12.5 years for Life TP and 4.1 years for Non-Life TP. Sticky liabilities are underpinning the ability of insurers to harvest the liquidity premium of selected asset classes. The capacity to on-board long-term assets depends on the net position for each maturity bucket (how many claims to pay out compared to the cash flows generated by assets). Other key items influence the ALM dynamics, such as the insurer’s own risk appetite, ranging from the narrow approach based on pure cash flow matching to sophisticated optimisation of financial performance.

EIOPA collected evidence on the features of liabilities, especially concerning their illiquidity characteristics and the link to asset and liabilities management and long-term investment. In the report published in Dec 2019, EIOPA finds that the proportion of liabilities, measured on the basis that there are no surrender or cancellation options, is 15% of the best estimate. The average modified duration of insurance liabilities is 11.9 years. The timing and the predictability of the liability cash flows are influenced by product features. Hence, the ‘degree’ of illiquidity (72%) was measured based on the sensitivity of cash flows to certain underwriting shocks in the Solvency2 standard formula. For both measures, there is considerable variation across lines of business (life and non-life) and between member states.

Asset management

The European continental insurance market for asset managers (€3.6tn) is dominated by captive players (70% within insurance or banking groups), with portfolios largely biased towards fixed income strategies compared to alternatives and equities. However, there is an increasing demand for specialised services from independent third-party asset managers from, for example, mid-sized European insurers lacking access to non-traditional asset classes or preferring to start building relations with external asset managers that understand the reality/peculiarity of their business model. In general, there are clearly defined roles in strategic asset allocation (SAA), ALM, in(out)-sourcing (full or partial), asset classes (core or niche), and execution policies.

The main services requested include portfolio construction (taking into account specific prudential, accounting, and tax rules) but also compliance reporting and data analytics. Being able to deliver higher returns in capital-adjusted and cost-effective terms is essential. Alternative fixed income will also need to be explored further (in particular investment-grade and high-yield corporate bonds, bank loans, infrastructure/real estate debt and multi-assets). Risk management and valuation capabilities will be particularly important for illiquid assets while Solvency Capital Requirement (SCR) optimisation strategies will be most common in the equity space. Insurers have also started to co-invest or enter other types of deal arrangements with originators and underwriters in such markets.

Regulatory developments

The current prudential framework prescribes how much capital should be put aside based on the one-year Value-at-Risk (VaR) approach through the calibration of charges for investment risks, but also other important elements such as the discount rate for measuring liabilities. The Solvency 2 framework is risk-based and capital is aimed at covering risks that insurers are exposed to on a market consistent basis.

The review of Solvency 2 should assess whether the assumption of forced sale is correct, and, in the event that it were not, the Commission should seek to more appropriately align capital requirements to long-term investment risk, for example to capture properly preventive and corrective management actions, going-concern and governance criteria or look into the characteristics of the insurance contracts from an economic approach.

Insurers need to have the *ex ante* capacity to invest in equity but equally the *ex post* capacity to rebalance actively in order to maintain performance throughout the economic/market cycles. Solvency 2 allows for a reduced capital charge for equity when specific conditions are met and the use of transitional measures and symmetric adjustments modulating the 39% requirement according to market conditions. Industry representatives argues that a reduced capital charge would be warranted when adequate safeguards are in place, e.g. calibrated more on historical rather than immediate volatility, catering for the illiquid part of the liabilities and identifying the equity not exposed to forced selling. In essence, recalibrating the risk weights for listed equity as well as exploring a meaningful accounting of fair value measurement with a proper allocation of the volatility between profit and loss, own funds and technical liabilities.

Several targeted amendments to the Solvency 2 Delegated Regulation were adopted between 2015 and 2018 with recalibrations for equity and debt investments in infrastructure projects and infrastructure corporates as well as simple, transparent and standardised securitisation (STS). EIOPA's technical advice on the treatment of unlisted equity and unrated debt investments as well as alternative investment funds has been taken up in a Delegated Regulation by the Commission (March 2019). In addition, a new asset class was introduced: long-term holdings in equity investments of EEA companies (Article 171).

For example, even if only 5% of all current unlisted equity investments were eligible for the preferential treatment, this would still represent close to €35bn of investments. This could increase because insurers may also invest in unlisted equity through private equity funds. Currently, insurers' investments in private equity funds and alternative funds make up less than 1% of insurers' total investment portfolio.

About 70% of the total investment of insurers is held in debt instruments, of which about half is invested in corporate debt and loans. In France, insurance companies account for about 80% of the investments the Euro-PPD market. In Germany, non-bank institutional investors in total make up only 5%-15% of the investment base in the *Schuldschein* market. The threshold for the co-investment criterion for the use of internal models for unrated debt was reduced from 50% to 20%. However, small insurers may also not have the resources to conduct internal credit assessments or benefit from co-investment agreements. In order to ensure proportionality, a comparable treatment to investment-grade bonds or loans was introduced.

For the new asset class, industry representatives argued that the minimum average holding period of 12 years is not in line to current market practices. Some others issues were raised, for example the rebalancing and diversification effects, different business models of insurers (not all do ring-fencing), the price impact in primary/secondary markets, the link between buy-and-hold behaviour and the depth/liquidity of equity markets.

The required average holding period was reduced to 5 years and insurers should demonstrate the ability to hold the investments under stressed conditions for a further 10 years, for which a 22% standard parameter can also be justified. This minimum holding period was deemed consistent with Kitchin business cycles and the preliminary results from an EU-wide analysis of Solvency 2 quantitative data conducted by EIOPA (under the assumption of random trading behaviour, the average holding period of insurers is currently around 4.5 years).

Therefore, insurers will be allowed to benefit from the 22% capital charge even when the average holding period goes below 5 years, provided that the insurer does not make any further sales of long-term equity investments which would further decrease the average holding period. However, the insurer may decide at any time to add new equities to the portfolio. Such preferential treatment is subject to sound prudential criteria related to the investment horizon, to the ability of the insurer to avoid fire-sale under stressed conditions, to the governance of the investment process and to a robust asset-liability management.

Existing survey evidence by EIOPA (2016) suggests that insurers prefer not to fire-sell assets during market corrections, as they first pursue alternatives such as raising capital, reviewing guarantees and changing the product mix or simply have the ability to sustain cycles with sufficiently sizeable own funds and 'free' assets. Whether insurers would refrain from fire sales in a future distress event, however, remains uncertain. It remains to be seen how many insurers will be actually making use of this new option – beyond the prudential incentives, it also presents operational challenges in terms of re-allocation of portfolios (market timing and volumes).

The European Commission decided to postpone the interest rate risk treatment for the 2020 Review. A similar decision has been made regarding other areas such as the treatment of equity risk and the risk margin. EIOPA's recommendation was to model interest rate risk in the standard formula with a relative shift approach and to phase-in/transition over the next 3 years. The proposed approach would be effective at both high and low levels of interest rates and has already been adopted by internal model users. EIOPA estimates that its proposal would lead to a decrease in solvency ratios by 14%, ranging up to 75% in one member state; according to the industry, this would represent a €200bn increase in capital requirements EU-wide. With respect to the risk margin, EIOPA recommended that the currently applicable CoC rate of 6% should not be changed.

In October 2019, EIOPA released a public consultation for its provisional/draft Technical Advice on 2020 Solvency 2 Review. In March 2020, EIOPA announced that the deadline of the Holistic Impact Assessment would be deferred to 1 June 2020. Another information request to a sub-sample of insurance undertakings will be carried out from July to mid-September 2020. In order to assess the impact of COVID-19, EIOPA revised the timetable for the Final Technical Advice to end-December 2020, in close coordination with the Commission.

With respect to the extrapolation of risk-free interest rates for the euro, EIOPA is considering choosing a later starting point or changing the extrapolation method to take into account market information beyond the starting point. The main objective is to avoid the underestimation of technical provisions and inadequate risk management incentives. The consultation paper also sets out two approaches to calculate the volatility adjustment (VA) that include application ratios aiming to address overshooting effects and to reflect the illiquidity of insurance liabilities to which the the adjustment is applied. Regarding the matching adjustment (MA), it was proposed to recognise diversification effects with regard to the matching adjustment portfolios in the Solvency Capital Requirement (SCR) standard formula.

For the interest rate risk sub-module, EIOPA re-confirms its 2018 advice to increase the calibration in the SCR standard formula, in order to take into account, the steep fall of interest rates experienced in recent years and the existence of negative interest rates. With regard to the risk margin, the sensitivity to interest rate changes and the calculation for undertakings that apply MA and VA were analysed; the analysis did not result in a proposal to change the calculation of the risk margin. In the area of technical provisions, the provisional advice sets out proposals to clarify the legal framework, mainly on contract boundaries, the definition of expected profits in future premiums and the expense assumptions for insurers that discontinued one product type or even their whole business.

From an asset allocation perspective, EIOPA was asked to continue its analysis on the treatment of long-term investments under Solvency 2. This was included under the item "Capital Markets Union aspects" in the request for Technical Advice by the European Commission. With regard to equity, EIOPA was asked to conduct comprehensive review of the equity risk sub-module, and in particular to assess the appropriateness of the design and calibration of the duration-based equity risk sub-module, of strategic equity investments (SEI), of long-term equity investments (LTI) and of the symmetric adjustment.

The provisional advice (October 2019) includes a review of the capital requirements for equity risk and proposals on the criteria for SEI and the calculation of LEI. Because of the introduction of the capital requirement on LEI, EIOPA intends to advise that the duration-based equity risk sub-module (DBER) be phased out. Having two separate risk sub-modules targeting the same risks – namely those of long-term equity exposures – is considered as unnecessary and needing to be addressed. EIOPA is also of the view that the composition of the equity index for the symmetric adjustment does currently not need to be updated.

The SCR standard formula includes an equity risk sub-module that is based on risk scenarios that envisage a fall in equity market prices of 39% or 49%, depending on the type of equity. EIOPA's advice remains equal to the precedent with respect to type 1 and type 2 equities.

The Delegated Regulation sets out a reduced risk charge of 22% for equity investments of strategic nature. On the application criteria, stakeholders identified critical elements of the framework, namely the approach for evaluating strategic participation based on lower volatility and a minimum control threshold of 20%. Most NCAs mentioned difficulties demonstrating that the lower volatility criterion is met, in particular for unlisted equities. To date, no advice was provided on strategic equity by EIOPA. In its provisional advice, EIOPA considers that the criterion of lower volatility should not be deleted and suggests providing further legal clarification on how to perform that assessment, for example the beta method could be introduced as an option.

With respect to the criterion of a 20% minimum control threshold, EIOPA recommends keeping that requirement. In addition, EIOPA advises that it would be beneficial to make it more explicit that the requirement applies to investments in related undertakings. To this end, the title and first sentence of Article 171 of the Delegated Regulation could be changed in order to refer to participations rather than to equity investments. It could also be clarified that the treatment of strategic participations is based on the underlying assumption that their valuation does not significantly depend on the performance of the insurer itself, nor that their valuation is significantly correlated with changes in own funds.

The Delegated Regulation also prescribes that a sub-set of equity investments (Art 171a) may be treated as long-term equity (LTE) and then benefit from a risk charge of 22%. The portfolio of assets should be identified, managed and organised separately. To date, no advice has been provided on LTE by EIOPA. For this consultation, EIOPA carried out an analysis of long-term equity risk based on historical data series. The appropriateness of a lower capital charge for a single equity or not well-diversified portfolio of equities cannot be derived from this analysis. The excess return was calculated net of the 10-year risk-free rate in order to reflect not only the loss on the equity, but also the unwinding of the discount rate in the technical provisions. Also, the excess return is calculated based on minimum value to consider that the insurer may dispose of that equity within a given year, at the lowest index value.

Based on the MSCI Europe Total Return Index, the experienced stress for a 10-year horizon results in 62%. Also, there is no clear decreasing trend in the risk with regard to extending the time horizon. Therefore, EIOPA's empirical analysis does not corroborate the 22% capital charge for LTE. EIOPA advices that the LTE applies only to diversified LTE portfolios; this is in order to avoid excessive reliance on any particular issuer or group of undertakings and excessive accumulation of risk in the portfolio as a whole. In addition, EIOPA advises excluding controlled intra-group investments from the scope of the LTE given the potential overlap and impact on the average holding period.

In the same consultation, EIOPA undertook several investigations with respect to long-term investment and the characteristics of the liabilities that enable insurers to do this. Such investment behaviour by insurers may be expected to reduce the risk of losses, or their amount. Based on 3-year observations from Solvency 2 reporting, EIOPA estimated that the average equity-holding period is 4.8 years. Solvency 2 calibrations are performed only on a 1-year loss basis. Judgement was needed on how to extend such an analysis for multi-year investment durations. EIOPA presented the empirical VaR rather than the normalised values. But based on this initial investigation, it was not possible to corroborate the assertion that investment for a longer duration justifies a lower capital charge.

To date, long-term equity investment is included within other type 1 and type 2 short-term equity risks. As such it benefits from the same diversification. However, the correlation matrices were defined based on 1-year time horizon. The first empirical analysis was not conclusive on the correlation coefficient between short-term and long-term risk. However, EIOPA argued that it can be justified to not treat short-term and long-term equity risks in the same manner.

Financial stability

The 2018 stress test highlights that the participating insurance groups are vulnerable not only to low yields and longevity risks but also to a sudden and abrupt reversal of risk premia combined with an instantaneous shock to lapse rates and claims inflation. In the yield curve up scenario (YCU), the aggregate assets over liabilities (AoL) ratio drops from 109.5% to 107.6%; the impact is driven by a significant drop in the value of assets that is not compensated by decreasing liabilities. In the yield curve down scenario (YCD), the aggregate AoL ratio decreases from 109.5% to 106.7%; this is mainly attributed to an increase in technical provisions. In both scenarios, the impact is more severe without the use of LTG and transitional measures.

In both scenarios, the capital position is materially affected but the SCR ratios remain at satisfactory levels (from a baseline SCR ratio of 202.4 % to post-stress ratios of 145.2% and 137.4 %, respectively). In order to shed additional light on the key determinants of the stress test results, a pooled linear regression analysis was conducted by EIOPA and published in the Financial Stability Report (June 2019), in particular how the asset and liability characteristics affect both the relevant change in excess of asset over liabilities (eAoL)and the SCR ratios.

In the YCU scenario, the findings suggest that the asset characteristics are the main determinants, with the share of insurance with profit participation playing a mitigating role. The change in eAoL is driven on the assets side by the share of assets held for unit-linked and index-linked business, share of holdings in related undertakings, share of unlisted equities, share of government bonds, share of CIUs and share of loans and mortgages. Unlisted equities have the highest estimated coefficients. On the liabilities side, the regression results indicate that the groups are less affected when they have a larger share of insurance with profit participation contracts. This has can be explained by the fact that the investment risk is also borne by the policyholder and an absorbed investment reserve can be used during periods of market stress.

In the YCD scenario, it is the share of life technical provisions that seems to be the main driver, with the share of corporate and government bonds mitigating the impact. On the assets side, the groups with a higher share of corporate bonds seem to be less affected by shocks. Nonetheless, the increase in assets is not enough to compensate for the increase in technical provisions in the prolonged low yield environment. On the liabilities side, the contracts with guarantees as well as the contracts with no guarantees (but to a lesser extent) have a negative impact on the change in eAoL. The empirical results reveal that the eAoL of the participating groups decreases more for life groups that need to meet the guaranteed obligations by contracts sold in times of higher yields.

In March 2020, EIOPA issued a public statement on actions to mitigate the impact of COVID-19 in the areas of business continuity, solvency and capital position and consumer protection. The insurance sector is well capitalised and able to withhold severe but plausible shocks to the system. Nevertheless, measures to preserve capital position should be taken in balance with the protection of the insured, with prudent dividend and other distribution policies, including variable remuneration.

In the same public consultation on the Technical Advice (October 2019), EIOPA proposes to include the macroprudential perspective covering the tools initially considered by the European Commission (improvements in own risk and solvency assessment and the prudent person principle, as well as the drafting of systemic risk and liquidity risk management plans) but also additional ones in order to equip NCAs with sufficient powers (capital surcharge for systemic risk, soft concentration thresholds, pre-emptive recovery and resolution plans, temporarily freeze on redemption rights). EIOPA also calls for a comprehensive recovery and resolution framework for (re)insurers to deliver increased policyholder protection and financial stability in the EU. In the advice, EIOPA focuses on the recovery measures including the request for pre-emptive recovery planning and early intervention measures.

FinTech

In recent years, the traditional insurance model has been challenged by InsurTech in terms of value proposition, operations and distribution. This translates into customer-centric, cost-efficient solutions, with more transparent, automated and faster processes. The incumbents started engaging with InsurTech either by changing certain parts of their businesses internally or by investing in, partnering with, and acquiring these highly innovative companies. Given the legacy issues, the focus is on simplifying and digitising parts of the insurance value chain as opposed to disruption and/or heavy disintermediation

Nonetheless, the number of InsurTech companies with separate digital brands and inherent competitive advantages are expected to increase. Although their initial focus has been on retail/household clients, in particular those that are digitally savvy, they have also started to move into the commercial segment. In general, big data should provide greater insights into the profile of the policy holders and their individual risks. This, in turn, is expected to improve underwriting decisions, pricing of policies and claims settlement. In the medium to long run, balance-sheet management will also be impacted. Major insurers are also involved one way or another in blockchain initiatives. Such developments must be closely monitored, in particular the associated risks.

5.3 Policy & market implications

- The Solvency 2 regime must remain risk-based, work for the insurance industry as a whole and ultimately achieve its key objective of policyholder protection. Any changes should be assessed against wider policy objectives, such as supporting long-term savings and investment in Europe, while monitoring their impact on asset allocation and the overall product mix.

- Encouraging buy-and-hold behaviour should not be seen as the unique approach to ALM; the capacity to actively rebalance portfolios over market/economic cycles is equally important. Recalibrating the risk weights for listed equity as well as exploring alternative accounting to fair value measurement should have a sound prudential basis, beyond the economic and political considerations of CMU.

- As part of search for yield, the shift in exposures should be grounded in the illiquidity profile of liabilities and complemented by enhanced risk management. Where asset management is outsourced, mandates will require returns in capital-adjusted and cost-effective terms. This will allow insurers to improve operational efficiency and have access to specialised research/investment portfolio capabilities.

6. Pension funds

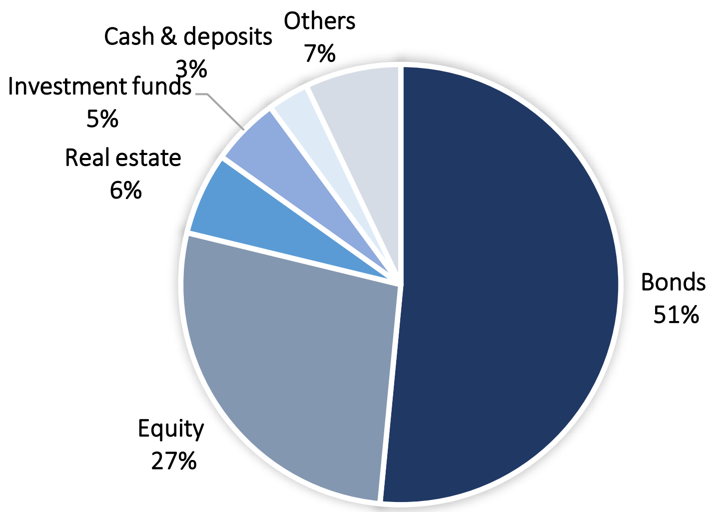
6.1 Context

Pension provision is at very different starting points across the EU member states. Over the last ten years, European pension funds (defined benefit or defined contribution, occupational or personal, mandatory or voluntary plans) have experienced a significant increase in their investments. Traditionally, pension funds have invested a lot in fixed income focused strongly on their domestic markets, but over the last decades they have started to shift towards equities and alternatives and international markets. In the future, the pension product mix (and underlying investment) will have to accommodate the longevity 'risk' and deliver satisfactory returns over time.

- What is the outlook for asset allocation (traditional vs alternatives) and investment strategies (active vs passive, cash flow vs liability driven) in the medium and long run?
- Do the main risks for pension funds appear to be on the return portfolio, or rather on the matching portfolio? Does the business model play a significant role?
- Are pension funds reconsidering their in(out)-sourcing of asset management or co-investment/partnerships with other institutional investors?
- Do the products and the regulation provide the appropriate framework for optimising the future purchasing power of pension savers?

6.2 Analysis

Figure 4. Asset allocation by pension funds



Source: EIOPA, PensionsEurope – Q4 2018.

Pension provision: adequacy and sustainability

Europe's pension savings gap is projected at around €2tn a year for the period 2017 to 2057, equivalent to around 13% of the EU's GDP. With the exception of a few countries, pensions are the main source of income for the elderly, coming mostly from 'pay-as-you-go' public schemes. Cross-country differences are mainly driven by the national set-up of pension systems but also cultural and historical differences. Many countries have fairly young pension markets and state or occupational pensions rely on employees/employers' contributions. There are countries that do not have any, or only a few, occupational pension funds.

In the EU, pensions are examined from both the point of view of the sustainability of pension financing and the adequacy of pensions (see for Reports by European Commission on Pension Adequacy, Ageing as well as Employment and Social Developments in addition to the Country Profiles in the European Semester). Since 2013, around 18% of older people (aged 65 and over) remain at risk of poverty or social exclusion. For instance, women's pensions are still 37% lower than men's due to lower salaries and shorter working lives.

People in non-standard or self-employment often face less favourable conditions for accessing and accruing pension rights. In the space of a generation, the average European worker has gone from having a job for life to having more than ten throughout a career. Current social security systems were primarily geared towards people working full-time in a long-term relationship with one employer. As labour markets evolve, social protection systems also need reforms, with new approaches to encouraging workers in non-standard forms of work to join and make regular contributions to pension arrangements.

Pension design is a major social choice so any reforms would need strong political support at national level. From an asset allocation perspective, pension reforms in countries with low retirement savings could boost capital markets substantially. If designed well, these reforms could foster significant growth in equity markets and strengthen cross-border diversification.

Investment portfolios

According to Pensions Europe Statistics (2018), if all private pension arrangements (both the 2nd pillar and the 3rd pillar) are included, these would represent around €4660bn assets: pension funds/ IORPs (€4028bn), book reserves (€379bn), group insurance (€61bn) and 3rd pillar personal pensions (€191bn). According to EIOPA, the European IORPs sector managed around €3.8tn of assets at end-2018. Two countries (UK, NL) continue to account for around 82% AuM and provide their citizens with a relatively modest flat-rate state pension under Pillar 1 and mandatory pension saving under Pillar 2. Germany, Italy and Ireland account for over 12% of the assets. All the other European countries make up less than 7%.

Traditionally, pension funds have invested more than 50% in fixed income assets, but since 2008 they have started to shift towards more equities and alternatives. According to EIOPA, the total exposure to sovereign, financial and 'other bonds' added up to 51% of total assets at the end of 2018. Pension funds are generally more exposed to sovereigns and financials compared to corporates (only 17% of total). The second largest category is represented by equity holdings (31% in 2013 and 27% in 2018). Around 16% is invested in other assets (loans, infrastructure, private equity/debt, hedge funds, alternative funds, etc.), a category that has been growing given the low yield environment. Portfolio allocations to infrastructure remain small (less than 1%); an insufficient supply of viable projects is often mentioned as an impediment. On average, around 4-6% is invested in UCITS and 6-8% in real estate.

Generally, pension funds are not subject to investment quotas, but are encouraged to calibrate their exposure to alternative investments depending on the quality of their funding position and enhanced risk management capabilities. While changes have been clearly indicated at the level of individual firms, no clear conclusions can be drawn at this stage on the investment trends for the broader categories (fixed income, equity, other assets). In aggregate terms, the investment allocation of pension funds remained almost unchanged in recent years (2013-2018). The stability in the investment mix is partly due to legal or contractual investment restrictions, which are put in place for prudential reasons or to ensure long-term investments, as well as due to relatively infrequent trading or reallocations in the portfolios.

At the end of 2016, there were 73 active cross-border IORPs – amounting to €63bn, equal to 1.65% of total IORP assets. Other anticipated market developments include on the one hand more consolidation among various players and stagnation in cross-border activity, but on the other hand an increase in the number of multi-employer IORPs and expansion of multi-country cross-border IORPs. In 2018, no significant changes in the number of active or authorised cross-border IORPs were observed. These remain clustered geographically, carrying out activities from 8 home countries to a total of 16 host countries (amounting to €70bn, serving 600,000 plan members).

There is quite some heterogeneity in asset allocation across the EU. At the end of 2018, UK pension funds showed a relatively stable exposure to bonds (59%), equity (27%) and other assets (14%), as a result of the de-risking process that started prior to the financial crisis. The share of direct equity holdings by Dutch pension funds has decreased in recent years, but this was compensated by a significant shift towards indirect holdings of equity via mutual funds (overall still around 40% in the past 5 years). More precisely, Dutch IORPs had the following allocation: bonds (49%), equity (34%) and other investments (17%) in 2018.

Pension funds in continental Europe tend to have asset allocation tilted towards fixed income. However, continental European corporate pension funds (Blackrock survey) are planning to increase allocations to illiquid assets and rotate out of fixed income and hedge funds. Within fixed income, clients intend to shift into private credit, emerging markets, unconstrained strategies. German pension funds appear to lie on the conservative side of the spectrum, but they have restructured their portfolios significantly in recent years, in particular towards more indirect holding holdings of equity and also corporate bonds. According to EIOPA, 49% of their assets are held in investment funds in Germany and 32% in alternatives in Italy in 2018.

The largest shares in direct equity holdings (over 40%) have been observed in Finland and Ireland while in 'other assets' (over 35%) in Malta and Luxembourg. In Belgium, 74% of assets are invested in UCITS. In Sweden, 13% of assets are invested in real estate. In Poland, investments in governments bonds have been prohibited. In other CEE countries, more than 50% is invested in government bonds and quantitative restrictions on certain asset classes are in place. If pension funds with smaller equity shares were to invest up to the euro area average, at least 3-5% of total euro area market capitalisation could be added to the demand (ECB research).

Cross-border financial holdings have been increasing in the recent years, but the majority of assets remains invested in the domestic markets primarily due to balance-sheet constraints and home bias. The exception is the Netherlands, where 10% of assets are invested at national level, 40% in the rest of Europe and 50% outside Europe. A higher foreign exposure is associated with the search for new uncorrelated investments, currency and inflation hedging programmes and in-depth knowledge of the local market conditions.

The total exposure of equity remained almost unchanged in the last years (relatively higher compared to the insurance sector) driven by significant direct equity investments in a few countries. However, countries with particularly low direct investments in equity usually invest in these categories through UCITS. According to Pensions Europe Statistics (2018), the share of equity investments (including UCITS) varies from 8.25% (Portugal) to 49.1% (Luxembourg). According to Pensions Europe's survey (2018) on drivers of equity investments, pension funds do not aim to make significant changes to the share of their investments in public equities in the upcoming years. Instead, they are more interested in or planning to increase their investments in private equities.

To counterbalance, DC funds are expected to hold equities in greater proportion than DB through index tracking funds, lifestyle funds and diversified growth funds. Very few individual plan members will actively 'self-select' funds with significant equity share. A proper design of default options is key in DC schemes. Changes in the French legislation could progressively move to life cycle funds (and no longer predominantly money market funds or capital guaranteed insurance contracts) and a positive impact on equity investing should follow.

The French government introduced a new type of undertaking in 2017, aiming at providing only occupational pensions schemes, referred to as supplementary occupational pension funds (ORPS). These are not subject to Solvency 2 provisions but the IORP 2 Directive. The first 3 ORPSs were authorised in 2018. The occupational pension schemes eligible to be an ORPS and currently held by insurers are estimated to be worth around €180bn.

European IORPs are often compared with their US counterparts. According to ICI, employer-sponsored retirement 401(k) plans assets totalled $5.2tn, with 63% invested in mutual funds (and 37% in equity mutual funds) and 37% in other investments at end-2018. In 2018, the average expense ratio for equity mutual funds offered in the US was 1.26%. 401(k) plan participants who invested in equity mutual funds, however, paid about one-third of that amount – 0.41% – on average. In practice, 401(k) plans and other retirement accounts often invest in institutional no-load share classes, which have below-average expense ratios.

A target-date (also known as life-cycle) mutual fund typically rebalances its portfolio to become less focused on growth and more focused on income as it approaches and passes the target date of the fund. This change in investment mix over time is typically referred to as the glide path for the fund. In the US, 95% of target-date mutual funds are funds of funds. At end-2018, target-date mutual funds had $1.1tn in total net assets. These funds are especially attractive for 401(k) plans – often are used as default option – and individual retirement accounts (IRAs). In 2008, investors on average paid 0.67% to invest in target-date mutual funds. By 2017, the average expense ratio had fallen to 0.4%.

Asset management

Smaller and mid-sized funds need to outsource partially or completely, while large pension funds combine strong in-house management arms with external specialised mandates. According to EFAMA's asset management report, 28% of the assets managed by third-party asset managers at end-2016 were managed on behalf of pension funds (€6.4tn). There are also cases in which smaller, specialised pension funds are owned by large pension funds.

Building and holding a diversified portfolio is not an all-or-nothing choice. With passives and actives, pension funds have complementary sources of returns. Only a few of the world's largest asset owners are able to approach self-sufficiency in their private asset investing; direct exposure calls for co-investments or partnerships. Administration activity is likely to be more expensive within workplace DC plans than in DB plans. DC administrators have to handle large volumes of small inflows.

The low interest rates environment is affecting both sides of the balance sheet to different degrees. In particular, countries that use discount rates directly related to market rates were confronted with insufficient returns on investment enough to compensate for the growth in liabilities. Liability-driven investment (LDI) will continue to be employed. The main objective is to lower funding level volatility over time and find the middle ground between matching and growth assets (i.e. higher yielding fixed-income assets and equities) that could outstrip liabilities. The need for more diversified and consistent flows of income might be translated into more incorporation of cash flow driven investing (CDI).

Investment costs (direct and indirect, explicit or implicit) are driven by the investment strategy (the choice of asset classes in the portfolios) and the implementation style (passive or active management) and the use of external or internal managers. According to the OECD, pension assets achieved positive real net investment returns in most jurisdictions in 2017. Real investment rates of return of pension assets (net of investment expenses) were positive in 57 out of 60 jurisdictions, exceeding 5% in 22 of them (12 OECD countries and 10 other jurisdictions). Both the simple average real net investment rate of return and the average weighted according to the size of the pension system in terms of assets were above 4% in the OECD and outside the OECD area. However, pension funds experienced negative real investment rates of return in most countries in 2018, especially in the OECD area.

Surveys of pension funds by CREATE-Research (2018), indicate that their investment strategies will aim to: target income, regular cash flow, inflation protection and capital growth via real assets; pursue long-term trends like climate change and demographics via theme funds; seek uncorrelated absolute returns via alternative asset classes; target selective opportunities in various asset classes and regions via bottom-up investment. More specifically, achieving cost-effective diversification via multi-asset class products where fees are charged on net performance, gaining factor-specific exposure and pursuing specific investment themes at lower cost via ETFs are among the investment vehicles.

With equities, only 3% of respondents have a holding period of two years or less; 34% have a holding period of five years or less; and 66% have a holding period of six years or more. With alternatives, 6% have a holding period of two years or less; 30% have a holding period of five years or less; and 70% have a holding period of six years or more. Compared with indexed funds, the holding periods of ETFs are markedly lower. 45% of our respondents hold them for more than two years, 20% hold them for 1-2 years, and a notable 35% hold them for less than a year.

Boon et al. (2018) investigated the extent to which regulations governing investment, valuation and funding affect the riskiness of DB pension funds' asset allocation through a panel data analysis of around 600 pension funds (public, corporate and industry) in the US, Canada and the Netherlands over 1992–2011. In particular, risk-based capital requirements and mark-to-market valuation were both linked to 6-7% lower risky asset exposure, especially equities, regardless of market conditions. By contrast, the fund risk-taking under solvency constraints depends on the financial market conditions. The exposure of a pension fund subject to a 100% funding requirement does not differ significantly from that of an unconstrained pension fund during normal times, but the constrained pension fund invests 4% less in risky assets during a market stress.

When it comes to the exposure to bonds, Greenwood et al. (2018) documented a strong effect of the demand by the pension funds sector on the long end of the yield curve (using datasets from 26 countries). Moreover, when regulators move to change the reference curve by which pensions discount their liabilities, this results in changes in the hedging demand, and consequently, changes in the prices of fixed income assets. When regulators reduce the dependence of the regulatory discount curve on a particular security, the demand by pension funds for the security falls and its yield increases. These effects extend beyond long government bonds.

These results suggest that pension discount rules can have a destabilising impact on bond markets that reverses once rules are changed. Another analysis concerned the changes in pension regulations in several European countries between 2008 and 2013 (NL, SE). As interest rates in Europe fell during and after the 2008-2009 financial crisis, regulators became increasingly concerned about how pension funds would seek to reduce the volatility of their funding gap. Changing the reference curve for marking liabilities reduced this pressure, but the long-term implications for solvency remain unclear.

Shifts in pension plans

In Europe, more than 80% of pension assets pertain to pure defined benefit (DB) or hybrid schemes. Nonetheless, these have come under increased pressure in recent years – negative duration gaps, primarily due to the low interest rate environment but also operational inefficiencies. For example, the discount rates for the liabilities in Denmark, the Netherlands and Sweden are the closest to market rates. As a result, they started to lower or stop offering guarantees – benefit reductions, closing schemes to new members and/or replacement by defined contribution (DC) schemes for future accruals, transferred assets/liabilities in full or partially to another provider, or completely winding up.

Providing long-term guarantees becomes expensive in a prolonged low interest rates environment. DB schemes are primarily affected, as they provide beneficiaries with a pre-defined level of pension. Nonetheless, DC are also affected by the challenging economic environment, but the investment risk is with the member and end-beneficiary. Initiatives like auto-enrolment and automatic increases in contribution levels help to increase funding and bring more assets under management.

However, the shift towards DC schemes (in terms of active members and total assets) is expected to continue. DB schemes are often closed for new members and in a 'run off' state. The DC sector represents approximately 16% of the total European pension sector in terms of total assets. The design in DC depends on the risk tolerances, income requirements and other characteristics of individual members. Most institutions offering pension funds with individual accounts have opted for target-date funds (TDF) or life-cycle strategies. Where the institutions are able to bear higher risk, they have implemented more aggressive, long-term return-seeking strategies and often built up significant asset management expertise in-house.

Life-cycle investment (in particular linked to DC plans), and more de-risking over the time may become in the norm in the coming years. This would allow for more flexibility depending on the risk profile of the savers and broadening the scope for multiple asset classes, strategies and specialised asset managers. This should be analysed in the broader context of risks being shifted onto the individuals and pension funds rethinking their optimum asset allocation in order to generate stable, real positive returns. New pension designs incorporating features from both the DB and DC world may enter the market. The contributions to DC schemes (which tend to be lower than for DB schemes) are determined in advance and invested in a portfolio, and the members bears all the investment risk. The transfer of financial risks and costs from IORPs and sponsors to individual beneficiaries needs to be further monitored and investigated.

In the area of annuities, there is a need for a better understanding of the pension/insurance products, how have been managed, at national and or European level. Given the longevity risk, giving savers the flexibility of choice in pay-out options is key. In the area of life-cycle investment, it should be considered not to start de-risking at retirement age and still have some level of managed assets and equity exposure. This may lead to much better outcome for participants if they remain invested because there can be collective solidarity in private pension schemes.

Design, costs and returns

The cost of running pension schemes – administration/operational and investment activities – and the way those costs are passed on to members, employers and sponsors have a significant impact on the outcomes. OECD research highlights that policymakers in several jurisdictions have introduced direct measures to restrict fee options, to influence the structure of the pension market or the products offered by pension providers.

For both DB and DC schemes, it is often argued that market mechanisms might not be strong enough due to several inhibiting factors, such as the lack of engagement by plan participants given the long intermediary chain, complex and opaque charging structures, weak governance, barriers to entry/switching, or failure to exploit potential economies of scale. The range of public measures includes disclosure-based initiatives, price regulations, and structural solutions to influence the set-up of the pension market or the products offered by pension providers. In most cases, these do not fully reflect the nature of pension charging structures, especially the impact of asset-based fees, cumulative charging or performance-based fees.

Benchmarking DB funds against relevant peer groups, and DC funds against a proxy default fund (low-cost life-cycle strategy) can show whether administration and investment costs are competitive and whether investment performance is commensurate with overall costs. Such exercises could translate into justifying any deviation from the performance of the proxy fund and highlight the need for cutting costs or modifying administration/investment activity. These efforts could be complemented by data on the ‘value for money’ offered by different funds to members and sponsors.

Some reforms promote consolidation of the pension fund sector in order to bring much needed efficiency gains, also facilitated by the IORP 2 transposition. There is indeed pressure to consolidate in the pension sector and achieve more operational efficiencies (minimising the total costs of running the scheme and delivering better value and returns for members).

In the Netherlands, both transparency and benchmarking are enforced by the supervisor. The cost disclosure framework requires pension funds to supply detailed information on their administration and investment costs in their annual reports. Asset management costs must include both direct and indirect costs, down to the level of the underlying investment, and, from accounting year 2017, also look-through reporting on transaction costs. Pension plans are then required to explain deviations (if any) from the cost structure of the peer group. In 2015, the average investment costs for all pension funds in the Netherlands were 58.5bp, administration services for members (i.e. excluding the costs of governance and oversight of the plan) cost a further 7.5bp. Total costs across all funds ranged from 15bp to 200bp.

In the UK, the FCA Policy Statement PS17/20 came into effect in 2018. It requires firms managing money on behalf of DC workplace pension schemes to provide: i) information about transaction costs calculated according to the slippage cost methodology; ii) information about administration charges and iii) appropriate contextual information. DB providers in the UK are not required to provide or benchmark cost and performance data; however, the regulators have tasked the industry to come with proposals to improve transparency. In April 2015, the UK introduced a charge cap of 0.75% of AuM on workplace default funds. The cap applies to all direct and indirect administration and investment costs but does not include transaction costs. As well as putting an upper limit on default fees, the cap also helped to raise awareness of high charges in other DC arrangements.

The Cost Transparency Initiative (CTI) templates and guidelines were released in July 2019 by the UK FCA and are available to use for asset managers reporting to pensions funds, on a voluntary basis. In practice, these cover access to 90% of portfolio costs, giving pension funds a near-full picture of what they can expect when investing with an asset manager. According to the Pensions and Lifetime Savings Association (PLSA), these should allow pension funds to make clear costs and charges comparisons across different providers and asset classes, and track performance more easily. In March 2020, EIOPA proposed two Pension Benefit Statements (PBS) designs for DC schemes to meet their IORPs requirements. These models are voluntary and may be further developed and adapted to the national specificities and/or characteristics of the pension scheme.

Regulatory environment

At present, there is no full-fledged prudential regime for pension funds (only IORP 2). Valuation methods are country specific: on national balance sheets, assets are valued either at market or book values, while the discount rates for liabilities vary between risk-free rates and expected returns on assets. Also, different national funding requirements coexist as well as different prudential/recovery mechanisms for dealing with funding shortfalls. In absence of a fully harmonised framework, cross-border activities follow the Social and Labour Law (SLL) of the host member states and the prudential rules of the home member state in which the IORP is established. EIOPA observed that in the vast majority of member states the fully funded requirement applies to the whole IORP rather than specifically to the cross-border activity.

The IORP 2 Directive does not include any delegated acts. In July 2019, EIOPA released four Opinions to assist with the IORP 2 implementation. The first three Opinions focus on governance and risk assessments, implementation of the common framework and management of operational risks. The fourth Opinion on the supervision of the management of ESG risks faced by IORPs provides an illustrative mapping of how environmental (through the physical and transition risk channels), social and governance risks may materialise in prudential risks of IORPs. Industry representatives argue that EIOPA's Opinions are too prescriptive and do not reflect the minimum harmonisation character of the IORP 2 Directive.

The first Opinion on the use of governance and risk assessment documents in the supervision of IORPs sets out expectations on the minimum content describing how pension funds conduct their Own-Risk Assessment (ORA) and submit the results to the NCAs. When carrying out the ORA pursuant to Article 28 of the IORP 2 Directive, the starting point should be the national regulatory framework in which IORPs operate. The ORA includes a qualitative assessment of the protection mechanisms available to IORPs as well as an assessment of the risks to members and beneficiaries considering any indexation and benefit reduction mechanisms.

As part of the supervisory convergence efforts, NCAs are encouraged to review and ensure that the ORA is considering both internal and external developments likely to affect the future risk profile of funds. This Opinion also provides guidance on the use of governance documents in the supervision of IORPs' investment policy, including the statement of investment policy principles (SIPP). However, NCAs should determine the frequency and granularity for the requested information without prejudice to national measures and considering the national specificities of the IORP sector, in particular the size, nature, scale and complexity of their activities.

The second Opinion on the practical implementation of the common framework for risk assessment and transparency for IORPs invites NCAs to make IORPs aware of the availability of this tool when conducing their ORA. The common framework contains comprehensive principles and technical specifications, which NCAs and IORPs may use on a voluntary basis, and it is relevant only to pension schemes where risks are shared to differing degrees between the sponsor, plan members and the provider itself. The degree of relevance and materiality of many of the elements in the technical specifications will vary depending on the nature of IORPs in different member states. Pure DC schemes, where risks are directly and fully borne by the plan members, are not within scope.

The common framework consists of a market-consistent common balance sheet and a standardised risk assessment, calculating the impact of pre-defined stress scenario, including all available financial assets and benefit adjustment mechanisms, such as sponsor support, pension protection schemes and benefit reductions; this gives an indication on who might be obliged to intervene and to what extent. In this opinion, EIOPA emphasises that the common framework could further strengthen risk management, irrespective of how capital and funding requirements are defined at national level. Considering the national specificities, NCAs may adopt further simplifications for the valuation of the common balance sheet, when these are proportionate to the nature, scale and complexity of IORPs' activities.

The third Opinion on the supervision of the management of operational risks faced by IORPs stresses the importance of forward-looking supervision but also retaining oversight of the full range of activities performed by pension funds and/or outsourced to service providers. The assessment of operational resilience by NCAs should in particular focus on but not be limited to the: timely and accurate collection of contributions, investment of contributions, payment of pension benefits, safekeeping of assets, protection of members' future pension benefits and service continuity of the IORP's operations.

The shift away from DB schemes to DC schemes as well as the emergence of multi-sponsor IORP providers also required additional attention from NCAs. For example, the immediacy of operational DC risks and retroactivity of operational DB risks, i.e. in contrast to DB schemes, the effect of an operational failure or error is more immediately visible to DC members in terms of accumulated pension capital and future projections. In terms of proportionality, NCAs should determine the frequency and depth of their supervisory operational resilience by considering their characteristics as well as the diversity of IORPs' activities.

Financial stability

The 2019 exercise aimed to stress test the resilience of the sector rather than of individual funds and highlight the implications for the real economy and financial stability. For the first time, EIOPA added a section on pension funds' exposure and risk management practices regarding ESG factors.

In the baseline, the results show that the EEA pension sector is overfunded by €19bn in the national balance sheets but underfunded by €41bn in the common balance sheet. It should be noted that the UK sector did not take part in this exercise. The adverse scenario would result in an aggregate shortfall between assets and liabilities of €180bn in national balance sheets, and €216bn in the common balance sheet, respectively. The latter would in turn trigger an aggregate benefit reduction of €173bn and sponsor support of €49bn.

The EEA aggregate figure is highly influenced by the IORP sector in the NL, where pension liabilities are valued using a risk-free rate term structure, similar to the one applied in the common methodology. However, the prudential regimes in many other EEA countries build on fixed discount rates of up to 4%. Overall, the granularity of data on the pension sector and overall comparability is not as granular as for the insurance sector. However, the improved reporting framework is expected to allow EIOPA to monitor market developments in a horizontal manner as well as undertake in-depth economic analyses from 2020.

Moreover, the market value of the investment assets of DB/HY and DC IORPs from the sample would drop by approx. €270bn. In terms of timing, the extended cash flow analysis of DB/HY IORPs revealed that their financial situation would be heavily affected in the short-term. But EIOPA also observed an expected tendency to rebalance to pre-stress investment allocations within 12 months after the shock, which indicates countercyclical behaviour.

For DC IORPs, the market value of investment assets will drop by 17% in the adverse scenario, reducing individual accounts of DC members. The value of liabilities moves in tandem with assets since all risks are borne by the plan members. The impact is also tested for the future retirement income of three representative plan members.

In practice, funding shortfalls are dealt with in different ways in countries across the EU, i.e. additional sponsor support, partial/full suspension of conditional/discretionary benefits and/or benefit reduction while reducing risk through changes in the asset allocation or derivative hedging. However, additional strain on sponsor companies may have possible negative implications for economic growth and employment levels. The impact on the real economy also depends future consumption-saving-investment decisions of plan members.

For instance, in the UK as well as in other countries, full or partial sponsor support has been in place for many years. Furthermore, in the UK and Germany pension protection schemes are in place and cover the insolvency of the employer in some cases. In some countries a (partial) suspension of benefit increases as well as benefit reductions are ways to tackle low cover ratios. Pension funds in the Netherlands have suspended inflation indexation of benefits or cut benefits altogether.

IORPs are often subject to prudential tools such as national recovery plans that allow sponsor support and benefit reductions to be spread over time, usually considering future asset performance. Typical recovery periods vary considerably between countries, ranging from less than 1 year in Denmark, Norway and Sweden, to 3 to 5 years in Belgium, Spain and Portugal and up to 10 years in Cyprus, Finland, Ireland, Italy, the Netherlands, and the United Kingdom. Also, discount rates higher than the risk-free rate reduce the need for recovery plan measures. It is important to make sure the necessary adjustment to restore the sustainability of occupational pension schemes is not subject to too much delay. Recovery mechanisms mitigate the short-term effects on financial stability, but in the longer-term put the burden disproportionately on the younger generation, especially if investment returns fall short of expectations.

In most countries, IORPs use the market values of assets. Exceptions are, for example, Pensionskassen in DE, part of IORPs in IT and IORPs in in FI and SI, where (part of) the assets are reported using historical values, acquisition costs or amortised costs. National valuation standards for technical provisions are even more heterogeneous. About half of the IORPs included in the sample use a fixed discount rate, especially in DE, ES, FI, IE, NO, SI and the rest of EEA. About a quarter of the IORPs in the sample employ an expected return on assets, most notably in BE and IT. In DK, the NL and SE IORPs have to use a risk-free interest rate curve based on the ultimate forward rate (UFR) approach. IORPs in PT valued technical provisions against a high-quality bond yield.

In April 2020, EIOPA issued a public statement on principles to mitigate the impact of COVID-19 in the areas of business continuity and operational risks, liquidity position, funding situation and pro-cyclicality, protection of members/beneficiaries. For DC schemes in particular, it was recommended to allow plan members to choose a delayed application of lump sum payments or of mandatory annuitisation.

FinTech

Technological developments have the potential of transforming private pension design, management and delivery. Enhanced data collection and analysis tools are expected to lead to more tailored, personalised retirement solutions that will provide steady returns over time. Dedicated digital platforms are aiming to improve accessibility to a broader consumer base. With respect to collective pension schemes, a greater use of fintech not only promises better engagement with individual members, but also operational efficiencies at the level of investment portfolios, transaction processing, risk management, cost disclosure, and regulatory compliance. In turn, this would translate into lower costs both for pension providers and for members.

While the majority of robo-advisers target individual retail investors, an increasing number are also offering services (financial advice or active asset allocation) for pension funds. Although the application of DLT to pensions has been so far limited, it is potentially applicable to a number of aspects of pensions, for example portfolio management, compliance and dashboards. The associated benefits should of course be assessed against the additional risks to be mitigated.

6.3 Policy & market implications

- The product mix (and underlying asset allocation) will have to accommodate demographic trends, in particular the longevity risk. Exposing participants to maximum market risk in the early stages of their professional life and minimising the risks progressively towards mid-career and retirement (but ideally still invested into equity after the retirement age) through life-cycle strategies should be actively promoted.

- Pension plans should provide 'good value for money' by setting fair, affordable contribution levels and implementing adequate investment strategies. Policymakers should create and maintain benchmarks for DB and DC providers (peer groups, default funds) that include information on administration costs and service levels and investment cost, risk and return, depending on the specificities of their markets.

- The challenging market environment will continue to put funding positions of pension plans under pressure. Recovery mechanisms at national level are able to mitigate only the short-term effects on financial stability. In the longer run, the feasibility of measures at EU level should be analysed provided that the specificity of the pension sector and diversity of players within and across member states is taken into account.

7. Sustainable finance

7.1 Context

In Europe, capital markets are expected to support long-term value creation in the real economy. Most importantly, to contribute to the resilience of our societies, in particular the ability to withstand temporary shocks. Asset managers and institutional investors have a duty to act in the best interest of their clients, and therefore should be equipped to seize the opportunities and tackle the risks arising from materially relevant ESG factors. Retail investors have also been increasing their direct presence in this segment. With respect to non-financial data, there seems to be a huge learning curve ahead. Transparency, proportionality, the right incentives, and ultimately performance will allow this segment to grow.

- Are investors mainstreaming the integration of sustainability factors? What are their approaches to ESG assessments, preferred asset classes, investment strategies?
- Is there a real 'scarcity' of sustainable assets/projects in Europe? Would fully-fledged taxonomies, labels and standards improve the conditions for investments?
- What drives the take-up of sustainability ratings/scoring, indices and benchmarks? How to ensure that SMEs are not underrepresented in investors' portfolios?
- From a policy perspective, should a list of key performance indicators (KPIs) be included in order to monitor progress in the market?

7.2 Analysis

Asset allocation

The evidence on SRI/ESG, climate or impact investing is so far mixed. In practice, most surveys tend to overestimate the actual ESG investing flows, namely where ESG factors are actively and systemically incorporated into investment processes and decisions. The broadest classification by the GSIA (Global Sustainable Investment Alliance) puts the market size at $31tn AuM, but a stricter estimate of both retail and institutional AuM would be closer to $3tn. After filtering the Bloomberg fund universe, JP Morgan (2020) found that only around 2%, or $800bn represented ESG-related funds (end-June 2019). The AuM in these ESG funds is skewed towards Europe (46%), institutional clients (75%) and equities (60%). Nonetheless, strategies are broadening, with growing ESG AuM in fixed income, greater retail adoption, and faster growth in non-European funds. 93% of AuM are in active ESG funds. However, both active and passive funds are seeing positive net inflows. ESG fund organic growth is considerably outpacing non-ESG strategies, growing at a 6.3% annualised rate compared to non-ESG, which is growing at 1.9% for 2019 YTD. Unlike non-ESG strategies, ESG strategies have a smaller AUM base. Long-term outperformance will be a crucial factor for further adoption.

In Europe, Morningstar defined the sustainable funds universe as those open-end funds and ETFs that, by prospectus, either state that they use ESG criteria as a key part of their security-selection process or indicate that they pursue a sustainability-related theme or seek measurable positive impact alongside financial return. As of end-June 2019, over 2,000 funds were identified according to these criteria, amounting to €595bn in AuM. Equity funds make up over half of that universe. Fixed-income is the second-largest category group, followed closely by mixed/balanced. Passive funds represent 17.7% of the European sustainable fund market, up from 10% five years ago. More precisely, ESG ETFs account for 15.7% of total passive sustainable assets, compared with just 6.5% five years ago.

In the equity markets, over the past two years (Dec 2017 to Dec 2019), the ESG Leaders 50 index has outperformed the corresponding European benchmark index. This also holds when considering volatility: risk-adjusted returns of ESG indices have consistently outperformed the corresponding main index benchmark (Euro Stoxx 50) in recent years. The inflows into ESG funds remained resilient throughout March 2020. Crisis times call for attention to fundamentals, and ESG fund managers favoured companies with sound balance sheets and resilient business models, for example those that have been less impacted by lockdowns and social distancing measures or those that have fared better simply due to increasing demand for their services under these extraordinary circumstances.

Glow (2020) compared the performance of 34,340 equity funds against respective technical indicator (31,567 conventional funds and 2,773 ESG funds in the Lipper database) for the period January-March 2020. The results show that 53% of conventional funds underperformed while 54% of ESG funds outperformed their respective technical indicators. The average performance of the ESG funds analysed (+0.43%) was also higher than that of conventional funds (-0.65%). However, the outperforming conventional funds showed, on average, a higher performance (+4.34%) than their peers with integrated ESG criteria (+3.76%). But the underperforming conventional funds showed higher underperformance (-4.53%), on average, compared to their ESG peers (-3.48%).

Research by De Haas & Popov (2019) indicates that further development of equity markets could help decarbonise EU economies. Those EU countries where companies finance mainly through equity rather than bank credit or other forms of debt have lowered their carbon footprints more in recent decades. A survey by Aberdeen Standard Investments (2020) found that private equity firms are regarding ESG as increasingly important. More than half of respondents reported having taken meaningful action in relation to ESG, in particular environmental issues. Over 80% indicated that they encourage diversity at a portfolio company level, but many are yet to establish monitoring procedures.

Despite recent positive developments in the green and social bonds space, these represent a very small share of the total EU bond market. According to the CBI (2020), these segments are particularly strong in France, Germany, the Netherlands, Spain, Italy and the Nordics. In the EU, the amount outstanding of green bonds reached €271bn in Dec 2019. Whereas issuance has been historically driven by supranational and sovereign entities, the private-sector (in particular the financial sector) share has increased over time and now represents 51% of the total amount. Overall, green bonds from private-sector issuers are still a small proportion of the corporate bond market in the EU (around 2%). At institutional level, the EIB established a strong foothold with the issuance of climate and sustainability awareness bonds. Some corporates also started to issue bonds linked to Sustainable Development Goals (SDGs), where the returns are dependent on the company meeting pre-determined sustainability targets instead of the use-of-proceeds approach.

In terms of credit quality, 75% of green bonds are rated A or higher. The highest ratings are attached to public-sector issuances. Corporations usually issue green bonds of lower credit quality (mainly A and BBB). About 80% of green bonds have a maturity below 10 years. The public-sector issuances tend to have longer maturities. As regards performance, there is no conclusive evidence that points to outperformance or underperformance of green bonds relative to conventional bonds. However, liquidity in secondary markets is tighter for public sector green bonds than for comparable conventional bonds in the EU.

On the policy side, the TEG (2020) recommended an authorisation and supervisory mandate for ESMA regarding intermediaries such as the approved verifiers. The Commission will explore the possibility of a legislative initiative for an EU Green Bond Standard, based on work put forward by the TEG and in line with the EU Taxonomy. A recovery following COVID-19 in the green context could provide an opportunity for more issuance of green bonds by sovereigns and corporations. In market downturns, investment grade green bonds have proven to be able to deliver a premium.

The issuance of social bonds (with proceeds invested in education, healthcare, housing, entrepreneurship) is very limited but starting to grow. These financial instruments are emerging as a readily actionable market response to the COVID-19 crisis. For example, by converting long-term donor pledges into funding, the International Finance Facility for Immunisation (IIFm) raised $6bn in vaccines bonds and disbursed $2.6 bn from 2006-2018.

ESG integration

In Europe, Eurosif reported that the total amount of assets based on sustainable investment strategies amounted to €11tn at the end of 2017. To note that there is an overlap between SRI strategies in Europe, with investment vehicles frequently using more than one strategy. 'Exclusions' cover 48% of the total of European professionally managed assets but on a downwards trajectory. 'Norms-based screening' and 'Engagement & Voting' are the 2nd and 3rd largest segments, covering approximately 20% each of total AuM. 12% is captured by the more formalised process of ESG integration. And the remaining 3% of SRI assets are categorised as either 'Best in Class', 'Sustainability themed', or 'Impact Investing'. Traditionally, the 'Norms-based screening' has been very popular in the Nordic region, 'Best in Class' in France and 'Stewardship' in the UK. In practice, retail/wealth investors prefer to invest in solutions/thematic/impact while institutional investors prioritise risk mitigation/dialogue and engagement/best-in-class

A survey of by the CFA Institute (2017) found that portfolio managers and research analysts in the EMEA region – private and institutional investors – take ESG factors into account in their investment analysis/decisions as follows: Environmental – 66%, Social – 65%, Governance – 74%, or not at all (19%). Moreover, for the consideration of ESG issues going forward, respondents prioritised the demand from clients/investors (61%), a proven link between ESG and financial performance (44%) and regulatory/legal requirements (38%). The ESG analysis applies to all conventional asset classes (equities, bonds, diversified solutions) as well as real and alternative assets (private equity, real estate, and infrastructure). Over 60% indicated that they integrated ESG factors in a systematic manner across listed equity (76%), fixed income (51%), private equity (22%), real estate (21%), infrastructure (15%), and hedge funds (7%).

The updated report by the CFA Institute and the PRI (2019) highlighted best practices and challenges in ESG integration across EMEA, in particular the impact on prices and yields, ESG risks and opportunities, ESG use by portfolio managers and financial analysts. When asked how often ESG issues affect share prices, respondents from Europe answered 'often' or 'always' 60% of the time for G issues and 24% of the time for E and S issues. The respondents expected ESG issues to become more influential over the coming years – especially for corporate and sovereign debt. Interestingly, survey respondents always considered ESG risks more often than ESG opportunities, usually at a rate of about 2:1. Respondents believe that less than 20% of portfolio managers and analysts systematically include material ESG issues in their credit/equity analyses and that less than 15% adjust their models based on ESG information.

Brière et al. (2017) highlights that the variability of a typical fund's performances across time that can be attributed to SR screens is roughly two times lower than the part that can be attributed to active portfolio choices. The exact contributions (between 4% and 10% for SR screening and between 8% and 17% for active management) depend on the type of fund. Loeys (2019) found that pure-play climate change equity funds have underperformed the global equity market, by 5% per annum over the past ten years, and highlights four main reasons: 1) insufficient changes in behaviour needed to slow down global carbon emissions and density; 2) the weak profitability of firms active in climate change technologies; 3) offsetting capital flows by investors focused on traditional yield and value; and 4) high costs for managing funds.

An MSCI study (2018) shows a statistically significant causal link between ESG and performance, namely that ESG affects the valuation and performance of companies both through their systematic risk profile (lower costs of capital and higher valuations) and their idiosyncratic risk profile (higher profitability and lower exposures to tail risk), and that changes in a company's ESG characteristics (ESG momentum) may be a useful financial indicator in its own right. Research by JP. Morgan (2018) shows that when ESGQ is added to traditional investment styles such as value, growth, momentum and quality (VGMQ), it results in lower volatility, higher returns and subsequently improved Sharpe ratios. Research by Blackrock (2018) shows that low-volatility and quality both embed a stronger tilt to high ESG scorers while momentum has slightly greater ties to lower ESG companies.

Sustainability for corporates

Companies face tensions between short and long-term goals, tangible and intangible assets, quantitative and qualitative performance metrics. They must identify and manage a broad and diverse range of stakeholders, with often conflicting demands. Their operations are carried out against the backdrop of highly scrutinised supply chains, enhanced board independence and senior management accountability, more complex ownership schemes, proliferating shareholder activism, the growing influence of proxy advisory firms, greater rights for minority shareholders, engagement with institutional investors and transparency for retail investors. And these practices can vary significantly across regions, industries and companies. The materiality of a sustainability issue for any company depends on the company's sector and operational context. A lack of consistency between the ESG policies disclosed by companies and evidence of their actions acts as a deterrent for investors.

Understanding how and why individual/aggregate environmental, social and governance (ESG) factors can impact corporate performance, and consequently portfolio construction, security selection and risk management, is essential for mainstreaming sustainable finance. Arguably, sustainability is the only way forward, and incorporating ESG factors into corporate strategies will have to become the norm rather the exception. Companies (in particular, carbon intensive sectors) need to demonstrate a clear pathway in terms of capital/operational expenditures, revenue/turnover generation and low carbon products/services for end-consumers. On the one hand, transformation in the real economy through efficiency and innovation can lead to more investable assets/projects. On the other hand, adequate ESG analysis and research, with a focus on double materiality, is a prerequisite for sustainable investments. While there has been a heavy emphasis on risk and disclosure around climate, market practice is far behind for the social aspects, for example metrics for demonstrating positive/negative impact on human rights or labour rights.

As required by the Accounting Directive, companies (including small issuers), have to report non-financial information as part of their management report to the extent necessary for an understanding of the company's development, position and impact of their activities. The Non-Financial Reporting Directive (NFRD) currently applies to large Public-Interest Entities (PIEs). In practice, this means companies with securities listed in EU regulated markets, banks and insurance companies (whether listed or not) – provided that they have more than 500 employees. Some member states have extended the personal scope of the NFRD by lowering the threshold to 250 employees, in effect capturing all large PIEs.

In June 2019, the Commission published Guidelines on reporting climate-related information, which in practice consist of a new supplement to the existing 2017 Guidelines on non-financial reporting. In February 2020, the Commission launched a public consultation on the Review of the NFRD. NFRD does not introduce or require the use of a certain non-financial reporting standard or framework. Many non-financial reporting frameworks and standards already exist (for example, GRI - Global Reporting Initiative, SASB - Sustainability Accounting Standards Board, IIRC - International Integrated Reporting Framework etc.). The Commission has made it clear that it supports the development of EU-wide non-financial reporting standards.

The EFRAG European Lab (2020) observed varied approaches taken by companies to adhere to the TCFD recommendations and NFRD requirements. Climate-related financial disclosures are in an early implementation stage and there is room for significant improvement. Some companies still perceive this as a pure compliance exercise. Transition risks are subject to a more detailed analysis and reporting than physical climate risks. There is still a major gap between preparers' reporting practices and users' expectations. Only a few of them currently perform an exhaustive qualitative and quantitative climate-related scenario analysis, which requires complex data-intensive modelling. Reporting is more mature among large companies than SMEs. Failure by SMEs to provide non-financial information may have a negative impact their business opportunities, for example as suppliers of large companies, or limit their ability to benefit from private capital, for example to fund certain green or innovative projects. If the EU were to develop a simplified, proportionate standard for SMEs, in order to reduce administrative burden, there is still the question of making it mandatory or voluntary.

The Alliance for Corporate Transparency (2020) assessed how the 1,000 largest companies operating in the EU in terms of compliance with the NFRD. Nearly 60% of companies are integrating key non-financial information in annual reports and 40% are prioritising a separate report. Only 22% of companies provide their KPIs in summarised statements. Companies from the Finance sector are those with the least amount of disclosed climate-related targets (20%); very few are specific about the exposure of their lending, investment and underwriting activities (13%) or provide an estimation of the exposure of assets or the value of collateral to climate-related risks (3%). When looking at companies in the Energy & Resource Extraction, Infrastructure, Resource Transformation and Transportation sectors, Scope 1 and Scope 2 GHG emissions are disclosed by 76% and 60% respectively. Lower values are observed in the case of Scope 3 emissions, where an average of 35% of all companies that make the disclosure. The high percentage of companies reporting on human rights policies (over 80%) is in contrast with a much lower share describing policy outcomes (less than 40%). Overall, 28% of companies provide data on audited suppliers, with high-risk sectors scoring above average (50% – Apparel & Textiles, 32% – Food & Beverages, 29% – Consumption).

Ratings, research and indices

In addition to developing proprietary models and engaging directly with corporates, investors have been relying extensively on mandatory financial and non-financial reporting, external ESG metrics/indices and specialised third-party assurance. Spending by investors on ESG data could top $1bn 2021, according to research by Opimas. While ESG data has come a long way, there are multiple challenges related to coverage, quality, timeliness, comparability and relevance.

When it comes to ESG ratings/scores, investors report a lack of consistency across different providers and are advocating for more standardisation; this is likely to generate agreement and drive more investor engagement.

Credit rating agencies (CRAs) and sustainability ratings providers (SRPs) are an essential part of the financial ecosystem. They pursue different objectives, and are currently at very different stages in terms of market development and regulatory frameworks. Since March 2020, CRAs are required to report in which cases ESG factors are material drivers behind the change to the credit rating or rating outlook. The ongoing COVID-19 crisis will certainly give rise to more rating actions for corporates, in most cases triggered by ESG considerations. Voices in the industry, for example Afep – French Association of Large Companies, have already released a call for action with regards to the relations between corporates and SRP, e.g. recommending the adoption of codes of conduct, more transparency in methodologies, management of potential conflicts of interest. Looking at the experience with CRAs, policymakers should reflect in more depth about the optimal market structure for SRPs. There is still quite a significant amount of experimentation in this space. At the same time, investors cannot wait for 'perfect' data from corporates; concrete actions are needed now to finance the transition of our economies. The Commission is also investigating whether the EU should support the development of a common, public database with the ESG profile of companies, including data reported under the NFRD and other relevant ESG data.

The current ESG equity indices follow broadly three different methodologies. First, the rank-and-select methodology follows an exclusionary approach removing certain companies from the underlying benchmark universe. Selection of the best-rated companies according to their ranking (ESG Leaders, ESG Average, ESG Laggards and avoiding regional and sector biases). For example, 50% or 25% of top companies in terms of free-float market cap. Second, the weight-tilt methodology is to adjust the weights (using a factor from 0.5 to 2.0) of the benchmark's components toward better-rated companies and rating upgrades, i.e. companies with higher and improving ESG quality. Third, the optimisation techniques in index construction, for example scientific beta, are used to minimise the trade-off between ESG factors and index diversification and tracking-error and/ or potential industry/country/style-factors. The new minimum ESG disclosures requirements (methodology and benchmark statement) are expected to bring more transparency in this segment.

For low-carbon indices, administrators usually employ an iterative down-weighting process based on proprietary scores assigned to the different constituents. At present, the data on company specific carbon footprints, the foundation for low carbon indices, is often deemed inconsistent due to limited company disclosure and differences in the estimation models used by data vendors. Administrators of newly proposed EU Climate Transition and of EU Paris-aligned Benchmarks (according to the minimum standards set out for CTB and PAB) should ensure the consistency, comparability and quality of GHG emissions data (Scope 1+2+3). The total GHG intensity means the weighted average GHG intensity at index level. There is no minimum standard on the GHG intensity of individual assets constituting the index. Benchmark administrators can achieve reductions in GHG intensity by reducing the constituent weights of high intensity sectors or companies while simultaneously increasing the constituent weights of low intensity sectors or companies, respectively. The Climate Benchmarks Regulation also requires the Commission to assess the feasibility of a broader ESG Benchmark.

Retail investors

Driving the focus on sustainability in retail markets is the increasing desire of individuals to have their investments reflect positive values. This also translates into a higher willingness to pay a premium for companies with strong ESG performance. Brière (2020) demonstrates that when responsible equity funds are offered to savers, they invest more in equities (around 2.4%) than when this offer is not available. The addition of a responsible fund to the fund offering is even associated with an increase of almost 7% in the equity allocation of new investments compared to the existing allocation (13% in equities). Conversely, the addition of a conventional equity fund has no effect on the overall allocation. This study covered individual participants in employer-sponsored plans in France, namely 1mn employees in more than 18,000 companies.

Through the amendments to MiFID 2 and IDD (Delegated Acts), ESG preferences (where relevant) should be taken into account in the advisory process, both in customer profiling and product selection. This is in line with the overall objective of increasing the transparency on ESG products, reducing the risk of 'greenwashing', or providing adequate information on the impact of sustainability risks. In order to mainstream sustainable finance, retail investors should be offered sustainable investment products as default options if these pass the suitability test, complemented by supervisory guidance and dedicated training for financial advisers.

For example, a sampling of 19 questionnaires of mainstream retailers in five EU countries (France, Germany, Italy, Spain, and the United Kingdom) revealed that none of them contained questions on non-financial objectives and preferences. Stakeholders are currently seeking clarity with respect to the sequencing of different rules, the structure and granularity of the questionnaire, the treatment of sustainability preferences, the scope (existing and new clients) and the marketing of 'sustainable' products – standards and labels. The European Parliament called for a 'Green Finance Mark' to be granted to investment/savings products achieving the highest standards in the sustainability taxonomy. An important initiative worth mentioning is the work led by the European Commission to develop an EU Eco-label for financial products in line with the EU Taxonomy. The Eco-label draft criteria developed by the Joint Research Centre (JRC) will be consumer-tested, by applying them to a sample of UCITS equity investment funds.

Asset managers, insurers and pension funds

The Disclosure Regulation requires asset managers and institutional investors to describe their policies to integrate ESG factors into their investment and risk management processes. The Commission is further exploring the merits of amending the fiduciary duties, best interests of investors/the prudent person rule, risk management and internal structures and processes from sectorial rules, i.e. explicitly asking asset managers and institutional investors to consider and integrate adverse impacts of investment decisions on sustainability (negative externalities).

Asset managers act on behalf of asset owners, operating within the pre-defined objectives and guidelines, as embedded in mandate letters and investment agreements. In practice, there is no contradiction between fiduciary duty and ESG integration. Responding to growing demand for sustainable investment strategies, many asset managers have launched new funds and repurposed existing funds. Active managers are incorporating ESG into investment processes to add alpha and improve organic growth. In their stewardship reports, passive managers explain proxy voting and engagement on management and shareholder proposals. The signatories (asset owners, investment managers, service providers) to the Principles for Responsible Investment (PRI) report annually on their commitments; the overall assessment compares the implementation by signatories of responsible investment year-on-year, across asset classes, and with peers at the local and global level.

ESMA (2019) identified misalignment of investment horizons in financial markets as well as the remuneration of fund managers and corporate executives as potential factors determining excessive focus on short-term results. Improvements to the quality of ESG disclosure and active stewardship would further help investors take more long-term investment decisions. EIOPA (2019) has not identified any clear evidence of behaviours that could be labelled as undue short-termism in the insurance and pension sector. The Long-term shareholder engagement Directive, which has been effective since June 2019, requires institutional investors and asset managers to develop and disclose an engagement strategy, including a description of how they monitor companies they are invested in on non-financial performance, and to disclose on an annual basis how their engagement policy has been implemented.

In the case of insurance companies, risks related to climate change (transition, physical and liability risk) bring considerable challenges to the valuation of assets and liabilities, underwriting and investment decisions, risk assessment and management practices, as detailed in EIOPA's Opinion on Sustainability within Solvency 2 (Sept 2019). So far, there is no conclusive evidence that the current design and calibration of Solvency 2 provides a (dis)incentive to invest in sustainable assets. However, depending on the data that becomes available in the coming years, it might be possible to differentiate between the risk profiles of assets, including brown/green assets, based on their sustainability characteristics. The integration of sustainability risks in the 'prudent person' principle was recommended by EIOPA in its Technical Advice (April 2019). Close to 60% of participants in the EIOPA (2019) ad hoc survey responded that they include ESG criteria in their risk assessment process. In general, ESG criteria were revealed as quite important when selecting the time horizon of the business strategy, investment decisions and profitability targets.

Around 70% of insurers (solo and group level) that replied to EIOPA's public consultation (January to March 2019) have already implemented practices to integrate sustainability risks in investment management or are planning to do so in the next 3 years. Some respondents reported having decided to bring their investment portfolio (at least for equities and/or corporate bonds) closer to a 2°C scenario and to measure the progress towards this goal. Preliminary analysis by EIOPA in cooperation with 2DII (solo, incl. unit-linked, Q3 2018) estimated that 20% of EEA insurers' holdings of corporate bonds, common equity and equity /bond funds are linked to physical production (automotive, coal, oil and gas, power, aviation, cement, shipping, steel) or 10% of total investments when adjusted for the mapping coverage. The insurers with significant transition risk have investments in high-carbon assets at a minimum between 15% and 30% of the total portfolio.

With respect to portfolios of sovereign bonds, Battiston at al. (2019) estimated that the potential impact of a disorderly low carbon transition on insurers is moderate in terms of its magnitude. However, it is non-negligible in several feasible scenarios. As a result of the decrease in the probability default (PD) and in the climate spread (CS), certain sovereigns qualify for better refinancing conditions. Empirical research by Jakubik (2019) suggests that announcements of European listed insurers (from 2012 to 2019) on introducing green bond policies by issuance of green bonds or launching green bond funds are positively priced by market investors. However, the same effect of announcements on investments into green bonds could not be empirically confirmed.

Around 40% of insurers (solo and groups) that replied to EIOPA's public consultation explicitly consider sustainability in their underwriting policies. A specific example is impact underwriting that requires certain adjustments in the design and pricing of the product. Insurers should also aim at improving the resilience of our societies, in particular by addressing protection gaps in the areas of natural catastrophes, healthcare and pension provision. The amendments to IDD require manufacturers to consider ESG factors in the product approval process of each insurance product. Additionally, in the other product oversight and governance arrangements if the insurance product is intended to be distributed to customers seeking insurance products with an ESG profile.

ESG risks may not only affect companies included in the investment portfolio but also pension funds themselves as well as the sponsors and end-beneficiaries. According to EIOPA Opinion (July 2019), ESG risks do not constitute new categories of risk, but translate into existing prudential risk categories, such as market risks, counterparty default risk, pension liability risks, operational risk, reputational risk and strategic risk. This is in line with the 'prudent person' principle, which requires IORPs to invest assets in such a manner as to ensure the security, quality, liquidity and profitability of the portfolio as a whole. Larger IORPs already have considerable experience with the incorporation of ESG factors in investment decisions. Moreover, IORPs in AT, ES, NL, NO and SE are the most advanced – which may be related to the demands from their stakeholders in those countries, rather than the legal obligation, which came into effect only in 2019.

For the 2019 EIOPA stress test, 67% of the IORPs in the sample indicated having taken appropriate steps to identify ESG factors for their investment decisions, yet only 30% of them have processes in place to manage ESG risks. 44% of the sample takes into account ESG factors in assessing their investments and 13% of the sample is currently developing a framework or has declared that their external asset managers indirectly consider the ESG criteria. Most frequently mentioned were: subscribing to international principles for responsible investment (74%) and exclusion policies (69%), while the least mentioned were impact investing (21%) and best-in-class investing (31%). 44% of IORPs incorporating ESG factors have a voting policy in place and 49% an engagement strategy. At the time of the stress test exercise, 57% of the participating IORPs disclosed to plan members and sponsors how they integrate ESG factors in investment decisions. Of all IORPs, 22% indicated that they experienced difficulties in defining and identifying sustainable investments and 16% in finding sustainable investments.

The stress test also included a matching exercise of investment information with Eurostat's GHG emission statistics. IORPs in GR, IE, IT and SI have the highest equity exposures to GHG-intensive activities, ranging from 45% (IE, SI) to 53% (IT), while IORPs in GR, SI and SK have the highest debt exposures, ranging from 15% (SK) to 31% (SI). The average carbon footprint of IORPs' equity investments (0.37 kg per € value added) exceeds that of all economic activities in the EU (0.26 kg per € value added), while the average carbon footprint of debt investments (0.22 kg per € value added) is lower.

Regulatory framework

Under-pricing risks in 'brown finance' should be carefully monitored. It is important for financial institutions to re-assess their investment portfolio against long-term material risks under various transition scenarios. Moreover, for the ESAs to monitor their divestment strategies. The introduction of European carbon stress tests for financial institutions, as proposed by the European Parliament and the ESRB, is needed to address the risks related to such stranded assets. Financial institutions should be required to estimate and disclose which temperature scenario their portfolios are financing on the basis of a common EU-wide methodology. However, the use of prudential regulation through initiatives like a 'green supporting factor' or 'brown penalising factor' should be exercised with great caution and based on evidence. Other sectoral policies, and most importantly adequate carbon pricing, could prove more successful. A build-up in asset bubbles and further misallocation of resources should be avoided.

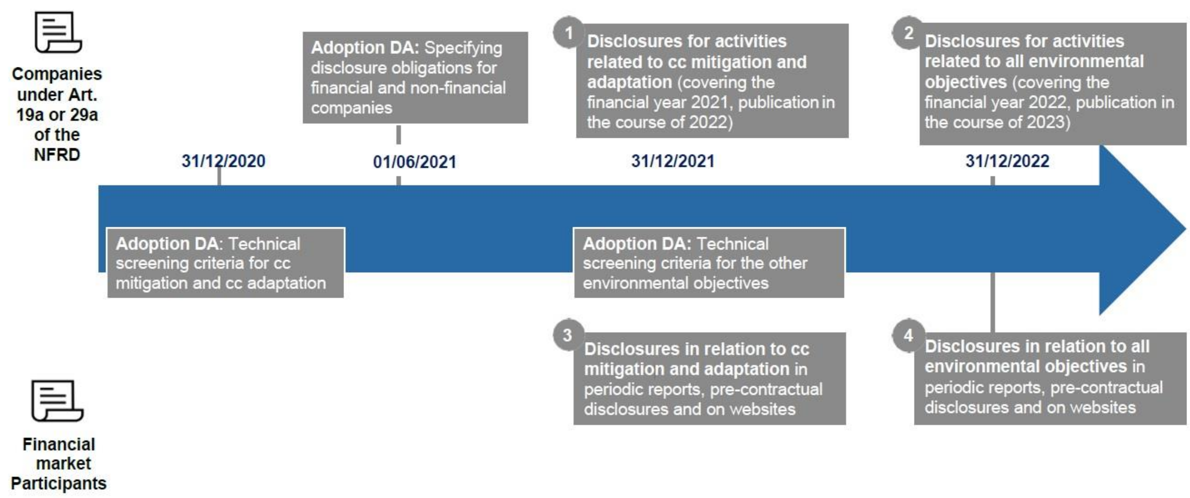
The Taxonomy Regulation is certainly the most important initiative at EU level. It sets out performance thresholds (technical screening criteria) for economic activities (for companies operating in the listed NACE sectors) that make a substantive contribution to one of six environmental objectives, do no significant harm (DNSH) to the other five, and meet minimum social safeguards. The list of economic activities includes those already fully sustainable/green, in transition or enabling. Technological neutrality, life-cycle considerations and science-based technical criteria lie at the core of the EU Taxonomy.

At the end of 2018, the total market capitalisation of equity shares and the outstanding amount of bonds issued by EU NFCs that belong to climate-policy relevant sectors (CPRS) was around €2864bn (37% of total) and €456bn (33% of total), respectively. In terms of equity and bond holdings, the exposure of the financial sector (insurers, pension funds, investment funds, banks) to companies active in CPRS varied from around 30% to 48%. After a filtering process, the Joint Research Centre (2019) estimated that the equity/bonds issued by NFCs and considered by the EU Taxonomy amounted to €628bn and €202bn, respectively. In the case of equities, the share of holdings associated with Taxonomy-covered activities was fairly stable over time (2013-2018) and across institutional sectors, at around 15%.

In the case of bonds holdings, on the contrary, the share of Taxonomy-covered holdings varied considerably across sectors and time, spanning from 0% to about 40%. Lastly, the estimated values of Taxonomy-eligible activities funded by bond issuance in 2018 were the following: €40bn for the utility sector, €1bn for the energy-intensive sector, €17bn for the buildings sector, and €10bn for the transportation sector. As for equity, the following market capitalisations associated with Taxonomy-eligible activities were estimated at around €55bn for the utility sector, less than €10bn for the energy-intensive sector, €45bn for the buildings sector, and less than €5bn for the transportation sector. The amount was negligible for the agriculture sector in both cases.

The Final Report of the Technical Expert Group (March 2020) provided guidance on how to assess a company's or investment portfolio's alignment with the Taxonomy. The first technical screening criteria for climate change mitigation or adaptation will be adopted by the end of 2020 and enter into application by the end of 2021. The second set of technical screening criteria for the other four environmental objectives (sustainable use and protection of water and marine resources, transition to a circular economy, pollution prevention control, and protection and restoration of healthy ecosystems) will be adopted by end 2021 and enter into application by end 2022. Looking forward, achieving a workable/dynamic taxonomy in E issues (including 'brown' activities) should be the basis for future coverage of S and G issues.

Financial market participants and non-financial corporations have disclosure obligations (at entity and product level) against the Taxonomy. As indicated in the Final Report of the TEG (page 26), the envisaged timeline presents implementation challenges, as corporate disclosures may not be available for financial market participants in their first set of disclosures. In order to be consistent with the Taxonomy Regulation, the NFRD should define environmental matters by reference to the same six objectives in the Taxonomy Regulation.



The Taxonomy Regulation creates new reporting obligations, including for companies subject to the NFRD, starting in December 2021. For non-financial companies, the disclosure must include: the proportion of turnover and capital expenditures (CAPEX) and, if relevant, operational expenditures (OPEX), that are aligned with the Taxonomy. The Disclosure Regulation requires financial market participants to disclose their policies on the integration of sustainability risks in their investment decision-making process and the adverse impacts of investment decisions on sustainability factors, from March 2021. In April 2020, the ESAs published for consultation the draft RTS with regard to the content, methodologies and presentation of ESG disclosures, more specifically principal adverse impact disclosure at entity level as well as product disclosure (pre-contractual, website and periodic reports).

For each relevant product, the financial market participant is required to state: how and to what extent they have used the Taxonomy in determining the sustainability of the underlying investments; to what environmental objective(s) the investments contribute; and the proportion of underlying investments that are Taxonomy-aligned, expressed as a percentage of the investment, fund or portfolio. This disclosure should include details on the respective proportions of enabling and transition activities, as defined under the Taxonomy Regulation.

Renewed strategy

In the context of the CMU, the Commission has committed to unlocking the full potential of private capital in supporting the transition towards a low-carbon, circular and inclusive economy. With the Action Plan for Financing Sustainable Growth, an extensive list of legislative and non-legislative measures, related to the taxonomy, disclosure requirements for investors, low-carbon benchmarks, non-financial corporate reporting, credit and sustainability ratings, green bonds standards, eco-labels for retail financial products, have been put forward. These are the result of consultations with stakeholders, extensive technical reports and opinions from supervisors. In April 2020, the TEG on Sustainable Finance released a statement encouraging the public and private sectors to use the new tools in their post COVID-19 recovery plans.

The annual investment gap to meet the 2030 climate and energy targets is estimated to be between €175 to €290bn. The European Green Deal Investment Plan (with the objective of achieving a climate neutral EU economy by 2050) is designed to attract at least €1tn in public and private investment. However, many bottlenecks also lie with the unsatisfactory pipeline of 'bankable' projects, that can in turn become adequate green/sustainable assets. Many public and private stakeholders maintain that the European Green Deal must pave the way for the recovery and growth phase once the current health-crisis subsides. A Renewed Strategy for Sustainable Finance will be presented in Sept 2020, targeting the financial ecosystem, the implementation/use of the toolbox and risk assessment/management.

Climate change and pandemics share many attributes, for example systemic, non-stationary, non-linear phenomena, according to Pinner et. al (2020). Climate change can feed into pandemics. Conversely, the same factors that mitigate climate risks are likely to help prevent the risk of pandemics. Most importantly, they are both risk multipliers, bringing to the surface and exacerbating existing vulnerabilities in the healthcare systems, the real economy and financial sector at large. Both are regressive, affecting disproportionally the most vulnerable groups. In terms of key differences, a global public-health crisis presents imminent, discrete, and directly discernible risks. Climate hazards, by contrast, are gradual, cumulative, and manifest themselves in degrees and over time.

Sustainability will certainly need to redefine itself in the COVID-19 era, in particular how to address pressing social-economic needs in an effective manner but at the same time take the necessary steps for building long-term resilience in our societies (in particular environment, biodiversity and healthcare systems). Many companies are in survival mode, and most EU countries have put in place some form of measure (fiscal, financial, labour or structural). While they need space for crisis management, it is becoming extremely clear that strategic orientation will be non-negotiable in the medium to long run.

The S and G dimensions will be brought to the forefront, in particular impact on employees, customers, supply chains and local communities, but also scrutiny over dividends, share buybacks, executive pay and meaningful investors' engagement. Much like greenwashing, there is also the risk of social washing that must be avoided. On top of that, financial insecurity risks becoming more widespread among many households across Europe. The reduction in private wealth will have an impact on their savings/investment decisions. Asset managers and institutional investors will have to screen their product catalogue and portfolio of assets. Going forward, it is clear that ESG remains an enduring market theme.

7.3 Policy & market implications

- Raising the bar for company disclosure and third-party assurance by establishing integrated and standardised frameworks at EU level is the way forward in order to achieve greater consistency, comparability and reliability. Large companies tend to report more comprehensive ESG metrics and dominate investors’ portfolios compared to SMEs for which requirements should be adequately calibrated.

- On the duties to explicitly consider ESG factors, the roles of asset owners and asset managers should not be conflated. A priority should be given to avoiding an unwarranted market segmentation between individual and institutional investors by making product marketing and distribution as well as portfolio management more responsive to sustainability preferences, i.e. standardisation vs customisation.

- ESG risks are characterised by deep uncertainty, non-linearity and endogeneity. Pricing them in investors’ portfolio requires moving from the backward-looking nature of traditional financial risk assessment and conventional market benchmarks to a forward-looking approach through scenario-analysis. The ESAs should provide detailed guidance, in addition to adjusting sectoral stress tests and monitoring interconnected exposures.

8. Conclusions

In Europe, capital markets have reached different stages of development, and activating savings and investment channels beyond national lines remains problematic. Capital markets are expected to enhance long-term value creation in the real economy, and cross-border equity holdings to better isolate households and financial intermediaries from country-specific shocks.

European households need a more balanced, diversified asset allocation. Enhancing access to products with a rewarding risk-return profile, transparent pricing and cost structures should remain a priority. At a first glance, it appears that European households have a very diverse set of financial products to choose from, such as listed bonds and equities, insurance and pension products, investment funds, structured products. Many bottlenecks still persist, and retail investors do not benefit from the same safeguards as professional and institutional investors. Moreover, generating real positive returns for investment/saving products has proven to be increasingly difficult in recent years given the low yield environment.

Structural shifts are transforming the asset management industry. Regulatory changes and competitive pressures are reshaping operating models and driving increased focus on transparency and suitability. Asset managers will continue to follow the changes in investors' product preferences in terms of actives, passives, alternatives, and real assets. The approaches to portfolio weighting, cost structure and returns strategy will largely depend on type of investment (active, passive, factor investing).

Traditionally, insurance companies and pension funds (ICPF) have been providers of long-term capital, aiming to match their assets and liabilities and exhibiting countercyclical investment behaviour. Starting from their specific business models, the investment decisions of ICPF are driven by multiple (often interdependent) factors such as market conditions, assets and liabilities management, the prudential framework, undertaking characteristics, the accounting framework and tax regimes. Notwithstanding the differences across different providers and member states, the assets of ICPF remain heavily invested in fixed income, with increasing exposures to higher yielding instruments in recent years. A higher proportion of equity investment could provide funding to companies across their life cycle and allow indirect access to equity for European retail investors that channel their savings through ICPF.

When it comes to the sustainability agenda, it is often argued that current asset prices do not accurately reflect environmental and social externalities because of the failure to put in place adequate market mechanisms, regulations, taxation or other policies. A growing body of academic and industry research illustrates that ESG integration can improve corporate financial performance as well as the risk-return characteristics of an investment portfolio. While institutional investors and asset managers cannot explicitly decide on sectoral policies, they can provide powerful incentives for corporates to take the necessary steps in transforming their operations and/or enable changes in their business models. The growing importance of sustainability/ESG factors will make financial intermediaries to reconsider their asset allocation and risk-management practices, in line with their fiduciary duties. An altered investment landscape is expected to emerge in the period following the current health crisis.

Acronyms

AIF	Alternative Investment Fund
ALM	Asset Liability Management
AMC	Asset Management Company
AoL	Aggregate assets over liabilities
AP	Authorised Participant
AuM	Asset under Management
BIS	Bank for International Settlements
CAB	Climate Awareness Bond
CAPEX	Capital Expenditures
CAPM	Capital Asset Pricing Model
CDI	Cash-flow driven Investing
CGFS	Committee on the Global Financial System
CLOs	Collateralised Loan Obligations
CMU	Capital Markets Union
CPRS	Climate-Policy relevant sector
CRA	Credit Rating Agency
CTB	Climate Transition Benchmark
CTI	Cost Transparency Initiative
CUIs	Collective Investments Undertakings
DB	Defined Benefit pension scheme
DBER	Duration-based equity risk sub-module
DC	Defined Contribution pension scheme
DLT	Distributed Ledger Technology
DM	Discretionary Mandates
DNH	Do no significant harm
EBA	European Banking Authority
ECB	European Central Bank
EFAMA	European Fund and Asset Management Association
EFRAG	European Financial Reporting Advisory Group
EIB	European Investment Bank
EIOPA	European Insurance and Occupational Pensions Authority
ELTIF	European Long-Term Investment Fund
EMT	European MiFID Template
ESAs	European Supervisory Authorities
ESG	Environmental/Social/Governance
ESMA	European Securities and Markets Authority
ESOP	Employee Stock Ownership Plan
ESRB	European Systemic Risk Board
ETF	Exchange-Traded Fund
FinDatEx	Financial Data Exchange Templates

FoF	Fund-of-fund
FSB	Financial Stability Board
GRI	Global Reporting Initiative
HF	Hedge Fund
HNWI	High Net Worth Individual
HY	Hybrid pension scheme
IASB	International Accounting Standards Board
IBIP	Investment-based Insurance Product
ICGN	International Corporate Governance Organization
ICI	Investment Company Institute
ICPF	Insurance Companies & Pension Funds
IDD	Insurance Distribution Directive
IF	Investment Funds
IFA	Independent Financial Advisor
IFRS	International Financial Reporting Standards
IIRC	International Integrated Reporting Framework
IL	Index-linked insurance product
IFFIm	International Finance Facility for Immunisation
IORP	Institution for occupational retirement provision
IOSCO	International Organization of Securities Commissions
IRA	Individual retirement account
IRP	Independent Research Provider
ISK	Investment Savings Account (SE)
JRC	Joint Research Centre
KID	Key Information Document
KIID	Key Investor Information Document
KPI	Key Performance Indicator
L4L	Low-for-Long
LL	Leveraged Loan
LTG	Long-term Guarantees measures
LTI	Long-term equity investment
M&A	Mergers & Acquisitions
MA	Matching Adjustment
MiFID/R	Markets in Financial Instruments Directive/Regulation
MPT	Modern Portfolio Theory
NACE	European Classification of Economic Activities
NAV	Net Asset Value
NCA	National Competent Authority
NFC	Non-Financial Corporation
NFRD	Non-Financial Reporting Directive
OECD	Organisation for Economic Co-operation and Development
OPEX	Operational Expenditures

ORPS	Supplementary occupational pension fund (FR)
PAB	Paris-aligned Benchmark
PBS	Pension Benefit Statement
PD	Probability of Default
PE	Private Equity
PIE	Public-Interest Entity
PIR	Individual Savings Plan (IT)
PP	Profit-Participation (insurance/pension product)
PPD	Private Placement of Debt
PPP	Personal Pension Product
PRI	Principle for Responsible Investments
PRIIP	Packaged retail investment and insurance product
RE	Real Estate
RYI	Reduction in Yield
RTS	Regulatory Technical Standard
SAA	Strategic Asset Allocation
SAB	Sustainability Awareness Bond
SASB	Sustainability Accounting Standards Board
SCR	Solvency Capital Requirements
SDG	Sustainable Development Goals
SEI	Strategic equity investments
SF	Sustainable Finance
SLL	Social and Labour Law
SME	Small and medium size enterprise
SRI	Sustainable Responsible Investment
SRP	Sustainability ratings provider
STS	Simple, Transparent and Standardised Securitisation
TCFD	Task Force on Climate-related Financial Disclosures
TDF	Target-date funds
TEG	Technical Expert Group on Sustainable Finance
TER	Total expense ratio
TP	Technical Provisions
TRV	Trends, Riks and Vulnerabilities
UCITS	Undertaking for the Collective Investment in Transferable Securities
UFR	Ultimate Forward Rate
UL	Unit-linked (insurance/pension product)
VA	Volatility Adjustment
VaR	Value-at-Risk
VGMQ	Value, Growth, Momentum and Quality
YCD	Yield curve down scenario
YCU	Yield curve up scenario

REGULATIONS

"Taxonomy"	Regulation (EU) 2020/XX
"ESAs Review"	Regulation (EU) 2019/2175
"Climate-Related Benchmarks"	Regulation (EU) 2019/2089
"Disclosure"	Regulation (EU) 2019/2088
PEPP	Regulation (EU) 2019/1238
"Cross-border distribution"	Regulation (EU) 2019/1156
ELTIF	Regulation (EU) 2015/760
PRIIPs	Regulation (EU) 2014/1286
MiFIR	Regulation (EU 2014/600
CRA	Regulation (EU) 2013/462
EuSEF	Regulation (EU) 2013/346
EuVEC	Regulation (EU) 2013/345

DIRECTIVES

"Cross-border distribution"	Directive 2019/1160/EU
"Shareholder Rights"	Directive 2017/828/EU
IDD	Directive 2016/97/EU
IORP 2	Directive 2016/2341/EU
NFRD	Directive 2014/95/EU
MiFID 2	Directive 2014/65/EU
"Accounting"	Directive 2013/34/EU
AIMFD	Directive 2011/61/EU
Solvency 2	Directive 2009/138/EC
UCITS	Directive 2009/65/EC

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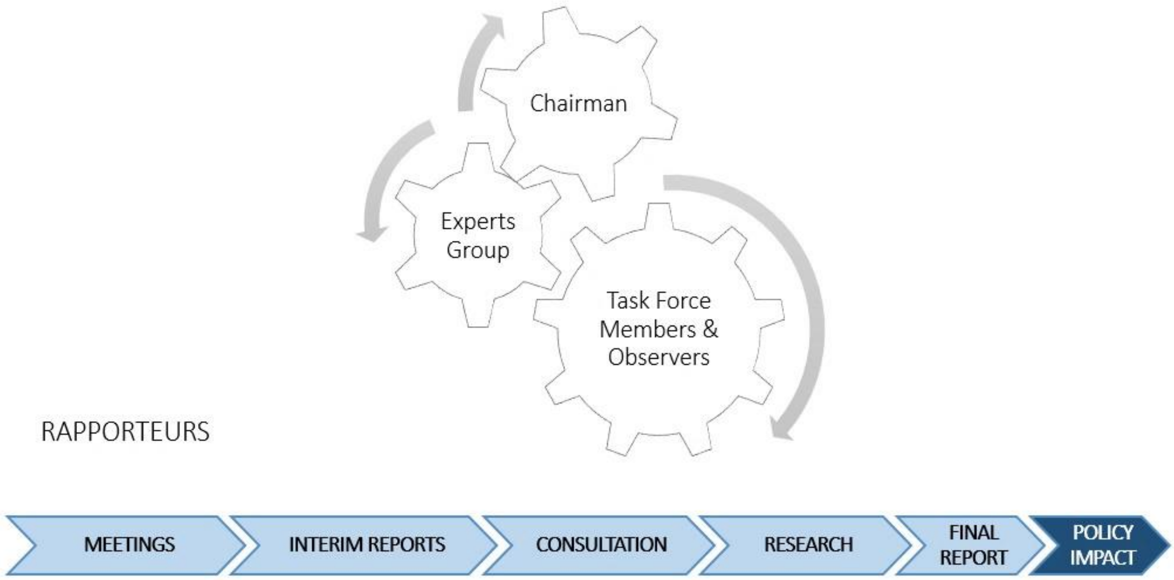
ANNEX. Membership



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Pekka Eskola, PensionsEurope
Carey Evans, BlackRock
Ana Gallego, CBI (formely PIMFA)
Sven Gentner, European Commission
Judith Hardt, Better Finance
Sílvia Herms, AMICE
Hannah Herscheid, Bayer
Olav Jones, Insurance Europe
Mads Kaagaard, PFA Pension
Josina Kamerling, CFA Institute
Patrik Karlsson, ESMA (formerly ICMA)
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Johanna Köb, Zurich Insurance
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Francesca Maritati, EIB
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David Reed, Kreab
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