

ESMA Market Report

Costs and Performance of EU Retail Investment Products 2023



*ESMA Market Report on Costs and Performance of EU Retail Investment Products
2023*

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Executive Summary

Our 2023 ESMA Statistical Report on Costs and Performance of EU Retail Investment Products provides an overview of key developments up to end-2021, a year characterised by economic recovery, increasing financial market valuations and mounting inflationary pressures. Since then, investment markets have undergone a pronounced downturn, mainly associated with the Russian war against Ukraine, the related turmoil affecting the energy market and the sharp change in monetary conditions. These recent developments, occurred after the reporting period of the current costs and performance report, cannot be reflected in the report. They are covered, however, in our semi-annual publications on Trends, Risks and Vulnerabilities (TRV) and our ad-hoc Risk Updates.¹

Building on our past cost and performance reports, this year's analysis covers Undertakings for Collective Investment in Transferable Securities (UCITS), Retail Alternative Investment Funds (Retail AIFs), and Structured Retail Products (SRPs). Compared with the 2022 edition, we provide a more in-depth analysis on the effects of growing inflation on investment, the UCITS following environmental, social and governance (ESG) strategies, the performance of retail AIFs and the performance and costs of SRPs based on Packaged Retail Investment and Insurance Products' Key Information Documents (PRIIPs KIDs). Improvements in data availability continue, but significant data issues persist.

Investment funds: UCITS

For UCITS, the largest retail investment sector in the EU, our sample covers EUR 10tn of assets, of which retail investors held just below EUR 6tn in 2021. Costs have declined further, albeit at a slow pace; they were higher for cross-border funds than for domestic funds, mainly due to the heterogeneity of distribution channels and costs. Inflation and its negative impact on portfolio values started to rise in 2021. A hypothetical ten-year retail investment of EUR 10,000, in a stylised portfolio of equity, bond and mixed assets funds, provided a value of EUR 18,500, net of EUR 3,000 paid in costs. When including inflation, value losses increased by an additional EUR 2,000 and net pay out decreased to around EUR 16,500. Costs for active equity and bond UCITS were higher than for passive and UCITS exchange traded funds (ETF), leading to net underperformance of active funds compared to passive and UCITS ETFs. Across EU Member States, cost heterogeneities persisted. ESG funds remained, on average, cheaper in 2021 compared to non-ESG equivalents and outperformed in net terms.

Investment funds: Retail AIFs

Alternative Investment Funds (AIFs), the second largest market for retail investment, exceeded EUR 6.4tn assets in 2021, more than EUR 800bn of which was held by retail investors (Retail AIFs). Retail AIFs primarily focusing on traditional asset classes like equities and bonds attracted roughly half of the total AIF retail investment. Retail investment in real estate funds slowed down compared to the previous year, while Fund-of Funds inflows rose. Annualised returns of AIFs offered to retail investors increased in 2021, following the subdued period related to the COVID-19 pandemic. On average, gross and net returns rose by more than 6%.

Structured retail products

SRPs, with an outstanding value a little over EUR 300bn in 2021, remain a much smaller market than UCITS and AIFs sold to retail investors. The share of capital-protected products in sales volumes continued to decline, indicating a growing source of market risk for retail investors. We provide a first EU-wide analysis of disclosed performance scenarios and costs, drawing on commercial data. Costs – largely charged in the form of entry costs – rose in 2021 for a majority of product types and issuers, although they vary substantially by payoff type and country. The analysis of performance scenarios shows that the returns of one tenth of SRPs would be negative even in a moderate scenario.

¹ [Risk Monitoring page](#), our [latest TRV Risk Monitor](#), and our [June 2022 Risk Update](#).

Essential statistics

UCITS

Costs and performance (2017-2021)	Funds (non-ETF)			ETFs
	Equity	Bond	Mixed	Equity
Costs (% , per annum (p.a.))	1.7	1.2	1.7	0.43
Ongoing charges	1.5	1.0	1.5	0.25
Subscription fees	0.14	0.16	0.14	0.10
Redemption fees	0.02	0.03	0.04	0.09
Net performance (% , p.a.)	9.9	1.5	3.8	11.9
Change in ongoing costs 2017-2021 (%)	-9.1	-11.7	-5.8	-14
Inflation (% , p.a.)	1.6	1.6	1.6	1.6
Net real performance (% , p.a.)	8.3	-0.09	2.2	10.3

ESG UCITS

Costs and performance (2021)	Funds			ETFs
	Equity	Bond	Mixed	Equity
Costs (% , p.a.)	1.4	0.9	1.6	0.6
Ongoing charges	1.2	0.6	1.3	0.2
Subscription fees	0.2	0.3	0.3	0.3
Redemption fees	0.02	0.02	0.01	0.05
Net performance (% , p.a.)	32.8	3.6	15.0	31.8

Hypothetical UCITS portfolio performance

EUR 10,000 UCITS portfolio performance over time	10Y (2012–2021)		5Y (2017–2021)	
	Retail	Institutional	Retail	Institutional
Gross value (EUR)	21,527	21,515	14,246	14,234
Costs paid (EUR)	3,048	1,757	992	556
Inflation (EUR)	2,171	2,250	958	962
Net value (EUR)	16,308	17,508	12,296	12,716

Retail AIFs

Performance (2021)	FoFs	Other AIFs	PE	RoM
Performance 2021 (% , p.a.)	5.8	7.4	-3.8	8.2
Net performance 2021 (% , p.a.)	5.3	6.9	-4.2	7.5

Structured Retail Products

Performance scenarios	Stress	Unfavourable	Moderate	Favourable
Simulated net return (core 50% of products, % p.a.)	-83 to -16	-18 to 0	0 to 3	2 to 6
Costs				
Reduction in yield (% , p.a.)			1.03	
from subscription fees (% , p.a.)			0.99	

Note: UCITS – costs and performance for EU27 UCITS, for main retail investors' asset classes, at five-year investment horizon between 2017 and 2021, %; cost level development measures percentage change in total costs between 2017 and 2021. EU27 ESG UCITS – costs and performance, %, reporting period 2021. The definition of ESG funds relies on the Morningstar definition of sustainable investment fund, which classifies a product as a 'sustainable investment' "if the use of one or more approaches to sustainable investing is central to the investment products overall investment process based on its prospectus or other regulatory filings". Hypothetical UCITS portfolio performance – value of hypothetical EUR 10,000 after 10 years and 5 years, distinguishing between retail and institutional investors, in EUR. Retail AIFs – EEA30 retail AIFs annualised monthly gross and net performance by fund type, %. Predominant fund type FoFs = fund of funds; "Other AIFs" = fixed income funds, equity fund, infrastructure funds, commodity funds, and other funds; PE=private equity funds; RoM= rest of the market and includes hedge funds and those funds whose type is not indicated; no cost reporting available from regulatory or commercial data sources. Structured Retail Products – forecasts of performance and costs for structured retail products, %. Figures for performance refer to the interquartile range (25th and 75th percentiles) of potential per-annum returns over the product's recommended holding period under four scenarios: stress, unfavourable, moderate, favourable. Figures for costs are the median reduction in yield per-annum over a product's recommended holding period. Statistics presented in this report fall after the withdrawal of the United Kingdom from the EU on 31 January 2020. Comparisons with statistics we had published in the first three editions are, therefore, limited.

Source: Refinitiv Lipper, Morningstar Direct, Structuredretailproduct.com, ESMA.

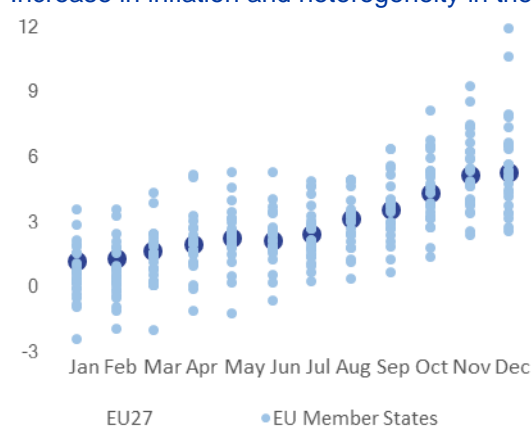
Market environment 2021

2021 has been characterised by economic recovery and increasing financial market valuations, coupled with mounting inflationary pressures, especially in the last quarter of the year. The post-pandemic acceleration of demand, employment growth and pressures on the supply side led to a broad increase in prices globally.

ASR-CP.1

EU HICP inflation

Increase in inflation and heterogeneity in the EU



Note: EU27 HICP monthly inflation dispersion, 2021. %.
Sources: Eurostat, ESMA

In the EU, the monthly variation of the Harmonised Index of Consumer Prices (HICP)² went from 1.2% in January to 5.3% in December (ASR-CP.1). However, the dispersion among Member States is significant and increased over time, ranging from 3% to 12% in December 2021.

Inflation developments are particularly relevant for consumers and retail investors. For about twenty years, inflation in the EU, and especially in the euro area, has remained at very low levels. Retail investors, therefore, may not be aware of the effects of inflation and their dynamics on their portfolios. Inflation can have a considerable

impact, both in the short- and long-term, on the value of the assets of consumers and retail investors, potentially leading to insufficient saving and negative effects on long-term wealth.³

In addition, consumers can exhibit behavioural biases, failing to correctly account for inflation and perceiving their wealth to be higher than what it is in real terms, for example relative to other consumption and investment opportunities. Rising prices reduce the purchasing power of cash, a phenomenon commonly known as money illusion. Moreover, consumers tend to underestimate future values, borrowing more, saving less and focusing on shorter maturities, which leads to what is called an exponential growth bias.

Finally, inflation impacts portfolios according to their composition. In the EU, at the end of 2021 households held on average 30% of their wealth in currency and deposits, for example assets with low or zero nominal returns and the value of which is significantly impacted by high inflation. The degree of exposure to inflation risk should, therefore, be carefully considered when investing.

Inflation and the changing monetary environment have become even more important risk factors in the course of 2022, i.e. after the reporting period this report covers. In addition, investment conditions deteriorated dramatically in 2022 in a number of ways, including a depressed growth outlook in the EU and elsewhere, stagflation concerns, spikes in commodity and energy market risks, and uncertainty from various geopolitical trouble spots. We monitor and report on these risks in our semi-annual Trends, Risks and Vulnerabilities Reports and our ad-hoc Risk Updates.⁴

² According to the Eurostat definition, the HICP measures the changes over time in the prices of consumer goods and services acquired by households. It is calculated according to harmonised definitions.

³ ESMA, [TRV No.2, 2022](#), page 16, September 2022.

⁴ For up-dates, visit our [Risk Monitoring](#) page, [our latest TRV Risk Monitor](#) and our [June 2022 Risk Update](#).

Investment funds: UCITS

Summary

For UCITS, the largest retail investment sector in the EU, our sample covers EUR 10tn of assets, of which retail investors held just below EUR 6tn in 2021. Costs have declined further, albeit at a slow pace; they were higher for cross-border funds than for domestic funds, mainly due to the heterogeneity of distribution channels and costs. Inflation and its negative impact on portfolio values started to rise in 2021. A hypothetical ten-year retail investment of EUR 10,000, in a stylised portfolio of equity, bond and mixed assets funds, provided a value of EUR 18,500, net of EUR 3,000 paid in costs. When including inflation, value losses increased by an additional EUR 2,000 and net pay out decreased to around EUR 16,500. Costs for active equity and bond UCITS were higher than for passive and UCITS exchange traded funds (ETF), leading to net underperformance of active funds compared to passive and UCITS ETFs. Across EU Member States, cost heterogeneities persisted. ESG funds remained, on average, cheaper in 2021 compared to non-ESG equivalents and outperformed in net terms.

Market overview

At the end of 2021, the EU UCITS segment remained the largest fund investment sector in the EU, with more than EUR 11tn.⁵ In this report we cover more than 80% of the EU UCITS universe as reported by the European Fund and Asset Management Association (EFAMA): a total of EUR 10tn, of which just below EUR 6tn was held by retail investors (ASR-CP-S.18).⁶

The EU is the second largest market globally in terms of open-ended regulated funds, following the United States (US), with, respectively, 30% and 48% of global net assets.⁷ At the end of 2021, US households held 88% of the total net assets of US mutual funds.⁸ In the EU, this share remained lower. In our sample, in 2021, retail investors held 60% of total EU UCITS assets outstanding. Also, as observed in the 2022 edition, EU investment funds were, on average, much smaller than US funds.⁹ This partially explains the substantial differences in the fund cost level between EU and US.

In 2021, the EU UCITS market remained highly concentrated: 90% of retail investment assets were managed by 15% of managers included in

our sample. More than 90% of retail investment centres on equity, bond and mixed assets (ASR-CP-S.20), which are the focus of this report. The distribution of retail investment across these assets is heterogeneous in the EU. For example, in 2021, the share of investment mainly focusing on equity was 10% in Italy while it was around 65% in the Netherlands and Sweden (ASR-CP-S.23).

The number of funds marketed and sold cross-border in the EU, for example between EU Member States, has remained smaller than that of funds sold exclusively domestically (ASR-CP-S.28). In terms of assets, however, funds effectively sold cross border accounted for 59% of the total EU UCITS funds (ASR-CP-S.27). This share increases to 62% if we consider funds which were registered to be marketed cross-border but did not get sold across borders.¹⁰

⁵ EFAMA, March 2022, [Quarterly Statistical Release No 88](#), page 7 and 10. Only EU member states were included.

⁶ Refinitiv Lipper accounts for funds declaring themselves as institutional. If the fund does not declare itself as institutional, the fund is considered as being retail. Therefore, high net-worth investors can still account as retail. This potentially means a downward bias in the size of the market for institutional investors, especially for domiciles characterised mainly by non-retail investors.

⁷ EFAMA, 2022, [International Quarterly Statistics](#), Table 2 page 11. Only EU member states were included.

⁸ ICI, 2022, [2022 Investment Company Factbook](#) page 5.

⁹ EFAMA, 2021, [International Quarterly Statistics](#), Table 2 and Table 4. In 2021 a US fund held an average of EUR 3,000mn assets, while an EU fund held just above EUR 340mn.

¹⁰ A cross-border fund is defined as a fund sold in two countries in addition to the funds domicile country.

Costs and performance

EU aggregate fund costs: Gradual decline

Confirming findings observed in previous editions, fund costs, including ongoing and one-off fees, continued to decline, albeit at a very slow pace. The final investment outcome very much depends on the volatility of gross performance.

Table ASR-CP.3 documents this decline in prices across fund categories.¹¹ The widespread secular decline in costs, even if minimal, adds up to a non-trivial decrease in cost levels over time. Ongoing costs clearly decreased in the case of equity UCITS. For the ten-year investment horizon, ongoing costs experienced a 9% decline, going from 1.72% in the period between 2008 and 2017 (first edition of the report), to 1.57% in the period between 2012 and 2021 (current edition of the report). A similar decrease can be observed when looking at equity UCITS investments over the one-year horizon. By end of 2021, investors could on average expect to pay 9% less in terms of ongoing costs for equity UCITS than in 2017. For bond (mixed) UCITS the equivalent cost savings was much less pronounced at the ten-year horizon, at just under than -3.6% (unchanged) while it amounts to up to 12% (6%) at the one-year horizon. Also, over the long-term investment horizon a decreasing trend could be observed for subscription and redemption fees.¹²

This is confirmed by the analysis of the differences in costs between funds newly entered in the market and existing ones. We investigate whether the decrease of costs over time was driven by the entry of new and cheaper funds in the market, and whether existing funds also adjusted their costs. In particular, we compare the evolution of the total expense ratio (TER) of new funds and existing funds from 2012 to 2021. The TER of both categories show a decreasing trend since 2012. However, the TER of new funds has systematically been lower than the TER of existing funds since 2013 (ASR-CP.2).

This, in principle, is good news. But investors

should continue to take individual investment decisions with circumspection, given that these figures represent averages across thousands of funds, and the costs of individual fund can vary dramatically.

ASR-CP.2

TER of new and existing funds

Pronounced decline in on going costs



Note: EU UCITS retail funds, total expense ratio (TER), new and existing funds, %.
Sources: Refinitiv Lipper, ESMA.

Across time horizons and asset classes, larger funds have lower costs than smaller funds. For equity and bond funds, ongoing costs for the top-25% funds in terms of size were on average around 30% lower than for the bottom-25%. For mixed funds, the largest funds were 15% cheaper than the smallest funds (ASR-CP-S.52). Considering total costs, that are composed by ongoing plus one-off fees, the largest top-25% funds were on average 40% cheaper than the smallest bottom-25% funds, for equity and bond UCITS, and 20% cheaper for mixed UCITS in 2021. Main drivers are economies of scale and a smaller impact of fixed costs over total assets.

Domestic UCITS remained cheaper than cross-border UCITS, even if the latter were larger than the former. This was especially the case for bond UCITS. Across investment horizons, cross-border equity and mixed funds seemed to be around 30% more expensive than domestic funds. Cross-border bond funds were 50% more expensive than domestic ones (ASR-CP-S.54). Two main underlying reasons are the heterogeneity of distribution channels and costs,

¹¹ The five-year investment horizon was introduced in the report published in 2022, therefore the comparison with the first three editions of the report is focused only on the one- and ten-year horizons.

¹² For subscription and redemption fees, the data reports the maximum level for each fund share class, in line with regulatory requirements. However, the actual entry and

exit fees are subject to negotiations among parties and can be significantly lower than what is reported. For more details, please see the Annex on Data sources and limitations.

and the related cost treatment that impact the cross-border marketing of a fund. In this perspective, a more in-depth analysis at national level, such as the one that the Spanish National Securities Market Commission (CNMV) carried out, would be interesting. Even though the CNMV

recognises issues with data availability, in particular concerning foreign funds sold in Spain, it provides valuable information for investors to understand the recent developments in the Spanish UCITS market.¹³

ASR-CP.3

UCITS costs across periods

Declining yet only marginally

	2017	2018	2019	2020	2021
Equity UCITS					
<i>Ongoing costs</i>					
1Y	1.54	1.51	1.47	1.48	1.40
5Y				1.52	1.47
10Y	1.72	1.66	1.63	1.60	1.57
<i>Subscription and redemption fees*</i>					
1Y	0.19	0.19	0.13	0.18	0.20
5Y				0.16	0.15
10Y	0.22	0.21	0.19	0.17	0.16
Bond UCITS					
<i>Ongoing costs</i>					
1Y	1.03	1.02	0.99	0.96	0.91
5Y				1	0.99
10Y	1.10	1.10	1.09	1.07	1.06
<i>Subscription and redemption fees*</i>					
1Y	0.27	0.20	0.17	0.18	0.18
5Y				0.19	0.19
10Y	0.28	0.28	0.26	0.23	0.21
Mixed UCITS					
<i>Ongoing costs</i>					
1Y	1.54	1.52	1.49	1.50	1.45
5Y				1.52	1.50
10Y	1.54	1.54	1.54	1.54	1.54
<i>Subscription and redemption fees*</i>					
1Y	0.23	0.22	0.13	0.15	0.19
5Y				0.20	0.18
10Y	0.24	0.24	0.24	0.23	0.21

* For subscription and redemption fees, the data reports the maximum level for each fund share class, in line with regulatory requirements. However, the actual entry and exit fees are subject to negotiations among parties and can be significantly lower than what is reported. For more details, please see the Annex on Data sources and limitations.

Note: EU27 UCITS ongoing costs and subscription and redemption fees, by investment horizon and asset type, geometric mean aggregation, %. 2021 covers the 2012-2021 reporting period. 2020 covers the 2011-2020 reporting period. 2019 covers the 2010-2019 reporting period. 2018 covers the 2009-2018 reporting period. 2017 covers the 2008-2017 reporting period. For the 2017, 2018 and 2019 editions the 5Y investment horizon is not available as it was only introduced in the 2020 edition.

Sources: Refinitiv Lipper, ESMA.

While costs only moderately change over time, gross performance is highly volatile. Following the drop in asset valuations and increase in overall volatility due to the COVID-19 pandemic characterising 2020, we observed a strong reversal and an overall increase in performances

across assets in 2021. This implied higher net annual performances for UCITS.¹⁴ Table ASR-CP.4 shows the differences in performance between 2020 and 2021 especially at the one-year investment horizon. In 2021, net annual performance across asset classes was much

¹³ CNMV, 2022, [Boletín de la CVMV](#), Trimestre III 2022

¹⁴ The investment horizon analysis is calculated as an average of annual performances at the end of all the four quarters of the year. The focus may differ from the focus of the UCITS KID as indicated in the Committee of European Securities Regulators 09/949 document

published in October 2009. End of year analysis is reported in the Statistical Annex. This is also in line with the previous editions of the report.

higher than in 2020. For funds mainly investing in equity, net performance increased from -0.4% in 2020, to beyond 30% (one-year horizon).

Significantly higher levels were also observable in the case of bond and mixed UCITS.

ASR-CP.4

UCITS net annual performance across periods

Strong volatility driven by gross performance

	2017	2018	2019	2020	2021
Equity UCITS					
1Y	14.3	1.4	9.1	-0.4	30.7
5Y				3.7	9.9
10Y	3.4	9.0	9.2	6.4	9.3
Bond UCITS					
1Y	-0.5	-2.1	5.3	-1.4	4.6
5Y				0.7	1.5
10Y	3.8	3.9	3.8	2.6	3.0
Mixed UCITS					
1Y	4.3	-2.1	4.4	-1.8	14.4
5Y				0.5	3.8
10Y	2.5	3.8	4.5	4.1	4.5

Note: EU27 UCITS annual performance net of ongoing costs, subscription and redemption fees, 10Y investment horizon by asset type, geometric mean aggregation, %. 2021 covers the 2012–2021 reporting period. 2020 covers the 2011–2020 reporting period. 2019 covers the 2010–2019 reporting period. 2018 covers the 2009–2018 reporting period. 2017 covers the 2008–2017 reporting period. For the 2017, 2018 and 2019 editions the 5Y investment horizon is not available as it was only introduced in the 2020 edition.

Sources: Refinitiv Lipper, ESMA.

This variability considerably drops over longer horizons. For example, at the ten-year horizon, net annual performance went from 6.4% in the 2020 edition (2011–2020 reporting period) to 9.3% in the current edition (2012–2021 reporting period). For funds mainly investing in bond and mixed assets, these differences were even lower. Long-term investment can smooth out the volatility in performance and the exposure to more extreme events. Also, the impact of one-off loads can be distributed over a longer period.

A hypothetical ten-year investment of EUR 10,000 over the 2012–2021 period, based on a stylised portfolio composed of equity (40%), and bond and mixed funds (30% each),¹⁵ would be valued just below EUR 18,500 (EUR 14,200 after five years), net of around EUR 3,000 of costs (EUR 1,000 at five years), at the end of the ten-year investment period. This simulation illustrates the substantial impact fund costs have on the final outcome of an investment for a consumer. Ensuring investors an easier access to cost-efficient products providing higher returns is an issue of high relevance for market supervisors and regulators (ASR-PC.5). Importantly, the retail-vs-wholesale price

divergence observed in earlier reports remains a dominant force: For an institutional investor, such an investment would have been 40% cheaper.

ASR-CP.5

Measuring overall benefits from investing Retail investors and Value-for-Money

The concept of Value-for-Money is emerging as a comparatively novel approach to defining, conceptualising and measuring the utility that investors can derive from investing in certain products.

One important advantage of Value-for-Money approaches is that they aim to take a comprehensive perspective on investor utility, including the costs of purchasing a product, the expected or realised benefits, as well as other factors such as product quality.

Defining and identifying well-designed and cost-efficient products, allowing consumers to seek higher returns and providing them with good value for the money they invest is crucial.

In this sense, ESMA has taken several actions to improve transparency across the EU:

- Identification of UCITS with high costs, used as input by NCAs' for enhanced scrutiny within their own jurisdiction.
- Identification of UCITS potentially engaging in closet indexing activities. The increasing focus on the issues related to UCITS index-tracking disclosures is observable also at national level,

¹⁵ The portfolio composition is based on the distribution of retail investment concentrated on equity funds (40%) and bond and mixed funds (30%).

with enhanced investigations and, when needed, enforcement actions (i.e. Central Bank of Ireland).¹⁶

- Work towards the harmonisation of the way fund managers charge performance fees to retail investors. ESMA guidelines provide requirements giving greater convergence in how NCAs supervise performance fee models and disclosure across the EU.¹⁷
- Common Supervisory Action (CSA) on costs and fees for investment funds, highlighting the importance of supervision in ensuring that investors are not charged with undue costs, especially in light of their large impact on returns.¹⁸
- Guidelines on MiFID II suitability requirements, and two related CSAs. The CSA on suitability looked at whether and how the costs of investment products are considered by firms providing advice. The CSA on product governance allowed – *inter alia* – to assess how manufacturers ensure that financial products' costs and charges are compatible with the needs, objectives and characteristics of their target market and do not undermine the financial instrument's return expectations.¹⁹

In addition to these regulatory and supervisory measures, our cost and performance monitoring provides important evidence towards measuring the financial utility investors obtain from retail product investments in aggregate terms.

Costs are, therefore, a particularly important factor to be aware of when investing. Those related to the product itself can be of different nature: for example, subscribing or redeeming an investment, holding the product, etc. Moreover, trading and distribution costs are also very relevant for individual investors, who largely rely on financial institutions for access to and information on the financial products available.²⁰ In this context, a recent development to monitor is the increase of digital trading through neo-brokers among retail investors (ASR-CP.7).

Inflation: Significant impact on final investment value

Since 1997, inflation remained contained in the EU region, while it has become increasingly prominent starting with 2021.²¹

Unsurprisingly, inflation has also had a discernible impact on the value of investments in UCITS. In the reporting period ending in 2020, over a one-year horizon, inflation added on average 1.5% and 1.4% to fund costs, for equity funds and mixed and bond funds respectively (ASR-CP.6). Similarly, in previous years (i.e. 2018 and 2019 editions), the impact of inflation on fund costs did not exceed 1.9%. However, things notably changed in 2021, mirroring increasing inflationary pressures. Over the one-year horizon, on average across all asset classes, the impact of inflation on fund costs increased significantly, hovering around 3%.

Even if inflation is a cost factor that is exogenous to fund managers and that reduces the financial performance not just of funds but of any asset, it has a strong impact on the final investor outcome, particularly when gross performance is low and inflation rises, as it has been the case over the past few months. This is a component that investors should factor in – especially retail investors, who may be highly exposed to inflation risk.

Taking the effect of inflation into account, the same ten-year investment of EUR 10,000 considered above leads to a gain of EUR 16,300, net of fund costs and inflation. Inflation, thus, increases the value lost by EUR 2,000 leading to a total decrease in value of around EUR 5,000.

Against this background, in this report we will highlight the role that inflation plays on top of fund costs. Overlooking or underestimating this factor may lead to a significant overestimation of the true final return that an investment can yield, potentially leading to excessive spending or ill-judged allocation of capital.

¹⁶ Central Bank of Ireland, 14 November 2022, [Enforcement Action](#).

¹⁷ ESMA, 2020, [Guidelines on performance fees in UCITS and certain types of AIFs](#).

¹⁸ ESMA, 2022, [ESMA reports on supervision of costs and fees in investment funds](#).

¹⁹ ESMA, September 2022, [MiFID II guidelines](#). ESMA, July 2021, [CSA on MiFID II suitability requirements](#). ESMA,

July 2022, [CSA on MiFID II product governance requirements](#).

²⁰ Notwithstanding the importance of distribution costs, the information we have available to quantify these costs is limited. For more details on this issue, please refer to ESMA's [third annual statistical report](#) published in April 2021, p. 68.

²¹ See the 'Market environment 2021' chapter in this publication.

ASR-CP.6

UCITS impact of inflation across periods

Strong increase in 2021

	2018	2019	2020	2021
		Equity UCITS		
1Y	1.7	1.9	1.5	2.8
5Y			1.2	1.6
10Y	1.8	1.6	1.6	1.3
		Bond UCITS		
1Y	1.6	1.8	1.4	3.1
5Y			1.1	1.6
10Y	1.7	1.5	1.6	1.3
		Mixed UCITS		
1Y	1.7	1.9	1.4	3.0
5Y			1.1	1.6
10Y	1.7	1.5	1.6	1.3

Note: EU27 UCITS inflation, by investment horizon and asset type, geometric mean aggregation, %. 2021 covers the 2012–2021 reporting period. 2020 covers the 2011–2020 reporting period. 2019 covers the 2010–2019 reporting period. 2018 covers the 2009–2018 reporting period. For the 2017, 2018 and 2019 editions the 5Y investment horizon is not available as it was only introduced in the 2020 edition.

Sources : Refinitiv Lipper, Eurostat, ESMA.

UCITS ETFs and analysis by management type: costs higher for actively managed UCITS

The EU UCITS ETF segment grew from EUR 908bn in 4Q20 to EUR 1.2tn in 4Q21, or 13% of the total EU UCITS market (ASR-CP-S.33).²² At the end of 2021, with a value of EUR 913bn, 75% of EU UCITS ETF were invested in equity, 24% in bonds and the residual 1% in other assets (ASR-CP-S.34). At the end of 2021, net annual inflows in equity ETFs were equal to EUR 92bn and to EUR 26bn in the case of ETFs mainly focused on bonds (ASR-CP-S.35).

We distinguish between UCITS ETFs and passive UCITS non-ETFs.²³ Even if UCITS ETFs can be primarily considered passively managed funds, they differ from passive funds because ETF shares are listed on stock markets and can be more easily traded. This is even more relevant against the background of a more direct and easy

access to trading as in the case of reliance on neo-brokers (ASR-CP.7).

In our sample, passive equity and bond UCITS non-ETFs accounted for EUR 637bn and EUR 198bn, respectively. Active equity UCITS assets were at EUR 3.2tn and bond UCITS at EUR 2.2bn (ASR-PC-S.37 and ASR-PC-S.38). Similarly to ETFs, passive UCITS non-ETFs recorded net inflows (EUR 28bn for equity UCITS and EUR 12bn for bond UCITS), as was also the case for active UCITS (EUR 132bn for equity funds and EUR 51bn in the case of bond funds).²⁴ In the equity UCITS market segment the share of passive UCITS non-ETFs and UCITS ETFs detained a large market share, reaching 33% in 4Q21, while in the bond segment, passively managed funds only accounted for the 18% of the bond UCITS market (ASR-CP-S.37, ASR-CP-S.38).

²² The sample includes both retail and institutional investors. The analysis is performed similarly to UCITS non-ETFs.

²³ The definition of the type of management follows Refinitiv Lipper's definition, which provides a flag indicating whether a fund tracks an index or not.

²⁴ The sample includes both retail and institutional investors as not all the funds report the information related to the management type and the share of passively managed funds, especially for bond UCITS, is still small.

ASR-CP.7

Retail investment and neo-brokers

Trends, benefits and costs in neo-broker usage

Neo-brokers are a new generation of digital financial entities providing consumers with direct and easy access to financial investment and trading. They can be online brokers (e.g., DEGIRO, Trade Republic, Scalable Capital, eToro, etc.). They are usually independent companies that can, and often do, partner with traditional financial entities, like banks. This is to increase efficiency, especially for specific services like deposits and transfers.

Neo-brokers have substantially grown over time, especially in recent years. According to Statista, in 2021, the number of clients of neo-brokers reached more than 19mn in the United States and 11mn in the EU27 (ASR-CP.8). The United Kingdom had just above 2mn users.

The success of neo-brokers is linked to the provision of immediate and convenient access to financial products through a user-friendly smartphone app or a desktop website. In few clicks any individual can buy or sell securities at zero or low explicit transaction fees compared to more traditional financial entities. Investors can share views through online forums and discussion boards.²⁵

Against this background, especially during COVID-related lockdowns, new or existing customers have been trading more and more with these new entities. The web-based infrastructure and absence of physical branches has shaped the customer base, a large part of which is composed of younger investors that are often less cautious towards risk, and sometimes have lower awareness and financial education.²⁶

In terms of the penetration rate of neo-brokers over the total population, we can observe a continuous increase of the share of neo-brokers' users over time. Interestingly, in 2021, the EU had the lowest penetration rate compared with the United Kingdom and United States. The rate was at 2.6% in the EU, against 3.2% and 5% respectively in the United Kingdom and the United States (ASR-CP.9).²⁷ This may reflect the difference in the financial market structure between the United Kingdom and the United States, which are more market-based, and the EU, which is on average more bank-based. However, things differ across Member States, with the Scandinavian countries, Ireland and the Netherlands, all showing a penetration rate well above 3%.

Against this background, regulators and supervisors have been monitoring neo-brokers activity to ensure investor protection against practices that are potentially detrimental for consumers.²⁸

There are several aspects that investors should be aware of. These include the following:

- Fees and costs: contrary to expectations amongst some retail investors that may be created by neo-brokers' advertising and marketing, services are not truly free of charge. There may be direct and indirect fees including costs incurred as a result of the execution of an order such as brokerage fees, transaction costs (e.g. bid ask spread), clearing and settlement costs, execution fees, etc.
- Products offered: the type of financial product in which to invest in should be carefully considered. The much easier access to a wide range of products, including riskier product entailing significant risks and considerable losses, might favour more risk-taking trading behaviour.
- The existence of payment for order flows: brokers are compensated for routing trades to a particular market maker when executing a trade.²⁹
- Limits to access to different trading platforms or type of orders offered. For example, not all neo-brokers offer all types of order (e.g., limit order, stop-loss order, stop-loss limit order).

In general, any individual making an investment decision should gather information from reliable sources, while keeping in mind one's investment objectives, the benefits of diversification and the ability to bear losses.³⁰

²⁵ See [TRV No.2 2021](#), page 11 and page 32.

²⁶ See AMF, 2020, "[Retail investor behaviour during the COVID-19 crisis](#)", April and FSMA, 2020, "[Belgians trade up to five times as many shares during the coronavirus crisis](#)", May.

²⁷ A more accurate picture could be obtained by using investor population as denominator rather than total population. However, this data is not available at the current stage.

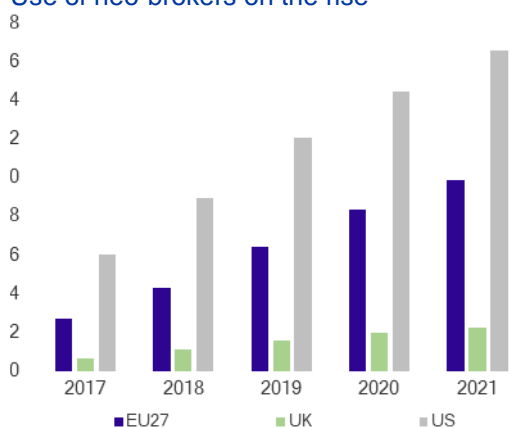
²⁸ See ESMA, April 2022, "[Final Report On the European Commission mandate on certain aspects relating to retail investor protection](#)", April. ESMA, July 2021, "[Public Statement](#)".

²⁹ ESMA, February 2021, "[STATEMENT - Episodes of very high volatility in trading certain stocks](#)".

³⁰ AFM, February 2022, "[AFM assessment of order execution quality of PFOF trading venues](#)". Bafin, May 2022, "[Study into execution quality on selected German trading platform](#)". CNMV, March 2022, "[Payment for order flow: an analysis of the quality of execution of a zero-commission broker on Spanish stocks](#)".

ASR-CP.8

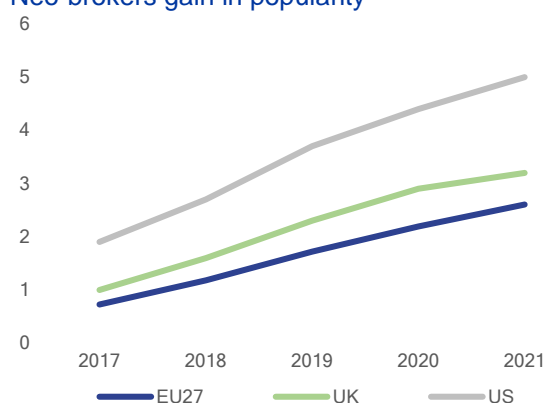
Number of neo-brokers users Use of neo-brokers on the rise



Note: Number of customers (or accounts) of the selected region, millions per year. Neo-brokers exclude cryptocurrencies and robo-advisors.
Sources: Statista, ESMA.

ASR-CP.9

Neo-broker user penetration rate Neo-brokers gain in popularity



Note: Share of customers (or accounts) from the total population of the selected region by year, %. Neo-brokers exclude cryptocurrencies and robo-advisors.
Sources: Statista, ESMA.

As observed in the analysis above, costs, even if slightly decreasing, remained broadly stable, being notably higher for actively managed UCITS compared to ETFs and passively UCITS non-ETFs (ASR-CP.10).³¹ This holds for UCITS mainly focusing on equity or bond assets and impacts the final net return of the average investor. The gross outperformance of actively managed funds needs to be large enough to cover the higher costs. This was the case for investments at the one-year horizon in the 2020 analysis covering the 2011–2020 period, when net performance of equity active funds (-0.2%), even if negative, was better than that of passive and ETF funds (-0.6% and -2% respectively). But this trend reversed in the 2021 analysis. Accounting for ongoing costs, net performance of active equity UCITS, at the one-year horizon, was at 30.5%, against 32.5% and 31.9% for equity passive UCITS and equity ETFs, respectively.

For the top-25% performing funds, costs for

active funds were around four-times higher than costs for passive funds. Ongoing costs remained at levels identified in 2022 edition, around 1.5% at ten years and 1.4% at one year for active funds. For passive funds, ongoing costs were around 0.4% across both horizons (ASR-CP.11).

Top-25% performing active outperformed top-25% passive equity UCITS at one-year horizon, in terms of performance net of ongoing costs. This is not the case at the ten-year horizon.³² For bonds, at the one-year horizon, net of ongoing costs, top-25% active funds underperformed passive. Even if a good share of funds remains in the cohort of top performing UCITS, this group does not remain constant over time, complicating the opportunities for investors to consistently choose outperforming funds.

When active funds are analysed against their own prospectus benchmark,³³ we do not observe substantial differences from the previous edition.

³¹ The focus on ongoing costs is due to the fact that for ETFs subscription and redemption fees are borne mainly on the primary market. Retail investors are mostly concerned with the secondary market.

³² In the case of bonds, the ten-year analysis cannot be performed. EU bond passive funds is excessively low.

³³ This analysis was conducted on a restricted sample including only funds with a prospectus benchmark.

ASR-CP.10

UCITS costs and net performance by management type

Differences in costs between management type persist

	Active funds		Passive funds		ETFs	
	1Y	10Y	1Y	10Y	1Y	10Y
	<i>Ongoing costs</i>					
	<i>Equity UCITS</i>					
2018	1.40	1.50	0.32	0.50	0.40	0.30
2019	1.40	1.50	0.32	0.40	0.30	0.30
2020	1.40	1.50	0.32	0.46	0.26	0.25
2021	1.37	1.47	0.36	0.48	0.25	0.31
	<i>Bond UCITS</i>					
2020	0.79	0.92	0.34		0.25	0.25
2021	0.75	0.90	0.29		0.23	0.25
	<i>Net performance</i>					
	<i>Equity UCITS</i>					
2018	0.1	7.5	1.5	7.7	1.1	7.5
2019	9.2	9.6	11.8	10.3	11.7	10.2
2020	-0.2	6.7	-0.6	7.5	-2.0	7.5
2021	30.5	9.6	32.5	10.4	31.9	10.6
	<i>Bond UCITS</i>					
2020	-1.1	3.1	0.7		0.3	3.5
2021	5.1	3.5	4.1		2.2	3.6

Note: EU27 equity and bond UCITS ongoing costs and annual performance net of ongoing costs per management type by investment horizon, geometric mean aggregation, %. 2018 covers the 2009-2018 reporting period. 2019 covers the 2010-2019 reporting period. 2020 covers the 2011-2020 reporting period. 2021 covers the 2012-2021 reporting period. For bond passive UCITS, data is not available at the ten-year horizon.

Sources: Refinitiv Lipper, ESMA.

ASR-CP.11

UCITS costs and net performance top-25% of funds by management type

Differences in costs between management type persist

	Top-25% active funds		Top-25% passive funds	
	1Y	10Y	1Y	10Y
	<i>Ongoing costs</i>			
	<i>Equity UCITS</i>			
2019	1.36	1.57	0.21	0.35
2020	1.42	1.63	0.40	0.40
2021	1.27	1.61	0.34	0.39
	<i>Bond UCITS</i>			
2020	0.74	1.21	0.18	
2021	0.75	0.90		
	<i>Net performance</i>			
	<i>Equity UCITS</i>			
2019	18.1	13.7	17.6	14.4
2020	11.0	10.5	5.7	11.2
2021	41.5	13.4	39.0	14.6
	<i>Bond UCITS</i>			
2020	3.2	5.8	3.8	
2021	14.5	7.5	16	

Note: EU27 equity and bond UCITS ongoing costs and annual performance net of ongoing costs per management type for top-25% performers, by investment horizon, geometric mean aggregation, %. 2019 covers the 2010-2019 reporting period. 2020 covers the 2011-2020 reporting period. 2021 covers the 2012-2021 reporting period. For bond passive UCITS, data is not available at longer horizons.

Sources: Refinitiv Lipper, ESMA.

Fund and investor domicile

Domicile analysis

Heterogeneity in terms of costs and performance has persisted at a country-by-country level. Structural market differences, variation in investor preferences, heterogeneity in marketing channels, distribution costs and their regulatory treatment limit comparability across Member States.

Moreover, issues relating to data availability, especially for distribution costs, remained, impacting the composition of the sample used in the analysis. In this respect, analysis carried out by the single jurisdictions, such as those in Austria, Greece and Spain,³⁴ is crucial in gathering information on the characteristics and main developments in national markets. This is even more relevant in the case of several jurisdictions for which an analysis cannot be developed because of the scarcity of data from the commercial provider.

Costs remained very heterogeneous among Member States. As also observed in previous years, the lowest cost levels were registered in the Netherlands and Sweden, and the highest cost levels were observed in Austria,³⁵ Italy and Luxembourg. This slightly changes according to the asset type considered. For example, ongoing costs for equity funds were around 1% for the Netherlands and Sweden while they hovered around 2% for Italy and Luxembourg (ASR-CP-S.78). Drivers behind these dissimilarities include differences in distribution channels and costs.³⁶

Such heterogeneity emerges also from the analysis of management fees (ASR-CP-S.99)³⁷ and transaction fees (ASR-CP-S.100). In this last case, however, the numbers should be treated with caution as to their accuracy and comparability, given the large data impediments surrounding the calculation of transaction costs. The unavailability or unreliability of data on performance fees continued to hinder a full

analysis relating to this type of fees (ASR-CP.12).³⁸

ASR-CP.12

Performance fees

High heterogeneity and lack of information

A full analysis on performance fees cannot be achieved due to very scarce information available from data providers on this specific topic. However, performance fees can be substantial, especially in an environment of increasing market valuations.

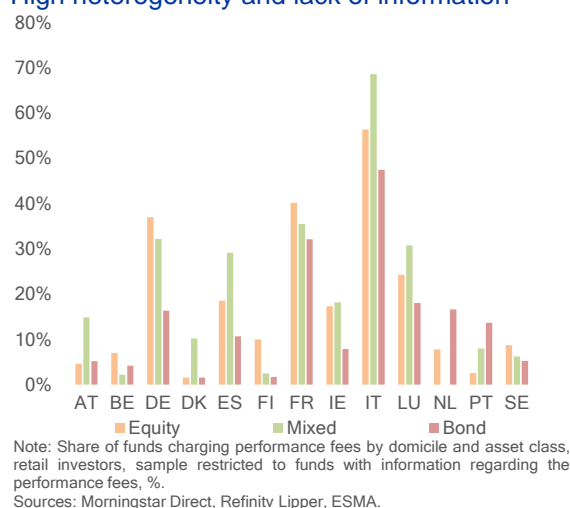
This small analysis tries to partially fill the gap regarding performance fees by quantitatively analysing the share of funds charging such fees. The share of funds charging performance fees in 2021 is very heterogeneous across countries and asset classes (ASR-CP.13). Few funds domiciled in Belgium (4%) and Denmark (3%) charge performance fees whereas the majority of funds domiciled in Italy (63%) seems to charge such fees.

On aggregate, the share of funds charging performance fees is higher among mixed funds (32%) followed by equity funds (23%) and bond funds (17%).

ASR-CP.13

Share of funds charging performance fees in 2021

High heterogeneity and lack of information



³⁴ Financial Market Authority, 2022, [Annual Market Study 2022 on Fees charged by Austrian Retail Funds](#). Hellenic Capital Market Commission, 2022, [HCMC Survey of fees and charges applicable on UCITS in Greece](#). CNMV, 2022, [Boletín de la CVMV](#), Trimestre III 2022.

³⁵ The values of ongoing costs reported for Austria in 2022 are similar but slightly higher than what reported in the [Annual Market Study 2022 on Fees charged by Austrian Retail Funds](#). Sample is based on UCITS reporting from Refinitiv Lipper based on the domicile of the fund and can differ from the Austrian FMA sample. This highlights how essential improvements in availability and usability of data are.

³⁶ The survey on distribution costs published in [the third edition](#) of this report (p. 69) details on the differences in the type of the predominant marketing channels and distribution cost treatment across Member States.

³⁷ The management fees exclude distribution fees, which in several countries are entirely included in management fees. This will imply a level of fees higher than that observed here and how this adds to the divergences across markets.

³⁸ For a full analysis on Data and Data Limitation please check the Annexes to this report.

Investor analysis

When moving from the fund- to the investor-domicile analysis, the heterogeneity across Member States largely declines with a clear decrease in national differences. For example, ongoing costs for equity UCITS, over the ten-year horizon, were in the range of 1.6% in Sweden and 1.8% in Italy and Luxembourg (ASR-CP-S.101).

These results are primarily due to the composition of the sample. The information in terms of assets, flows, performance and costs is only provided at the level of the fund's domicile. No information on the distribution of these metrics is available for the countries where these funds are sold. Therefore, we apply the fund's domicile-based data to the country in which a fund is marketed. This analysis may involve some double counting of funds and related metrics.³⁹ In order to comprehensively conduct an accurate analysis on a country-by-country level, improvements in availability and usability of data are essential.

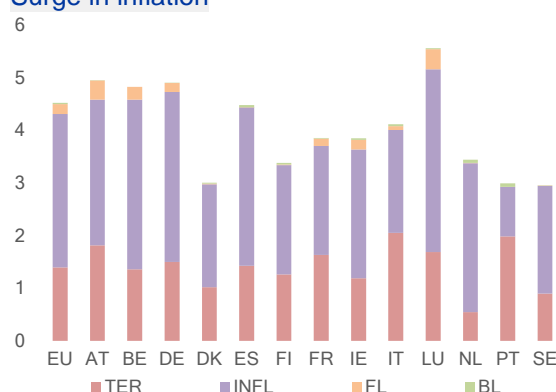
The impact of inflation

Inflation differences across Member States, measured at the level of the fund's domicile, adds to the cost heterogeneity described above. As previously noted, we face significant issues in terms of comparability when performing a country-by-country analysis. Among other reasons, there is the fact that we rely on the fund-domicile analysis. The inflation measured at the fund-domicile level does not necessarily equal inflation at the investor-domicile level unless fund and investor domiciles coincide (ASR-CP.16). Given the cross-border nature of the UCITS market, investors should be aware and carefully consider this when investing.

At the one-year horizon, the decrease in performance after costs and inflation, in the case of equity exceeded 5%, with inflation at around 1% in Portugal, not less than 2.2% in Denmark and Finland and above 3% in Belgium, Germany and Luxembourg (ASR-CP.14).

ASR-CP.14

Equity UCITS total costs and impact of inflation at 1Y Surge in inflation

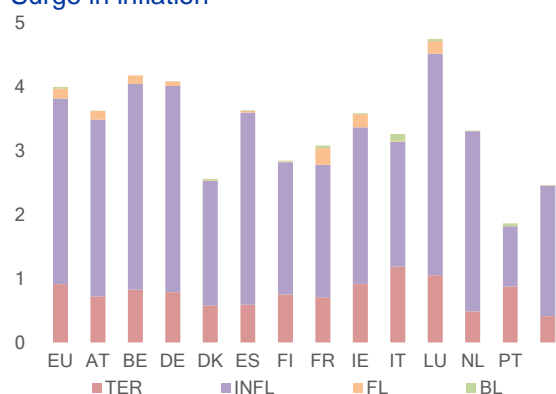


Note: EU27 UCITS equity funds total costs classified as ongoing costs (TER), inflation (INFL), subscription (FL) and redemption fees (BL), retail investors, by domicile, 1Y horizon %. Other EU27 countries not reported as data not available.
Sources: Refinitiv Lipper, ESMA.

Conversely, at the ten-year horizon ending in 2021, the decrease in performance after costs and inflation did not exceed 4%. Inflation went from 0.6% in Ireland to 1.8% in Austria (ASR-CP-S.87).

ASR-CP.15

Bond UCITS total costs and impact of inflation at 1Y Surge in inflation



Note: EU27 UCITS bond funds total costs, classified as ongoing costs (TER), inflation (INFL), subscription (FL) and redemption fees (BL), retail investors, by domicile, 1Y horizon %. Other EU27 countries not reported as data not available.
Sources: Refinitiv Lipper, ESMA.

For bond funds, at the one-year horizon, the decrease in performance, after including inflation, exceeded 3.5% on average (ASR-CP.15), from 1% only considering fund costs without inflation. At the ten-year horizon, the decrease in performance due to fund costs plus inflation never exceed 3% (ASR-CP-S.90). Again, high heterogeneity is observable across countries. In this context, the role of inflation expectations

³⁹ Very similar cost levels across countries in the analysis based on investor domicile are driven by the weighting used when aggregating funds, based on the NAV of the fund domicile and not that of the investor domicile. In the

Netherlands, for example, the cost figure would have been lower if it accounted for the country's inducement ban.

needs to be taken into account. If investors believe in higher prices in the future, interest rates and bond yields will increase, especially in the case of bonds with a longer term to maturity. The increase in yield is related to the need for compensation for the risk of loss in purchasing power parity due to higher inflation.

ASR-CP.16

Inflation and domestic-only UCITS High inflation and high heterogeneity

In this analysis, we focus on those funds which are sold only in their domicile country (domestic funds), i.e. fund and investor domiciles overlap.

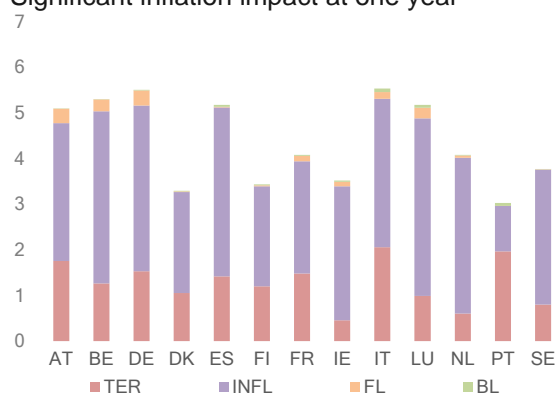
However, when inflation is included, the performance decreases by a minimum of 3% in Portugal to a maximum of 5.5% in Germany and Italy.

These findings are confirmed if we consider a ten-year horizon (ASR-CP.18). The decrease in performance when inflation is included is lower than when we focus on the one-year horizon and this also accounts for the fact that over the last twenty-years inflation has been below 2%. Inflation does, however, add a significant amount to the overall costs that an investor will pay on the average investment, which significantly affects their final outcome.

Therefore, inflation is a crucial factor that investors should carefully consider when taking their investment and saving decisions.

ASR-CP.17

Equity domestic UCITS costs and inflation impact (1Y) Significant inflation impact at one year

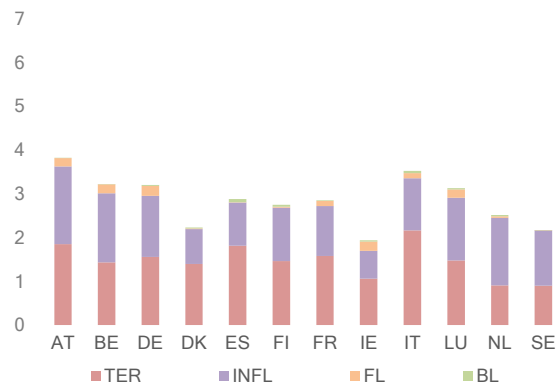


Note: EU27 UCITS equity funds ongoing costs (TER), inflation (INFL), subscription (FL), redemption fees (BL), retail investors, by domicile, 1Y horizon %. Other EU27 countries not reported as data not available. Domicile of the fund equals that of the investor.
Sources: Refinitiv Lipper, ESMA.

Chart ASR-CP.17 reports costs for equity domestic UCITS. The trend remains similar for bond and mixed funds. Excluding inflation, costs do not exceed 2%.

ASR-CP.18

Equity domestic UCITS costs and inflation (10Y) Inflation impact at the 10Y horizon lower than 2%



Note: EU27 UCITS equity funds ongoing costs (TER), inflation (INFL), subscription (FL), redemption fees (BL) and inflation (Infl), retail investors, by domicile, 10Y horizon %. PT and Other EU27 countries not reported as data not available. Domicile of the fund equals that of the investor.
Sources: Refinitiv Lipper, ESMA.

ESG UCITS

In 2021, investment funds following ESG strategies attracted more inflows than non-ESG funds. Net flows into EU ESG UCITS equity, bond and mixed funds almost tripled compared to 2020 levels, to EUR 182bn.⁴⁰ This is higher than the amount of net flows received by non-ESG funds in these three asset classes (EUR 161bn). As a result, the assets under management (AuM) of ESG UCITS funds increased to EUR 916bn in 4Q21, or 17% of overall EU equity, bond and mixed fund AuM (ASR-CP-S.118). Equity funds still account for the largest share, with EUR 574bn in AuM (e.g. 63% of ESG fund assets in our sample).

The trends observed in 2022 edition regarding ESG ETFs continued. Net flows into ESG equity ETFs (EUR 48bn) were almost as significant as net flows into ESG equity non-ETFs (EUR 59bn). Therefore, the value of ESG equity ETFs' AuM grew rapidly, reaching EUR 127bn in 4Q21, i.e. 22% of total ESG equity fund AuM.

The previous reports concluded that ESG UCITS (ETFs excluded) were less expensive than non-ESG equivalents.⁴¹ This conclusion remains valid in 2021 (ASR-CP.19): at 1.3%, the total costs of ESG UCITS were on aggregate lower than the costs of non-ESG equivalents (1.4%).⁴² This result holds for the three asset classes considered (ETFs excluded). Similar to last year's report, ESG equity ETFs were more expensive (total costs of 0.6%) than non-ESG equity ETFs (0.4%). This difference is mainly driven by higher subscription fees for ESG equity ETFs (0.3% vs 0.1% for non-ESG equivalents).⁴³

ASR-CP.19

UCITS net performance and costs over one year ESG funds outperformed in 2021

	ESG	Non-ESG
All funds (equity, bond and mixed UCITS)		
Costs	1.3%	1.4%
Net performance	22.8%	16.8%
Nb of funds	1,916	12,137
Equity UCITS		
Non-ETFs		
Costs	1.4%	1.9%
Net performance	32.8%	28.8%
Nb of funds	952	4017
ETFs		
Costs	0.6%	0.4%
Net performance	31.8%	31.8%
Nb of funds	115	648
Bond UCITS		
Costs	0.9%	1.0%
Net performance	3.6%	4.2%
Nb of funds	398	3,384
Mixed UCITS		
Costs	1.6%	1.8%
Net performance	15.0%	13.1%
Nb of funds	451	4,088

Note: EU27 ESG and non-ESG UCITS total costs and net annual performance in 2021 (one year investment horizon) and number of funds in 4Q2021, aggregated and by asset type, geometric mean aggregation, %. Retail funds only. "ESG funds" sample based on the Morningstar definition of sustainable investments (see footnote 40). Funds for which the sustainability information is not available are excluded from the sample (e.g., funds that are neither considered as ESG or non-ESG are excluded). ESG bond and mixed ETFs are included but not presented in a separate category given their low number of ESG ETFs in those asset classes (around 30 ESG bond ETFs while there is no ESG mixed ETFs).

Sources: Refinitiv Lipper, Morningstar, ESMA.

Regarding net performance, the evidence for 2021 also confirms previous findings: the average net performance of ESG UCITS funds over one year was 22.8% (6 percentage points (pps) higher than for non-ESG UCITS funds).⁴⁴

⁴⁰ For this year's report, we rely again on the Morningstar definition of sustainable investment fund. Morningstar classifies a product as a 'sustainable investment' "if the use of one or more approaches to sustainable investing is central to the investment products overall investment process based on its prospectus or other regulatory filings" (see Morningstar, August 2022, "Morningstar Sustainable Attributes, Framework and definitions for the Sustainable Investment and Excludes Exclusions attributes"). Since the focus of this section is 2021, the sample of ESG investment funds includes funds that were considered as sustainable by Morningstar at the end of 2020. A more conservative approach consisting in keeping only funds continuously identified as ESG between December 2020 and December 2021 was tested. This second approach reduces the number of ESG funds as expected but yields very similar results for both performances and costs.

⁴¹ This aggregated trend at the EU level seems however to mask some heterogeneities. Indeed, while the Austrian FMA demonstrated that the Austrian funds granted with the Austrian Eco-label for sustainable investment funds

had on average lower ongoing costs since 2019 (FMA (2020, 2021 and 2022), 'Market Study on Fees charged by Austrian Retail Funds'), the Spanish authority concluded that the TER of Spanish sustainable collective investment schemes was not statistically different from the TER of other funds in 2020 (CNMV (2022), 'Characteristics of sustainable Spanish CIs in 2020', Working Paper, No. 77).

⁴² The results are confirmed by the regressions presented in the statistical annex.

⁴³ It should be noted that ETFs (especially when purchased by retail investors) are mostly traded on the secondary market, where one-off fees do not apply, and TER and trading costs tend to be more relevant.

⁴⁴ The regressions of gross performance presented in the statistical annex show that ESG funds outperformed non-ESG equivalents during the second and fourth quarter of 2021. However, the performance of ESG funds is not statistically different from the performance of non-ESG funds during the first and third quarters.

This was driven by outperformance of both equity (4 pps for non-ETF) and mixed (1.8 pps) ESG funds. However, this year ESG bond UCITS underperformed compared to their non-ESG equivalents (-0.6 pps).⁴⁵

The continued growth of the ESG market over the past years allows us to enlarge the investment horizon. For the first time this year we are able to quantify the performance and costs of retail ESG UCITS over a three-years investment horizon, between 2019 and 2021 (ASR-CP.20).

Between 2019 and 2021, total costs were lower for ESG UCITS and for the three asset classes considered (-0.7 pps for equity, -0.5 pps for bond and -0.2 pps for mixed funds).

ASR-CP.20

UCITS gross performance and costs over 3 years
ESG funds outperformed since 2019

	ESG	Non-ESG
All funds (equity, bond and mixed UCITS)		
Costs	1.3%	1.7%
Net performance	11.0%	6.8%
Nb of funds	850	2,607
Equity UCITS		
Costs	1.3%	2.0%
Net performance	15.6%	12.8%
Nb of funds	475	932
Bond UCITS		
Costs	1.0%	1.5%
Net performance	1.7%	2.8%
Nb of funds	177	769
Mixed UCITS		
Costs	1.6%	1.8%
Net performance	6.9%	5.5%
Nb of funds	198	906

Note: EU27 ESG and non-ESG UCITS total costs and net annual performance (three-years investment horizon) and number of funds in 4Q21, aggregated and by asset type, geometric mean aggregation, %. Retail funds only. "ESG funds" sample based on the Morningstar definition of sustainable investments (see footnote 40). Funds for which the sustainability information is not continuously available between 2019 and 2021 are excluded from the sample. ETFs are excluded from the sample.

Sources: Refinitiv Lipper, Morningstar, ESMA.

ESG UCITS outperformed on aggregate non-ESG funds (the net performance of ESG UCITS is 4.2 pps higher than the performance of non-ESG UCITS). Among the different asset classes

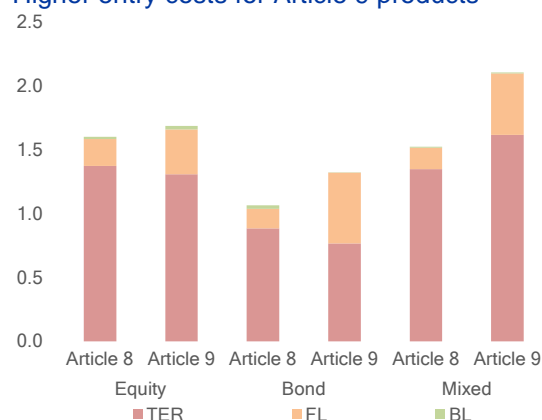
considered, ESG equity and mixed funds outperformed their non-ESG equivalents (2.8 pps and 1.3 pps, respectively). However, in the case of bond UCITS, the net performance was higher for non-ESG funds.

ESG strategies

With the entry into force of the EU's Sustainable Finance Disclosure Regulation (SFDR) in March 2021, additional sustainability-related information is now being provided by EU fund managers. Our sample includes more than 5,000 funds disclosing data under Article 8⁴⁶ (around half of them are equity funds) and around five hundred funds disclosing under Article 9 (approximately two thirds are equity funds).

ASR-CP.21

Total costs of SFDR Art.8-9 funds
Higher entry costs for Article 9 products



Note: Total costs in 2021 of EU27 equity, bond and mixed UCITS for retail investors disclosing under SFDR Article 8 or Article 9 products and classified as ongoing costs (TER), subscription (FL) and redemption fees (BL), %. UCITS ETFs are included.

Sources: Morningstar Direct, Refinitiv Lipper, ESMA.

In 2021, equity, bond and mixed funds disclosing under SFDR Article 8 were cheaper than their Article 9 equivalents (-0.1 pps for equity, -0.3 pps for bond and -0.6 pps for mixed, similar to last year's findings). The redemption fees were in all cases close to zero, with differences in total costs mainly driven by the TER, or subscription fees (ASR-CP.21). It is worth highlighting that for equity and bond funds, funds disclosing under Article 9 have a lower TER than funds disclosing

⁴⁵ These results are aligned with EFAMA findings (EFAMA (2022), [Sustainable UCITS bond funds for a better future](#), *Market Insights*, No 9).

⁴⁶ Funds disclosing under SFDR Article 8 are products promoting sustainability characteristics. Those disclosing under Article 9 are products with sustainable investment as their objective. This sample does not fully overlap with the ESG sample used above: three quarter of the funds disclosing under SFDR Article 9 are also considered as ESG funds by Morningstar, but this share falls to less than

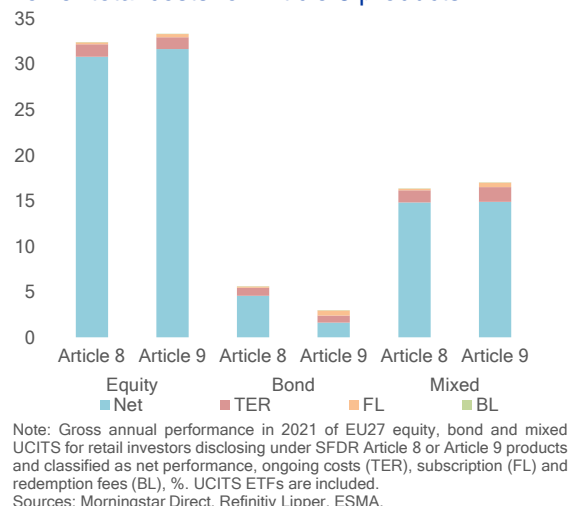
a quarter for funds disclosing under SFDR Article 8. Only the last data point is provided by Morningstar regarding the fund's disclosure regime under SFDR, contrary to the variable identifying sustainable investment fund. We then use two pieces of information took at different points in time: December 2020 for the ESG characteristics and July 2022 for the SFDR disclosure regime. The discrepancies between those two variables can be the result of the different time frames and not necessarily highlight different assessments.

under Article 8.⁴⁷ The higher aggregated costs of Article 9 funds are then mainly driven by subscription fees (+0.1 pps for equity, +0.4 pps for bond and +0.3 pps for mixed funds).⁴⁸

ASR-CP.22

Net performance of SFDR Art.8-9 funds

Lower total costs for Article 8 products



ASR-CP.22 shows that equity and mixed funds disclosing under SFDR Article 9 outperformed their Article 8 equivalents (by 0.8 pps and 0.1 pps in net terms, respectively). However, bond funds disclosing under SFDR Article 9 significantly underperformed (-2.9 pps in net terms compared to bond funds disclosing under SFDR Article 8). This result is probably driven by the high share of funds classified as ESG by Morningstar among funds disclosing under SFDR Article 9 and by the underperformance of ESG bond UCITS previously highlighted. Indeed, most of the bond funds disclosing under SFDR Article 9 are also

considered as ESG funds by Morningstar, whereas most of the bond funds disclosing under SFDR Article 8 are classified as non-ESG funds by Morningstar. Therefore, the underperformance of ESG bond funds is reflected in the performance of bond funds disclosing under SFDR Article 9.

In addition, following the growing demand for ESG products, fund managers continued to convert existing non-ESG funds into ESG funds in 2021.⁴⁹ According to Morningstar data, 536 funds were repurposed in 2021 (compared to around 250 in 2020).⁵⁰ In the next section, we distinguish funds created as ESG funds and funds that were converted to ESG funds at a later stage.⁵¹

An ESMA study demonstrated that equity UCITS created as ESG funds had lower ongoing costs between April 2019 and September 2021.⁵² These results are confirmed in ASR-CP.23. Equity UCITS created as ESG funds had lower total costs compared to their repurposed equivalents. This was mainly due to slightly lower TER (-0.1 pps).⁵³ Bond UCITS created as ESG funds are also less expensive compared to converted funds⁵⁴ but the conclusion changes when considering mixed funds since mixed UCITS converted to ESG funds had lower costs than mixed UCITS created as ESG funds (-0.6 pps).⁵⁵

⁴⁷ The lower level of TER for funds disclosing under SFDR Article 9 is confirmed by the regression analysis presented in the statistical annex. The regression also shows that the TER of funds disclosing under SFDR Article 6 is higher than the TER of funds disclosing under SFDR Article 8. This result confirms that funds with ESG characteristics seem to have lower costs.

⁴⁸ Results regarding subscription and redemption fees should be treated with caution as the data reported are maximum levels. The actual levels can be significantly lower. For more details, please see the Annex on Data sources and limitations.

⁴⁹ For the rest of the analysis those funds will be qualified as “converted” or “repurposed”.

⁵⁰ See Morningstar, 31 January 2022, ‘Global Sustainable Fund Flows: Q4 2021 in Review’.

⁵¹ For this analysis, we restrict the sample to funds launched in 2018 or after due to sample size and data availability (at the end of 2018, the share of ESG funds among EU funds was 4% but this share reached 24% at the end of 2021). Funds identified as ESG funds in the quarter following their launch are considered as funds created as

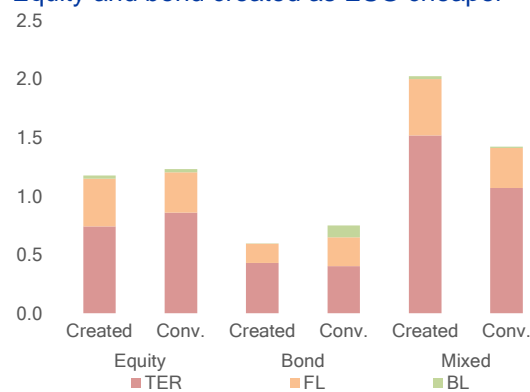
ESG funds and funds identified as ESG funds more than a quarter after their creation are considered to be repurposed funds.

⁵² ESMA, 2022, [The drivers of the costs and performance of ESG funds](#), TRV Risk Analysis.

⁵³ The difference of costs is coherent across the two studies. The analysis of the April 2019 – September 2021 period concluded that the ongoing costs of equity funds created as ESG funds were 0.2 pps lower than the ongoing costs of equity funds converted to ESG funds. However, for the analysis of the year 2021 the difference of TER between funds created as ESG funds and funds converted to ESG funds has a low level of significance. The results suggest that funds created as ESG funds could actually be more expensive (see the regression in the statistical annex).

⁵⁴ The regression analysis (presented in the statistical annex) shows that the difference of TER between bonds funds created as ESG funds and bonds funds converted to ESG funds is not significant.

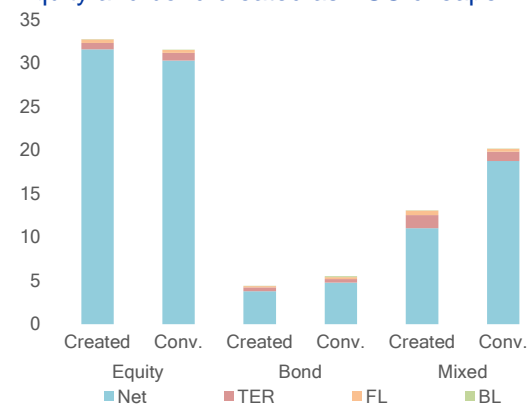
⁵⁵ This result is confirmed by the regression presented in the statistical annex.

ASR-CP.23**Total costs according to ESG integration timing**
Equity and bond created as ESG cheaper

Note: Total Costs in 2021 of EU27 equity, bond and mixed ESG UCITS for retail investors according to the time at which ESG features were integrated (at the launch or later) and classified as ongoing costs (TER), subscription (FL) and redemption fees (BL), %. UCITS ETFs are included.
Sources: Morningstar Direct, Refinitiv Lipper, ESMA.

Regarding net performance (ASR-CP.24), equity funds created as ESG funds outperformed repurposed equity funds (+1.3 pps), but bond and mixed funds created as ESG funds underperformed funds converted to ESG funds

(-1.0 pps for bond funds and -7.7 pps for mixed funds).

ASR-CP.24**Net performance according to ESG integration timing**
Equity and bond created as ESG cheaper

Note: Gross annual performance in 2021 of EU27 equity, bond and mixed ESG UCITS for retail investors according to the time at which ESG features were integrated (at the launch or later) and classified as net performance, ongoing costs (TER), subscription (FL) and redemption fees (BL), %. UCITS ETFs are included.
Sources: Morningstar Direct, Refinitiv Lipper, ESMA.

Summary findings

Costs and performance

- Costs: They decline over time, but investors should continue to carefully consider costs when evaluating their investment.
- Investment value: Investors paid around EUR 3,000 in costs for an investment of EUR 10,000, gaining a net value of EUR 18,500 after ten years.
- Inflation: Inflation plays a significant role on top of fund costs. In addition to the EUR 3,000 costs paid for a ten-year EUR 10,000 investment, an investor loses EUR 2,000 due to inflation. Inflation adds EUR 2,000 to the EUR 3,000 costs an investor pays for. For a ten-year EUR 10,000 investment, this leads to a net value of EUR 16,500.
- Cross-border sales: Costs for cross-border funds were higher than those for domestic funds, mainly due to differences in distribution channels and costs.
- Time horizon: Investing long-term significantly reduces the risks related to swift and large changes in the valuation of financial products.

Structural market features

- Heterogeneity across Member States: Main drivers were structural market differences, and lack of harmonisation in national regulation. It decreased when the analysis was centred on the investment focus.
- Inflation by fund domicile: Inflation differences across Member States, measured at the level of the fund's domicile, adds to the cost heterogeneity.
- Cross-border funds: On average, larger than funds sold only in their domicile.
- Concentration: 15% of the managers of UCITS in our sample managed 90% of assets.

UCITS ETF and management type

- Costs and net performance: Significantly higher for active UCITS than for passive funds and ETFs, leading to underperformance of active equity and bond UCITS, on average.

ESG UCITS

- Costs: ESG funds remained cheaper than their non-ESG equivalents, with the exception of equity ETFs. Funds disclosing under Article 8 of the SFDR have lower total costs compared to funds disclosing under Article 9. However, equity and bond funds disclosing under Article 9 have a significantly lower TER than funds disclosing under Article 8.
- Net performance: ESG equity and mixed funds outperformed non-ESG equivalents, but ESG bond funds underperformed their non-ESG equivalents in 2021.

Investment funds: Retail AIFs

Summary

Alternative Investment Funds (AIFs), the second largest market for retail investment, exceeded EUR 6.4tn assets in 2021, more than EUR 800bn of which was held by retail investors (Retail AIFs). Retail AIFs primarily focusing on traditional asset classes like equities and bonds attracted roughly half of the total AIF retail investment. Retail investment in real estate funds slowed down compared to the previous year, while Fund-of Funds inflows rose. Annualised returns of AIFs offered to retail investors increased in 2021, following the subdued period related to the COVID-19 pandemic. On average, gross and net returns rose by more than 6%.

The incentive to invest in AIFs is related to the potential for above-average returns and risks. However, AIFs often involve lower market transparency, lower liquidity and so potentially higher risk than more traditional types of investment.

The following analysis is based on data from the Directive on AIF Managers, regulating managers of AIFs in the EU,⁵⁶ and excluding those authorised under the UCITS Directive. The definition of predominant AIF types covers not only hedge funds (HF), but also private equity (PE) funds, venture capital (VC), real estate (RE), funds of funds (FoFs), Other AIFs (Others) and, as a residual category, “None” of the above.⁵⁷

Market overview

The size of the EU AIF industry was EUR 6.4tn at the end of 2021, a 19% increase from 2020. The market remained mostly composed of professional investors.⁵⁸ The share of retail investors continued to slightly decrease, to 12.6% at the end of 2021, from 13% in 2020 (ASR-CP-S.133). The total net asset value (NAV) for retail AIFs increased to more than EUR 800bn from EUR 700bn in 2020. The higher value of assets mirrors the recovery from the effects of the COVID-19 pandemic, although it remains far

from pre-COVID-19 levels (EUR 975bn in 2019). This partial reversal and increase of inflows towards alternative products may also be related to investment portfolio rebalancing in favour of higher-risk assets. However, retail investment in AIFs is subject to underestimation, as retail investors may buy products invested in AIFs through banks or insurance firms, which fall in the category of professional investors.

The vast majority (almost 90%) of the assets of AIFs sold to retail investors benefited from the passporting regime (i.e. they can be sold across the EU) (ASR-CP-S.134). Retail clients were primarily falling in the predominant AIF type classified as Others (47%), FoFs (25%) and RE (23%).⁵⁹ After the large increase of retail investments in RE from 2019 to 2020, RE investments slowed down in 2021, going from 25% to 23% despite increasing inflation, against which RE investment can be a good hedge – although initially inflation was expected to be temporary-. The share of the FoFs category increased by 1 pp in 2021 with respect to the previous year, while the share of the Others category held steady. The participation of retail clients in HF and PE remained marginal (ASR-CP-S.135).

AIFs can invest in a variety of assets, including property and commodities, and rely on a high

⁵⁶ [Directive 2011/61/EU](#). For an overview of the EU AIF market please see ESMA's 2022 ASR on AIFs.

⁵⁷ Annex IV, Commission delegated regulation (EU) No 231/2013 supplementing Directive 2011/16/EU. The residual category of ‘other AIFs’, labelled as ‘Others’ includes the following investment strategies: commodity and infrastructure funds together with conventional non-UCITS investment funds pursuing more traditional strategies and targeting primarily traditional asset classes such as equities and bonds. The ‘other AIF’ type includes a further residual category of other unspecified strategies, ‘other-other’. Often ‘special funds’ set up by single investors like insurance undertakings and pension funds

fall into this residual category. According to the ESMA Guidelines, AIFMs should select “None” as predominant AIF type where the investment strategy of the AIF does not permit the identification of a predominant AIF type.

⁵⁸ Professional investors are identified following the criteria specified in [Directive 2011/61/EU](#), article 4 (1ag) and Annex II of [Directive 2014/65/EC](#).

⁵⁹ ESMA, 2020, “[ESMA Annual Statistical Report - EU Alternative Investment Funds](#)”. In the [Level II Commission Delegated Regulation \(EU\) No 231/2013](#), AIFs are classified into five main types: hedge funds (HF), real estate funds (RE), funds-of-funds (FoFs), private equity funds (PE), and other AIFs (Others).

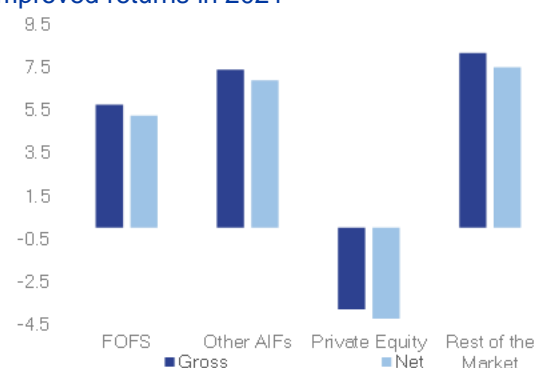
degree of flexibility around the strategy followed when they invest.⁶⁰ Focusing on retail clients, most of the NAV was concentrated in the strategy 'Other' (52%), increasing from the 46% observed in 2020. Investment in the commercial real estate (CRE) strategy substantially decreased to 15% in 2021 from 19% in 2020. Funds primarily focusing on fixed income (FI) experienced a sharp decline going from 17% in 2020 to 10% in 2021. Conversely, equity funds saw a surge in investments, going from 10% in 2020 to 15% in 2021 (ASR-CP-S.136).

Retail AIF performance

As in last year's report, we focus on gross and net performance. A full analysis of costs cannot be carried out as there is no existing information on costs and cost composition. The sample of funds available for the performance analysis represents around 60% of the total NAV for AIFs entirely sold to retail investors, around EUR 380bn.⁶¹

ASR-CP.25 shows the annualised monthly performance in 2021 by fund type. The performances of FoFs, Others and Rest of the Market considerably improved in 2021, displaying evidence of a recovery from the pandemic's impacts. Nonetheless, PE funds' performance suffered significantly, losing more than 4%, which reveals the persistence of the underlying uncertainty in the economy. Notably, only 3% of retail assets are held in PE, whereas more than 70% are held in FoFs and Others. Focusing on these types of funds, returns resumed their pre-pandemic trends. Gross returns increased to 6% for FoFs and 7.5% for Others in 2021, from 4% and just below 5%, respectively, in 2020. Similarly, net returns increased to 5% for FoFs and 7% for Others, compared with 3.5% and just below 4%, respectively, in 2020.⁶²

ASR-CP.25 Retail AIFs gross and net performance Improved returns in 2021



Note: EEA30 AIFs annualised monthly gross and net performance by fund type %, 2021. Reported according to AIFMD. Predominant fund type "Other AIFs" fixed income funds, equity funds, infrastructure funds, commodity funds, an other funds; PE=private equity funds; RoM= rest of the market and include hedge funds and those funds whose type is not indicated; no cost reporting available from regulatory or commercial data sources.
Sources: National Competent Authorities, ESMA.

Summary findings

The main results are as follows:

- In 2021, retail investors accounted for 12.6% of the total NAV for the AIF market.
- Assets invested in retail AIFs were concentrated in the type of AIFs classified as Others (47%), RE (23%) and FoFs (25%).
- Most of the NAV was concentrated in the strategy 'Other' (52%). Investment in the commercial real estate and fixed income strategies significantly decreased to 15% and 10% in 2021 from 19% and 17%, respectively, in 2020. Investment in Equity strategy increased to 15% in 2021 from 10% in 2020.
- In 2021, annualised monthly gross and net performance of those fund types in which retail investment was concentrated, namely FoFs and Other funds, significantly increased allowing for a return to pre-pandemic levels.
- A full costs analysis is impeded due to data unavailability on cost composition.

⁶⁰ ESMA, 2018, [AIFMD: A framework for risk monitoring, TRV No.1 2018](#).

⁶¹ For more details refer to the Annex on Statistical methods.

⁶² The net performance is subject to reporting issues that joint work between ESMA and the national competent authorities (NCAs) aim to resolve. See Annex Data sources and limitations.

Structured Retail Products

Summary

SRPs, with an outstanding value a little over EUR 300bn in 2021, remain a much smaller market than UCITS and AIFs sold to retail investors. The share of capital-protected products in sales volumes continued to decline, indicating a growing source of market risk for retail investors. We provide a first EU-wide analysis of disclosed performance scenarios and costs, drawing on commercial data. Costs – largely charged in the form of entry costs – rose in 2021 for a majority of product types and issuers, although they vary substantially by payoff type and country. The analysis of performance scenarios shows that the returns of one tenth of SRPs would be negative even in a moderate scenario.

Structured products are investments the return of which is linked to the performance of one or more reference indices, prices or rates (reference values). Several types of structured products are offered to retail investors in the EU, many with complex pay-off structures and with different risk levels. This, together with the existence of significant costs and charges for retail investors, prompts continued market surveillance. Moreover, unlike long-term investment products such as funds, many structured products may be designed for hedging purposes or to speculate on price movements over a period of months or years.⁶³

Product distribution is another source of heterogeneity in the market for structured products. First, some standardised products are issued on a continuous basis, while others are issued as part of a tranche with a pre-determined subscription period.⁶⁴ Second, the EU market involves both bank-issued and exchange-issued products. There is geographical variation in this respect, for example exchange-based issuance tends to be more common in Germany while bank-based issuance is seen more in Italy.

Market overview

SRPs, with an outstanding value of a little over EUR 300bn in 2021, remain a much smaller market than UCITS and AIFs sold to retail investors. The share of capital-protected products in sales volumes continued to decline,

indicating a growing source of market risk for retail investors. We provide a first EU-wide analysis of disclosed performance scenarios and costs, drawing on commercial data.

Costs – largely charged in the form of entry costs – rose in 2021 for a majority of product types and issuers, although they vary substantially by payoff type and country. The analysis of performance scenarios shows that the returns of one-tenth of SRPs would be negative even in a moderate scenario. Regarding types of underlying assets, the vast majority of sales volumes – around 96% in 2021 – concerned products with equities or equity indices as underlying assets, as opposed to other types of underlying assets such as interest rates, exchange rates or commodities (ASR-CP-S.144). This share has continued to grow over the last few years, whereas sales volumes of products with interest rates as underlying fell to just 1% in 2021, down from 14% in 2013. This trend may relate to the very accommodative monetary environment that prevailed in 2021. Retail investors may have expected interest rates to remain near the lower bound during this period and hence looked to riskier assets for real returns.

Costs and performance

Thanks to a data sample of SRP key information documents (issued since 2018 under the PRIIPs KIDs delegated regulation⁶⁵), ESMA staff have

⁶³ Such reference values may include stock indices, the prices of individual equities or other assets, and interest rates. For more detail on the products please see [the 2022 edition](#) of this report.

⁶⁴ According to the commercial data used in this section, approximately 73% of outstanding product volumes at the end of 2021 in the EU were tranche products.

⁶⁵ Commission Delegated Regulation (EU) 2017/653 on key information documents for packaged retail and insurance-

collected information on various cost figures, absolute and percentage product returns under different performance scenarios, and the summary risk indicator. The following analysis considers 12,233 SRPs issued in 2021.⁶⁶ Sales of products in this sample are estimated to amount to EUR 31bn, which accounts for 56% of the total sales of SRPs in 2021 in the EU.

Costs

The two key types of costs involved are those embedded in the product when it is issued (reduction in yield (RIY) attributed to costs), and costs involved in distributing the product, such as sales commissions. The analysis in this report focuses on the former type.

As an initial view, ASR-CP.26 illustrates the range in RIY across EU Member States, in terms of markets in which the product is sold. This perspective disregards differences in product types, which may also contribute to explaining this variation. Nevertheless, monitoring the evolution in cost dispersion across countries is useful in the context of the Capital Markets Union.

Continuing this theme, ASR-CP.27 provides an assessment of the variation in total costs by payoff type. Payoff types are associated with a significant variation in total costs, which most likely reflect the relative degree of complexity in the product (e.g., the extent of 'structuredness' of the SRP).

ASR-CP.28 examines the breakdown of total costs across underlying asset types. A small number of SRPs backed by different underlying asset classes ('Hybrid') tend to present the highest costs, while 'Credit' and 'Interest Rate' underlying assets are associated with the cheapest products. Products backed by equities display large cost ranges, with no clear distinction between products backed by single assets ('Single Share', 'Single Index') and products backed by a plurality of underlying assets ('Share Basket', 'Index Basket'). Overall, this suggests that it is rather the 'structured' nature of SRPs' payoff (the most challenging part for investors to assess) that drives costs.

ASR-CP.29 examines how the costs of SRPs offered in 2021 evolved compared to similar products in our dataset issued in previous years, using the RIY over a product's recommended holding period (RHP). To guarantee some comparability between products offered at different times, SRPs are grouped based on their payoff type and their manufacturer. For each of these groups of products, the median cost of products offered in 2021 is compared with the median cost of products issued from 2018 to 2020. We plotted the difference between these two measures in ASR-CP.28. The chart suggests that, for a majority of SRP manufacturers and payoff types, products issued in 2021 tended to be more expensive than analogous products issued in previous years. For example, the median cost of products of Capped Call type increased for twelve out of sixteen issuers, and for seven out of eleven issuers in the case of Uncapped Call products. The median cost of products of Reverse Convertible type increased for sixteen out of twenty-four issuers. Further monitoring of developments in this market is warranted to assess whether this trend is here to stay.

Finally, ASR-CP.30 shows how much each cost type accounts for the total costs (RIY) of SRPs in the dataset, using the pre-determined categories set out in the PRIIPs KIDs Delegated Regulation. The picture that emerges reaffirms the pattern highlighted in previous editions of this report: expenses are usually front-loaded in the form of entry costs (these are the only costs in over 92% of the KIDs where information on costs was retrieved). Around 4% of the products are also expected to incur recurring costs applied over their lifetime. Other cost types are absent or not indicated in the KID, which, according to the regulation, should be the case only if these cost categories do not apply to such products. Finally, in rare cases single cost components exceed the total cost indicated elsewhere in the KID, suggesting that investors may occasionally be presented with inconsistent cost figures.

based investment products (PRIIPs KIDs Delegated Regulation).

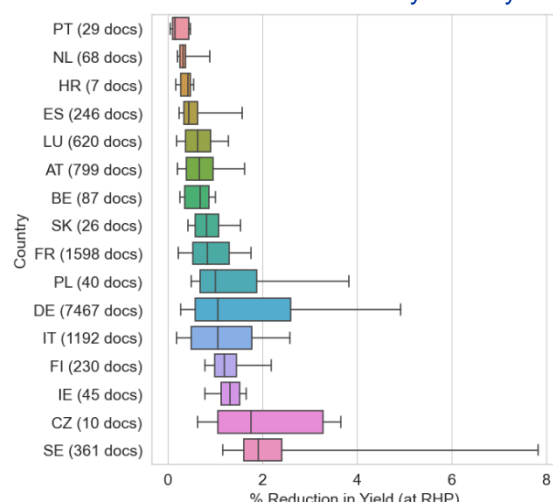
⁶⁶ Sample sizes in the following charts will vary as some information either may not have been possible to extract

from PDF documents or may not have been reported for certain products.

ASR-CP.26

Total costs for SRPs by country

Substantial variation in total costs by country



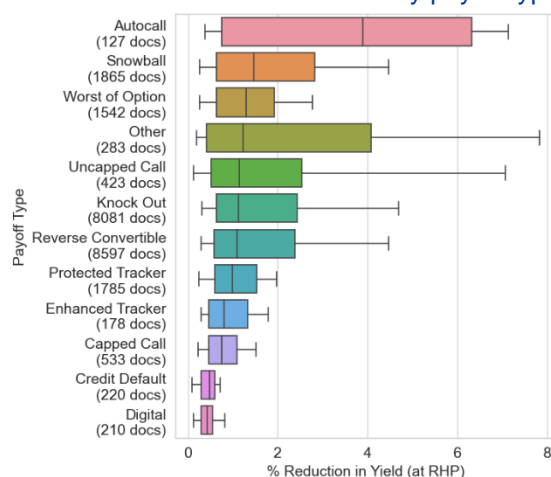
Note: Each bar displays the range in percent total cost (RIY) over the recommended holding period (RHP), across SRPs in the data sample, grouped by country. Countries indicate locations of sale (one product can be sold in multiple countries). The vertical line in each box shows the median percentage cost. Box edges are the 25th and 75th percentiles, and additional lines ('whiskers') represent the 10th and 90th percentiles for that country group.

Sources: ESMA, Structuredretailproducts.com, financial entities' websites.

ASR-CP.27

Total costs for SRPs by payoff type

Substantial variation in total costs by payoff type



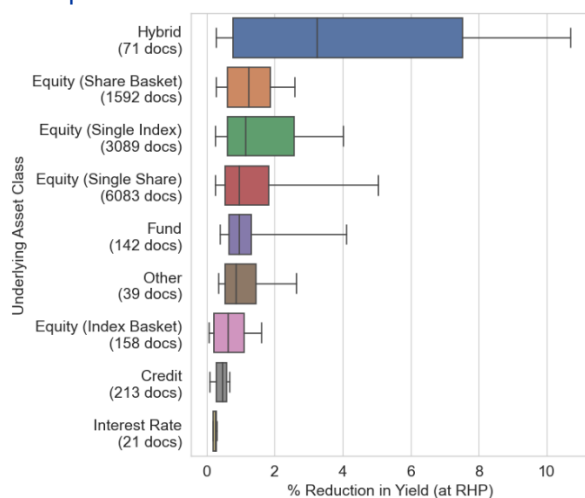
Note: Each bar displays the range in percent total cost (RIY) over the recommended holding period (RHP), across SRPs in the data sample, grouped by payoff type. The vertical line in each box shows the median percent cost. Box edges are the 25th and 75th percentiles, and additional lines ('whiskers') represent the 10th and 90th percentiles for that payoff type. 'Other' comprises all SRPs containing payoff types that have one hundred or fewer observations in the data sample. Note that one product can appear under multiple payoff types.

Sources: ESMA, Structuredretailproducts.com, financial entities' websites.

ASR-CP.28

Total costs for SRPs by underlying asset

Cheapest SRPs based on credit and interest rate



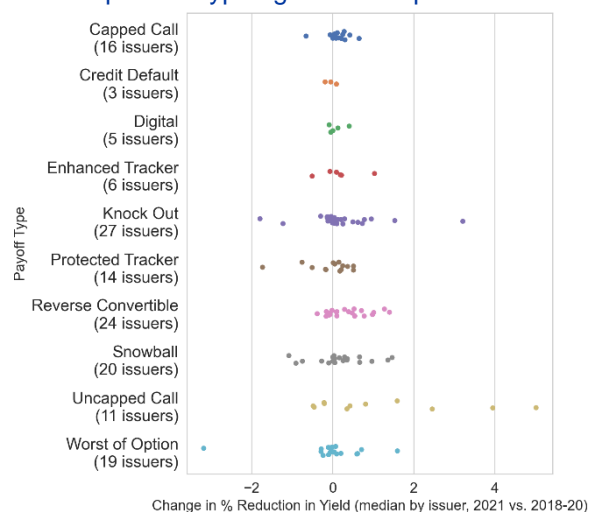
Note: Each bar displays the range in percent total cost (RIY) over the recommended holding period (RHP), across SRPs in the data sample, grouped by underlying asset types. Box edges are the 25th and 75th percentiles, and additional lines ('whiskers') represent the 10th and 90th percentiles for that underlying asset type. 'Other' comprises all SRPs containing underlying asset classes that have twenty or fewer observations in the data sample, such as ETF, foreign exchange rates, and commodities.

Sources: ESMA, Structuredretailproducts.com, financial entities' websites.

ASR-CP.29

Change in total costs in 2021 from 2018-2020

Several product types got more expensive



Note: Each dot in the chart represents the difference between the median percent total cost (RIY) over the recommended holding period (RHP) for SRPs issued in 2021 and the same figure for SRPs issued between 2018 and 2020, for products of the respective payoff type and a specific issuer. Only issuers (dots) with at least ten products for that payoff type both in 2021 and in 2018-2020 are shown. Payoff types with less than three issuers are not shown. Note that one product can appear under multiple payoff types.

Sources: ESMA, Structuredretailproducts.com, financial entities' websites.

ASR-CP.30

Breakdown of SRPs expenses

Entry costs make up the majority of total costs

	Entry costs	Exit costs	Transaction costs	Other ongoing costs	Performance fees	Carried interest
Accounts for more than 100% of the RIY	0.1%	0%	0%	0.1%	0%	0%
Accounts for 100% of the RIY	92.2%	0%	0%	0%	0%	0%
Above 0% and less than 100% of the RIY	4.2%	0%	0%	3.8%	0%	0%
Equal to 0% / Not provided	3.5%	100%	100%	96.1%	100%	100%

Note: This table shows the breakdown of the total costs of each individual SRP over its recommended holding period into the cost components mandated to be reported in the KID. The sample includes 9,964 products.

Sources: StructuredRetailProducts.com, financial entities' websites, ESMA calculations.

Performance

ASR-CP.31 displays the range of investment returns across the four performance scenarios laid out in the PRIIPs KIDs delegated regulation.⁶⁷ The simulated product returns under the stress and the unfavourable scenarios are below the moderate scenario returns. At the same time, the simulated favourable scenario returns do not seem to display a markedly higher upside risk than the returns under the moderate scenario.⁶⁸ This limited differentiation might also be due to payoff structures which often “cap” outperformance. Conversely, looking at downside risk, the moderate scenario appears to be considerably adverse for a number of products, with approximately one in ten SRPs offering negative returns, despite this being the second-best scenario out of four. This share increases to one fourth of SRPs when looking at the returns after one year rather than at a product's maturity (not shown), which illustrates the unfavourable implications for retail investors of not respecting a product's RHP.

ASR-CP.32 further explores the variation in simulated moderate scenario returns across the dataset, grouping products by payoff type. Most of the products which are expected to deliver negative returns under this scenario can be attributed to one of several payoff type categories, such as Enhanced Tracker and Worst of Option. It is unlikely that many issuers would voluntarily present such figures to potential retail investors, which demonstrates the benefit of requiring performance returns to be expressed

net of costs, as instructed by the PRIIPs KIDs delegated regulation.

ASR-CP.33 examines how the simulated performance of SRPs offered in 2021 evolved compared to similar products in our dataset issued in previous years, using the return in the moderate performance scenario. It reports the difference between the median return of products offered in 2021 compared with the median return of products issued from 2018 to 2020. To ensure comparability in simulated returns, SRPs are grouped based on the payoff type and manufacturer. While many issuers do not seem to have significantly altered the moderate performance scenario in 2021 (most of the differences are clustered around zero), products in some payoff types display either markedly higher (e.g. Protected Tracker) or lower (e.g. Worst of Option) simulated returns.

ASR-CP.34 examines how simulated returns vary depending on a product's SRI. Within the favourable scenario, high-SRI products are associated with higher returns. This appears sensible as the favourable scenario represents ‘upside risk’ for an investor. Within the moderate scenario, there is little variation in simulated returns across SRI categories. Within more pessimistic scenarios, there are clear differences in simulated returns across SRI categories: the higher the SRI for a SRP, the lower the simulated returns in both the unfavourable and stress scenarios. This confirms that the SRI calculation methodology in the PRIIPs KIDs Delegated Regulation is functioning as intended, from an investor protection perspective.

⁶⁷ The scenarios are favourable (90th percentile of simulated returns), moderate (50th percentile of returns, i.e. the median), unfavourable (10th percentile), and stress (1st or 5th percentile, depending on the type of product). PRIIPs KIDs do not include any backward-

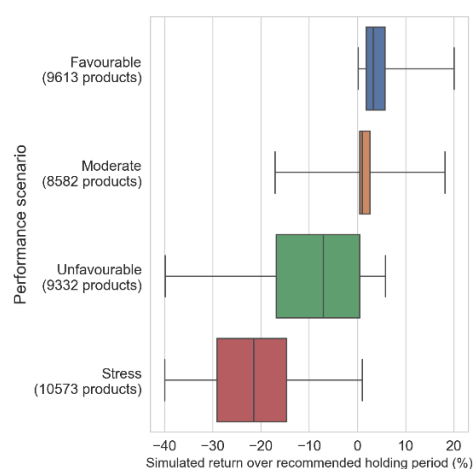
looking (ex-post) performance information; only forward-looking simulations are available in the KID.

⁶⁸ In half the products, the difference across the favourable and moderate scenarios in each individual product, is below 1.55%.

ASR-CP.31

Simulated returns across scenarios

Similar favourable and moderate scenarios



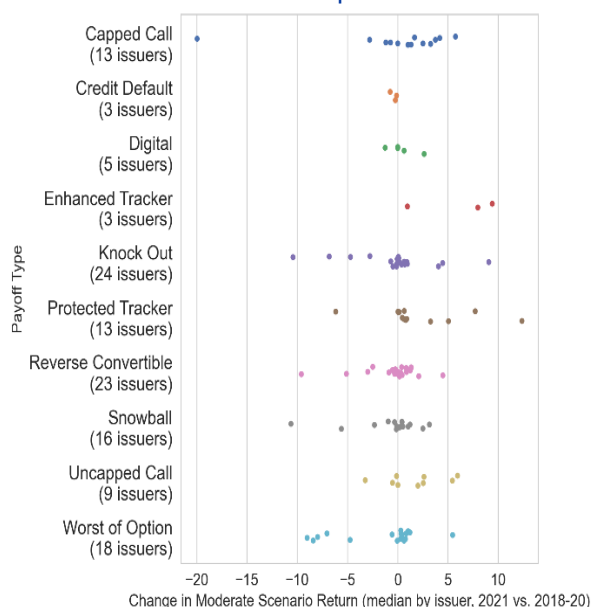
Note: The chart shows the range in annual returns for SRPs in each performance scenario, over a product's recommended holding period (RHP). The number of products in each sample varies slightly as information for some scenarios could not be retrieved from some documents. The scenario calculation methodology is set out in the PRIIPs KIDs Regulation. The vertical line in each box shows the median simulated return in that performance scenario category. Box edges are the 25th and 75th percentiles, and additional lines ('whiskers') represent the 10th and 90th percentiles for that category.

Sources: ESMA, Structuredretailproducts.com, financial entities' websites.

ASR-CP.33

Change in simulated returns in 2021 from 2018-2020

Moderate scenario often more pessimistic



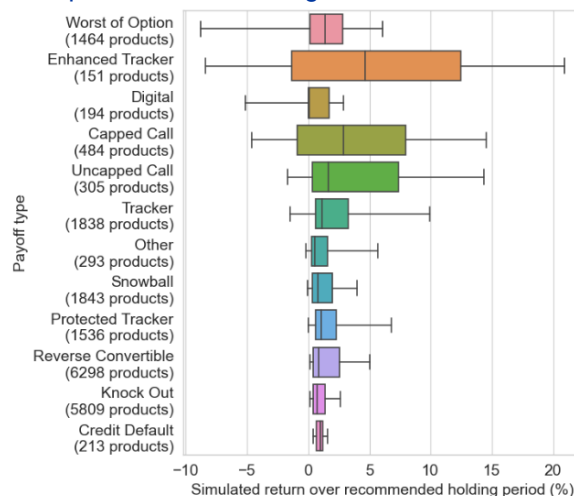
Note: Each dot in the chart represents the difference between the median moderate scenario return of SRPs issued in 2021 and the median moderate scenario return of SRPs issued between 2018 and 2020, for products of the respective payoff type and a specific issuer. Only issuers (dots) with at least ten products for that payoff type both in 2021 and in 2018-20 are shown. Payoff types with less than three issuers are not shown. Note that one product can appear under multiple payoff types.

Sources: ESMA, Structuredretailproducts.com, financial entities' websites.

ASR-CP.32

Moderate scenario returns across payoff types

Some products foresee negative returns



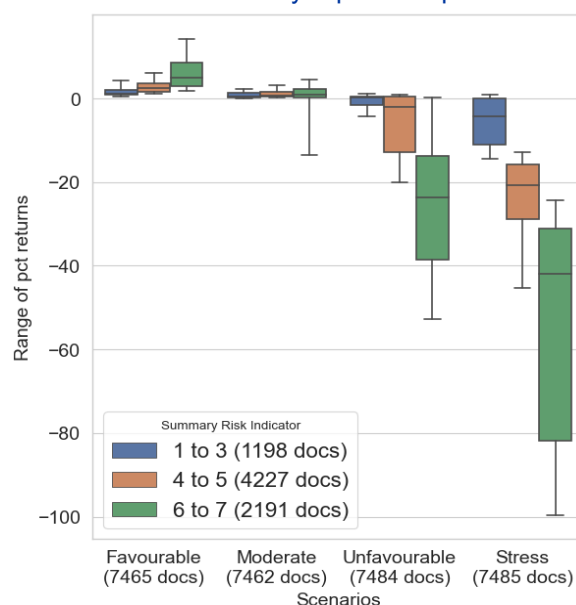
Note: The chart presents the range in annual returns under the moderate scenario over a product's recommended holding period (RHP) for SRPs grouped by payoff type. The vertical line in each box shows, within each payoff type, the median moderate scenario returns (after costs) at the recommended holding period. Box edges are the 25th and 75th percentiles, and additional lines ('whiskers') represent the 10th and 90th percentiles for that payoff type. Note that one product can contain multiple payoff types. 'Other' comprises all SRPs containing payoff types that have 150 or fewer observations in the data sample.

Sources: ESMA, Structuredretailproducts.com, financial entities' websites.

ASR-CP.34

SRI and simulated returns

SRI consistent with volatility of product's performance



Note: The boxes and vertical lines indicate the range of returns (at the recommended holding period) across SRPs grouped by the SRI (the number of products in each sample varies slightly as information for some scenarios could not be retrieved from some documents). The SRI aggregates the estimated Credit Risk (default risk) and Market Risk (adverse market price risk) associated with the SRP. The necessary simulations and formulae used to produce the SRI are set out in the PRIIPs KIDs Regulation. The SRI ranges from 1 (lowest risk) to 7 (highest risk). The horizontal line in each box shows the median KID simulated return rate for that specific performance scenario and SRI grouping. Box edges are the 25th and 75th percentile simulated returns across the group, and additional lines ('whiskers') represent the 10th and 90th percentiles for that same group.

Sources: ESMA, Structuredretailproducts.com, financial entities' websites.

Summary findings

SRPs are a relatively small market compared to other financial instruments such as UCITS. SRPs should not in general be regarded as long-term investments like investment funds. They may be designed for hedging as well as for speculative purposes and their structure may involve a significant level of complexity and reduced transparency. These features, in addition to their range of pay-off profiles and associated risks and costs, make SRPs a critical area for monitoring and analysis in the context of ESMA's investor protection objective.

The total value of SRPs held by EU retail investors decreased slightly in 2021 to approximately EUR 330bn. Volumes and types of SRPs sold in national markets within the EU showed high heterogeneity. Recent years have seen a decrease in capital protection levels, indicating that investors in SRPs may be taking on more market risk.

In terms of simulated returns and costs, the patterns that were identified in last year's report largely persist, although a general increase in expenses has been observed. The key findings are as follows:

- Total costs for SRPs are usually paid up-front when the product is subscribed to. These costs appear to vary substantially depending on the country in which they are marketed

and by the underlying pay-off type.

- Costs of products issued in 2021 increased for a majority of payoff types and issuers compared to products issued in the previous three years. Continued monitoring of the SRP market is warranted to assess the significance of this trend.
- Once costs were taken into account, the simulated returns for about one out of 10 SRPs (one out of four if the investor cashes out after one year) were below zero even in a moderate performance scenario. This illustrates the benefit of the requirement that performance scenarios be provided to investors in the KID in an easily comprehensible way and net of costs. It also highlights that prospective SRP investors should carefully consider their investment horizon and make appropriate comparisons between alternative investment products.
- There seems to be a significant correlation between the SRI, which is required to be produced for an SRP, and the simulated returns in more pessimistic performance scenarios: the higher the SRI, the lower the simulated returns in both the unfavourable and the stress scenarios. This provides evidence that the SRI calculation methodology used in the KID is functioning as intended from an investor protection perspective.

Annexes

In the Annexes to the Statistical Report, we provide details on the data and data limitations, the statistical methods at the basis of the analysis report, and statistics reporting extensive and up-to-date charts and tables with key data on UCITS, Retail AIFs, SRPs. These Annexes can be accessed on [ESMA's website](#).

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List of abbreviations

AIF	Alternative Investment Fund
AIFM	Alternative Investment Fund Manager
AIFMD	Alternative Investment Fund Managers Directive
AMF	Autorité des marchés financiers
ASR	Annual Statistical Report
AuM	Assets under Management
BaFin	Bundesanstalt für Finanzdienstleistungsaufsicht
BIS	The Bank of International Settlements
BL	Redemption fees (back loads)
BPS	Basis points
CESR	Committee of European Securities Regulators
CMU	Capital Market Union
CONSOB	Commissione Nazionale per le Società e la Borsa
CSSF	Commission de Surveillance du Secteur Financier
EA	Euro Area
EBA	European Banking Authority
ECB	European Central Bank
EFAMA	European Fund and Asset Management Association
EIOPA	European Insurance and Occupational Pensions Authority
ESAs	European Supervisory Authorities
ESG	Environmental, Social and Governance
ESMA	European Securities and Markets Authority
ESRB	European Systemic Risk Board
ETF	Exchange Traded Fund
EU	European Union
FCA	Financial Conduct Authority
FL	Subscription fees (front loads)
FMA	Financial Market Authority
FoFs	Fund of funds
FSMA	Financial Services and Markets Authority
HCMC	Hellenic Capital Market Commission
HF	Hedge Funds
IBIPs	Insurance-based investment products
IDD	Insurance Distribution Directive
IORP	Directive on the activities and supervision of institutions for occupational retirement provision
KID/KIID	Key Information Document
MiFID	Markets in Financial Instruments Directive
MiFIR	Markets in Financial Instruments Regulation
MMF	Money Market Fund
NAV	Net Asset Value
NCA	National Competent Authority
PE	Private Equity
PRIIPs	Packaged retail investment and insurance products
PPPs	Personal pension products
PPT	Percentage points

RE	Real Estate
RTS	Regulatory Technical Standards
SMSG	Securities and Markets Stakeholder Group
SRPs	Structured Retail Products
SRRI	Synthetic Risk and Reward Indicator
TRV	Trends Risk and Vulnerabilities
UCITS	Undertaking for Collective Investment in Transferable Securities
Countries abbreviated according to ISO standards except for United Kingdom (UK)	
Currencies abbreviated according to ISO standards	

