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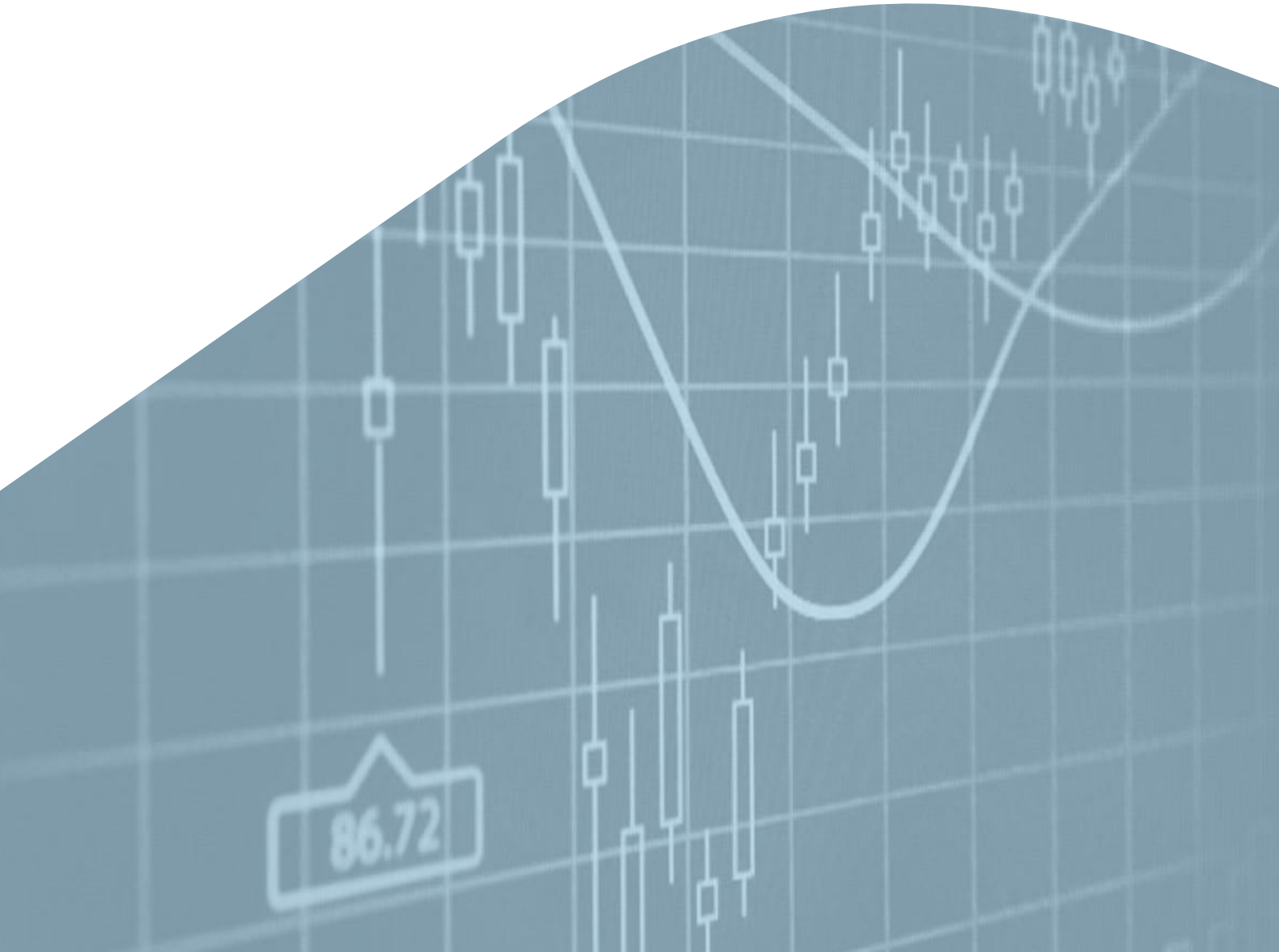
ESMA TRV Risk Analysis

Consumer Protection

The scale factor: Impact of size on EU fund cost structures



ESMA Report on Trends, Risks and Vulnerabilities Risk Analysis

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Investor protection

The scale factor: Impact of size on EU fund cost structures

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Summary

Size matters – also for cost structures in the investment fund industry. This study examines how size affects costs in the European investment fund market, comparing it with the US market. Our analysis demonstrates that both individual share class size and parent company size significantly influence share class costs, though these effects vary between markets. We find a negative correlation between share class size and costs in both markets, indicating economies of scale, but the relationship is stronger in the US market. Interestingly, the correlation between parent company size and costs is negative in both the EU and in the US and the coefficients are nearly identical, suggesting that managers of European funds are equally effective in leveraging organizational scale.

These findings have important implications both from a policy and investor protection perspective. At policy level, results suggest that greater consolidation could – assuming unimpaired competition – benefit European investors through cost efficiencies. From an investor protection perspective, the analysis suggests that investors should still consider costs carefully when taking investment decisions and awareness of fund costs and their potential drivers is key.

[1] This article was written by Lorenzo Danieli, Natacha Mosson, Spyridon Tsiolis and Thomas Zandanel. We are grateful for valuable comments from Claudia Guagliano, Steffen Kern, and the ESMA risk standing committee (RSC).

Introduction

The cost levels and structures of investment funds are an important determinant of the value investors get for their money. ESMA is monitoring these costs on an annual basis[2] to inform the investor protection work in the EU and in its member states. To complement our monitoring, we analyse key developments and structures that help explain expense dynamics in the EU industry. One of the long-standing structural features of the EU fund industry has been the high number of investment funds offered, and their relatively small size.

Fund size is important because it directly affects a fund's cost structure and, consequently, its performance (Indro et al., 1999). Larger funds may benefit from economies of scale, potentially lowering expense ratios as fixed costs are spread over a larger asset base (Latzko, 1999). However, they may also face challenges such as higher trading costs and difficulties in maintaining investment strategies as they grow (Yan, 2008).

In the EU context, where cross-border fund distribution is key to the Capital Markets Union (European Commission, 2015)[3], the impact of fund size takes on additional significance, affecting the competitiveness and efficiency of the EU fund market across diverse regulatory environments (Lang and Köhler, 2011). Comparatively, the US fund market provides an interesting contrast. Studies have shown that US funds tend to be larger on average than their European counterparts (Ferreira et al., 2013). This size difference has implications for cost structures and performance. For instance, Khorana et al. (2009) found that US funds generally have lower expense ratios than funds in many European countries, partly due to their larger average size and the resulting economies of scale.

Understanding the impact of fund size on costs is important both from a policy and investor protection perspective. On the regulatory side, it is important to maintain a balance between the potential benefits of larger funds and the needs to maintain market competition and protect investor interests (Khorana and Servaes, 2012). This is particularly relevant in the EU in the context of Savings and Investment Union (SIU), where efforts to create more integrated fund markets may lead to increased fund sizes over time (EFAMA, 2020).

Previous literature (studies by Ferreira et al. (2013) and Cremers and Petajisto (2009)), has explored the relationship between fund size and performance, providing a foundation for this research. This article aims to extend these findings by focusing specifically on the costs charged by EU and US investment funds and incorporating recent market developments.

Textbox 1

Key concepts in exploring fund costs

Investment fund: An investment fund is a financial vehicle which is used to pool money and acquire a portfolio of assets in accordance with a specific strategy.

Share class: Share classes are different versions of the same fund with identical investment holdings but varying fee structures, minimum investment requirements, and investor accessibility.

Fund family: A funds family is a group of mutual funds managed by the same investment company or asset management firm.

Fund size: Assets under management (AuM) are defined as the total market value of the financial assets managed by a financial institution on behalf of a client. Together with the net asset value (NAV), obtained by subtracting liabilities from the total assets, they are an indicator of the performance and the size of an investment fund. The size of investment funds has emerged as a critical factor in the financial industry, significantly influencing both operational efficiency and performance (Chen et al., 2004).

Ultimate parent entity: An ultimate parent entity is the topmost company in a corporate ownership structure that has controlling interest or ownership over all other subsidiaries and entities in the corporate group, while itself not being controlled by any other entity. It represents the highest level of corporate control in an organization's hierarchy.

Beyond fund size, the literature has also demonstrated the role of the group size. Chen et al. (2004) found that the performance of a given fund is positively impacted by the cumulated AuM of the other funds belonging to the same family. The authors suggest that economies of scale are

[2] ESMA Market Report on Costs and Performance of EU Retail Investment Products. Latest edition.

[3] For this specific citation we refer to Capital Markets Union as this was the naming of the initiative in 2015. For the remainder of the article we will refer to the new Savings and Investments Union initiative.

also relevant at the level of the family (e.g., better negotiation of trading commissions).

This article puts a magnifying glass on one of the trends emerged in the last ESMA market reports on Costs and Performance of EU retail investment products showing that larger share classes are associated with lower ongoing costs, even after controlling for share classes' characteristics impacting the costs (e.g. the underlying asset class, the age of the share class etc.).[4] The analysis also compares the results for EU share classes against the US ones.

The article first provides a description of the investment fund markets in the EU. In order to allow for a relative assessment of our findings, we include comparable data for the fund market in the US. It continues by presenting the methodology developed. It concludes by presenting the main results of the analysis.

EU fund market structures

We use fund and share class level data from Morningstar Direct. Funds and share classes represent different levels of investment structure as highlighted in Textbox 1. Given that cost structures vary at share class level our analysis will focus on this layer.

Our sample covers bond, equity and mixed share classes (excluding ETFs) domiciled in EU jurisdictions and in the US across different years.[5] Each share class is mapped to the ultimate parent of its management company, going up through the shareholding structure.[6] The data on the ultimate parent companies is retrieved through Refinitiv Eikon.

Though we have comprehensive time series information about the share class costs and size, there is not much information on ultimate parent company assets over time. For this reason, we narrow down the timeframe to include data for 2022 only, the most recent and comprehensive year in our database. Focusing on a single year is also motivated by the existence of a static correlation between size and cost.[7] This is also true after controlling for share class characteristics that are barely subject to changes over time. Moreover, while total costs slightly decrease over the years, they have low volatility.[8] The same principle applies to the sample of US funds.

Share classes, funds, and parent AMCs

Having restricted the time series to 2022, we then dropped share classes for which relevant variables were unavailable.[9] For the EU, this reduced the sample from roughly 67,000 share classes to approximately 46,800 (46% of which were in equity funds, 37% in bond funds and 17% in mixed funds).

The share classes retained in our sample belong to EU funds that are managed by 281 investment companies, 49 of which classified as independent (the parent company and the management company refer to the same entity). The remaining 232 fund management companies are owned by other entities that mostly operate in the banking and insurance sectors. The share classes are ultimately associated with 204 parent companies with combined total assets of EUR 54tn. Those parent companies are mainly domiciled in France (16%), the US (10%) and Germany (9%). Overall, almost three quarters of the parent asset management companies (AMCs) are domiciled in the EU.

For the purpose of comparing our results for the EU, we also cover the US fund market. From roughly 22,000 initial US share classes in 2022, the sample is reduced to 17,280 share classes

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4 ESMA Market Report on Costs and performance of EU retail investment products, 2024.

5 For the EU, the sample is restricted to UCITS and excludes AIFs. Our initial sample spans from 2010 to 2023.

6 The parent entities considered are the ultimate parents. We consider the highest ultimate parent (financial or non-financial entity) of the fund family tree. In case of a management company with subsidiaries settled in several EU countries, the share classes managed by the different subsidiaries will be mapped to the same ultimate parent.

7 Between 2020 and 2023 large equity funds were constantly cheaper than small equity funds, with ongoing costs of large equity funds being between 15% and 18% lower than the ongoing costs of small equity funds across the years. This result also holds for bond funds (with ongoing costs of large funds being between 24% and 31% lower than ongoing costs of smaller funds) and mixed funds (with ongoing costs of large funds being between 11% and 14% lower than ongoing costs of smaller funds).

8 Please refer to ESMA Market report, Costs and performance of EU retail investment products 2024.

9 Only share classes with available information on costs, size and parent companies were kept.

(49% of equity, 29% of bond and 22% of mixed funds), applying similar filtering as for EU funds. These funds are related to 271 distinct parent AMCs with total combined assets of EUR 45tn and main areas of activity being the banking and insurance sector. Almost 90% of US share classes parents are domiciled in the US.

Concentration and fragmentation

The EU market appears relatively concentrated. The top-5 largest parent AMCs manage 22% of the share classes' AuM, while the top-25 largest parents manage 66% of the share classes' AuM (Chart 1). Looking into more detail, there are some countries where fragmentation is higher than others given their larger exposures to foreign investors.

Comparatively, the concentration is higher in the US, where the top-5 largest parent AMCs manage 65% of the share classes' AuM and the top-25 largest parents manage 90% of the US share classes' AuM.

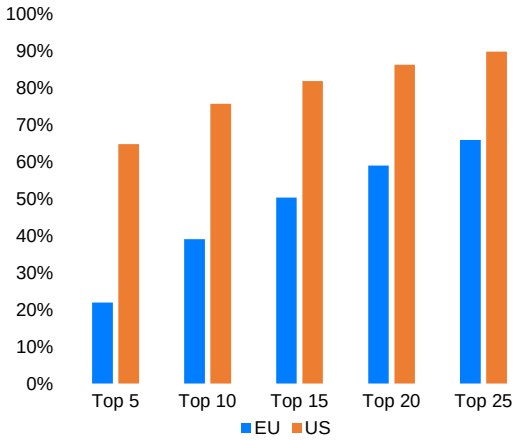
These statistics show the comparatively high level of fragmentation in the EU fund industry compared to the US. Market fragmentation may be a factor influencing the cost levels in an industry. On the one hand, a large number of producers and products can be reflection of strong competition which can exert downward pressure on costs and prices. On the other hand, operating investment funds is commonly considered a business of strong economies of scale where large investment portfolios are generally more cost efficient than small ones.

In the case of the EU fund industry, the high number of funds across the Union is relativised by the persistence of national market structures and investment patterns, which in practice limits the level of competition in each submarket. Moreover, the small size of funds in the EU has generally been associated with the comparatively high levels of costs and charges, in line with the logic of economies of scale.

Chart 1

Market share of the ultimate parent AMC

High concentration of parent AMCs in the US



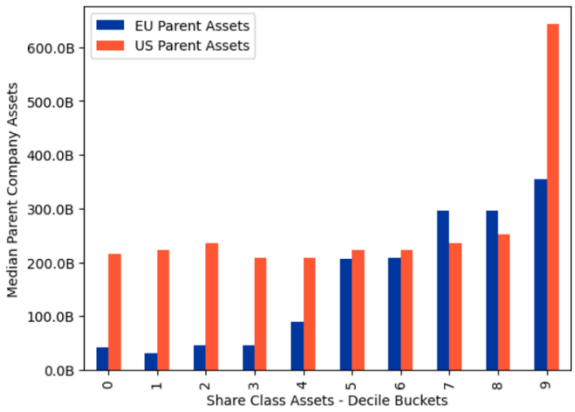
Note: Market share held by the top-5 to top-25 (largest) ultimate parents of EU and US funds (in terms of share classes' AuM).
Sources: Morningstar Direct, Refinitiv Lipper, Refinitiv Eikon, ESMA.

In addition, the size of the share class is only weakly correlated with the size of the parent company. Indeed, while larger share classes are associated with larger parents (especially in the EU, Chart 2), the largest parents tend to gather a variety of share classes (not only the larger ones) both in the EU and US.

Chart 2

Median size of parent AMC by size of share classes

Larger share classes associated with larger parent AMC



Note: Median of parents' company size (EUR bn) by deciles of share class size (based on share class assets).
Source: Morningstar Direct, Refinitiv Eikon, ESMA.

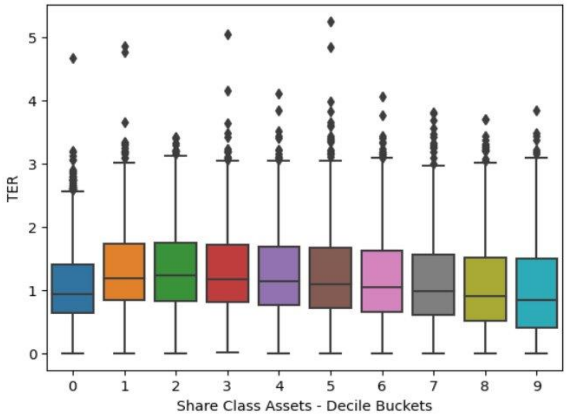
Fund costs and size

As highlighted in the ESMA Market Reports on costs and performance of EU retail investment products, there is evidence pointing towards an inverse relationship between the size of the EU share classes and their ongoing costs (Chart 3).

Chart 3

EU: Ongoing costs distribution by size

Larger share classes have lower costs



Note: Distribution of the ongoing costs by deciles of share class size (based on share class assets). Ongoing costs are proxied by the total expense ratio (TER). The TER includes all charges paid to the fund itself to cover the costs of resources used to design and operate the fund, as well as to pay for external services employed in the process. The diamonds at the extremities of the box plots are the outliers of each distribution. The extreme horizontal bars represent the smallest and largest adjacent values, the bottom of the box represents the first quartile, the middle line the median and the top of the box represents the third quartile. The area ranging from the bottom of the box to the top of the box, represents the interquartile range (IQR). The size of the share class is the net assets of each share class.

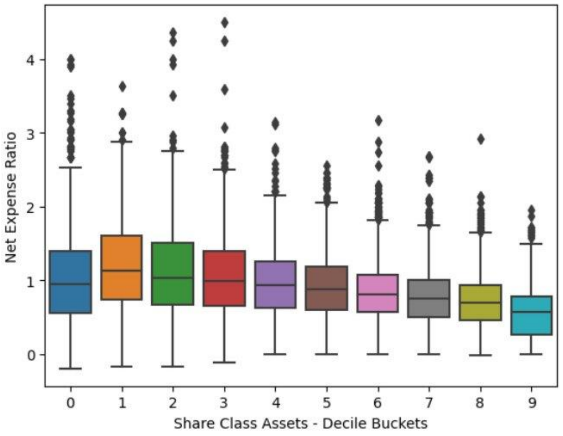
Source: Morningstar Direct, Refinitiv Eikon, ESMA.

A comparable trend is also observable for US share classes (Chart 4) but two significant differences can be noticed. First, as the size of the share classes increases, US share classes have a larger reduction of their costs compared to EU share classes. Second, the costs of US share classes are more narrowed around the median.

Chart 4

US: Net expense ratio distribution by size of the share class

Lower dispersion of costs



Note: Distribution of the Net expense ratio by deciles of share class size (based on share class assets). The diamonds at the extremities of the box plots are the outliers of each distribution. The extreme horizontal bars represent the smallest and largest adjacent values, the bottom of the box represents the first quartile, the middle line the median and the top of the box represents the third quartile. The area ranging from the bottom of the box to the top of the box, represents the interquartile range (IQR). The size of the share class is the net assets of each share class.

Source: Morningstar Direct, Refinitiv Eikon, ESMA.

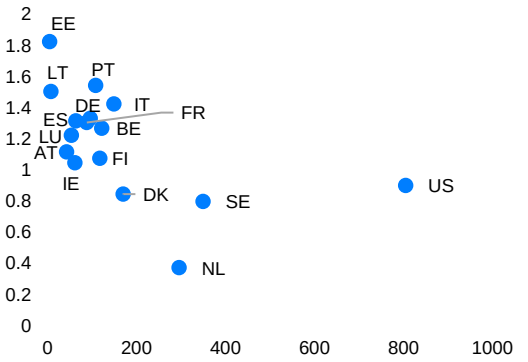
According to the data, the median cost for the share classes in the lowest decile (10th decile, i.e. the 0 category on the x-axis of Chart 4), is the lowest across size buckets (mainly in Europe). Within this bucket, around 50% of the share classes are less than 2 years old, whereas the median age of the rest of the sample is 7.5 years. A potential explanation for lower fees is that newer funds may offer lower fees – perhaps temporarily – to attract investors.

The comparison across countries further confirms the negative relationship between fund share class size and cost (Chart 5).

Chart 5

Average share class size and costs

Largest share classes are cheaper on average



Note: Scatterplot between average share class size (in EUR mn) and average cost (in %) by country. As already pointed out in the last ESMA Market Reports on Costs and performance of EU retail investment products, costs across EU jurisdictions remain heterogeneous. Structural differences across markets, and differences in investor preferences, marketing channels, distribution costs and their regulatory treatment explain this heterogeneity.
Source: Morningstar Direct, Refinitiv Eikon, ESMA.

Countries with very small share classes are associated with the largest costs on average. Conversely, countries with the largest share classes tend to exhibit the lowest costs. Moreover, the cost distribution by country shows that US share classes are, on average, more than twice the size of their EU peers.

Understanding the impact of fund size: Methodology

To empirically examine how share class costs relate to the size of the share class and its parent, we first employ a cross-sectional regression analysis (ordinary least squares (OLS)) with robust standard errors. The baseline model is as follows:

$$Ongoing\ costs_i = \alpha + \beta_1 \ln(net\ assets_i) + \beta_2 \ln(parent\ assets_k) + \beta_3\ age_i + \beta_4\ sustainable\ investment_j + \beta_5\ PRIIPS\ KID\ SRI_j + \beta_6\ Fund\ Domicile_j + \beta_7\ Asset\ Class_j + \beta_8\ Management\ Type_j + \beta_9\ Institutional_i + \beta_{10}\ Feeder\ fund_j + \beta_{11}\ Fund\ of\ funds_j + \beta_{12}\ Investment\ area_j + \varepsilon_i$$

where subscript *i* indicates share class level variables, *j* fund-level variables and *k* parent company level variables.

We are interested in understanding the drivers of ongoing costs (in % of AuM, as displayed in the UCITS key investor information document (KIID) until 2022) for EU share classes and net expense ratio[10] for US share classes. We focus on these cost components to capture all recurring expenses incurred by a fund for its administration and management, besides the more specific entry, exit, performance, and transaction fees. Contrary to entry and exit charges, which are reported as maximum amounts and are thus subject to overestimation, reported ongoing costs reflect the actual amount charged to investors.

To measure the size of the share classes and parent companies we employ net assets and total balance sheet assets respectively.[11] We take the logarithm of both to linearize and stabilize the relationship. This mitigates the issue that a small number of funds exhibit large values in assets. It also facilitates the interpretation of the coefficients. These will represent our main variables of interest.

The combination of share class and parent company size as regressors of costs does not constitute a concern. For the EU, the correlation is significant but very low, at 0.08. This means that it explains less than 1% of the variance. As a result, estimator bias from multicollinearity can be ignored. [12] This is far below the typical multicollinearity thresholds (0.7 or 0.8). The same reasoning holds for the US, where the correlation coefficient is 0.15, i.e. only 2.25% of the variance is explained.

We are mainly interested in the sign of the coefficients β_1 and β_2 . They represent the approximate percentage point change in cost for a one percent change in the size of share class or the parent respectively (log-percent regression). Based on the descriptive statistics, we expect both coefficients to be negative.

We also include a set of share class, fund and parent level characteristics as control variables that previous research (Chen et al., 2004; EFAMA, 2024) and our regular monitoring

[10] The net expense ratio is defined by Morningstar as "*the percentage of fund assets used to pay for operating expenses and management fees, including 12b-1 fees, administrative fees, and all other asset-based costs incurred by the fund, except brokerage costs*".

[11] These are the most conventional and straightforward measures of size that are used across literature.

[12] The square of the correlation coefficient equals the explained variance, so correlation of 0.08 implies that the proportion of the variance that is explained is 0.0064.

analysis in the context of the ESMA Costs and Performance report have shown to play a role in explaining fund costs.

Age is calculated from the inception date of the share class to 31 December 2022. As explained earlier in the article, it could be a potential determinant of costs. We expect a positive sign on β_3.

Sustainable investment is a variable derived from Morningstar, taking the value of 1 if reported as sustainable on the 31 December 2022.[13] This control variable takes into account that, on average, ESG funds exhibit lower ongoing costs.[14]

We also control for the Summary Risk Indicator (SRI) of the fund. This ranges from 1 to 7 and it is derived from the PRIIPS KID for EU funds and a risk assessment variable based on returns measured for a three-year period from Morningstar for US funds. The 2024 edition of the ESMA Market Report on Costs and performance of EU retail investment products highlights that riskier share classes are associated with higher costs.

Domicile is the country of a residence of the fund. As highlighted in the last editions of the ESMA Market reports on Costs and performance of EU retail investment products, costs across EU jurisdictions remain heterogeneous. These differences are driven by structural differences across markets, and differences in investor preferences, marketing channels, distribution costs and their regulatory treatment. Share classes issued by funds domiciled in Netherlands tend to exhibit the lowest ongoing costs. This is explained by the ban on inducements applied in this country, which reduces the ongoing costs offered to investors.

The costs of the share classes also vary according to the underlying asset class. In 2023, bond funds had on average the lowest ongoing costs (0.86%) followed by equity and mixed funds (respectively 1.40% and 1.45%).[15]

We further include a set of dummy variables to control for other fund characteristics. Management type takes the value of 1 if the fund is passive and zero otherwise. Institutional labels share classes that are sold to institutional investors. If the share class is sold to a retail investor, the variable takes the value of 0. Feeder funds and funds of funds label funds that specialise in buying shares in other funds rather than individual securities. We expect passive and institutional share classes to be cheaper than active and retail share classes. Conversely, feeder and funds of funds are expected to be more expensive compared to funds investing directly in securities.

Finally, we control for the investment area, indicating the geographical exposure of the investment (e.g., global, emerging markets, specific country, or region). The 2023 edition of the ESMA Market Report on Costs and performance of EU retail investment products highlights that share classes investing in Europe have the lowest costs.

In the second part of the analysis, we examine the relationship between cost and share class / parent size across different points of the conditional distribution (we use a quantile regression). Unlike OLS regression, which estimates effects at the conditional mean, quantile regression estimates effects at different quantiles of the outcome distribution, revealing potentially heterogeneous relationships that might be masked by mean regression. We estimate the same specification at the 10th, 25th, 50th, 75th, and 90th percentiles of costs.[16]

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[13] 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, Morningstar Sustainable Attributes – Framework and definitions for the 'Sustainable Investment' and 'Employs Exclusions' attributes, August 2022).

[14] Previous ESMA Market reports on costs and performance of EU retail investment products demonstrated that ESG funds are on average cheaper than non-ESG funds, even after controlling for the funds' age or other characteristics impacting the funds' costs.

[15] ESMA Market report, Costs and performance of EU retail investment products 2024.

[16] The coefficients will be interpreted as the estimated effect of size on cost at each specific quantile of the conditional distribution. Statistical inference is based on standard errors obtained through bootstrapping. The results are presented in this article through coefficient plots across quantiles to illustrate potential effect heterogeneity across the distribution of cost. We also compare the magnitude of the effects between US and EU funds.

Fund size and costs: Significant but weak negative correlation

Results from the OLS regression show a significant negative correlation between both the size of the share class and the size of the parent and the costs of the share class. However, this effect is small in terms of magnitude. A 10% increase in net assets (parent assets) leads to a decrease of 0.002 (0.0023) percentage points in ongoing costs. This inverse significant relationship is also confirmed for US funds. However, the magnitude for share class size increases compared to the EU. Our findings confirm our theoretical hypothesis that economies of scale could be a potential driver of lower costs.

Table 1
Regression analysis on ongoing costs
Significant inverse relationship between size and costs

	Ongoing costs	Net expense ratio
	(1)	(2)
	EU funds	US funds
Net assets (ln)	-0.0156***	-0.0622***
Parent assets (ln)	-0.0236***	-0.0240***
Controls	Yes	Yes
N	46,918	9,940
R2	0.357	0.455

Note: Table 1 reports coefficients from the main OLS regression with robust standard errors for a sample of EU (1) and US funds (2). The number of observations used in the regressions differs from the number of observations in the reduced samples (for both EU and US), due to the different variables used in the regression and the filtering process.
Stars indicate statistical significance level using the p-value (p), namely* p<0.1, ** p<0.05, *** p<0.01.
Source: Morningstar Direct, Refinitiv Eikon, ESMA.

Funds investing predominantly in bonds exhibit the lowest costs as demonstrated in the last edition of the ESMA Market Report on costs and performance of EU retail investment products.[17] Consistently with the descriptive statistics argument, ongoing costs increase with the age of the fund. This points towards potential under-pricing of recently launched funds. At the same time, more established funds can profit from their experience, past performance, and reputation by charging higher costs.

The analysis also shows that geography plays an important role in the cost structure of funds. As expected, within the group of EU funds, costs are lower for share classes issued by funds domiciled in the Netherlands.[18] As highlighted in our ESMA Market Report, the funds' investment area has an impact on costs. For instance, funds focusing on emerging markets tend to charge, on average, higher ongoing costs. The results are robust to the inclusion of more detailed information regarding the fund's strategy, which only slightly decreases the estimated magnitude of the effect.[19] We also run a regression including entry and exit costs as dependent variables. We obtain slightly more ambiguous yet still significant results. Larger share classes are associated with lower entry and higher exit fees, whereas share classes managed by more sizable parents exhibit lower exit charges.

The findings also hold controlling for parent domicile, activity, and sector, observing that EU funds with US parents are less costly than EU funds with EU parents. Finally, including a dummy variable distinguishing domestic versus cross-border activity in the EU does not alter the results.

The quantile regression results show that the coefficients on share class size and parent company size are consistently and significantly negative across quantiles for both the EU and US sample. For share class size, the stronger negative correlation between size and cost for US share classes is confirmed. However, size is a stronger determinant of cost for the most expensive US funds.

[17] Lower costs for bond funds might also be due to their trading behaviour. It is likely that bond lot sizes and the less liquid nature of bond markets with respect to equity markets are factors that lead funds to trade less frequently in these markets, thus reducing the transaction costs borne by these funds/investors.

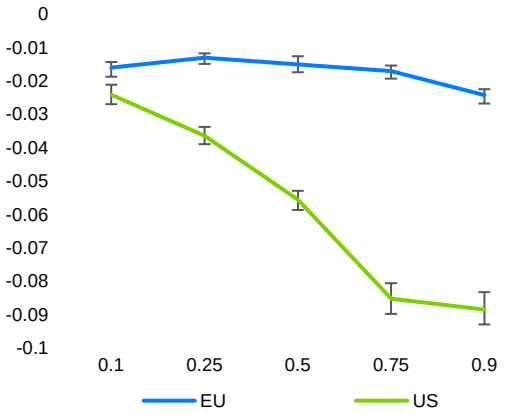
[18] As mentioned previously, this is explained by the ban on inducements applied in this country, which reduces the ongoing costs display in the share classes' regulatory documents.

[19] To describe more precisely the strategy of the fund, we rely on the Morningstar Style box for equity and bond funds. The equity style box characterises equity funds according to the size of their underlying investments (i.e., small, mid or large caps) and the nature of their underlying investments (i.e., value vs growth stocks). The bond style box characterises bond funds according to the interest rate sensitivity and the credit quality. When including this additional information, sample is restricted to equity and bond funds.

Chart 6

EU-US share class size coefficients

Stronger effects for large US funds



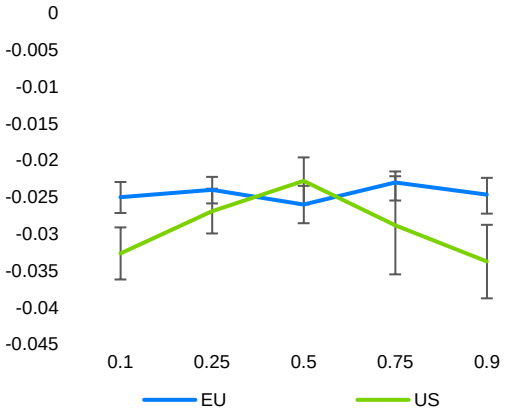
Note: Coefficients' estimates associated to the fund's size. Quantile regressions for EU and US investment funds. Error bars indicate 95% confidence intervals for each quantile regression.
Sources: Morningstar Direct, Refinitiv Lipper, Refinitiv Eikon, ESMA.

On the other hand, based on the magnitude of the coefficients, parent company size seems to have a more similar effect for both EU and US funds. Though the intensity is slightly lower for the US within the funds in the median bucket of costs.

Chart 7

EU-US parent size coefficients

Slightly stronger effect for EU funds



Note: Coefficients' estimates associated to the parent's size. Quantile regressions for EU and US investment funds. Error bars indicate 95% confidence intervals for each quantile regression.
Sources: Morningstar Direct, Refinitiv Lipper, Refinitiv Eikon, ESMA.

Conclusion

It has been widely recognised in literature that the size of the investment funds is a factor contributing to both flows and performance of the fund. This size advantage creates dynamics where large funds can leverage their scale to enhance their market presence and distribution capabilities, potentially leading to further growth. Our research extends the understanding of share class size dynamics by specifically examining the relationship with the cost structures.

This article provides empirical evidence on the relationship between the size of the share classes, and the size of the parent companies and the costs of the share classes. The analysis also compares EU share classes and US share classes' size and costs.

The main findings confirm a significant negative correlation between share class (and parent company) size and costs, indicating that large share classes generally benefit from economies of scale in both markets.

Our econometric results suggest that both individual share class size and parent company size are important determinants of share class costs. However, the magnitude of these effects varies between the EU and the US contexts. Specifically, we find that the negative relationship between share class size and share class costs is more pronounced in the US market, with smaller coefficient values across regression quantiles. This could potentially indicate that US funds achieve greater cost efficiencies as they grow with respect to their EU peers.

When examining the impact of parent company size, the effect on costs is negative in both the EU and the US and the coefficients for those two regions are nearly identical. This can indicate that despite operating in a more fragmented market environment, EU parent companies, mainly banks, are equally effective in leveraging organizational scale.

These findings have relevant implications for the EU Savings and Investment Union.

- First, it suggests that a single market with less fragmentation and larger funds can – assuming unimpaired competition – bring efficiency gains to the EU fund sector, and ultimately lower investor costs and greater value for money.
- Second, from an investor protection perspective, there is a critical need to ensure that these benefits are effectively passed on to retail investors. Our analysis suggests that investor awareness of fund costs and their potential drivers is key for making optimal investment decisions.

The results demonstrate that while the EU fund market has made significant progress in achieving cost efficiencies, particularly at the

parent company level, there remains potential for further improvement in realizing economies of scale at individual fund levels.

With this analysis we contribute to the ongoing dialogue about fund market efficiency, and we provide evidence-based insights to enhance competitiveness of the EU fund market.

Going forward, ESMA will continue monitoring developments in this area and deepen our analysis of the relationship between fund size and costs. A useful way to extend the analysis will be to consider fund performance, as we regularly do in the costs and performance report. Both costs and performance are important to investors and the fund sector as a whole.

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