

Investor protection

Net performance of active and passive equity UCITS

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In this article we analyse the cost and performance of EU equity UCITS funds, distinguishing between active and passive investment management, and ETFs. In particular, we investigate the gross and net relative performance of actively and passively managed funds with respect to their prospectus benchmark. The main results show that on an aggregate basis, active funds have underperformed in past years passive funds and ETFs, in net terms, as well as their benchmarks; ongoing costs had the largest impact on performance. The top 25% actively managed equity UCITS outperformed passively managed UCITS before and after costs, as well as their benchmarks. However, the group of top 25% actively managed equity UCITS change over time, such that there is only limited opportunity for investors to pick consistently outperforming actively managed equity UCITS.

Introduction

Over the last decade, the debate on the merits of active and passive fund management has intensified in Europe following the increased development of passive investment options, in particular in the equity market segment.

Academic researchers as well as investment associations and supervisors have focused on the study of costs and benefits related to active and passive fund management.⁹⁰

In this article, we focus on the EU UCITS equity market,⁹¹ distinguishing between active and passive management. We first propose a definition of active and passive management and provide background on the EU equity fund market landscape and its regulation. We then analyse equity fund performance dynamics before and after costs, and the relative performance of actively managed EU UCITS funds. Finally, we investigate the performance of the top and bottom performers and that of the largest and smallest funds.

With this article – as with our Annual Statistical Report on the performance and costs of retail investment products – we aim to increase transparency on fund costs and narrow potential gaps in information and communication that are detrimental to investor protection.

The equity fund market

Active and passive management

We analyse EU UCITS equity actively managed funds, passively managed funds and ETFs.

Broadly speaking, passive portfolio management, or “index strategy” is an investment strategy that tracks the returns of a market benchmark. Given that stock selection is determined by the index followed and tracking a benchmark implies low trading activity by the fund manager, passively managed funds can generally be offered at lower overall costs and fees to investors.

Active management of a portfolio, instead, implies stock selection and active trading in order to generate higher returns compared to a given benchmark. An active portfolio manager looks for higher returns through “stock picking”, choosing specific stocks outside a market benchmark, and/or relying on different weights for stocks that are part of a market benchmark. This requires greater knowledge and skills of the management team, matched with higher compensation and consequently larger fees and costs for investors.

UCITS ETFs can mostly be considered as passively managed funds; actively managed ETFs are a small part of the ETF market. We analyse ETFs separately in this article, given their

⁸⁹ This article was authored by Lorenzo Danieli, Tania De Renzis and Line Farah.

⁹⁰ ESMA (2019), Annual Statistical Report, “Performance and costs of retail investment products in the EU”.

⁹¹ Other asset categories not included in the analysis as in the EU the share of passive funds is negligible for categories other than equity.

particular features⁹² and the large expansion of the ETF market over the past years.

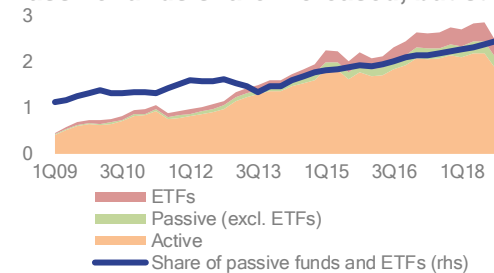
EU equity UCITS market

Overall, at the end of 2018, the EU equity UCITS market size reached EUR 2.5tn. ETFs investing in equity amounted to EUR 368bn.⁹³ Between 2014 and 2018, the share of passively managed equity funds and equity ETFs increased significantly (V.23).

V.23

Equity UCITS market size

Passive funds share increased, but still low



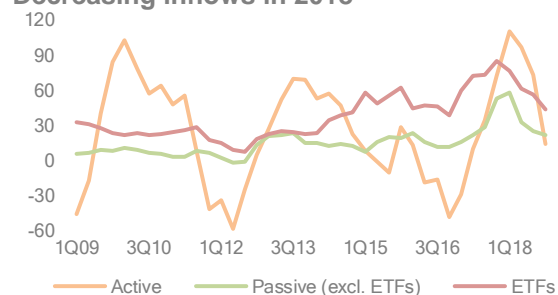
Note: Market size of EU-domiciled UCITS equity funds and ETFs, EUR tn, and share of passive funds and ETFs, in % (right axis). Sample includes funds for which information on fund value, fund performance, net flows, subscription and redemption fees is available.
Sources: Refinitiv Lipper, ESMA.

UCITS active funds accounted for almost 75% of the overall market in 2018. Passive funds and ETFs accounted respectively for the remaining 10% and 15%, up from only 8% and 10% in 2014. Between 2014 and 2018, passive UCITS and ETFs assets increased respectively by 61% and 85%, while actively managed UCITS assets increased by 16%, illustrating a significant shift towards passive management. In 2018, fund assets decreased across categories. The decline was relevant in particular for active equity funds (-13%) while it was more limited for passive ones (-3%) and ETFs (-2%). This decrease is related to declining equity market valuation, likely to be partly compensated by inflows for passive equity UCITS and ETFs.⁹⁴

V.24

Net flows of equity UCITS

Decreasing inflows in 2018



Note: Annual net flows of EU-domiciled equity UCITS by management type and equity ETFs. Quarterly data, EUR bn.
Sources: Refinitiv Lipper, ESMA.

Fund flows are much more volatile in the case of active funds compared to passive funds or ETFs. This is probably related to the difference in the management style, as passive flows are less sensitive to past performance (Anadu et al., 2018). Between 2014 and 2016 flows have shown a declining trend for actively managed UCITS. For ETFs the trend is reversed (V.24). This seems to be in line with US evidence. In the US, as of December 2017, passive equity funds, including mutual funds and ETFs, accounted for 45% of total assets under management, increasing from 5% in 2005 (Anadu et al., 2018).

This market shift has fuelled the debate on active and passive fund management at academic and industry level (Malkiel, 1995; Busse et al., 2014; SPIVA Europe Scorecard; Vanguard, 2017; J.P. Morgan 2019). It has also attracted the attention of supervisors and regulators (Financial Conduct Authority, 2018; ESMA, 2019; Anadu et al., 2018; Sushko and Turner, 2018), in particular with reference to investor protection and financial stability. The two are significantly interconnected, as the choice of a certain investment strategy is related to market information, price discovery and ultimately market efficiency.

Investor protection concerns relate to the benefits and costs of investing in active and passive strategies, or, in other words, to the performance of active UCITS versus their own benchmarks or versus passive UCITS and ETFs, before and after costs. This becomes an even stronger

⁹² One of the main features of an ETF is that ETFs trade like a common security on a trading venue and, as such, experience price changes throughout the day as they are bought and sold. Moreover, there are also ETFs following so-called "quasi-active" approaches such as ETFs following smart-beta strategies. The manager passively follows an index that is based on factors aiming to outperform the market. For details on performance and risk please refer to ESMA, "Performance and risks of exchange-traded funds", Report on Trends, Risks and Vulnerabilities, No. 2, 2014.

⁹³ The data reported refers to our sample. The European Fund and Asset Management Association (EFAMA) quarterly statistical release in 2018 reports overall equity UCITS assets at 3.5tn with UCITS ETF assets standing at EUR 624bn in 2018, more than 65% more than 2015. See:

https://www.efama.org/Publications/Statistics/Quarterly/Quarterly%20Statistical%20Reports/190308_Quarterly%20Statistical%20Release%20Q4%202018.pdf

⁹⁴ See ESMA, Report on Trends, Risks and Vulnerabilities No. 1, 2019.

concern when considering retail investors specifically, as retail investors have less access to *ex ante* information and therefore might be more exposed to losses than informed agents.

From the financial stability perspective, the discussion focuses on the implications of a structural move from active to passive investments, such as the effects on liquidity transformation and redemption risks, market volatility, concentration in the asset-management industry, asset valuations and co-movements (Anadu et al., 2018; Sushko and Turner, 2018). Active fund management through selection of stocks as opposed to passively following an index also has an important role to play in terms of efficient allocation of capital in the economy and ensuring high levels of capital market efficiency.⁹⁵

In terms of active equity fund performance Davydoff and Klages (2014) report mixed evidence for the EU, with equity funds outperforming their benchmark in some EU countries and underperforming in others (returns are in nominal terms net of ongoing costs and before subscription and redemption fees).⁹⁶ The Financial Conduct Authority (2017) reports that, on average, active equity funds underperform their benchmarks in terms of net returns. More recently, in its Annual Statistical Report on Cost and Performance, ESMA (2019) observed that actively managed equity funds have on average lower performance net of costs compared to passive equity funds with high heterogeneity across EU national markets.⁹⁷

Regulatory background

In the past ten years, the financial crisis and the rise of new risks and weaknesses in the market have highlighted the importance of the joint development of analytical, policy and legislative actions to ensure effective market surveillance.

In the fund industry, this has resulted in the implementation of a series of new or strengthened regulatory measures. Among others, a common goal of these different pieces of regulation is to guarantee a higher level of transparency, increased market efficiency and investor protection:

- UCITS⁹⁸ have specific restrictions in terms of eligible assets and limits to the concentration of investments and leverage, have to be open-ended funds and have a Key Investor Information Document (KIID)⁹⁹ with prescribed common investor information.
- AIFMD¹⁰⁰ regulates actors and activities that might entail significant risks for investors. It introduces a coherent European framework for regulating alternative investment fund managers (AIFMs). Its scope applies to EU AIFMs managing AIFs, whether these are domiciled inside or outside the EU, and to all non-EU AIFMs that manage one or more EU AIFs or market one or more AIFs in the EU.
- MiFID II¹⁰¹ strengthens the requirements on the disclosure to clients of information on costs and charges in order to ensure that all categories of clients benefit from such increased transparency.¹⁰²
- PRIIPs¹⁰³ is a set of rules on cost disclosure to the retail investor. It foresees a presentation of all costs of the product in the corresponding cost section of the Key Information Document (KID)¹⁰⁴, including information on the overall cost of the product and on the different cost components.

Focusing on aspects related to passive and active management, the UCITS KIID document includes benchmark disclosures and past performance disclosure obligations.¹⁰⁵ These

⁹⁵ See, for example Grossman and Stiglitz (1980), or Pace et al. (2016).

⁹⁶ Davydoff and Klages define their performance indicators as “[...] based on the variation of the net asset value (NAV) of each fund. The NAV is calculated as the net value of the portfolio of a fund, divided by the number of the fund’s shares held by investors. Each day, operating costs, trading costs and management fees are already deducted pro-rata from the value of the portfolio for the calculation of the NAV. [...], entry fees and redemption fees should be deducted from the performance, on the first and last year of the period under review”. For additional details please see Davydoff and Klages (2014).

⁹⁷ ESMA, 2019, Annual Statistical Report, “Performance and costs of retail investment products in the EU”.

⁹⁸ Directive 2009/65/EC.

⁹⁹ Commission Regulation (EU) No 583/2010 of 1 July 2010 implementing Directive 2009/65/EC. See also the

Question and Answers on the application of the UCITS Directive, last updated 29 March 2019.

¹⁰⁰ Directive 2011/61/EU.

¹⁰¹ Directive 2014/65/EU.

¹⁰² The MIFID II requirements entered into application on 3 January 2018. In some Member States the date has been delayed because of late transposition. ESMA is continuing to issue Q&As to clarify aspects that may arise such as the relationship between the PRIIPs and MiFID II disclosure requirements.

¹⁰³ Regulation (EU) No 1286/2014.

¹⁰⁴ Commission Delegated Regulation (EU) 2017/586 of 14 July 2016 supplementing Directive 2014/65/EU.

¹⁰⁵ Commission Regulation (EU) No 583/2010 of 1 July 2010 implementing Directive 2009/65/EC, Article 7(1)(d) and 18(1).

provisions are crucial in more efficiently identifying the management strategy of a fund.

Performance and costs of EU equity UCITS

The analysis of actively and passively managed EU equity UCITS and EU equity UCITS ETFs, based on data from 2009 to 2018, resulted in the following main findings: (i) net annual performance for active equity UCITS was lower than that of passive and ETFs equity UCITS; (ii) actively managed EU equity funds have underperformed in net terms relative to their prospectus benchmarks, across time horizons; (iii) ongoing costs, proxied by the total expense ratio (TER),¹⁰⁶ have had the largest impact on performance; (iv) across time horizons, active top performers (top 25% of active equity UCITS) have performed better than their benchmark and passively managed funds, before and after costs. In aggregate terms, similar results are observable, at one- and three-years horizons. However, the cohort of the top 25% performers does not remain constant over time, making it difficult for investors to choose outperforming active equity UCITS.¹⁰⁷

Data and methodology

We analyse performance and costs by focusing on equity funds. In the EU, as clarified above, passive and ETFs UCITS are concentrated in the equity market segment. The analysis includes:

- A comparison between EU active and passive equity UCITS and ETF UCITS. A distinction is made between passive UCITS and UCITS ETFs to highlight the particular features of the latter.
- A comparison between actively managed EU equity UCITS and their prospectus benchmarks.¹⁰⁸
- An analysis of the best and worst performers (top/bottom 25% of UCITS actively and

passively managed funds in terms of performance).

- An analysis of the largest and smallest active UCITS funds (top/bottom 25% in terms of asset size).

As in the ESMA report on performance and costs, data are from Refinitiv Lipper and cover a ten-year period from 2009 to 2018.¹⁰⁹ The sample choice is determined by the joint availability of data on performance, prospectus benchmarks, front and back loads, TER, net flows and fund values.¹¹⁰ This reduces our sample of EU equity UCITS to EUR 2.1tn and equity ETFs to EUR 528bn in 2018, around 60% and 85% of each market.¹¹¹

Performance of active and passive equity funds

Across all time horizons, focusing on the period from 2009 to 2018, gross performance is on average slightly higher for actively managed equity funds than for passively managed equity funds and equity ETFs (V.25). At the seven-year horizon, gross performance for active funds is 10.4% on average, against 10.3% and 10% respectively for passive funds and ETFs. At the three-year horizon, gross performance is estimated to be 5.8% for active funds, and 5.5 % and 5.6% respectively for passive funds and ETFs.

¹⁰⁶ For details on data definitions and limitations please see ESMA (2019), Annual Statistical Report, "Performance and costs of retail investment products in the EU".

¹⁰⁷ Results on the persistence of performance are diverse. There have been several academic studies focusing on this issue. As well as more recent analyses, the seminal analysis of Carhart (1997) did not find a strong persistence of the performance of mutual funds.

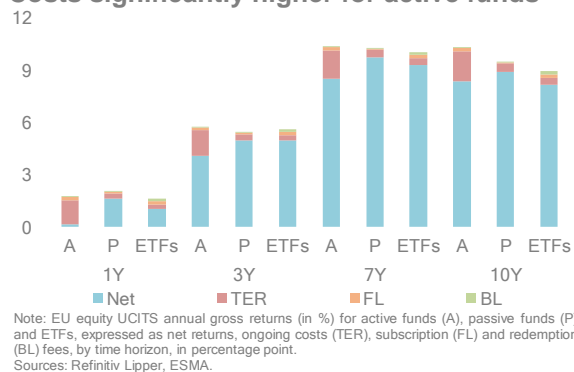
¹⁰⁸ The choice of prospectus benchmarks over technical benchmarks is linked to the focus on retail investors. Retail investors have access to UCITS prospectuses or UCITS KIID information. Technical benchmarks are usually developed by data providers and may not be accessible or known by retail investors.

¹⁰⁹ The period analysed starts one year later than the ESMA report on performance and costs published in January. The analysis covers the EU equity UCITS performances over the year 2018 that have been much lower, and even negative, across different funds than in 2017.

¹¹⁰ Data refer to surviving funds as previous analysis carried out within ESMA has not shown significant difference between the sample used and a full sample. However, investigation of more recent data is ongoing.

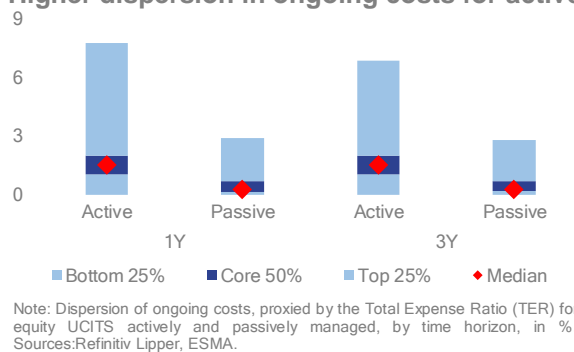
¹¹¹ According to the EFAMA quarterly statistical release in 2018 equity UCITS assets were EUR 3.5tn with equity UCITS ETF assets standing at EUR 624bn in 2018.

V.25
Equity UCITS funds and ETFs net performance
Costs significantly higher for active funds



The picture is different when considering net performance. Focusing on the three-year horizon, net performance for actively managed equity UCITS drops to around 4% and for passive funds and ETFs to around 5%. Similar patterns can be observed for longer time horizons. At a one-year horizon, overall fund performance drops across all types of management, as valuation for underlying equity declined, especially in the second half of 2018.¹¹² This has a particularly strong impact on actively managed equity UCITS. They underperform passive and ETFs equity UCITS both in gross and net terms.

V.26
Dispersion of ongoing costs across management type
Higher dispersion in ongoing costs for active



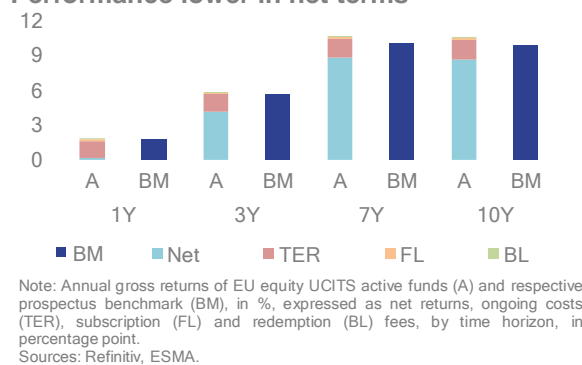
On average across time horizons, ongoing costs account for more than 80% of total costs and fees for active funds. For passive funds and ETFs, they are around 70% and 45% respectively.¹¹³ For actively managed UCITS, these costs are much higher than for passive and ETFs UCITS, as well as being more dispersed (V.26). While for

actively managed UCITS ongoing costs are, on average, around 1.5ppt, for passive and ETFs UCITS they hover around 0.3ppt.

Relative performance of active funds

A second key layer of analysis is the performance of actively managed funds against their prospectus benchmarks.¹¹⁴ Based on our sample covering the period from 2009 to 2018, actively managed funds outperform prospectus benchmarks in gross terms (10.6% versus 10% at the seven-year horizon respectively and 10.5% versus 9.8% at the ten-year horizon (V.27)). Over three- and one-year horizons, though, gross performances are equal between actively managed funds and their related benchmarks: around 5.7% over three years and 1.8% over one year.

V.27
Active equity UCITS and prospectus benchmarks
Performance lower in net terms



Looking at net performances, instead, active funds underperform their benchmarks across time horizons. Focusing on the three-year horizon, net performance is just above 4% for actively managed while it reaches 5.7% for their benchmarks. Gross performance is strongly reduced by ongoing costs. As previously reported, ongoing costs reduce gross returns by 1.5ppt on average. This implies that, focusing on the one-year horizon, accounting only for ongoing costs, returns fall to 0.4% (0.2% when subscription and redemption fees are also included).¹¹⁵

In addition, returns are much more volatile than costs over time. This implies that, when gross

¹¹² ESMA Report on Trends, Risks and Vulnerabilities No.1, 2019.

¹¹³ The higher relative importance of one-off loads in terms of costs for ETFs may be related to ETFs being traded as securities on trading venues.

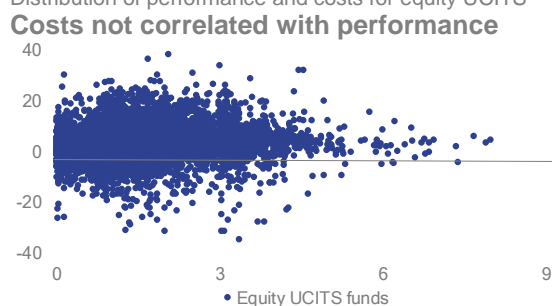
¹¹⁴ Please note that only funds for which the prospectus benchmark is available are considered.

¹¹⁵ The reduction is expressed in absolute terms. Reductions due to ongoing costs, plus subscription and redemption fees, are simply the difference between gross and net performance. For more details on definitions and the calculation of annual performance and costs see ESMA (2019), Annual Statistical Report, "Performance and costs of retail investment products in the EU".

returns are lower, a similar level of costs has a higher impact on gross performance. In 2018, when equity performances have been very low and even negative for most fund shares, total costs took out around 90% of gross returns. Over the three-year period, between 2016 and 2018, total costs took out 29% of gross returns, as the three-year return calculation¹¹⁶ included the year 2017, in which equity valuations were very high. Investors take an extra hit in case of an overall lower gross return.

When analysing the relationship between gross returns and ongoing costs for the overall EU equity UCITS segment (i.e. actively and passively managed UCITS), we observe that higher costs do not correspond to higher performance (V.28), i.e. no correlation is observed between fund costs and performance.¹¹⁷

V.28
Distribution of performance and costs for equity UCITS



Note: EU equity UCITS active and passive, gross annual performance (Y-axis) and ongoing costs (x-axis), proxied by the total expense ratio (TER), %, three-year horizon.
Sources: Refinitiv Lipper, ESMA.

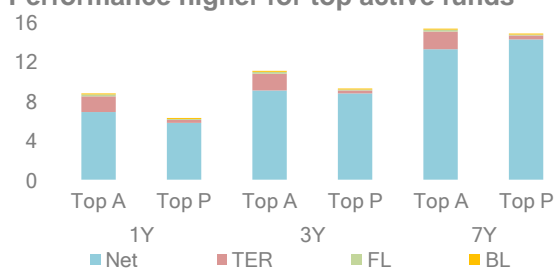
The above holds across management type, even if for passively managed funds costs are lower: the majority of ongoing costs, for passive, lies between 0% and 1%,¹¹⁸ whereas actively managed UCITS report ongoing costs between 1% and 3%. A similar relation holds at the one-year horizon.

Top performing funds

When focusing on the top 25% of actively and passively managed EU equity UCITS, the results become more nuanced.¹¹⁹ Chart V.29 shows that, for the period under analysis, active funds outperform passively managed funds when the

top 25% of funds are considered, both in gross and net terms (except over the seven-year horizon).¹²⁰

V.29
Top performing active and passive equity UCITS
Performance higher for top active funds



Note: EU UCITS equity funds annual gross returns in % for top-performing active funds (Top A) and top-performing passive funds (Top P), expressed as net returns, ongoing costs (TER), subscription (FL) and redemption (BL) fees, by time horizon, in percentage point.
Sources: Refinitiv Lipper, ESMA.

Over one year, gross and net performances for active funds are higher, at 8.8% and 7% respectively against 6.3% and 5.8% for passive funds. This holds, to a lesser extent, over the three-year horizon, with gross and net performances for active funds at 11% and 9.1%, and gross and net performances for passive funds at 9.2% and 8.8%. This is however different at the seven-year horizon. In gross terms, actively managed funds have a gross performance of 15.4%, while passive funds gross performance is at 14.8%. After costs, this is reversed with active funds underperforming passive funds (13.3% against 14.4% respectively).

The top performing active funds also show performances, before and after costs, higher than their prospectus benchmarks (V.30). Focusing on the one- and three-year horizons, the net performance of top-performing active UCITS is around 7% and 9%, versus 5% and around 8% for their prospectus benchmarks. As above, this pattern starts to reverse when looking at the seven-year horizon, with net performance of top-performing active UCITS at 13.3% compared to 13.7% for their benchmarks.

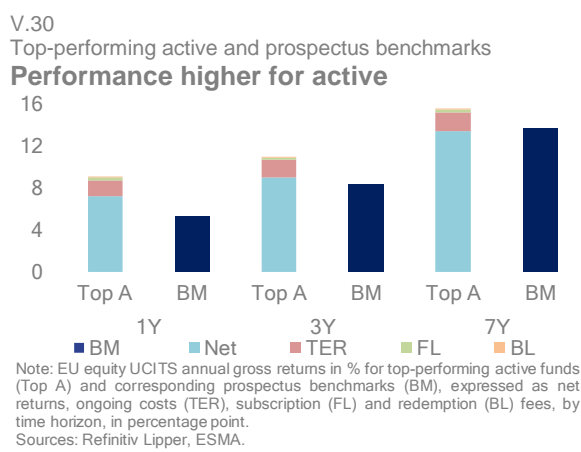
¹¹⁶ For details on the calculation methods please refer to ESMA (2019), Annual Statistical Report, "Performance and costs of retail investment products in the EU".

¹¹⁷ The analyses of Ramiro Losada (2016), "Managerial ability, risk preferences and the incentives for active management", and Cambon Murcia (2011), "Spanish mutual fund performance: an analysis of the determinants", focusing on the Spanish market and published by the CNMV, reach similar conclusions on the relation between costs and performance.

¹¹⁸ The analysis provided in V.31 and the related chart covers the entire sample of equity funds actively and passively managed. It is also available by subsample for active, passive and ETF equity funds.

¹¹⁹ ETFs are not included in this analysis due to the relatively small sample size for ETF funds in the EU

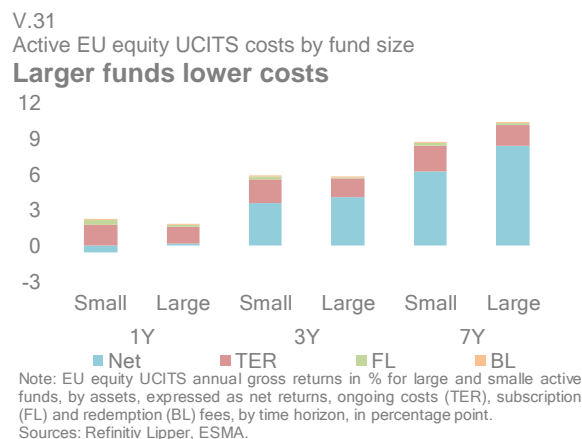
¹²⁰ The results look at the average of the cohort of top-performing funds. This cohort is not constant across time.



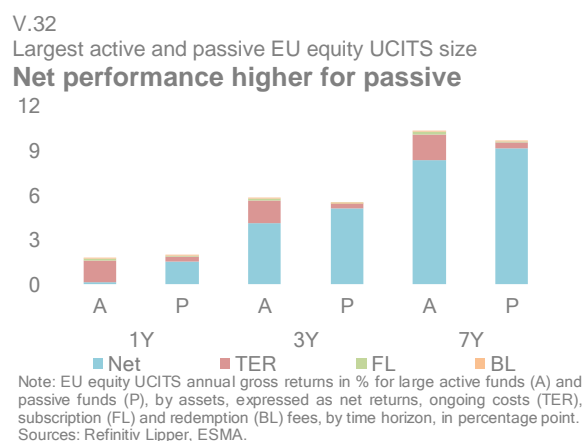
The results for longer time horizons already point at an important result of this analysis – funds which are among the 25% of top-performing active equity UCITS in 2018 are not necessarily among the top-performers in preceding years. Our analysis shows that the composition of the top 25% of actively managed equity UCITS changes materially over time. This is important, as the past outperformance of a fund is therefore not necessarily a predictor of future outperformance. As such, there is only limited opportunity for investors to pick consistently outperforming actively managed equity UCITS.¹²¹

Additional analysis has been carried out in terms of the bottom 25% performing funds, across management styles and relative to their benchmarks. The main results show that actively managed funds underperform passively managed funds and respective benchmarks across all time horizons considered.

Larger funds have better performance



Some attention has also been given to the size of UCITS in terms of assets (top and bottom 25% in terms of NAV)¹²² and its impact on performance and costs. On average, larger funds have higher performance both in gross and net terms, possibly related to lower costs as a consequence of economies of scale. This result holds both for active (V.31) and passive equity UCITS.



Looking at larger active and passive funds (V.32), if from a gross return perspective active funds always outperform passive funds, this is not the case when we account for costs. Over one year, net returns were around 0.2% for larger active funds while being 1.6% for larger passive funds. Over three years, returns after costs were higher for passively managed funds: 4% for active funds and 5% for passive funds. Ongoing costs have the largest impact. They account for more than the 80% of overall costs.

¹²¹ See Carhart (1997), Hereil et al. (2010). Also, a recent study by Morningstar (January 2016) highlighted that while there is some evidence that relative fund performance persists in the short term, this is not the case over the long term. Overall, results indicate that long-term investors cannot select funds based on past performance alone. They should combine performance analysis with

an assessment of other quantitative and qualitative factors.

¹²² As an example, at the one-year time horizon the average size of a fund in the bottom 25% is EUR 8mn compared to around EUR 610mn for a fund in the top 25%.

Conclusion

In this article, first we provided an overview of the EU equity UCITS market and its regulatory environment. Second, we analysed the gross and net performance of actively and passively managed equity UCITS as well as equity ETFs and also compared fund performance against the fund benchmark performance.

The share of passive investing in the equity fund market segment has been increasing materially. In 2018, active equity UCITS account for about the 75% of the overall equity market. The remaining 25% is divided between passive equity UCITS (10%) and ETFs UCITS (15%) respectively, up from 8% and 10% in 2014.

Regarding the performance of active and passive equity funds, and equity ETFs, based on data from 2009 to 2018, the main findings are as follows.

- Active equity UCITS have underperformed on average, in net terms, passive and ETF equity UCITS as well as their prospectus benchmarks.
- Across time horizons, the top 25% of actively managed equity UCITS outperformed passively managed UCITS before and after costs, as well as their benchmarks. However, the group of the top 25% of actively managed equity UCITS changes over time, such that there is only limited opportunity for investors to pick consistently outperforming actively managed equity UCITS.
- Larger equity UCITS have tended to outperform smaller ones, especially on a net basis. However, they underperformed passive equity UCITS after costs.

This analysis contributes to ESMA's broader efforts to promote transparency on fund costs and performances, which aims to support retail investors' investment decision-making.

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