Does Active Management Beat the Market? Evidence from Italy

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Abstract

In this paper we analyze a sample of sixteen actively managed equity mutual funds of the Italian market in the period 2008-2017 to test if they have been able to beat the market. We first make a comparison between the funds and two passive stock indexes. In this case, all funds deliver higher returns. Then we contrast the performance of each fund with that of its own benchmark, that in most cases is a weighted average of relevant passive indexes of the Italian stock market. We find that in general actively managed funds deliver lower returns. In particular, just three of the sixteen active funds offer higher net returns compared to their benchmarks. Three other funds beat the market only before fees. All the other funds exhibit lower returns even ignoring the costs.

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1 - Introduction

The debate between active and passive management in financial markets has deep roots. In a famous paper, Sharpe (2001) stated that active investors always offer lower returns compared to a simple passive strategy. The rationale is quite intuitive. Passive funds exhibit the same returns of the overall market, before costs. But then, active managers, that own the remaining part of the market, must also offer the same returns before costs, for a simple arithmetic. Since the fees of active funds are higher, the average active manager must underperform.

This argument has been confirmed by Melkiel (2003) and Fama and French (2010) but it is challenged by Pedersen (2018). For him, Sharpe's view is correct only if the market composition never changes. Since new firms enter/exit the market and buy back shares operations are also present, even passive investors must trade if they want to keep tracking the composition of the index. During this trading activity, active managers can outperform. Pedersen makes examples of situations in which active managers can win in aggregate: IPOs, turnover of assets in the market (defined as an index or as a combination of indexes) and rebalancing. Furthermore, he underlines the important role of active managers in the efficient allocations of assets in the economy.

In this paper, we examine a sample of sixteen actively managed equity mutual funds operating in the Italian market during the 2008-2017 period. We compare their returns both with two indices of the Italian stock market and with the benchmarks chosen by the funds themselves. Such benchmarks are simply a weighted average of some relevant indexes of the market. For instance, one benchmark is composed by 75% of FTSE MIB (that is the primary index for the Italian equity markets and it measures the performance

of 40 Italian equities) and 25% of FTSE Italia Mid Cap (that consists of the top 60 shares ranked by company full market capitalisation).

As concerns the comparison with the two indices, active funds offer higher returns (net of costs). All sixteen funds outperform the two indexes.

Results are much different once we consider the benchmarks chosen by the funds. Indeed, just three of the sixteen active funds offer better net returns than the benchmark. Three other funds beat the market only if we do not consider their fees. All the other funds either do not have a benchmark (so we are unable to make a comparison) or exhibit lower returns even ignoring the costs.

It is important to stress that, in the interval of time under analysis, Italy faced an economic and financial crisis as never seen before. Such an earthquake surely had an impact on the performance of our sample and the indexes. Our analysis however points out that active management has suffered more during and after this financial turmoil. More in general, our study seems, at least in part, to accept Sharpe's claim about the intrinsic underperformance of active management: just in some circumstances there is room for active managers to outperform.

A natural question is then why people keep investing their money in actively managed funds. For Warren and Foster (2016), once fees requested by active investors exceed a certain amount (about 1%) only some form of behavioral bias can explain the preference for active investing. Other studies point out that active and passive management should not be considered as opposite options, but rather alternative and not excluding. Passive management ensures an investment at a relatively low cost, while active management is important for the information and allocation of wealth. So, even if active management has in general lower returns, its presence in the market is needed. This kind of argument

has been made for instance by Bolla, Kohler and Wittig (2016). Indeed, Petajisto and Cremers (2009) and Petajisto (2013) show that, in the period 1990-2009, the average actively managed fund underperformed respect to the benchmark but, segmenting the active management into classes, the active stock pickers were able to beat the market even after fees and transaction costs. In a similar spirit, Cremers and Pareek (2016) find a correlation between active share and duration. funds with a high active share and a duration of at least two years, can overperform, though the relationship between duration and performance is not univocal.

Another important distinction relates to the division between stocks and debt securities. As concerns the bond market, Baz et al. (2017) find that more than 60% of active funds have higher returns respect to the passive ones. Such a result chimes well with Petersen's argument on the circumstances under which active managers can outperform. Indeed, a share is a perpetual security, whereas a bond has a fixed maturity. This implies that the composition of a bond index changes more frequently, giving room for active investors to gain more. For Gerakos, Linnainmaa and Morse (2016), institutional investors are also more likely to beat the market. In their paper, they find that they have superior performances for 86 points before fees and for 42 points after fees with respect to the benchmark strategies.

The article is divided as follows. Section 2 presents the first part of our results, in which we compare the performances of the funds with two indexes. Section 3 is about the comparison between every fund with its benchmark. Section 4 concludes.

2 – Funds vs the Indexes

In this paper we focus on a sample of sixteen actively managed equity mutual funds of the Italian market during the 2008-2017 period. These (classified as "Azionari Italia" by Morningstar) are the only funds with available data for the entire decade. The names of the funds are not mentioned for privacy reasons. They will be denoted with a number.

We focus on the equity market because most of the studies has analysed this type of securities, so it is easier for us to draw a comparison between our results and what has been already obtained in the literature. Due to the lack of available data on the performance of passive equity funds (such as mutual funds, ETFs, and index funds) for our chosen interval of time in Italy, we use as proxy the benchmarks, as passive management tends to reply the composition of the market and to have the same return. More in details, we conduct a two-level analysis. First, we compare the funds with two indices, arbitrarily chosen. Then, we gauge the performance of each active fund with its respective benchmark.

The indices we use for the first part of our analysis are standard:

1. FTSE MIB. It is the main index for the Italian equity market, measuring the performance of 40 Italian equities.
2. MSCI Italy NR. It is designed to measure the performance of the large and mid cap segments of the Italian market. With 24 constituents, the index covers about 85% of the equity universe in Italy. It is also the benchmark chosen by the investment research firm, MorningStar Inc[3].

Data are taken from three sources: (1) the Morningstar Inc database; (2) the FidaWorkStation provided by FIDA, a provider of funds data, and (3) the key Information

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[3] MorningStar Inc is an investment research firm that compiles and analyzes fund, stock, and general market data. All the resources are freely available at https://www.morningstar.it/it/

Document (KIID) delivered by of the asset management company of each fund. The sixteen funds are all resident in Italy and most of their trading activity concerns the Italian market.

We look at the following performance indicators:

• total returns (inclusive of coupons and price variations) based on the net asset value (NAV) of the funds with annual frequency. We consider both cumulative and annualized returns, net of management fees, but including tax charges and entry costs.

• the excess returns, that is the difference between the returns of each fund and those of the indexes.

• Jensen's alpha, that determines the abnormal return of each fund over the theoretical expected return, calculated using a standard Capital Asset Pricing Model (CAPM) (see Sharpe,1964 and Jensen, 1968). More precisely, Jensen's alpha (α) can be evaluated via the following equation:

$$\alpha = R_P - \left(R_f + \beta\left(R_M - R_f\right)\right)$$

in which R_p stands for the returns of the portfolio, R_f is the risk-free rate, R_m are the market returns, and $\beta = cov(R_p, R_m) / var(R_m)$ measures the volatility of the portfolio in comparison to the unsystematic risk of the entire market. In our setup, R_p are the returns of each of the active funds analysed, whereas R_m are the returns of the indexes we take as benchmarks. It is straightforward to notice that Jensen's alphas of our two indexes are equal to zero (since we have $R_p = R_m$ and $\beta = 1$). Conversely, a positive alpha is usually considered a good proxy of the stock picking skills of the active fund manager.

• Tracking error (TE), that is the standard deviation of the percentage difference between the return of the fund and that of the benchmark (see Cornuejols and Tütüncü,

2007). Tracking error is one of the most common metrics used to gauge how closely a portfolio follows the index to which it is benchmarked. The higher the tracking error is, the larger the divergence between the active fund's performance and that of the two indexes considered. It is good proxy of how actively a fund is managed and its corresponding risk level[4].

2.1 Funds vs FTSE MIB

We compare our set of actively managed funds to the FTSE MIB. Table 1 illustrates the results. Every fund beats the market. The best performing funds are fund 8, fund 10, fund 12 and fund 2. As expected, funds with better performances also exhibit values for β larger than 1, indicating that their returns vary more than the market's ones or that they are highly correlated with those of the index. Notice however that a larger fraction of the excess returns of the funds with respect to the index is not explained by β: Jensen's alpha is quite large for all the funds considered. The higher risk implied by a β significantly greater than 1 falls short of explaining the large gap between fund's returns and those of the index.

If we focus on the tracking error (TE) indicator, we note that the funds with the best performances (funds 8 and 10) also have high levels of it; fund 12 and 2, instead, show medium/low TE. Notice also that the two funds with the highest value for alpha are also the ones with the highest TE. The tracking error volatility does not indicate if the fund has been very active or if the assets chosen by the fund manager have a high variance. Moreover, a high value for TE may arise for a broad deviation of the fund from the benchmark or because there is a strong concentration of the stocks in the fund in a certain

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[4] Another common measure of the extent of active management of a fund is the so-called active share, that is the fraction of a fund's portfolio holdings that deviate from the benchmark index (see Cremers, and Petajisto, 2009). Unfortunately, we do not have any data about the historic composition of the portfolio to calculate it.

industry. A possible reason might be the different equity style, as classified by Morningstar (see Table 2). Both fund 8 and 10 invest in large capitalization firms with a blend style; fund 2 and 12 invest in middle capitalization firms with a value style. However, looking at the other funds, there is no univocal correlation between the segment in which funds invest more and their tracking error volatility.

2.2 Funds vs MSCI Italy NR

We compare the performances of the funds with MSCI *Italy* NR (see Tab 3). Table 3 present our results. Of course, the cumulative and annualized performances are the same in Table1, as they do not depend on the benchmark. Even in this second scenario, all the funds beat the market. Jensen's alpha is on average lower respect to those of the previous comparison, as well the excess return. Still, much of the overperformance of the funds cannot be explained by the risk captured by the β coefficient, i.e. arising from exposure to general market movements. On the contrary, the tracking error volatility is on average a little bit higher. This can be due to a greater diversification of this second benchmark.

3 Funds vs their benchmark

In this second part of the study, we compare the performance of every single fund with their specific benchmarks. Two fund managers (fund 6 and fund 13) did not mention any benchmark. Indeed. Morningstar considered them as "Azionari", but they are "Flessibili": flexible funds do not need to choose any benchmark, so the comparison will be made on the remaining 14. To test is the funds, net of the fees payed by the investor (as specified in the KIID), beat or not the market, I chose a simple example of a representative investor: Assuming that an investor should choose whether invest 100 € in an actively managed fund or in the benchmark, which choice would be more favorable to him? In other words: if he invested 100 in an actively managed stock fund at the beginning

of 2008, how much would he get at the end of 2017? And how much would he get if he invested his 100 € in the benchmark?

We used the benchmark as a proxy of passive management because in the 2008-2017 period there was not enough passively managed equity mutual fund, and therefore it was impossible to make a comparison. Note that we are assuming that it is equivalent to say that it is possible to invest directly in the benchmark, something that is not exactly possible in real financial markets.

Data about the annual returns of fund and benchmark are taken from the KIIDs. Given the difficulty to gain access to some of them, available only for professional investors, KIIDs are taken from FondiDoc, the Fida tool containing all the documents regarding investment funds. Notice also that, as specified in the KIIDs, data regarding performances of both the fund and the benchmark are net of tax charges until the end of June 2011; from July 2011 on, both performances are assumed to be gross of taxes.

During the decade under analysis, many funds changed benchmark, but data on the KIID are already adjusted for this change. Every fund manager declares the benchmark and the discretion, broad or limited, to deviate from it. This discretional degree can be limited or broad.

Fund 1's benchmark is Thomson Reuters Italy Total Return Local Currency Index, with a broad discretion to deviate from it. Returns are net of ongoing charges, fees and transaction costs, but gross of entry and exit fees. The fund lost against the market even ignoring these fees. Table 4 presents the results. If in 2008 an investor had invested 100 € in the fund, he would have received 90 € in 2017; on the contrary, putting the same 100 € in the benchmark, he would have got 95 € in 2017. If we consider the entry fees (amounting to 4% of the sum invested), in 2017 he would have received just 86 €. If in

2017 the investor also had wanted to redeem his money, paying another 4% of exit fees, the net capital would have been about 83 €.

The performance of fund 2 is illustrated in Table 5. fund 2 's benchmark is a weighted average of the FTSE Italia All-Shares (95%) and the FTSE MTS Ex-Bank of Italy BOT (5%). The degree to which it deviates from its peer is broad. Performances include all costs, except the entry (3%), exit (0%) and switching (1%) ones. We ignore the switching costs, assuming for simplicity that the investor did not want to change fund. Neglecting all costs, 100 € invested in 2008 would have allowed to get 118 € in 2017; the same amount put on the benchmark would have granted 140 €. So, the fund lost against the market even gross of entry costs. Considering them, just 97 of 100 € would have been invested and, in 2017, the final sum would have been 114 €.

The benchmark of fund 3 has two components: the Comit Performance R (Gross Total Return) (95%) and ICE BofAML € Treasury Bill (Gross Total Return) (5%). The fund has a limited discretion to deviate. The returns of the fund (net of ongoing charges but gross of the entry cost (5%)) and of the benchmark are almost the same. Without the entry cost, 100 € invested in 2008 would have become about 109 € in 2017; with the benchmark they would have been a bit less than 108. So, gross of the costs, the fund is slightly better than the market. Net of the entry fees, the fund is worse. Indeed, of the original 100 €, only 95 € would have been invested. So in 2017 and the final sum would have been 104 €. Table 6 presents these results.

Fund 4 is managed by the same asset management company and it has the same benchmark and the same discretional degree. However, as we can see from Table 7, the benchmark's performances from 2008 to 2011 are different, so we must assume that the benchmark changed during the that period. Like the other fund, returns are net of ongoing

charges but gross of entry costs (5%). Ignoring the entry fees, 100 € invested in the fund in 2008 would have given 101€ in 2017; choosing the benchmark, the sum would have been 108 €. The fund loses against the market.

Fund 5 has as benchmark a weighted average of FTSE Mib TR (75%) and FTSE Italia Mid Cap TR (25%). The discretional degree is contained. Returns are net of ongoing charges but gross of entry costs (4%). Ignoring such costs, 100 € invested in 2008 would have become about 107 € in 2017; with the benchmark it would have been 104€. So, neglecting the entry costs, the fund beats the market; however, considering them, just 96 € would have been invested in 2008 and, at the end of 2017, they would have given 103 €. So the fund loses against the market. Table 8 illustrates that.

Fund 7 has as a benchmark the FTSE MIB Total Return, from which it has a relevant discretion to deviate. Performance data are not inclusive of entry costs (2%), and other fees charged to the investor. Ignoring all costs, the initial 100 € in 2008 would have become 97 € in 2017 investing in the fund and about 96 € investing in the benchmark. Table 9 presents such results. So the fund is slightly better than the market. Net of entry costs, at the end of 2017 the capital would have been about 95 €. So, considering entry costs, the performance of the fund is very similar to that of the benchmark. However, net of the other fees charged to the investor (that are not mentioned in the KIID), the performance are likely to be lower.

Fund 8 has as a benchmark a mix of FTSE MIB TR(50%) and FTSE Italia Mid Cap TR (50%). The discretion to deviate is contained. Since the KIID does not mention any entry or exit fee, it may be reasonable to think that the returns are already net of them. If it is true, the fund beats the market (see Table 10). It is not clear if returns are also net of ongoing charges (1,85%). Even considering them, fund's returns are better than the

market. 100 € invested in 2008 would have ensured 151€ in 2017, gross of ongoing charges (or 121 considering them), while just 110 € would have been obtained with the benchmark.

The benchmark of fund 9 is composed by FTSE Italia All-Share Capped (95%) and Bloomberg Barclays Euro Treasury Bill (5%). The discretion to deviate from it is contained. Returns are net of ongoing charges and overperformance fees, but gross of entry charges (1,50%). Even ignoring such costs, investing 100 € in the fund in 2008 would have delivered 99 € at the end of 2017, while putting the same money on the benchmark would have ensured 107 €. So, the fund loses against the market. Table 11 presents the details.

Similar results come from inspecting fund 10, that belongs to the same asset management company (see Table 12). It has a different benchmark (95% FTSE Italia Mid Cap and 5% Bloomberg Barclays € Treasury Bill) but it can deviate from it. Returns are net of ongoing charges and overperformance fees, but gross of entry costs (1,5%). Even ignoring such fees, 100 € would have become almost 141 €, while with the benchmark about 157 €.

The benchmark of fund 11 is the FTSE Italia *All-Share Total Return*, from which it deviates in a significant way. As we can observe inspecting Table 13, returns, net of ongoing charges but gross of entry fees (4%), are broadly similar to those of the benchmark. At the end of the period, the investor would have gained 107 € with the fund and 108€ with the benchmark. Net of entry charges, the fund would have delivered 103 €, because just 96 € would have been invested.

Fund 12 has as benchmark Comit Performance R, from which it has a broad discretion to deviate. Except the 2008 and 2016 years, the fund shows higher or similar

performances compared to the index (see Table 14). Returns are net of all fees but gross of the entry costs. Investing 100 € in the fund, the investor would have obtained 134 €, while with the benchmark just 107 €. Net of entry fees, 97 € would have been actually invested, and in 2017 the capital would have reached 130 €. So, the fund beats the market.

The benchmark of fund 14 is a mix of Italy Stock Market BCI Comit Performance R. (90%) and Bloomberg Barclays € TSYBills 0-3 Months (10%), with a moderate discretion to deviate from it. Returns are gross of entry fees (2%), but net of ongoing charges. Ignoring entry costs, 100€ invested in 2008 in the fund would have ensured 115€, while taking them into account the final sum would have been 112€ (see Table 15). With the benchmark the investor would have 107€. So, the fund beats the market.

Fund 15 has as benchmark a weighted average of *Comit Performance R* (95%) and *ICE BofAML € Treasury Bill* (5%), with a broad discretion to deviate from it. Returns are net of ongoing charges but gross of entry costs (2.5%). As Table 16 illustrates, investing in the fund or in the benchmark would have given the investor the same returns, about 109 €. But, net of the entry costs, the capital at the end period would have been 106€. So, the market exhibits a better performance.

Fund 16 has as benchmark a mix of *ComitPerformance R 10/40* (85%) and *ICE BofAML € Currency LIBOR 3-month Constant Maturity (15%)*, from which it deviates in a broad way. Given the difficulty to find performance data of the index, they have been inferred by looking at the tables and figures in the KIID. Returns data include ongoing charges but do not consider entry (2%) and exit (3%) fees. Gross of them, 100 € invested in the fund in 2008 would have delivered no gains or losses in 2017, while the sum would have become 95, once subtracted entry and exit fees. Investing in the benchmark would have given about 104 €. The fund loses against the index. See Table 17.

Table 18 summarizes the deviation from the benchmark of every fund and the over(under)performance of the fund respect to the benchmark (gross and net of fees). Seven funds beat their peers before fees (actually, one of them has a very similar result to that of the index), but, just three of them after fees. It is also worthwhile to stress that the performances of the funds are not related to the extent each one is allowed to deviate from its benchmark.

4 Conclusions

The choice of the benchmark is critical for a comparison of the performance of active funds. As concerns the first part of the analysis, all the funds beat the stock indices FTSE MIB and MSCI Italy NR by a large margin.

Results change almost completely once we gauge the performance of the funds by looking at their own benchmarks. Just three funds beat the market after fees charged to the investor. Two funds are classified as "flessibili" by their own managers, so there is not a benchmark for comparison. Three/four funds beat the market before fees but lose net of them. All the other funds lose against the index even without considering the fees charged to the investor. The outcomes of the second part of our analysis seem to confirm Sharpe's view that active managers underperform.

More research is needed on the reasons why we get such antithetical results just by considering different benchmarks. The fact that a large share of the excess returns of the funds compared to the indexes in the first part of our analysis is not explained by the β coefficient makes more difficult to have a clear explanation on the factors underlying their performance.

We also stress that our analysis focuses on one specific period of time, in which the Italian economy experienced a double dip recession (GDP shrank by about 5% in 2009 and by more than 2% in 2012) and never completely recovered since then.

In principle, it is difficult to see a strong causal link between economic downturns and underperformance of active management. Following Pedersen's (2018) line of reasoning, one should imagine that in times of slack business activity, the entry/exit of firms in indices that track the overall market is lower. This would reduce the trading activity for passive managers that must keep their portfolio in line with the index, so leaving less room for active managers to overperform. But, to the best of our knowledge, there is no empirical research that corroborates such hypothesis. In any case, it would be important to test our results by including other, less turbulent, years.

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Name:	Perf.	Annualized Perf.	Excess Return vs FTSE MIB	Beta	Jensen's alpha	TE
Fund 8	52,52%	4,31%	95,02%	1,31	12,50	10,95
Fund 10	41,07%	3,50%	83,57%	1,21	10,23	13,16
Fund 12	35,48%	3,09%	77,99%	1,09	9,22	3,93
Fund 2	17,94%	1,66%	60,44%	0,83	5,39	6,08
Fund 14	15,92%	1,49%	58,42%	0,93	6,03	3,15
AVERAGE - FC Az.Paese Italia	14,70%	1,38%	57,20%	1,00	6,72	3,98
Fund 3	10,23%	0,98%	52,74%	0,95	5,73	2,55
Fund 15	10,20%	0,98%	52,71%	0,99	7,14	2,46
Fund 11	8,23%	0,79%	50,73%	0,92	5,30	2,68
Fund 13	6,38%	0,62%	48,88%	0,96	5,94	4,53
Fund 5	6,35%	0,62%	48,85%	0,95	5,32	2,94
Fund 4	2,20%	0,22%	44,70%	0,99	5,31	2,57
Fund 6	1,35%	0,13%	43,86%	0,97	4,79	4,96
Fund 16	0,74%	0,07%	43,24%	1,08	5,51	7,51
Fund 9	0,15%	0,01%	42,65%	0,95	4,77	2,88
Fund 7	-1,85%	-0,19%	40,65%	0,96	4,30	4,00
Fund 1	-9,20%	-0,96%	33,30%	1,07	4,57	6,96
FTSE Mib	-42,50%	-5,39%	0,00%	1,00	0,00	0,00

Table 1: Active funds vs FTSE MIB

Name	Equity Style Box
Fund 1	Small Cap - Value
Fund 2	Mid Cap - Value
Fund 3	Large Cap - Value
Fund 4	Large Cap - Value
Fund 5	Large Cap - Blend
Fund 6	Mid Cap - Blend
Fund 7	Mid Cap - Blend
Fund 8	Large Cap - Blend
Fund 9	Small Cap - Blend
Fund 10	Large Cap - Blend
Fund 11	Mid Cap - Value
Fund 12	Mid Cap - Blend
Fund 13	Mid Cap - Blend
Fund 14	Mid Cap - Value
Fund 15	Large Cap - Value
Fund 16	Mid Cap - Blend

Table 2: Equity Style Box of each fund.

Name:	Perf.	Annualized Perf.	Excess Return vs MSCI Italy	Beta	Jensen's alpha	TE
Fund 8	52,52%	4,31%	79,95%	1,26	8,87	10,21
Fund 10	41,07%	3,50%	68,49%	1,16	6,86	12,94
Fund 12	35,48%	3,09%	62,91%	1,04	6,19	3,59
Fund 2	17,94%	1,66%	45,37%	0,80	3,06	6,57
Fund 14	15,92%	1,49%	43,35%	0,89	3,43	3,97
AVERAGE - FC Az.Paese Italia	14,70%	1,38%	42,12%	0,96	3,92	4,12
Fund 3	10,23%	0,98%	37,66%	0,91	3,06	3,01
Fund 15	10,20%	0,98%	37,63%	0,95	4,35	3,07
Fund 11	8,23%	0,79%	35,65%	0,88	2,71	3,56
Fund 13	6,38%	0,62%	33,80%	0,92	3,28	4,54
Fund 5	6,35%	0,62%	33,78%	0,91	2,65	3,57
Fund 4	2,20%	0,22%	29,63%	0,95	2,55	2,93
Fund 6	1,35%	0,13%	28,78%	0,92	2,06	5,82
Fund 16	0,74%	0,07%	28,17%	1,04	2,50	7,19
Fund 9	0,15%	0,01%	27,57%	0,91	2,11	3,51
Fund 7	-1,85%	-0,19%	25,57%	0,93	1,62	4,04
Fund 1	-9,20%	-0,96%	18,22%	1,02	1,55	7,41
MSCI Italy (Net TR)	-27,43%	-3,16%	0,00%	1,00	0,00	0,00

Table 3: Active funds vs MSCI Italy

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Fund 1	-41,4%	19,0%	-7,2%	-28,7%	15,1%	30,2%	4,2%	23,5%	-19,2%	24,8%
Thomson Reuters Italy Total Return Local Currency Index	-36,1%	19,3%	-6,7%	-21,2%	12,1%	17,6%	4,8%	14,7%	-8,3%	16,7%
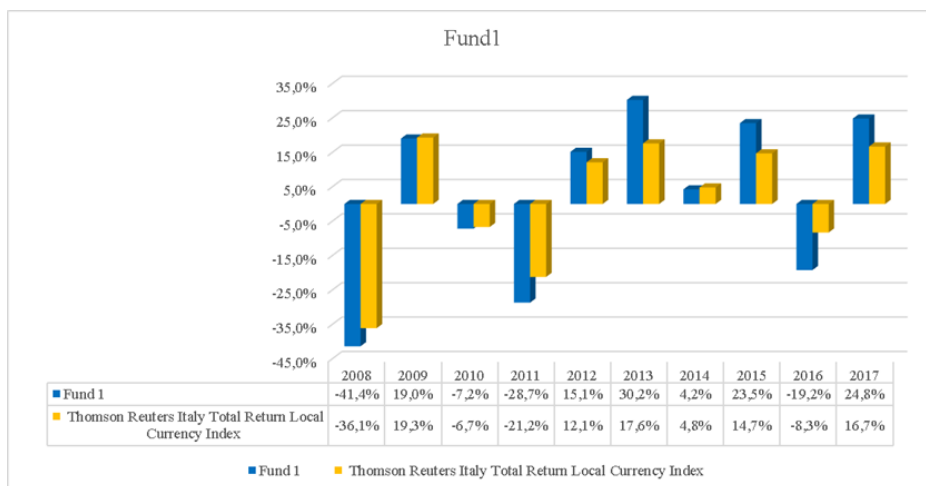
Table 4: Performance of fund 1 against its benchmark, period 2008-2017.
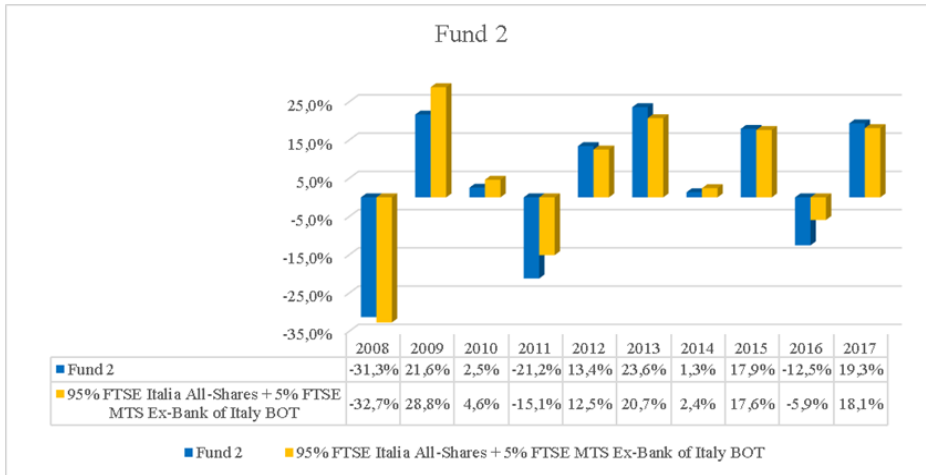
Table 5: Performance of fund 2 against its benchmark, period 2008-2017.

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Fund 2	-31,3%	21,6%	2,5%	-21,2%	13,4%	23,6%	1,3%	17,9%	-12,5%	19,3%
95% FTSE Italia All-Shares + 5% FTSE MTS Ex-Bank of Italy BOT	-32,7%	28,8%	4,6%	-15,1%	12,5%	20,7%	2,4%	17,6%	-5,9%	18,1%
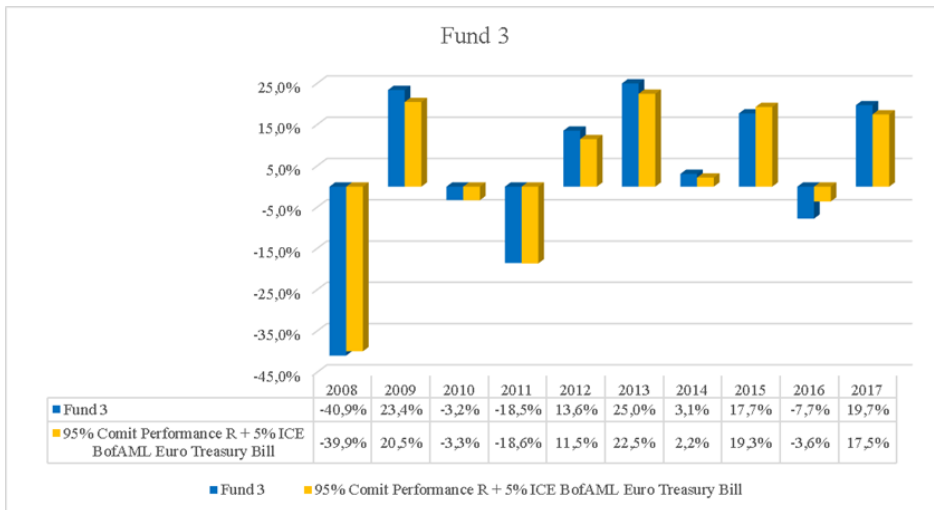
Table 6: Performance of fund 3 against its benchmark, period 2008-2017

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Fund 3	-40,9%	23,4%	-3,2%	-18,5%	13,6%	25,0%	3,1%	17,7%	-7,7%	19,7%
95% Comit Performance R + 5% ICE BofAML Euro Treasury Bill	-39,9%	20,5%	-3,3%	-18,6%	11,5%	22,5%	2,2%	19,3%	-3,6%	17,5%

Table 7: Performance of fund 4 against its benchmark, period 2008-2017.

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Fund 4	-41,7%	24,1%	-3,7%	-23,3%	13,4%	24,6%	2,9%	17,7%	-7,1%	19,2%
95% Comit Performance R + 5% ICE BofAML Euro Treasury Bill	-38,0%	19,5%	-5,9%	-17,6%	11,5%	22,5%	2,2%	19,3%	-3,6%	17,5%
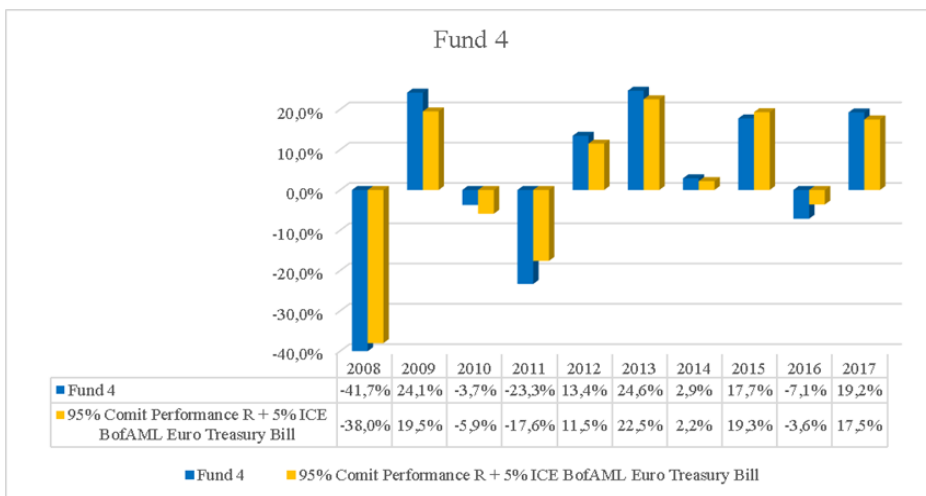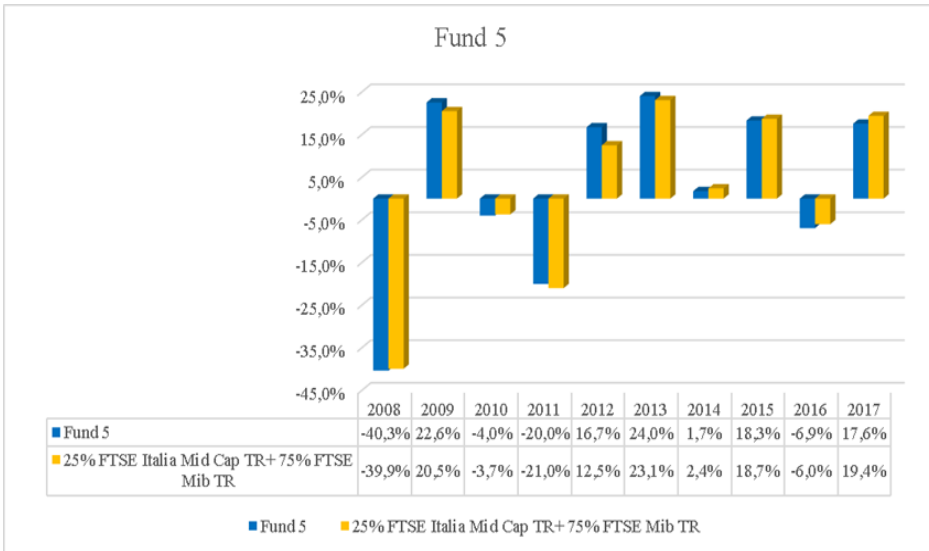
Table 8: Performance of fund 5 against its benchmark, period 2008-2017.

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Fund 5	-40,3%	22,6%	-4,0%	-20,0%	16,7%	24,0%	1,7%	18,3%	-6,9%	17,6%
25% FTSE Italia Mid Cap TR+ 75% FTSE Mib TR	-39,9%	20,5%	-3,7%	-21,0%	12,5%	23,1%	2,4%	18,7%	-6,0%	19,4%
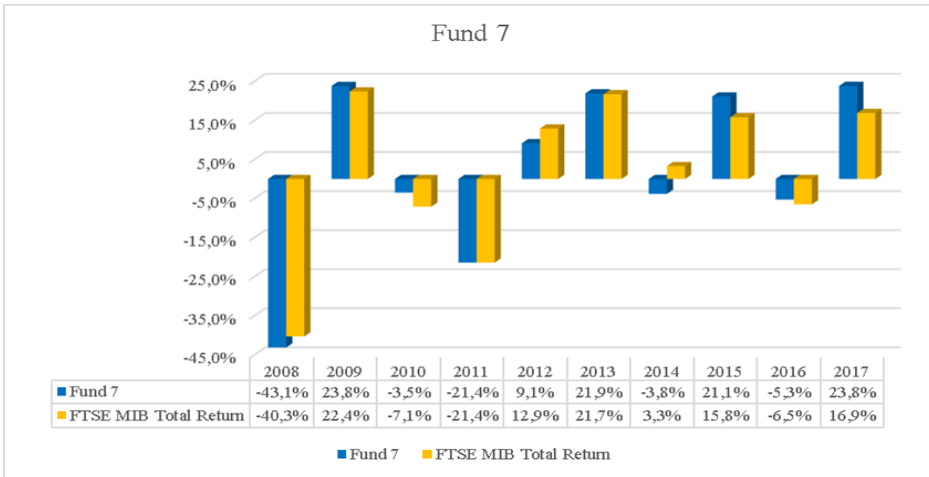
Table 9: Performance of fund 7 against its benchmark, period 2008-2017.

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Fund 7	-43,1%	23,8%	-3,5%	-21,4%	9,1%	21,9%	-3,8%	21,1%	-5,3%	23,8%
FTSE MIB Total Return	-40,3%	22,4%	-7,1%	-21,4%	12,9%	21,7%	3,3%	15,8%	-6,5%	16,9%

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Fund 8	-46,9%	38,5%	5,6%	-25,4%	14,7%	47,7%	1,5%	32,5%	-10,9%	28,8%
50% FTSE Mib TR + 50% FTSE Italia Mid Cap TR.	-44,5%	23,1%	-0,2%	-24,3%	3,0%	36,2%	0,7%	28,1%	-5,7%	26,2%
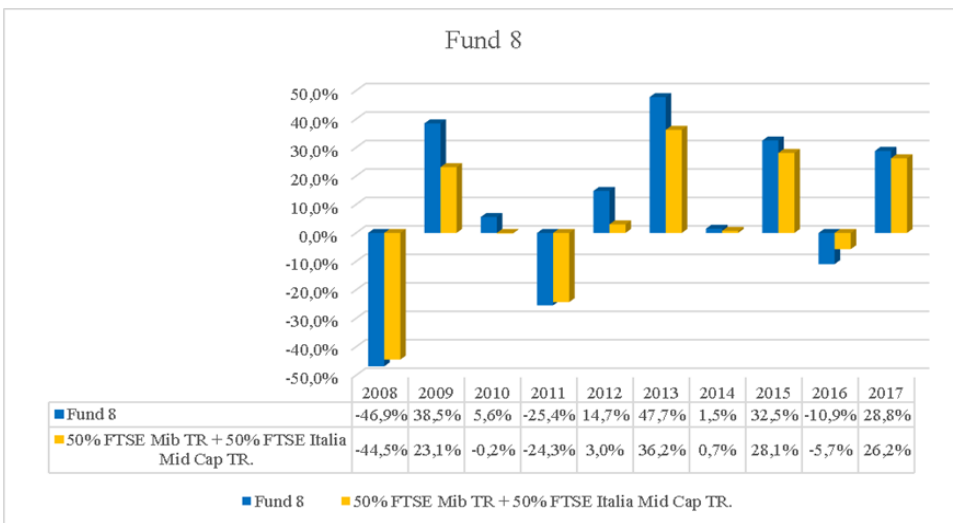
Table 10: Performance of fund 8 against its benchmark, period 2008-2017.

Fund 9

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Fund 9	-41,4%	21,3%	-3,4%	-21,5%	11,9%	23,2%	1,3%	19,7%	-7,3%	18,5%
95% FTSE It. All-Share Capped + 5% Bloomberg Barclays Euro Treasury Bill	-39,0%	20,3%	-3,6%	-18,7%	11,5%	23,4%	2,3%	18,6%	-6,1%	18,4%

■ Fund 9 ■ 95% FTSE It. All-Share Capped + 5% Bloomberg Barclays Euro Treasury Bill
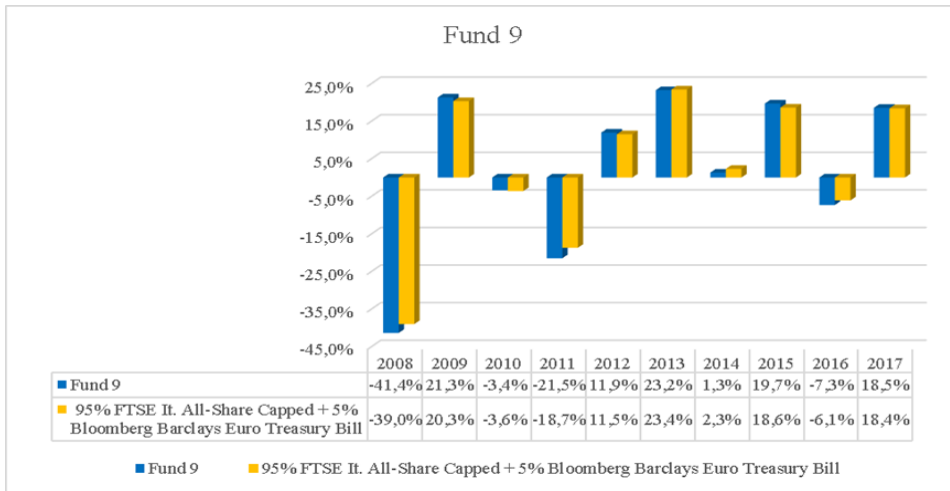
Table 11: Performance of fund 9 against its benchmark, period 2008-2017.

Fund 10

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Fund 10	-43,1%	26,4%	-0,1%	-25,2%	3,9%	50,8%	-3,8%	39,9%	-7,4%	33,9%
95% FTSE Italia Mid Cap + 5% Bloomberg Barclays Euro Treasury Bill	-38,8%	26,1%	0,0%	-23,1%	3,0%	49,7%	-1,7%	38,9%	-5,2%	32,7%

■ Fund 10 ■ 95% FTSE Italia Mid Cap + 5% Bloomberg Barclays Euro Treasury Bill
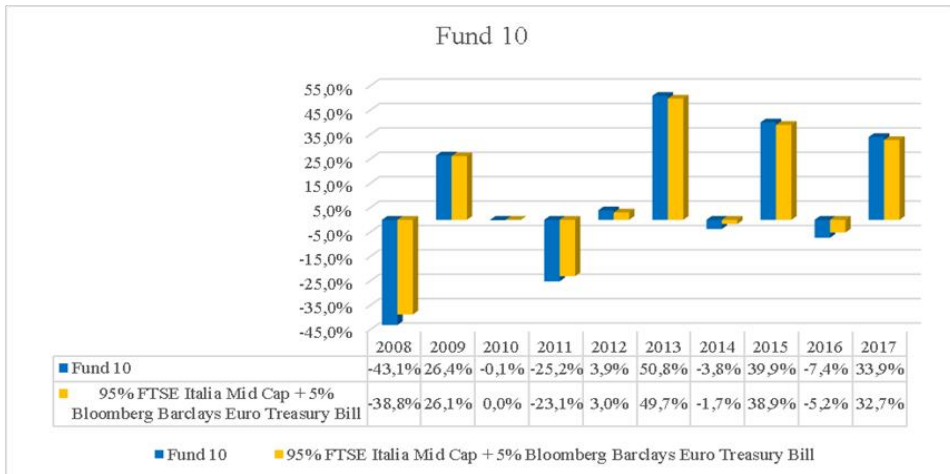
Table 12: Performance of fund 10 against its benchmark, period 2008-2017.

Fund 11

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Fund 11	-40,1%	20,6%	-4,2%	-18,9%	12,0%	21,7%	2,4%	21,0%	-5,2%	19,1%
FTSE Italia All-Share Total Return	-38,0%	19,6%	-3,0%	-17,4%	11,2%	21,3%	2,2%	18,3%	-6,4%	19,1%

■ Fund 11 ■ FTSE Italia All-Share Total Return

Table 13: Performance of fund 11 against its benchmark, period 2008-2017.

Fund 12

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
■ Fund 12	-42,6%	29,8%	-2,7%	-19,4%	14,9%	34,0%	5,4%	23,3%	-5,2%	21,2%
■ Comit Performance R	-40,7%	21,3%	-3,9%	-19,7%	11,9%	23,6%	2,2%	20,2%	-3,9%	18,5%

■ Fund 12   ■ Comit Performance R

Table 14: Performance of fund 12 against its benchmark, period 2008-2017.

Fund 14

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
■ Fund 14	-39,6%	20,9%	-4,9%	-16,5%	14,0%	25,9%	1,4%	20,8%	-5,7%	19,4%
■ 90% Italy Stock Market BCI Comit Perf. R +10% Bloomberg Barclays Euro TSYBills 0-3 Months.	-39,9%	20,5%	-3,3%	-18,6%	11,5%	22,4%	2,2%	19,3%	-3,6%	16,9%

■ Fund 14   ■ 90% Italy Stock Market BCI Comit Perf. R +10% Bloomberg Barclays Euro TSYBills 0-3 Months.
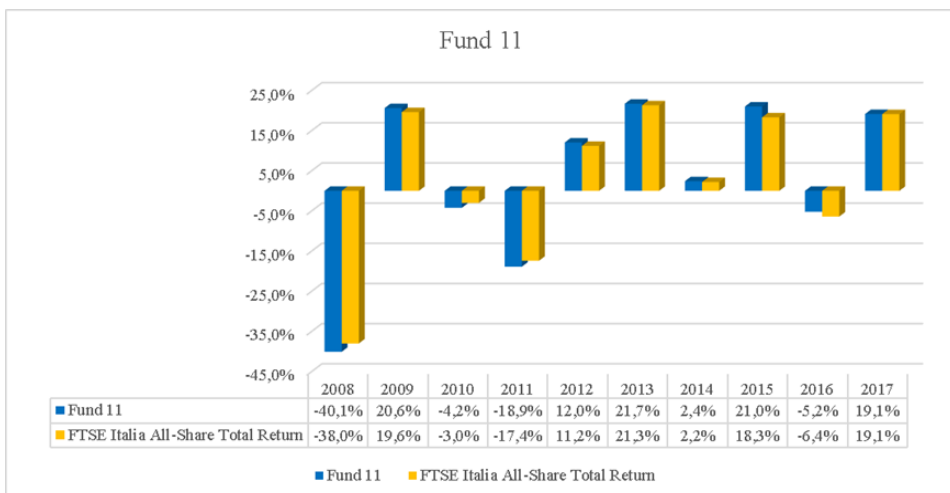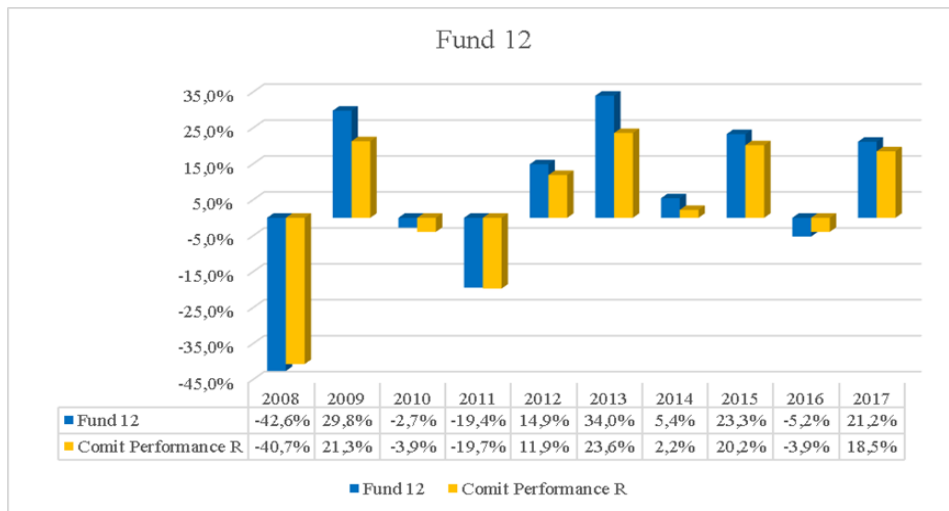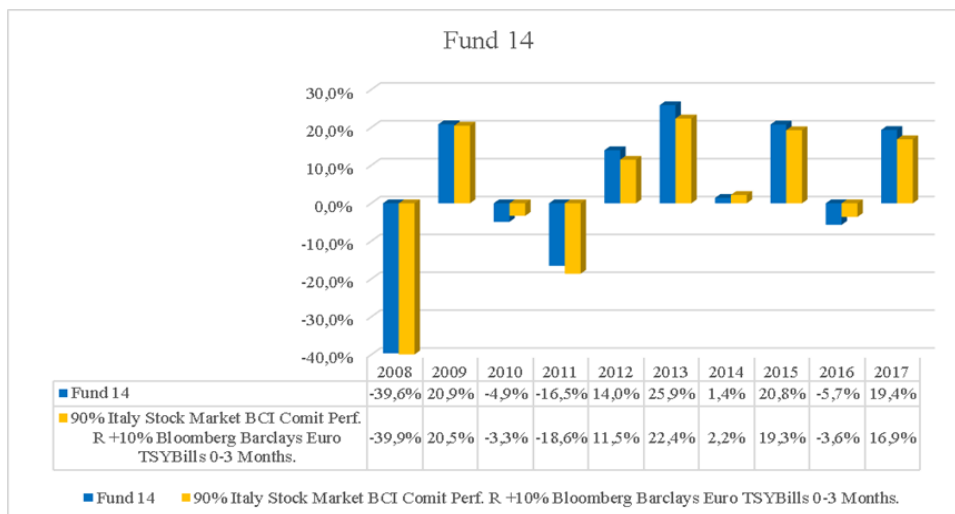
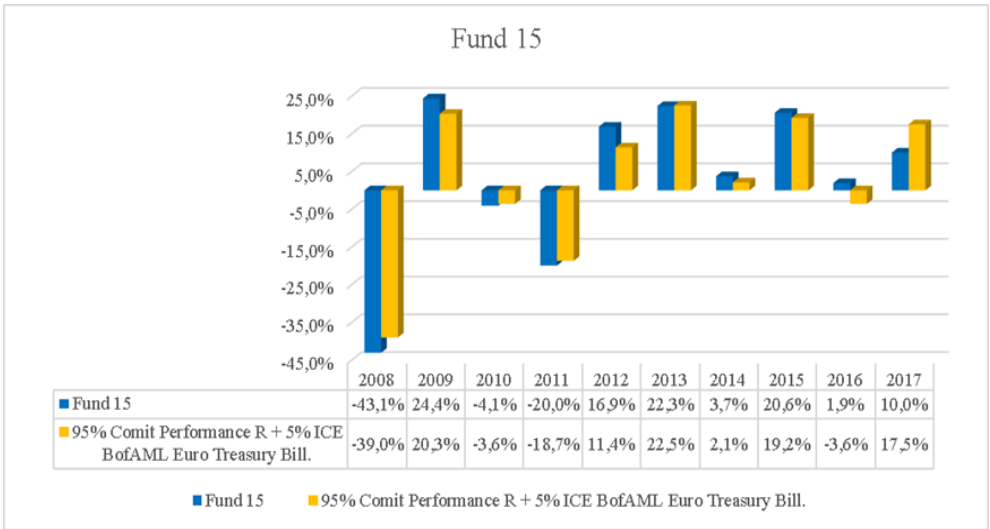Table 15: Performance of fund 14 against its benchmark, period 2008-2017.

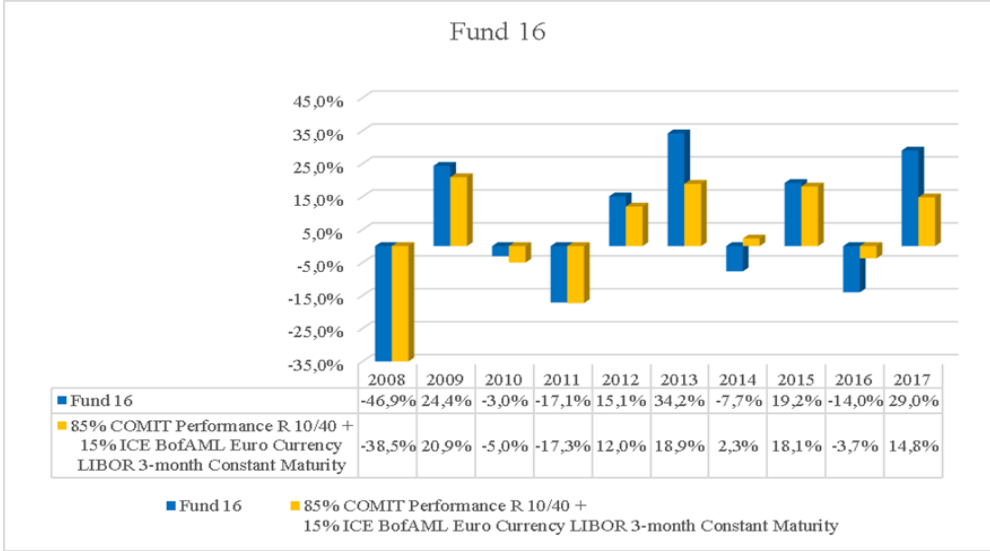Table 16: Performance of fund 15 against its benchmark, period 2008-2017.

Table 17: Performance of fund 16 against its benchmark, period 2008-2017.

Name	Benchmark	Discretion to Deviate	Gross Δ% Fund-Bench.	Net Δ% Fund-Bench.	Beat the market before fees?	Beat the market after fees?
Fund 1	Thomson Reuters Italy Total Return Local Currency Index	broad	-5,10	-12,16	No	No
Fund 2	FTSE Italia All-Shares (95%)/FTSE MTS Ex-Bank of Italy BOT (5%)	broad	-21,88	-27,75	No	No
Fund 3	Comit Performance R (95%)/ICE BofAML Euro Treasury Bill (5%)	limited	1,88	-3,59	Yes	No
Fund 4	Comit Performance R (95%)/ICE BofAML Euro Treasury Bill (5%)	limited	-7,05	-12,12	No	No
Fund 5	FTSE Mib TR (75%)/FTSE Italia Mid Cap TR (25%)	limited	3,04	-1,25	Yes	No
Fund 7	FTSE MIB Total Return	broad	1,21	-0,73	Yes	No
Fund 8	FTSE Mib TR (50%)/FTSE Italia Mid Cap TR (50%)	limited	40,19	14,41	Yes	Yes
Fund 9	FTSE It. All-Share Capped (95%)/Bloomberg Barclays Euro Treasury Bill (5%)	limited	-7,64	-9,12	No	No
Fund 10	FTSE Italia Mid Cap (95%)Bloomberg Barclays Euro Treasury Bill (5%)	limited	-16,61	-18,71	No	No
Fund 11	FTSE Italia All-Share Total Return	broad	-0,89	-5,17	No	No
Fund 12	Comit Performance R	broad	26,76	22,74	Yes	Yes
Fund 14	Italy Stock Market BCI Comit Perf. R (90%)/Bloomberg Barclays Euro TSYBills 0-3 Months (10%)	limited	7,82	5,53	Yes	Yes
Fund 15	Comit Performance R (95%)/ICE BofAML Euro Treasury Bill (5%)	broad	0,79	-1,93	Similar result	No
Fund 16	COMIT Performance R 10/40 (85%)/ICE BofAML Euro Currency LIBOR 3-month CM (15%)	broad	-3,83	-8,78	No	No

Table 18 : Main Results. Active funds vs Their Benchamrk.