The performance of the Italian mutual funds: Does the metric matter?

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A R T I C L E   I N F O

A B S T R A C T

This paper discusses the differences among performance metrics in the Italian mutual fund industry. This industry is worthy of interest because it presents two characteristics (representative of other Continental Europe countries, less analyzed than Anglo-Saxon ones) that weaken the importance of the time-weighted approach: a dominant role of the sellers and a significant vertical integration between production and distribution. Based on an original dataset, never used before by any scholar, we simulate (by using a Monte Carlo simulation model) the dynamics of returns and cash flows in the 2003–2010 period, analyzing the metric spreads and their sensitivity to scenarios' characteristics (volatility and timing of returns, entity and volatility of subscriptions and withdrawals). The empirical findings suggest that metrics matter. In fact, spreads between time-weighted and money-weighted returns are significant at level of individual funds in the simulated scenarios (consistent with the dynamics of the Italian industry in the considered period), while are not significant when we consider aggregated data, since aggregation smooths the volatility of flows and returns. The analysis suggests that it would be useful: (i) to rethink asset managers' choices in terms of performance measurement; (ii) to provide all the measures of return that could satisfy the broad spectrum of interested parties and assessment purposes.

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1. Introduction

The Italian mutual fund industry has suffered a significant downsizing over the last 14 years, showing an almost constantly decreasing trend, from about 42% of GDP in 1999 to 9% in 2013. The downsizing of the industry, fourteenth in the international ranking, shows a strong countertrend in the European context, where the corresponding ratio of GDP grew from 48% to 75% in the same period (Mediobanca, 2014). The return on these funds is largely unsatisfactory: an investment in the Italian mutual funds has accumulated in the 30-year life of the industry (1984–2013) a capital loss equal to the initial asset value, if compared with an investment in the one-year treasury bonds, without considering the respective different risks.

The metrics adopted for measuring returns triggered some disputes among the different industry players. In particular, Assogestioni (the Italian Association of the Asset Management Companies), until few years ago, criticized the money-weighted measures proposed by Mediobanca, systematically challenging its resulting negative assessments of the industry's performance. Over the last few years, though, even Assogestioni recognizes the unsatisfactory performance of the industry, but maintains its criticism about the methodological aspects, suggesting a time-weighted approach.

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The objective of this paper – following on from the methodological debate above – is that of discussing the differences among metrics, clarifying which kind of performance is being measured, and verifying whether, and in which scenarios, the spread among metrics is actually relevant. Our focus is on the ways of calculating the fund's absolute return, that differs from the relative one. Besides few recent exceptions (Johnston *et al.*, 2010; Dichev, 2007; Friesen and Sapp, 2007), the international literature on mutual funds did not pay particular attention to this issue.[1] Nevertheless, the issue seems to us relevant for the following reasons:

– generally speaking, the objectives of measuring the mutual fund's performance are various and it seems useful to discuss the matching of metrics with assessment's objectives by expliciting the assumptions underlying each measure;
– the neutrality of the time-weighted approach in relation to the investors' choices seems just theoretical, since the capital invested in the fund is variable, and the yearly return depends on fund managers' investment decisions that have been influenced by the distribution of flows during the year;
– distinguishing the investor's perspective from the fund manager's perspective in performance measurement makes sense only when the manager's choices do not influence at all the investor's subscriptions and withdrawals: this assumption could not be verified in some contexts, such as for example in the Italian mutual fund industry, characterized by a largely dominant role of the sellers;
– separating the assessment of managers' skills from those of sellers could be a nonsense when in practice there is an almost total coincidence between these two categories of players, as for example in the Italian mutual fund industry, characterized by a significant vertical integration between production and distribution;
– as far as the Italian mutual fund industry is concerned, the comparison among metrics allows to understand the extent to which the assessment of the Italian mutual fund industry's performance (and of that of the individual funds) could be affected by the selected measures; based on an original dataset of the Italian open mutual funds, never used before by any scholar, we simulate the dynamics of returns and cash-flows in the period 2003–2010, and analyze the spread among different metrics;
– finally, if the metrics matter, the criteria adopted for choosing the appropriate metrics for specific purposes should be reconsidered as well as the adequacy of the performance measures published by the fund managers should be reevaluated.

This paper is structured as follows. Firstly, the different performance metrics will be discussed, assuming different assessment perspectives, and reviewing the international literature on this topic. Subsequently, we will shortly describe the Italian mutual fund industry, highlighting its pecularities. Therefore, leaving from them, we formulate our research design and describe data and methodology used for measuring the spreads among metrics. Finally, results are presented and discussed.

2. The funds' performance: The theoretical framework

The absolute performance of a fund is normally assessed with two different approaches: the first is the *money-weighted* method (henceforth MWR), that measures the actual return for the investor; the second is the *time-weighted* method (henceforth TWR), that measures a *buy-and-hold* type of return, i.e. the compounded growth rate of one Euro continuously invested in the fund for the entire period of interest (Feibel, 2003; Dichev, 2007).

The MWR relates the fund's beginning market value and the subsequent cash inflows and outflows to the fund's ending market value: it therefore shows the amount earned in the period of interest. This amount is affected both by the timing of the cash inflows and outflows decided by the investors, and by the investment decisions made by the fund manager: it therefore summarizes the actions of both these players. In an open mutual fund, different investors deposit and withdraw, in different moments, various amounts of money, and the MWR provides all of them with precise information about how much they gained or lost during the life of their investment. When there are no inflows or outflows, the MWR is equal to the ROI (*return on investment*), and there is no need to weight the cash flows:

$$MWR = \frac{profit\ or\ loss}{initial\ investment}.$$

When, instead, there are inflows and/or outflows, it is necessary to consider both the amount and the timing of these flows. Let us analyze some ways of calculating the MWR in the most general case. A first approach, which is particularly useful for an easy collection of the data needed for the calculations, is summarized by the Dietz's formula (Dietz, 1966):

$$simple\ Dietz = \frac{MVE - MVB - CF}{MVB + CF/2}.$$

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[1] The most popular topic is that of both verifying the fund managers' ability to beat passively managed and risk-comparable portfolios, and breaking down the potential extra-returns into the various components of that ability. Berk and Van Binsberg (2013) provide a very recent review of this literature. Hammami et al. (2013), Oueslati et al. (2014) and Brau and Rodriguez (2009) recently extend this literature to emerging financial markets.