Bogle's Truth and Buffett's Dud

This article is authored by Massimo Fuggetta, MOI Global instructor and director of Bayes Investments. The article includes two posts from Massimo's [Bayes blog](#).

Look at the top holdings of Italian Equities funds (Azionari Italia) on [morningstar.it](#). They are the same for most of them: ENI, Intesa Sanpaolo, Enel, Unicredit, Luxottica, Assicurazioni Generali, Fiat Chrysler, and so on. Why? Do most fund managers agree that these are the best and most attractive companies quoted on the Italian stock market? No. The reason is that these are the largest companies by market capitalization, and therefore the largest components of the most commonly used Italian Equities index, the FTSE MIB. The same is true for other countries and regions, as well as for sector funds: look at the composition of the relevant index and you will work out a large portion of the funds' holdings.

To a candid layman this looks very strange. ENI may be a good company, but why should it be as much as 10% of an Italian Equities fund? Surely, a company's size has nothing to do with how valuable it is as an investment. Aren't there more attractive choices? And if so, shouldn't the fund invest in them, rather than park most of the money in the larger companies?

No, is the fund manager's answer: the fund's objective is not simply to find attractive investments. It is to obtain over time a better return than its peers and the index. This is what drives investors' choices, determines the fund's success and its manager's reward. To beat the index – says the manager – I have to face it: take it as a neutral position and vary weights around it. So if I think that ENI is fairly valued I will hold its index weight, if I think it is undervalued I will hold more, and if I think it is overvalued I will hold less. How much more or less is up to me. But if ENI is 10% of the index I would have to regard it as grossly overvalued before deciding to hold none of it in the fund. A zero weight would be a huge bet against the index, which, if it goes wrong – ENI does well and I don't have it – would hurt the fund's relative performance and my career.

Sorry to insist – says the outspoken layman – but shouldn't the fund's performance and your career be better served if you take that 10% and invest it in stocks that you think will do better than ENI? If you do the same with the other large stocks which, like ENI, you hold in the fund just because they are in the index, you may be wrong a few times, but if you are any good at stock picking – and you tell me you are, that's why I should buy your fund – then surely you are going to do much better than the index. What am I missing?

Look sir, with all due respect – says the slightly irritated manager – let me do my job. You want the fund to outperform, and so do I. So let me decide how best to achieve that goal, if you don't mind.

I do mind – says the cheeky layman, himself showing signs of impatience. Of course I want you to beat the index. But I want you to do it with all my money, not just some of it. The index is just a measure of the overall market value. If ENI is worth 53 billion euro and the whole Italian stock market is worth 560 billion – [less than Apple](#), by the way – then, sure, ENI is about 10% of the market. But what does that have to do with how much I, you or anybody else should own of it? The market includes all stocks – the good, the bad and the ugly. If you are able to choose the best stocks, you should comfortably do better than the market. If you can't, I will look somewhere else.

Oh yeah? Good luck with that – the manager has given up his professional demeanour – hasn't anybody told you that most funds do worse than the index?

Yes, I am aware of it – says the layman – that's why I am looking for the few funds that can do better. You're right, if your peers do what you do, I am not surprised they can't beat the index. But I'll keep looking. Good bye.

Well done, sir – someone else approaches the layman – let me introduce myself: I am the indexer. You're right, all this overweight and underweight business is a complete waste of time and money. The reality is that, sooner or later, most funds underperform the index – and they even want to get paid for it! So let me tell you what I do: in my fund, I hold the stocks in the index at exactly their neutral weight, but I charge a small fraction of the other funds' fees. This way, my fund does better than most other funds, at a much lower cost. How does that sound?

Pretty awful, I must say – says the layman – I am looking for a fund that invests all my money in good stocks and you are proposing one that does none of that and mindlessly buys index stocks. And you call yourself an investor?

Pardon me, but you're so naïve – says the indexer – I am telling you I do better than most, at a lower cost. What part of the message don't you understand?

Well, it's not true – say the layman – and proceeds to show the indexer a list of funds that have done better than the relevant index and the other funds for each category over several periods after all costs – he may be a layman but he's done his homework.

Oh, that's rubbish – retorts the indexer – and performs his well-rehearsed coin-tossing gig. These are just the lucky guys who happen to sit on the right tail of the return distribution for a while. Sooner or later, their performance will revert to the mean. And do you know why? Because markets are efficient. Have you heard of the Efficient Market Theory? – he asks with a smug look. There is tons of academic evidence that proves that consistent market beating is impossible.

Yes, I know the EMT – says the layman – and I think it is wrong. Beating the market is clearly difficult – if it were easy everybody could do it, hence nobody would – but it is not impossible. The numbers I just showed you prove my point, and to dismiss them as a fluke is a miserable argument, fit only for haughty academics in need of a soothing answer to a most nagging question: If you're so smart, why aren't you rich? Tell me something – continues the layman – what drives market efficiency? Certainly not you, or the other gentleman with his marginal tweaking. You buy any company in the index regardless of price.

Yes – says the indexer, hiding his discomfort – but we are powerful and responsible shareholders and make sure that our voice gets heard.

Give me a break – the layman laughs – companies don't care about you. They know you have to hold their shares no matter what. You're the epitome of an empty threat. You don't even know or care what these companies do. You are not an investor – you're a free rider.

Ok then – says the indexer (he knew his was a phony argument but he tried it anyway) – what's wrong with that? If there are enough active investors busy driving prices to where they should be, my passive fund reaps the benefits, my investors pay less and everyone is happy.

You should be ashamed of yourself, you know – says the layman, ready to end his second conversation.

Aw come on now! – blurts the indexer – who's worse: me, transparently declaring what I do and charging little for it, or the other guy, pretending to be smart, doing worse than me and charging ten times as much?

You've got a point there – says the layman – you're better than him. But you're not going to get my money either. Good bye.

As you like, it's your money – says the indexer, before launching his departing salvo: you know, even Warren Buffett says that index investing is the smart thing to do.

I have seen that – says the layman – what was he thinking?

Yes, what was Warren Buffett thinking when in his 2016 shareholder letter he proposed (p. 24) to erect a statue to John Bogle? Let's see.

Back in the 2005 letter, Buffett prognosticated that active managers would, in aggregate, underperform the US stock market. He was reiterating the 'fundamental truth' of index investing. In the latest words of its inventor and proselytiser:

> "Before intermediation costs are deducted, the returns earned by equity investors as a group precisely equal the returns of the stock market itself. After costs, therefore, investors earn lower-than-market returns." (p. 2)

In its most general sense, this is an obvious tautology: the aggregate return equals the market return by definition. However, 'Bogle's truth' is usually intended to apply as well to mutual funds, which for US equities represent about 20% of the aggregate (see e.g. Exhibit 3 here). As such, there is no logical reason why mutual funds should necessarily perform like the market as a group, and worse than the market after costs. In fact, a layman would be justified in expecting professional investors to do better, before and after costs, compared to e.g. households. Whether mutual funds do better than the market is therefore an empirical rather than a logical matter.

The question has a long history, dating back to Jensen (1968) all the way to the latest S&P SPIVA report. Most of these studies make it particularly hard for outperformance to show up. Rather than squarely comparing fund returns to the market index, they either adjust performance for 'risk' (Jensen) using the now abandoned CAPM model, or slice and dice fund returns (SPIVA), box them into a variety of categories and compare them to artificial sub-indices. As a result, the commonly held view – reflected in Buffett's 2005 prediction – is that 'most funds underperform the market'. From this, the allure of index investing is a small logical step and a seemingly impregnable conclusion. All you need to say is, as Buffett puts it (p. 24):

> "There are, of course, some skilled individuals who are highly likely to out-perform the S&P over long stretches. In my lifetime, though, I've identified – early on – only ten or so professionals that I expected would accomplish this feat.
>
> There are no doubt many hundreds of people – perhaps thousands – whom I have never met and whose abilities would equal those of the people I've identified. The job, after all, is not impossible. The problem simply is that the great majority of managers who attempt to over-perform will fail. The probability is also very high that the person soliciting your funds will not be the exception who does well."

Further complicating the quest for worthy managers – says Buffett – is the fact that outperformance may well be the result of luck over short periods, and that It typically attracts a torrent of money, which the manager gladly accepts to his own benefit, thus making future returns more difficult to sustain.

> "The bottom line: When trillions of dollars are managed by Wall Streeters charging high fees, it will usually be the managers who reap outsized profits, not the clients. Both large and small investors should stick with low-cost index funds."

It was on this basis that Buffett followed his 2005 prophesy by offering a bet to any investment professional able to select at least five hedge funds that would match the performance of a Vanguard S&P500 index fund over the subsequent ten years. He called for hedge funds, which represent an even smaller portion of the US equity investor universe, as he considers them as the most strident example of divergence between bold return promises – reflected in hefty fees – and actual results. Most hedge funds do not set beating the S&P500 as their stated objective, preferring instead to target high returns independent of market conditions. But Buffett's call was right: what's the point of charging high fees if you can't deliver more than index returns? At the same time, presumably he would not have objected to betting against long-only active funds explicitly managed to achieve S&P500 outperformance.

What followed – said Buffett – was the sound of silence. This is indeed surprising. Hedge fund managers' objectives may be fuzzier, but if you manage a long-only US equity fund with a mandate to outperform the S&P500 and you genuinely believe you can do it, what better promotional opportunity is there than to bet against Warren Buffett and win?

Be that as it may, only one manager took up the challenge. And – bless him – he did not choose five long-only funds, nor five hedge funds, but five funds of hedge funds: he picked five funds that picked more than 100 hedge funds that picked thousands of stocks. Nothing wrong with that, in principle. Presumably, each of the five funds of funds managers believed he could select a portfolio of hedge funds that, at least on average, would do so much better than the S&P500 that, despite the double fee layer, it would itself end up well ahead of the index. They were wrong, very wrong (p. 22). Over the nine years from 2008 to 2016, the S&P500 returned 85.4% (7.1% per annum). Only fund of funds C got somewhat close, with a return of 62.8% (5.6% per annum). The other four funds returned, in order: 28.3%, 8.7%, 7.5% and 2.9% (that is 2.8%, 0.9%, 0.8% and 0.3% per annum).

Result: Buffett's valiant and solitary challenger, Mr. Ted Seides, co-manager, at the time, of Protégé Partners, played a very bad hand and made a fool of himself. But Buffett was lucky: he set out to prove 'Bogle's truth' and observe index-like returns before fees, turning into underperformance after fees, but what he got was abysmal returns. Except perhaps for fund C, the gaping hole between the funds and the S&P500 had very little to do with fees. Buffett estimated that about 60% of all gains achieved by the five funds of funds went into the two fee layers. But even if fund D, returning a whopping 0.3% per year, had charged nothing, to select hedge funds that charged nothing, it would still have ended up well below the index. Same for funds A and E and, likely, for fund B.

To recap: when applied to mutual and hedge funds, 'Bogle's truth' is not a logical necessity – as it is often portrayed to be – but is an empirical statement. Performance studies make it hard for outperformance to emerge, but beating the index in the long run is certainly no easy task, even for professional investors. Fees make it even harder – the higher the fees, the harder the task. However, while difficult to achieve and therefore rare to observe, long-term outperformance is not impossible – Buffett is the first to acknowledge it: he's a living proof!

Why is it then that he interpreted his bet win against Seides as evidence of ‘Bogle’s truth’? Imagine he had called for five value stocks and got five duds. Would he have interpreted this as evidence of the impossibility of value investing? What’s the difference between picking stocks and picking funds? Why does Buffett consider the former a difficult but valiant endeavour while the latter an impossible waste of time?

In the latest chapter of his life-long and eventually triumphal effort to promote index investing, John Bogle explains what lays at the foundation of his philosophy: ‘my first-hand experience in trying but failing to select winning managers’ (p. 6). In 1966, as the new 37-year old CEO of Wellington Management Company, Bogle decided to merge the firm with ‘a small equity fund manager that jumped on the Go-Go bandwagon of the late 1960s, only to fail miserably in the subsequent bear market. A great – but expensive – lesson’ (p. 7), which cost him his job.

It reminded me of another self-confessed failure, as recounted by Eugene Fama, who in his young days worked as a stock market forecaster for his economics professor, Harry Ernst: ‘Part of my job was to invent schemes to forecast the market. The schemes always worked on the data used to design them. But Harry was a good statistician, and he insisted on out-of-sample tests. My schemes invariably failed those tests’. (My Life in Finance, p. 3).

I can’t help seeing both incidents as instances of Festinger’s cognitive dissonance. It runs more or less like this: 1) I know a lot about economics and stock markets. 2) I am smart – truth be told, very smart. 3) I could use my brains to predict stock prices/select winning managers and make a lot of money. 4) I can’t. Therefore: it must be impossible. I think this goes a long way towards explaining the popularity and intuitive appeal of the Efficient Market Theory in academia.

The theoretical underpinnings of the EMT were set by the Master himself, Paul Samuelson, who in 1965 gave the world the Proof that Properly Anticipated Prices Fluctuate Randomly, followed in 1973 by the Proof that Properly Discounted Present Values of Assets Vibrate Randomly.

Typical academics are keen to take these as conclusive demonstrations – derived from first principles, like Euclidean theorems – of the impossibility of market beating. But the Master knew better. At the end of ‘Fluctuate’ he wrote:

> “I have not here discussed where the basic probability distributions are supposed to come from. In whose minds are they ex ante? In there any ex post validation of them? Are they supposed to belong to the market as a whole? And what does that mean? Are they supposed to belong to the “representative individual”, and who is he? Are they some defensible or necessitous compromise of divergent expectation patterns? Do price quotations somehow produce a Pareto-optimal configuration of ex ante subjective probabilities? This paper has not attempted to pronounce on these interesting questions.”

And at the end of ‘Vibrate’:

> “In summary, the present study shows (a) there is no incompatibility in principle between the so-called random-walk model and the fundamentalists’ model, and (b) there is no incompatibility in principle between behaviour of stocks’ prices that behave like random walk at the same time that there exists subsets of investors who can do systematically better than the average investors.”

Then in 1974 he reiterated the point in crystal clear terms, addressed to both academics and practitioners on the first issue of the Journal of Portfolio Management:

> "What is at issue is not whether, as a matter of logic or brute fact, there could exist a subset of the decision makers in the market capable of doing better than the averages on a repeatable, sustainable basis. There is nothing in the mathematics of random walks or Brownian movements that (a) proves this to be impossible, or (b) postulates that it is in fact impossible. (Challenge to Judgment, p. 17, his italics)."

And for the EMT zealots:

> "Many academic economists fall implicitly into confusion on this point. They think that the truth of the efficient market or random walk (or, more precisely, fair-martingale) hypothesis is established by logical tautology or by the same empirical certainty as the proposition that nickels sell for less than dimes.
>
> The nearest thing to a deductive proof of a theorem suggestive of the fair-game hypothesis is that provided in my two articles on why properly anticipated speculative prices do vibrate randomly. But of course, the weasel words "properly anticipated" provide the gasoline that drives the tautology to its conclusion." (p. 19).

There goes 'Bogle's truth'. And the irony of it is that in his latest piece Bogle reminisces on how, as he read it at the time, 'Dr. Samuelson's essay … struck me like a bolt of lightning' (p. 6). A hard, obnubilating blow indeed.

There was, nevertheless, a legitimate reason for the fulmination. Samuelson's Challenge to Judgment was a call to practitioners:

> "What is interesting is the empirical fact that it is virtually impossible for academic researchers with access to the published records to identify any member of the subset with flair. This fact, though not an inevitable law, is a brute fact. The ball, as I have already noted, is in the court of those who doubt the random walk hypothesis. They can dispose of the uncomfortable brute fact in the only way that any fact is disposed of – by producing brute evidence to the contrary." (p. 19).

He was referring to Jensen (1968) and the copious subsequent literature presenting lack of evidence on identifying a consistent subset of long-term outperforming funds. What Samuelson missed, however – and still goes largely unnoticed – is that the 'risk adjustments' to fund and index returns used in these studies are based on definitions of risk – as volatility, beta and the like – that *presume* market efficiency. To his credit, Eugene Fama has always been very clear on this point, which he calls the *joint hypothesis problem*:

> "Market efficiency can only be tested in the context of an asset pricing model that specifies equilibrium expected returns. […] As a result, market efficiency per se is not testable. […] Almost all asset pricing models assume asset markets are efficient, so tests of these models are joint tests of the models and market efficiency. Asset pricing and market efficiency are forever joined at the hip." (My Life in Finance, p. 5-6).

Typically, outperforming funds are explained away, and their returns driven to statistical insignificance, by the 'higher risk' they are deemed to have assumed. But such risk is defined and measured according to some version of the EMT! It is – as James Tobin wryly put it – a game where you win when you lose (see Tobin's comment to Robert Merton's essay in this collection).

It was precisely in defiance of this game that Warren Buffett wrote his marvellous Superinvestors piece, which sits up there next to Ben Graham's masterwork in every intelligent investor's reading list. As in his latest shareholder letter, Buffett used the coin-flipping story, fit for humans as well as orangutans, to point out that past outperformance can be the product of chance. But then he drew attention to an important difference:

> "If (a) you had taken 225 million orangutans distributed roughly as the U.S. population is; if (b) 215 winners were left after 20 days; and if (c) you found that 40 came from a particular zoo in Omaha, you would be pretty sure you were on to something. So you would probably go out and ask the zookeeper about what he's feeding them, whether they had special exercises, what books they read, and who knows what else. That is, if you found any really extraordinary concentrations of success, you might want to see if you could identify concentrations of unusual characteristics that might be causal factors." (p. 6).

Hence he proceeded to illustrate the track record of his nine Superinvestors, stressing that it was not an ex post rationalisation of past results but a validation of superior stock picking abilities that he had pre-identified ex ante.

So let's do a thought experiment and imagine that Buffett 2007 went back 40 years to 1967 and wagered a bet: 'I will give 82,000 dollars (about 500,000 2007 dollars in 1967 money) to any investment pro who can select five funds that will match the performance of the S&P500 index in the next ten years'. Would Buffett 1967 have taken the bet? Sure – he would have said – in fact, I got nine! And after nine years, one year prior to the end of the bet, he would have proclaimed his victory (I haven't done the calculation on Buffett's Tables, but I guess it's right). Now let's teleport Buffett 2016 to 1976. What would he have said? Would he have endorsed those funds or recommended investing in the then newly launched Vanguard S&P index fund?

Here is then why I am disoriented – and I'm sure I'm not alone – by Mr. Buffett's current stance on index investing. To be clear: 1) I am sympathetic to his aversion to Buffett impersonators promoting mediocre and expensive hedge funds. 2) I think index funds can be the right choice for certain kinds of savers. 3) I think Jack Bogle is an earnest and honourable man. However, as a grateful and impassioned admirer of Buffett 1984, Buffett 2016 puzzles me. Like the former, the latter agrees with Paul Samuelson against 'Bogle's truth': long term outperformance, while difficult and therefore uncommon – no one denies it – is possible. But while Buffett 1984 eloquently expanded on the 'intellectual origin' (p. 6) of such possibility, and on the ex ante characteristics of superior investors, Buffett 2016's message is: forget about it, don't fall for ex post performance and stick to index funds.

Notice this is not a message for the general public: it is addressed to Berkshire Hathaway's shareholders – hardly the know-nothing savers who may be better served by basic funds. Buffett is very clear about this: buying a low-cost S&P500 index fund is his 'regular recommendation' (p. 24), to large and small, individual as well professional and institutional investors – noticeably including the trustees of his family estate (2013 shareholder letter, p. 20).

Great! There goes a life-long dedication to intelligent investing. You may as well throw away your copy of Security Analysis. Alternatively, you may disagree with Mr. Buffett – nobody is perfect – and hope he reconsiders his uncharacteristically unfocused analysis. From the Master who taught us how to select good stocks one would expect equivalent wisdom on how to select good funds. It is not the same thing, but there are many similarities. As in stock picking, there are many wrong things one can do in fund picking. Past performance is no guarantee of future performance. Expensive stocks as well as expensive funds deceptively draw investors' attention. There is no reason why large stocks or large funds should do better than small ones. Don't go with the crowd. And so on. Similarly, just like Mr. Buffett taught us how to do the right things in stock picking, he could easily impart comparable advice in fund picking.

Here is the first one that comes to mind: look at the first ten stocks in a fund and ask the fund manager why he holds them. If he makes any reference to their index weight, run away.