

CHAPTER 1

The Economics of Active Management

Active management is at best a zero-sum game. It means that, collectively, we cannot beat the market, since the collectivity of all investors is the market. Therefore, as a single investor among many, we can only beat the market at the expense of someone else. It becomes a negative-sum game once we incorporate the fees required by active managers, and other costs imposed by active management, such as trading and administration. The more money we collectively pour into expensive active management, the more likely we are to collectively get poorer.

Imagine a group of four individuals, each wanting to share an apple pie. We could agree initially that each individual deserves a slice of equal size (i.e., a form of neutral indexed position), but one individual wants a bigger serving. He can only do so at the expense of someone else. The pie will not get bigger simply because he wants to have more of it.

In order to have a chance to get a bigger slice of the pie, our individual must be willing to risk losing a portion of his slice, and find at least one other individual who is willing to do the same thing. These two individuals will play heads or tails. Whoever wins the coin toss gets a bigger portion, and the loser gets a smaller portion. The same goes for active management. It is at best a zero-sum game.

Now let's assume these two individuals want to increase their chances of winning a bigger slice, and each hires an expert at tossing coins. They will pay these experts by giving them a portion of their slice. Since our two betting individuals have to share their two slices of the pie with others, the portions left for these two individuals are smaller than two full slices. Much like active management, the presence of a new player and his or her fees have transformed this situation into a negative-sum game, and to be a winner, you have to win in the coin toss a portion of the pie that is bigger than the one you are giving to your coin-tossing expert.

How much of their returns are investors giving to the financial industry? No one really knows for sure, but according to John C. Bogle, founder and retired CEO of The Vanguard Group, the wealth transfer in the United States in 2004 from investors to investment bankers, brokers, mutual funds, pension management, hedge funds, personal advisors, etc. is estimated at \$350 billion (excluding investment services of

banks and insurance companies) [1]. This represents nearly 3% of all US GDP a year! Some intermediation is obviously essential, but if we consider the management fees that actively managed products require, the costs related to excessive trading activity and the significant distribution costs of many financial products, it could be shown that unnecessary intermediation is reducing the wealth of all investors (or is transferring this wealth to a small select group) by 15% in present value terms, possibly more. Excessive intermediation could even become a drag on the overall economy. As investors, we have to make better decisions than just betting on which active manager will be the next winner, and whether or not there is such a thing as a reliable coin-tossing expert. Furthermore, investors cannot necessarily rely on advisors for that purpose, because advisors are often biased in favor of offering the most recent winners, and thus are not always objective or often knowledgeable enough to make an informed recommendation. There are obviously exceptions, but this is often true.

Therefore, the purpose of this first chapter is not to determine if we can identify managers or strategies that can outperform the market. It is simply to make the argument that more than half, perhaps two-thirds, of assets being managed will underperform whatever the asset category or investment horizon. Finally, although the discussions in Chapter 1 are sometimes supported by the finance literature related to individual investors, who often pay significantly higher management fees than institutional investors, the investment principles that are presented, the questions that are raised and the implications of our assumptions are relevant to both individual and institutional investors.

Understanding Active Management

Active management is a complex issue. We want to believe that our financial advisor can identify skilled managers, or that we are skilled managers. We buy actively managed products because we hope the management fees that are being paid to investment professionals will help us outperform the market and our peers. However, before we even address the particularities of active managers' performances and skills, we have to realize that active management is globally a negative-sum game. It basically means that even before we have hired a manager, our likelihood of outperforming the market by investing in an actively managed product is almost always much less than 50%. Why is that?

First, we live in a world where the market value of all assets within a financial market is simply the sum of the market value of all single securities in that market. For example, the market value of the large-capitalization (large-cap for short) equity segment in the United States is equal to the sum of the market value of every single security in that particular segment (i.e., Exxon, IBM, Johnson & Johnson, etc.). This is true of all financial markets, whether they are categorized according to asset classes (equities and fixed income), size (large capitalization, small capitalization, etc.), sectors (financial, industrial, etc.), style (growth, value) or country (United States, Canada, etc.). Second, all of these securities have to be owned directly or indirectly by investors

at any moment in time, whether these investors are institutions such as pension funds and endowment funds, corporations such as life insurance companies, hedge funds, mutual funds, individuals or even governments or government-related entities. Even central banks are investors. Investors as a group collectively own the market. What is the implication of this for active management?

To illustrate, we will use a simple example. We will assume an equity market is only comprised of the securities of two companies, X and Y. However, the conclusion would be the same if there were 1,000 or 10,000 securities. The first company, X, has a market value of \$600 million, while the second company, Y, has a market value of \$400 million. Thus, the entire value of the market is \$1 billion. Consequently, X accounts for 60% of the value of the entire market, and Y the other 40%. Now, let's assume the returns on the shares of each company are respectively 30% and 0% during the following year. What will be the weight of each company in the market?

After one year, X is worth \$780 million, while Y is still worth \$400 million. The market value of both companies, and thus of the entire market, is now \$1,18 billion (+18%), and their respective market weights are now 66.1% ($780/1,180$) and 33.9% ($400/1,180$). This is illustrated in Table 1.1.

In this example, the entire value of the market is initially \$1,000 million, while it is \$1,18 billion one period later. The performance of the market was 18%. Who owns this market? As we already indicated, it is owned by all investors, either directly or indirectly (through products such as mutual funds).

Let's assume that among all investors, some investors are passive investors who are indexed to this market. This means they are not betting on which security (X or Y) will perform better. They are perfectly content to invest in each company according to the same proportion as in the overall market. Their initial investment was \$300 million, or 30% of the entire market. What was the performance of these passive investors? It was 18% before fees, the same as the market. If passive investors realized an 18% return, what was the aggregate performance of all active investors that owned the other \$700 million in securities, or 70% of this market? It had to be 18% in aggregate before fees for all active investors, or the same as passive investors. It cannot be otherwise. Once we have removed the assets of all indexed investors who received a performance equivalent to the market, what we have left are the collective assets of all active investors who must share a performance equal to the market. It is that simple.

TABLE 1.1 The Structure of a Hypothetical Equity Market

	Initial Market Value M\$	Initial Market Weight (%)	Performance (%)	New Market Value M\$	New Market Weights (%)
X	600	60	30	780	66.1
Y	400	40	0	400	33.9
Index	1,000	100	18	1,180	100

Of course, some active managers will outperform the market, but if the aggregate performance of active managers is the same as that of the market, some will have to underperform. To simplify further, let's assume there are only two active investors, each with an initial investment of \$350 million. If an active manager realizes a performance of 21%, or 3% above the market because he had a 70% allocation to X and 30% to Y ($70\% \times 30\% + 30\% \times 0\% = 21\%$), the other active manager has to have a performance of 15%, or 3% below the market, and he must have had a 50% allocation to X and 50% to Y ($50\% \times 30\% + 50\% \times 0\% = 15\%$). Again, it cannot be otherwise since the positions held by all investors are equal to the total positions available in the market, and the sum of the aggregate performance of all active and passive managers alike cannot be more than the performance of the market. It must be equal.

Now, let's imagine there are thousands of active managers out there. Since the sum of their aggregate performance cannot be more than that of the market, we can safely assume that investors and managers that represent 50% of all money invested actively in a market will underperform that market, and investors and managers that represent 50% of all money invested actively in a market will outperform that market. It cannot be otherwise. Therefore, we have shown that active management is, at most, a zero-sum game. It simply redistributes existing wealth among investors, whether individual or institutional.

When I mention that active management is a negative-sum game and not a zero-sum game, it is because of fees: management fees, advisory fees, trading fees, etc. In aggregate, active and passive managers alike will not realize the performance of the market because they both pay fees, although fees for active management can be significantly higher. In the previous example, if the average of all fees paid by investors is 1.0%, the aggregate performance of all investors net of fees will only be 17.0%. The performance drain could be slightly less, since investors could recuperate part of this wealth transfer through their ownership of the financial sector, but it could only amount to a small fraction of the drain. Thus, the greater the fees paid to advisors, the lower the probability that investors can match or outperform the market.

To illustrate further, let's assume an investor has a choice between two products to invest in the US large-capitalization equity market. One product, which is indexed to the market, is relatively cheap. The total expenses related to this product are 0.2% yearly. The second product, an actively managed product, is more expensive. Its total expenses are 1.0% per year. Thus, in order for this investor to achieve a higher performance with the actively managed product, the active manager must outperform the indexed product by about 0.8% per year (assuming the index product is an accurate representation of the market), and this must be done in a world where all active investors in aggregate will do no better than the market return before fees. If 0.8% in fees per year does not seem so important, maybe you should consider their impact on a 10-year horizon using some assumptions about market returns. Table 1.2 shows the cumulative excess performance (above the market) required from an active manager over 10 years to outperform an indexed product when the difference in management fees is as specified, and when the gross market return is either 0%, 2.5%, 5%, 7.5% or 10% yearly.

TABLE 1.2 Impact of Fees on Cumulative Performance (%)

Management Process	Performance	Scenario				
		#1	#2	#3	#4	#5
	Yearly Gross Performance	0.0	2.5	5.0	7.5	10.0
Passive (0.2% fees)	Cumulative Performance (10 Years)	-2.0	25.5	59.8	102.3	154.7
Active (1.0% fees)	Cumulative Performance (10 Years)	-9.6	16.1	48.0	87.7	136.7
	Cumulative Performance Spread	7.6	9.5	11.8	14.6	18.0

The example illustrates that the impact of fees on performance is not independent of market returns. The greater the market performance, the greater the cumulative excess performance required from an active manager to match the performance of a cheap index alternative, because investors not only pay fees on their initial capital, but also on their return. At a low 5% average annual return, the manager must outperform a cheap index product by 11.8% over 10 years. At 7.5% average annual market return, he must outperform by 14.6%. This requires a lot of confidence in your active manager, and what we have indicated about active management being a zero-sum game before fees is true for any investment horizon, one year, five years, ten years, etc. How likely is it that an active manager can outperform the market adjusted for fees over a long period of time, such as 10 years? It all depends on two factors. First, what is the level of fees, and second, what is the usual range of performance for all active managers against the market. For example, if all managers were requiring 1% yearly fees, we need to have some managers that outperform the market by at least 1% yearly on average (before fees) to be able to calculate a positive probability of outperforming the market. If not, the probability is nil.

Several studies have looked at this issue from different angles. I will initially reference only one study and come back with more evidence later. Rice and Strotman (2007) published very pertinent research about the fund-management industry [2]. Their research analyzed the performance profile of 1,596 mutual funds in 17 submarket segments over a 10-year time frame ending on December 31, 2006. The authors used the range of performance (before fees) observed for all managers against their respective markets over this period to estimate the likely probability of any manager outperforming the market in the next 10 years. The study shows that about two-thirds of managers in their entire data set have performances that range between -2.14% and +2.14% compared to their respective markets. Based on this information, Table 1.3 presents the approximate probability that the average manager can outperform the market after fees.

TABLE 1.3 Fees and Probability of Outperformance (%)

Total Yearly Fees	Probability of Outperforming the Market
0.5	41
1.0	32
1.5	24

Source: Rice and Strotman (2007).

We can conclude that an investor paying annual fees of 1.0% would have less than one chance out of three of outperforming the market, and two out of three of underperforming. This is an approximate estimate that relies on assumptions about the range of performance of active managers, and does not adjust for the particular portfolio structure of an investor, or for the style of a manager. Although institutional investors are likely to pay even less than 1.0% fees on most equity products (although significantly more on hedge funds), their likelihood of outperforming the market still remains well below 50%. Therefore, it is difficult to argue against the fact that fees reduce your probability of outperforming the market to less than 50%, and that higher fees will reduce your probability even more.

Evidence on the Relative Performance of Active Managers

The statement that active management is a negative-sum game is based on all active managers in aggregate. However, asset managers may cater to specific investors (retail, high-net-worth, institutional, etc.), and some large institutional investors have their own internal management teams. Therefore, if active management is globally a negative-sum game, it could, in theory, be a positive-sum game for a specific group of investors (such as mutual fund investors), but this could only happen at the expense of other groups of investors. More specifically, it could happen if, for example, mutual fund managers were not only better than the other active managers out there, but also good enough to compensate for their own fees.

However, I doubt very much that this could be the case in aggregate for the larger, more efficient capital markets. There is much evidence that supports a contrary view. Let's start with the common-sense arguments with a specific look at mutual funds. First, in the United States, institutional investors, defined as pension funds, insurance companies, banks, foundations and investment companies (that manage mutual funds), owned 37.2% of all equities in 1980, while the number grew to 61.2% by 2005. During the same period, the share of equities owned by mutual funds grew from 2.3% to 23.8%, and then reached a peak of about 29% prior to the 2008 liquidity crisis [3]. Therefore, in this active-management game, institutional investors who can afford the best expertise are playing against other institutional investors who can also afford the best expertise on a large scale. Furthermore, mutual funds are no longer a small player, but a very large component of the market. It becomes more and more difficult to assume that as a group they could be expected to consistently outperform other groups of investors, at least in the US market and other developed markets, since they have become such a significant segment of the entire market themselves. But do not forget, they must not only outperform other groups of investors, but also outperform enough to cover excess costs (compared to a cheap alternative) related to their own products.

In 2006, researchers completed a study on the issue of mutual fund fees around the world [4]. It covered 46,799 funds (86% of the total as of 2002) in 18 countries. The study compared total annual expense ratios for all funds (balanced, equity, bonds and money market). These observations are presented in Table 1.4.

TABLE 1.4 Fees Around the World (%)

Country	Total Annual Expense Ratio
Australia	1.60
Canada	2.68
France	1.13
Germany	1.22
Switzerland	1.42
United Kingdom	1.32
United States	1.42

Source: Khorona, Servaes and Tufano (2006).

Individual investors in the US and in several other countries benefit from a lower level of fees while Canada has among the highest fees. It seems, according to the authors, that the more concentrated a banking system is in each country, the higher the fees are. Canada has, in fact, one of the most concentrated banking systems in the world. Thus, even if we assumed that, in Canada, mutual fund managers as a group were better than other active managers, considering the much higher level of fees they require, they would have to be significantly better than US managers on average.

This study was obviously the subject of criticism in Canada. Some have argued that the methodology of the study overestimates the fees paid in Canada and underestimates those paid in the United States. However, even if we agree with the precise arguments that were raised against this study, they would only justify a fraction of the difference in fees between the two countries.

Furthermore, while competition among institutional managers has become fiercer, management expense ratios (MERs) have gone up in the United States since 1980, from an average of 0.96% to an average of 1.56% in the mid-2000s (although competition from low-cost alternatives is now improving this matter) [5]. Why? In an industry that has grown so much in size, the investors should have expected some economies of scale. Instead, the industry has delivered more specialized and complex products that have considerably added to the confusion of investors. However, fund-management expenses are not the only factors detracting from performance. A 2009 study by Kopcke and Vitagliano [6] looked at the fees of the 100 largest domestic equity funds that are used within defined contribution plans (US 401(k) plans). The horizon of the study was short, but it provides an interesting look at total expenses including costs related to trading within the industry. From the information within their study, we can determine the weighted average MER, sales load fees and trading-related costs for the 100 funds. Remember that 401(k) plans are usually employer-sponsored plans, and thus investors within these plans should benefit from lower MER than the average mutual fund investor. These funds had weighted average MER, sales load and costs related to trading of 0.51%, 0.11% and 0.67% respectively.

Costs related to trading, an item that is usually invisible to the average investor, are significant, and can, in some cases, be even greater than the MER.

The study also showed the average annual turnover of securities within these funds to be around 48%, and only 30% if turnover is weighted by the size of the fund. Bigger funds have much lower trading volume. The average turnover level in this study is not entirely consistent with other estimates for the overall industry, but there is little doubt that the turnover is significant. The 2009 Investment Company Institute Factbook [7] shows a weighted average annual turnover rate for the industry of 58% from 1974 to 2008. The level was 58% as well in 2008, but much closer to 30% in the 1970s. Although Maginn and Tuttle (2010) [8] estimate the range of turnover for equity value managers to be between 20% and 80%, they also estimate the range for growth managers to be between 80% and several hundred percent. By comparison, many indexed equity products have turnover rates in the 6% to 10% range. A higher turnover means more trading and market impact costs, but also more tax impact costs related to the early recognition of capital gains. According to John C. Bogle, the turnover in US large-cap equity funds may have reduced the after-tax return of investors by 1.3% yearly between 1983 and 2003. When compounded over many years, this is incredibly significant.

So the common-sense argument is that institutional investors are all trying to outperform one another with their own experts, that many products have fairly significant management fees and that the level of trading required by active management imposes significant trading costs. Under these circumstances, outperforming a passive benchmark in the long run appears to be improbable for a majority of active managers. This common-sense argument should be convincing enough, but for those who are skeptical, there are many studies on the issue. In the interest of time and space, I will concentrate on a few. However, I can already indicate that after more than 35 years of research, going back 60 years in time, the main conclusion that these studies have reached is not ambiguous: active managers in aggregate underperform indexed products after fees.

Chen, Hong, Huang and Kubik (2004) looked at the performance of mutual funds according to size. [9] Their study on 3,439 funds over the period 1962 to 1999 concluded that the average fund underperformed its risk-adjusted benchmark by 0.96% annually. Furthermore, the underperformance was 1.4% adjusted for fund size, indicating that bigger funds underperformed even more. They also found that the typical fund has a gross performance net of market return of about 0%. In their study, funds were categorized into five distinct group sizes. All groups underperformed after fees. These conclusions do not only apply to the US markets. For example, Table 1.5 presents the scorecard of US, Canadian and Australian mutual funds for a five-year period ending in 2010.

It is probably no coincidence that Canada has the lowest scorecard and among the highest mutual fund fees in the world. We could cite other studies, but they all point to the same general conclusion: a one to one tradeoff, on average over time, between performance and expenses (i.e., more fees equal less return).

TABLE 1.5 Percentage of Funds Outperforming their Benchmark (2006–2010)

Category of Funds	United States	Canada	Australia
Domestic Large CAP	38	3	30
Domestic Small/Mid-Cap	37 Small–22 Mid	29	71 Small
International	18	12	26
Global	40	15	–
Fixed Income	30	–	18

Source: SPIVA Scorecard Year-End 2010 for US, Canada and Australia.

Relevance of Funds' Performance Measures

The issue being raised is not the accuracy of the performance measures of funds, but of their usefulness to the investment-decision process. We will address three types of performance measures: performance against other funds, fund rating systems and performance against benchmark indices.

One methodology often used to evaluate managers is to rank them against their peers for horizons such as one, two, three, five and even ten years. For example, is my manager a first-quartile manager (better than 75% of managers), a median manager (better than 50% of managers), etc.? I never gave much thought to this ranking approach until I realized that the mutual fund industry, like most industries, has a high degree of concentration. For example, in 2008, the largest 10 sponsors of mutual funds in the United States controlled 53% of all assets in that group. Also, in 2007, a study by Rohleder, Scholz and Wilkens was completed on the issue of survivorship bias of US domestic equity funds. [10] We can conclude from this study, which covered most of the industry, that the largest 50% of funds accounted for more than 99% of the assets of US domestic equity funds.

Although I will not specifically address the issue of mutual fund survivorship, extensive literature has demonstrated that an industry-wide performance bias is created by the tendency to close or merge funds that performed poorly, causing their track record to be removed from the existing universe of funds. [11] Thus, if we do not take into account the performance of these funds, the surviving funds paint an inaccurate picture of the performance of the industry. This would be equivalent to an investor earning a 10% return on 90% of his allocation, and a negative 20% return on 10% of his allocation, stating that if we ignored the allocation on which he lost money, he had a 10% return!

Furthermore, we know that smaller funds have a wider range of return around their benchmark, since larger funds are more likely to maintain a more prudent investment policy. They are more likely to protect their asset base and reputation, while small funds are more likely to take more aggressive active investment positions. They

do not have the marketing budgets of large funds, and their managers know they have to outperform large funds to attract new capital. Thus, it is likely that we will find a greater number of smaller funds than large funds whose performances are below and above the median of managers, if even by chance, and also because there are more small funds than large funds.

Under such circumstances, quartile rankings have a lesser meaning. If smaller funds have a wider range of performance and are greater in number, we could expect that smaller funds (many of them unknown to most investors) accounting for much less than 50% of all assets would dominate the first two quartiles in the long run. This is reinforced by Bogle's argument that excessive size can, and probably will, kill any possibility of investment excellence. [12] Furthermore, the industry is not stable enough to make such performance measures useful. According to the Rohleder, Scholz and Wilkens study, there were 1,167 mutual funds in the United States in 1993. In December 2006, there were 7,600 funds, but 3,330 funds had closed during this period. The average life of a fund was 71 months. Finally, only 658 funds were operational for the entire period, but they were the biggest, with 52.5% of all assets by the end of the period. What is the true significance of a first- or second-quartile ranking when this measure is applied to an unstable population of funds, and when chance may account for the excess performance of many managers in the short term? The situation has not improved in later years. Thirty percent of large-capitalization managers operating in 2006 were no longer operating by the end of 2009.

Another rating approach is the scoring system. Better-known systems are Morningstar and Lipper Leaders. Although these systems are designed to rank the historical performance of funds on the basis of different risk-adjusted methodologies, investors have been relying on these systems to allocate their investments to mutual funds. The authors of an *Ecole des Hautes Etudes Commerciales du Nord (EDHEC)* paper on this issue [13] referenced different studies showing that funds benefiting from high ratings receive a substantial portion of new inflows [14]. However, as I will start to explain in Chapter 2, past performances in mutual funds are only an indicator of future performance in very specific circumstances. Furthermore, other studies [15] have shown that a significant percentage of funds have performance attributes that are not consistent with their stated objectives. If these funds are classified within these scoring systems according to their stated objectives, these rankings may not be relevant or useful, since the benchmarks may not be appropriate to the investment approach or policy of the managers.

This observation was confirmed by my own experience. In the early 2000s, I was involved in a process to select a fairly large number of external fund managers in the equity space for an institutional client. One of the first steps in the selection process was to eliminate from our potential pool of asset managers any fund whose historical performance was "statistically" inconsistent with its declared mandate. We found this to be an issue with a significant percentage of funds—as many as 30%.

Finally, the last approach is a comparison against a benchmark index. So far in this Chapter, I was careful to discuss the issue of fund performance against that of the market (and not the index), simply because most indices are not truly representative of the market. They are only an approximation of the market. Thus, some fund managers that are benchmarked against a specific index may be able to select their portfolio positions for a universe of securities, which is wider than that of the index itself. Theoretically, this should help these managers outperform their reference benchmark by offering them a wider playing field than what they are measured against. However, that may not be enough.

Closing Remarks

The likelihood of a manager outperforming the market is less than 50% in most markets. This is not a forecast, but a logical consequence of market structure. Of course, there may be exceptions. Financial markets in some countries or some specific segment of financial markets (such as emerging or growth markets) may be less efficient than our domestic markets, and professional expertise may be more valuable in these cases, since it may be possible to extract value at the expense of other groups of investors. Other factors may also create inefficiencies, such as the fact that many investors have motivations that are not driven by a profit-maximization objective, or that investors may be subject to investment constraints. For example, several investors or categories of investors may have their investment process constrained by guidelines, which may keep them from owning an indexed position even if they wanted to. Regulations may keep many institutional investors from investing in different types of securities, such as lesser-quality bonds. Large investors may not bother to invest in market segments that offer too little liquidity, or that would force them to maintain very small allocations compared to the size of their portfolio. Others may restrict themselves from investing in industries linked to pollution or health hazards. Finally, some investors do not buy and sell securities for the purpose of maximizing their expected investment performance or outperforming the market. Many are more concerned with matching their liability requirements, while others, like central banks, trade for the purpose of economic and financial market stability. This is all true, but the fact remains that a large majority of studies have not found evidence of outperformance by fund managers when properly adjusted for risks, despite all the circumstances listed above, which should, in fact, help these managers outperform.

Furthermore, most individual investors have a day job. Most cannot handle the complexity of investing, given the time they can reasonably allocate to this process. Institutional investors may, in theory, have greater resources that can be devoted to choosing the right managers, but individual investors face a more difficult task because marketing considerations may dominate even more the fund recommendations they

will receive. Fund management companies may advertise products that outperformed significantly in the recent past. If an investment company has 20 funds on its platform, it is likely that some of them have done well recently, even if by chance. They may even close the funds that have not performed well to get rid of an embarrassing track record. According to John C. Bogle:

Sixty years ago, the mutual fund industry placed its emphasis on fund management as a profession—the trusteeship of others people’s money. Today, there is much evidence that salesmanship has superseded trusteeship as the industry’s prime focus [16].

To support this view, Bogle mentions the numerous changes that have occurred since 1945, which I relate with some of my own interpretation. During this period the mutual fund industry has grown from 68 funds to now close to 8,000. The growing number of funds and the growth of assets have transformed the industry into the biggest shareholder in the United States. The industry has multiplied the number of specialty funds, and one may wonder if this is really to the benefit of investors. Funds were managed then by investment committees, which have gradually been replaced by a system of star managers. This may have contributed to a threefold increase in turnover (stars may be less patient, or feel that they have more to prove than investment committees) and thus to a decline in the investment horizon. The turnover is so large that we may ask if the average fund manager out there acts as an investor or a speculator. Furthermore, the industry has turned from a profession to a business with a different incentive structure. Investment firms are being acquired like any other business, and the buyer is seeking an after-tax return on his investment. The price paid is based on the revenue stream and the quality of the client base. This may explain why fees have increased so significantly, since this is now more than ever a profit-maximizing business. The “profit maximizing” objective of the financial industry may be in conflict with the interest of investors. For example, the industry, which delivered 89% of the indexed returns to individual investors from 1945 to 1965, delivered only 79% from 1983 to 2003. This number confirms the assertion that unnecessary intermediation may reduce the wealth of investors by at least 10% to 15%. However, individual investors are not the only group to have experienced higher fees. For example, it has been reported that pension funds in 2008 were paying 50% higher fees on their total assets than five years prior [17]. Chasing performance and paying higher fees has probably contributed to the pension fund debacle. Therefore, we can certainly conclude that investment management remains a negative-sum game, but also that the game has turned more negative, at least until recently. Greater sophistication has not rewarded individual and institutional investors, and both groups of investors have taken notice. Nevertheless, this entire discussion was not about specific active managers, but about the asset management industry. Thus, we have to ask the question: Are there good active managers that can outperform the markets after fees, and can we identify them?

Notes

1. Bogle, John C. (2005), “The relentless rules of humble arithmetic” in “Bold thinking on investment management,” *The Financial Analysts Journal 60th Anniversary Anthology*, CFA Institute, 127–144.
2. Rice, Matthew, and Geoff Strotman (2007), “The next chapter in the active vs. passive management debate,” DiMeo Schneider & Associates, L.L.C.
3. Brancato, Carolyn Kay and Stephan Rabimov (2007), “The 2007 Institutional Investment Report”, The Conference Board of Canada.
4. Khorona, Ajay, Henri Servaes, and Peter Tufano (2006), “Mutual funds fees around the world,” Working Paper, Georgia Institute of Technology, London Business School, Harvard Business School.
5. Arnott, Robert D., Jason C. Hsu, and John C. West (2008), *The Fundamental Index: A Better Way to Invest*, John Wiley & Sons, Inc., p. 184.
6. Kopcke, Richard W., and Francis M. Vitagliano (2009), “Fees and trading costs of equity mutual funds in 401(k) plans and potential savings from ETFs and commingled trusts,” Center for Retirement Research at Boston College.
7. Investment Company Institute, “2009 Investment Company Factbook—A review of trends and activity in the investment company industry,” 49th Edition.
8. Maginn, John L., Donald L. Tuttle and Dennis W. McLeavey (2010), *Managing Investment Portfolios: A Dynamic Process*, John Wiley & Sons, Inc., Chapter 7.
9. Chen, Joseph, Harrison Hong, Ming Huang, and Jeffrey D. Kubik (2004), “Does fund size erode mutual fund performance? The role of liquidity and organization,” *American Economic Review* 96(5), 1216–2302.
10. Rohleder, Martin, Hendrik Scholz, and Marco Wilkens (2007), “Survivorship bias and mutual fund performance: Relevance, significance, and methodological differences,” Ingolstadt School of Management; Catholic University of Eichstaett-Ingostadt.
11. Carhart, Mark M., Jennifer N. Carpenter, Anthony W. Lynch, and David K. Musto (2002), “Mutual fund survivorship,” *The Review of Financial Studies* 15(5), 1439–1463.
12. Bogle, John C. (2000), *Common Sense on Mutual Funds: New Imperatives for the Intelligent Investor*, John Wiley & Sons, Inc., 99–100.
13. Amenc, Noel, and Véronique Le Sourd (2007), “Rating the ratings—A critical analysis of fund rating systems,” EDHEC-Risk Institute.
14. Del, Guercio, and Paula A. Tkac (2001), “Star Power: The effect of Morningstar ratings in mutual fund flows,” Working Paper no. 2001–15, Federal Reserve Bank of Atlanta; Adkisson, J.A., and Don R. Fraser (2003), “Realigning the Stars: The Reaction of Investors and Fund Managers to Changes in the Morningstar Rating Methodology for Mutual Funds,” Texas A&M University, working paper.
15. DiBartolomeo, Dan, and Erik Witkowski (1997), “Mutual fund misclassification: Evidence based on style analysis,” *Financial Analysts Journal* 53(5), 32–43; Kim, Moon, Ravi Shukla, and Michael Tomas (2000), “Mutual fund

- objective misclassification,” *Journal of Economics and Business* 52(4), 309–323; Jin, Xue-jun, and Xia-Ian Yang (2004), “Empirical study on mutual fund objective classification,” *Journal of Zhejiang University Science* 5(5), 533–538.
16. Bogle, John C. (2005), “The mutual fund industry 60 years later: For better or worse” in “Bold thinking on investment management,” *The Financial Analysts Journal 60th Anniversary Anthology*, CFA Institute, 37–49.
 17. Inderst, Georg (2009), “Pension fund investment in infrastructure,” OECD Working Paper on Insurance and Private Pensions, No. 32.