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The Mutual Funds Paradox

Higher cost – lower return: mutual fund paradox

When choosing a product from a pool of similar investment products, a higher price or cost usually means better quality, since nobody wants to pay a higher price for a lower-quality product. However, there are products that prove to be an exception to this rule. With these products, the rule is: the more expensive, the lower the quality. You may think it is absurd. But they do exist! They are mutual fund products. When it comes to mutual funds, an inverse proportion between costs and returns exists: the higher the cost (fees), the lower the return.

In his book "The Battle for the Soul of Capitalism" John C. Bogle discusses the development of the mutual fund industry and presents research, data and trends that some people find surprising. Mr. Bogle describes one study conducted by Morningstar, a research company that rates the performance of mutual funds and variable annuities. This is a study of the total costs and net and gross returns of 942 diversified and managed funds in comparison with unmanaged low-cost funds for a period of 10 years ending in February 2005 (Table 1).
The total average costs for this select group of diversified funds came to 1.9 percent per year with the average gross return of 12.5 percent. The highest-cost quartile of funds that charged 3.0 percent to investors, all expenses included, delivered a 12.0 percent gross annual return, while the lowest-cost quartile of funds that charged only 0.9 percent, delivered a 12.6% gross annual return. As a result, the net annual return of the lowest-cost funds is 11.7 percent, which is 2.7 percentage points higher than that of the highest-cost funds, which is 9.0 percent. The compounding effect makes a significant difference in returns between these two kinds of funds in the long run. If you invest $10,000 in the lowest-cost funds at the net return of 11.7 percent, you will get $91,424 in 20 years while you will only get $56,044 from the higher-cost funds at the net return of 9.0 percent. In addition, the highest-cost funds assume the highest risks amounting to 34 percent higher (as measured by standard deviation of returns) than the risk carried by lower-cost funds.

Table 1. Equity mutual funds - returns vs. costs. Annual returns for 10 years ended Feb. 28, 2005.

Cost quartile	Gross Return	Costs	Net Return	Risk	Risk-adj. return	Growth of $1.
One – lowest	12.60%	0.90%	11.70%	16.00%	11.90%	$2.07
Two	12.50	1.50	11.00	17.00	10.90	1.81
Three	12.80	2.00	10.80	18.50	10.10	1.63
Four – highest	12.00	3.00	9.00	21.40	8.10	1.18
Average Fund	**12.50%**	**1.90%**	**10.60%**	**18.20%**	**9.10%**	**$1.66**
Lowest vs. highest	+ 0.6%	- 2.1%	+ 2.7%	- 5.4%	+3.8%	$0.89
Low-cost enhancement	+ 5%	- 70%	+ 30%	- 25%	+ 47%	+75%

Source: John C. Bogle, *The Battle for the Soul of Capitalism* New Haven: Yale University Press, 2005, 160-2.

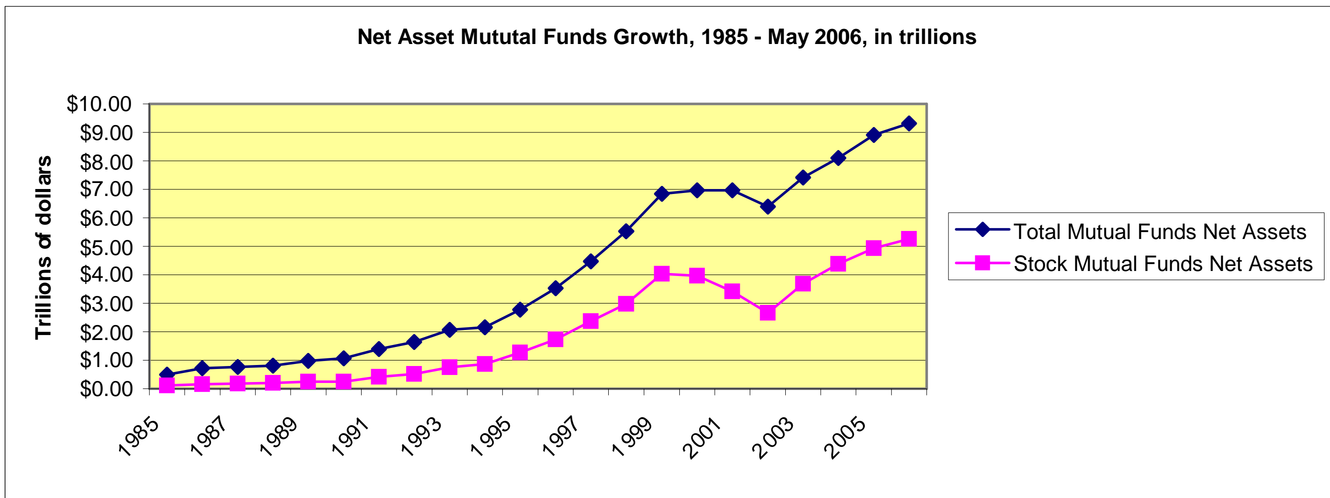
These facts demonstrate that many investors are wasting their money through irrational choice of mutual funds, rewarding the mutual funds' salespeople for their sales efforts. However, the salespeople are motivated by the margin they earn, not by the return of funds, and higher fees provide higher margin for the salespeople. Will such an irrational choice of mutual funds by investors last forever? It may last because the salespeople continue to work hard to 'attract' investors' money to their higher-cost funds. However, there are some signs that investors are becoming smarter over the years. Before looking at the latest trend of investors' choices, let us look back briefly at the amazing development of mutual funds, especially in the last quarter century.

Mutual fund industry has developed amazingly since the 1980s

In March of 1924, the first official mutual fund, the Massachusetts Investors Trust was born. After one year, it grew from $50,000 to $392,000 in assets with around 200 shareholders. The stock market crash of 1929 hindered the growth of mutual funds. But with renewed confidence in the stock market, mutual funds began to blossom and have been growing consistently after the World War II.

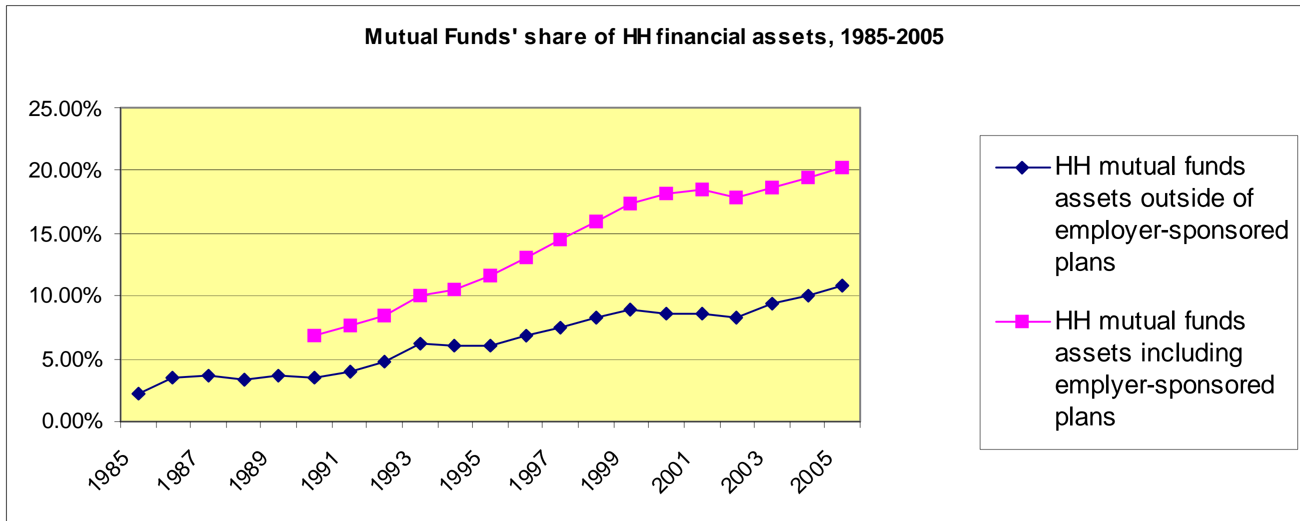
The truly amazing growth of mutual funds began in the 1980s (See Graph 1). The rapid growth of mutual funds is one of the most significant changes caused by the financial liberalization in the late 1970s. By 1985 there were 1,527 mutual funds in the U.S., amounting to almost half a trillion dollars. Today, there are more than 8,000 mutual funds worth close to $9.5 trillion. Attracted by the higher returns than that of bonds, as well as a wide array of choices, Americans has invested substantial sums in mutual funds in the last 2 decades. This change itself is very rational and productive as investors can expect higher returns in stock investment than in bond investment in a long run as long as they hold a well-diversified stock portfolio. In addition, mutual funds are an ideal investment tool for small and medium size investors, which allow them to hold a well-diversified portfolio.

Graph 1.



Source: Federal Reserve Board, http://www.federalreserve.gov/releases/z1/Current/data.htm

Graph 2.



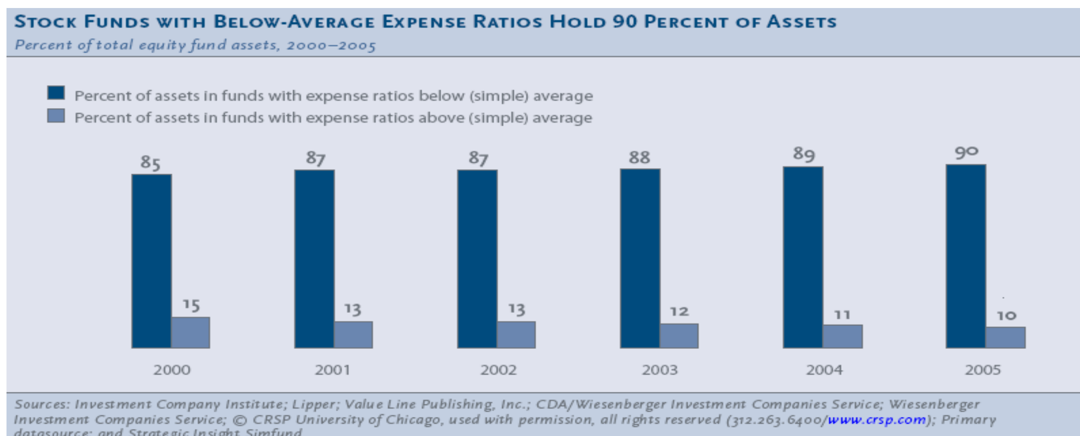
Sources: Investment Company Institute http://www.ici.org/factbook/index.html and Federal Reserve Board, http://www.federalreserve.gov/releases/z1/Current/data.htm

91 million investors and 47.5 percent of the U.S. households held mutual fund shares in 2005, compared to10.5 million individual investors and 5.7 percent of U.S. households in 1985. Americans have been allocating higher and higher share of their assets in mutual funds. In 2005 the mutual funds held by American households represented almost 11 percent of their financial assets, compared to 2.1 percent in 1985. If these mutual funds of households include funds held through employer-sponsored retirement plans, bank personal trusts, and variable annuities, the proportion of mutual funds in U.S. households doubles to 20 percent of their financial assets (Graph 2).

Investors are becoming more cost-conscious

With resilience and regained confidence, Americans are once again investing heavily in the stock market after the burst of dot-com bubble in 2000-01. The net asset value of the mutual funds increased to $9.48 trillion at the end of 2005 from $8.0 trillion in the previous year. What is interesting is that there seem to be some remarkable changes in investors' choices in recent years. Investors are becoming more cost-conscious. Why? They might have learned some lessons in the burst of the dot-com bubble in 2000-01. Or it may be a result of the educational movements by some experts in this field, who have been advocating for the lower-cost index funds rather than the higher-cost managed funds. Actually, the share of new investments in stock funds with below-average expense ratios has been increasing gradually and steadily (Graph 3). Additionally, the continued investor migration to lower-cost funds has been further lowering the operating expenses of these funds.

Graph 3.

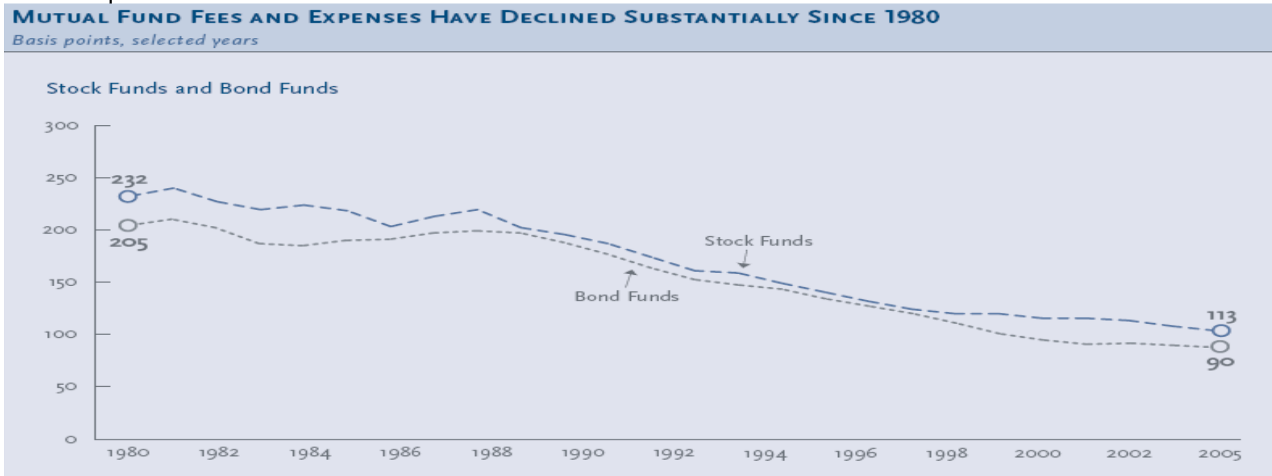


Source: Investment Company Institute http://www.ici.org/factbook/index.html

Asset growth of mutual funds decreases costs to a 25-year low

The trend of decreasing cost (expense ratio to asset) is also accelerated by the growth of the asset scale. According to an annual report by the Investment Company Institute, the average fees and expenses that investors paid for mutual funds fell in 2005 to their lowest levels in the last quarter century. Since 1980 the fees and expenses of stock and bond funds have declined by over 50 percent (Graph 4). Mutual funds' expense ratios are asset-weighted: the larger the fund asset value, the smaller the expense ratio. Therefore, the decline of the expense ratio is a result of the growth of the net asset scale of funds.

Graph 4.



Source: Investment Company Institute http://www.ici.org/factbook/index.html

Growing popularity of no-load funds

Another recent trend is the growing popularity of "no-load funds." No-load fund investors pay only the ratio expenses for ongoing fund operating, administration and shareholder service costs, while load-fund investors have to pay fees for the ongoing services through front- or back-end loads (one-time sales fees) and 12b-1 fees (distribution charges). As a rule, investors pay fund managers for their work to pick better-performing securities and to try to beat other funds and the market. Simply, no-load funds come bundled with financial planning and advice to reduce these cost.

Trend towards index funds

A typical managed fund investing in stocks has an annual expense ratio of about 1.3 percent of each investor's balance. The lowest-cost index funds, on the other hand, charge 0.2 percent or less annually. The difference in annual fees can make a big difference in returns over time. Index funds can reduce the cost because they do not have to pay the additional cost to fund managers to select better-performing securities. Let's take two funds of identical portfolios returning the same average of 10 percent a year before fees. After 20 years, an investor who invests $10,000 in a fund with the 1.3 percent expense ratio accumulates $53,038, while an investor choosing the 0.2 percent fund has $64,870. Because of the compound effect, the difference will be big in the long run. Managed funds, in addition to having higher fees, do not provide the higher-than-the-market returns that we expect. As we already saw, we cannot expect better returns of funds even though we pay additional cost to fund managers to select better-performing securities. Then, it makes sense to choose index funds, like S&P500 which we can expect the same return as the whole market with less fees. It is a very natural result that the index funds have attracted more American investors in recent years.

The first retail index fund was opened by John C. Bogle in 1976, and it was called the First Index Investment Trust. It is now called the Vanguard 500 Index Fund, and it became the largest mutual fund ever with $100 billion in assets in November 2000. There are hundreds of index funds nowadays, as investment banks has

increasingly creative in designing funds to outdo competitors. Historically, index funds have served as a benchmark to managed funds, which are said to never beat the index funds. For this reason, index funds have become the favorite form of investment for average American investors. An index fund represents the entire stock market, particular sectors or investing styles (e.g. small cap index funds, emerging markets index funds). Still, the S&P 500 Index fund alone remains the basis and the most popular index, with $1.26 trillion directly tied to it and another $4 trillion in actively managed funds comparing themselves with it to measure how well they are doing. Today, S&P 500 and funds tied to it represent over 50 percent of the total mutual fund industry in America.

More cost-conscious investors, more competition and more pressure for cutting cost are among latest trends in the mutual funds industry, which means a tougher time is ahead for providers of mutual funds. In fact, some big financial institutions are withdrawing from mutual fund management services, and instead choose to specialize in funds sales services. This is a very natural consequence, as the mutual funds market has grown very large and has already reached maturity.

End

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【日本語要約】
米国ミューチュアル・ファンドのパラドックス

通常、私達は商品を選ぶ時に、高い質の商品を購入するためには高い価格を払う必要があることを知っている。 低い質の商品により高い価格を払うのは馬鹿げたことだ。ところが、質の低い商品ほど高い価格（コスト）がついている非合理な商品がひとつある。ミューチュアル・ファンド（日本では投資信託と呼ばれる）である。ミューチュアル・ファンドの場合は、むしろコスト（手数料）と質（リターン）は逆の関係にあり、コストが高ければ高いほど質（リターン）は低い。

バンガード・グループ創始者のJohn C. Bogle氏は、著書"The Battle for the Soul of Capitalism"の中で、ミューチュアル・ファンドのパフォーマンスと手数料についてモーニングスターが行った調査結果を紹介している。同調査は、高コスト"managed funds"と低コストの "unmanaged funds" (index funds)をコスト別に4分位に分け、過去10年間の総コストと投資リターンを比較したものである。調査結果によると、コストが最高のグループ（第1分位）は平均して総コストが投資金額の3.0％、年間リターンは12.0％であった。一方、コスト最低グループ（第4分位）は平均総コストは投資金額の0.9％、リターンは12.6％であった。この結果、コストを差し引いた実質リターンは第1分位が9％、第4分位が11.7％であったことになる。実質利回り2.7％の差は長期では複利効果により、大きな実質リターンの差を生み出す。低コストファンドに10,000ドル投資した場合は、20年後に91,424ドル（税引き前）得られる。一方高コストファンドを選べば、56,044ドルに過ぎない。.また投資リスク（＝価格変動率）の点においても、高コストファンドはインデックス化された低コストファンドに比べて34％もリスクが高い。

この事実は、投資家はファンドに関する非合理的な選択で自らの金を無駄にしていることを意味する。ファンドの営業マンの視点から見ると、彼らの「営業努力の成功」とも言えるだろう。手数料の厚いファンドは販売手数料収益も厚い。営業マンは、ファンドの実質利回りの高低ではなく、彼らが受け取れる販売手数料収益に動機付けられているのである。 こうした投資家の非合理な選択は永続するだろうか？ この点で変化の兆しが近年見られる。それを語る前に、これまでのミューチュアル・ファンドの発展を概観しておこう。

1980年以降のミューチュアル・ファンド業界の発展

1980年代以降のミューチュアル・ファンドの目覚しい発展は、70年代後半以降の米国の金融自由化の中で最も劇的な変化のひとつである。今日、米国には8000ものミューチュアル・ファンドが存在し、その資産は9.5兆ドル（1090兆円）近くに上る。1985年には米国の家計の5.7％がミューチュアル・ファンド投資を行い、金融資産の2.1％を占めていたに過ぎなかった。ところが、2005年には米国の家計の47.5%（9100万人）が金融資産の11％をミューチュアル・ファンドに投資している。退職年金などを通じての間接投資を加えると、米国の家計は金融資産の20％をミューチュアル・ファンドに投資している。

こうした変化自体は合理的なものである。十分にリスク分散された株式ポートフォリオの長期的な投資リターンは債券投資のリターンを上回る。投資資金が中小規模の個人投資家にとって、ミューチュアル・ファンドはリスク分散された株式投資を可能にする適切な投資手段であるからだ。

コストに敏感になりつつある投資家

近年の注目すべき変化は、投資家が次第にファンドの手数料コストに敏感になりつつあることだ。これは、2000-01年のハイテクバブル崩壊で投資家が教訓を学んだ結果かもしれない。あるいは、実質リターンの低い高コストファンドへの投資をやめて、手数料の低くかつ実質リターンの高いインデックスファンドなどを選ぶべきであるという積極的な主張を展開しているオピニオン・リーダーらの見解が投資家に浸透しつつある結果かもしれない。いずれにしても近年、低手数料のファンドが着実に増加しつつある。

近年、投資家の間では資産を高コストの"managed funds"よりも低コストの"index funds"(以下、インデックスファンド)を選ぶ傾向が続いており、ファンドの運営費用を押し下げている。またミューチュアル・ファンドの資産規模が近年拡大した結果、規模の利益が働き、資産規模に対する費用比率は大幅に低下した。ミューチュアル・ファンドの平均費用比率(対純資産)は2005年に、過去25年で最低レベルに達した。

高まるインデックス・ファンドの人気

ファンド・マネジャーが株式の銘柄を選定する"managed funds"は通常、年間1.3%ほどのコストがかかるが、S&P 500などの平均株価指数と同様の銘柄構成をとるインデックスファンドは年間0.2%かそれ以下のコストしかかからない。既に冒頭で見た通り、投資銘柄を選定するファンドマネジャーらを雇うために追加的なコストを払っても、それで運用成績は長期的には向上しない(むしろ下がった)のであるから、高いコストを払うよりも、市場平均のリターンが期待でき、かつ手数料僅少なインデックスファンドを選ぶのは合理的な選択だ。近年インデックスファンドが多くの資産を集めているのは当然の結果である。 現在インデックス・ファンドとして最も人気のあるのがS&P 500のインデックスファンドの資産規模は1.26兆ドルに及び、さらにこれと比較しながら運営管理されているファンドの資産は4兆ドルに達し、ミューチュアル・ファンド資産の約50%以上を占める。

ミューチュアル・ファンド市場におけるこうした近年の傾向、つまり次第にコストに敏感になる投資家、競争の激化、コスト削減のプレッシャーなどはファンドの提供・運用会社にとっては、より厳しい環境を意味している。実際、近年の競争激化による収益率の低下から、ミューチュアル・ファンド運用サービスから撤退し、販売に特化する大手金融機関も出ている。これは巨大に成長し、成熟期に達したミューチュアル・ファンド業界にとって、むしろ自然の成り行きであろう。

以上