



Investor Timing and Fund Distribution Channels

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A recent research study, [Investor Timing and Fund Distribution Channels](#), was widely reported in the media. The study purported to show that investors, when they purchase mutual funds through investment professionals (primarily brokerage channels), suffer inferior returns as compared to a "buy and hold" strategy. In other words, market timing decisions resulted in poor performance, specifically among mutual funds bought and sold through brokerage channels. The research was conducted by three professors (Mercer Bullard, Geoff Friesen, and Travis Sapp) and was funded by the Zero Alpha Group (a consortium of independent investment advisors that share a common investment philosophy based on passive management). It is a follow-up to a study conducted by Friesen and Sapp (*Journal of Banking & Finance* 2007), which also studied the timing performance of mutual fund investors.

We reviewed the study and spoke with one of the authors, Geoff Friesen. Below is a summary of the research methodology and the significant findings of the study. We also provide our own analysis of the research.

Background

The concept that mutual fund investors suffer from bad market timing decisions is not new. Research in this area, dating back to 1995, shares a common approach – comparing time-weighted returns to time-and-dollar weighted returns to determine a "performance gap." Time-weighted returns represent the rate of return on a single investment held throughout the time period, without any contributions (share purchases) or withdrawals (shares sold). This is the rate of return reported by mutual fund companies, and is a valid yardstick when comparing funds against one another. The time-and-dollar weighted return incorporates the effect of contributions and withdrawals by investors over the time period in question, and reflects the actual return experienced by investors over the time period. The difference between the time-weighted and time-and-dollar weighted return is the performance gap; a positive performance gap (when the time-weighted return exceeds the time-and-dollar weighted return) indicates investors are suffering from poor timing decisions.

Studies of performance gaps, including the current study, use "NAV" data on fund flows to compute the time- and time-and-dollar weighted returns. This return data reflects the impact of fund expenses, but does not deduct sales loads. This does not adversely impact the validity of the findings. Even if sales



loads were reflected in the fund flows, the performance gaps would be unaffected, since it is a relative measure between the time-weighted and dollar-weighted returns.

Friesen and his coauthors used mutual fund data from 1991-2004 and used the CRSP (Center for Research in Security Prices, University of Chicago) mutual fund database, which is free of survivorship bias.

Another recent study by Oded Braverman, Shmuel Kandel¹ and Avi Wohl, [Aggregate Mutual Fund Flows and Subsequent Market Returns](#), examined the performance gap across the entire mutual fund industry. This study showed a performance gap of approximately 1% annually among all mutual fund investors. This study went on to show that mutual fund investors, in the process of chasing returns, affect the prices of the funds (e.g., more buying has a 'price impact' of increasing the fund share price), and that this price impact is subsequently reversed over time. Friesen and his coauthors expand upon this study by looking at performance gaps at a more granular level, specifically by share class and by active versus passive (index) strategies. Friesen and Sapp (2007. J. of Banking & Finance) also looked at this issue at the individual fund level.

Performance Gap by Share Class

Performance gaps of 1.82% and 1.91% were found for load funds and legal no-load funds, respectively. The performance gap for load funds supports the hypothesis that funds bought through intermediaries suffer from poor timing, but the gap for legal no-load funds contradicts this hypothesis, since these funds are purchased primarily through discount brokers or through defined contribution plans. The worst performance gap showed up among B shares (those with a "back end" load); this was 2.28% annually. Investors in pure no-load funds experienced a performance gap of 0.78%, which the authors term "an economically and statistically significant difference."

The table below summarizes the results:

Fund Category	Performance Gap
Class A	1.62%
Class B	2.28%
Class C	1.33%
All Load Funds	1.82%
Legal No-Load	1.91%
Pure No-Load	0.78%
All No-Load	0.98%



The study uses the fund share class to segregate mutual funds that are bought and sold through investment professionals. If you assume that A, B, and C share classes are primarily transacted through non-discount brokerage firms, whereas no-load and legal no-load funds (as defined below) are purchased through discount brokerage firms or via fee-only investment advisors, then the implication is that investors utilizing non-discount brokerage firms suffer from poor timing decisions. Whether poor timing is the result of bad decisions by brokers or by investors cannot be determined.

Funds were identified based on the following:

- Class A shares include any share class with a front-end load.
- Class B shares include any share class with a deferred sales load in excess of 1%.
- Class C shares include any share class with either deferred sales load of 1% or less, or a 12b-1 fee in excess of 0.25%.
- Legal no-load funds have no loads and charge 12b-1 fees greater than 0% but not in excess of 0.25%.
- Pure no-load funds have no loads and no 12b-1 fees.

Performance Gap in Active versus Passive Strategies

When comparing actively managed funds to passive (index) funds, the authors found a significant difference in performance gaps: 1.70% for active funds versus 0.47% for index funds. The only category where there was a negative performance gap (indicating that investors were improving performance through market timing) was for Index No-Load Funds, with a gap of -0.42%

The results for active versus index funds are presented in the table below:

Fund Category	Performance Gap
All Active Funds	1.70%
All Index Funds	0.47%
Active Load Funds	1.86%
Index Load Funds	1.12%
Active No-load Funds	1.14%
Index No-load Funds	-0.42%

Main Conclusions

The authors cite three primary conclusions:



- Investors utilizing pure no-load funds incur less performance loss due to market timing, as compared to investors utilizing intermediaries. This is true for both actively and passively managed portfolios
- Class B investors suffer the worst timing losses.
- As a warning to investors that attempt market timing, the author's advice is "active investing leads to underperformance relative to a passive dollar invested in the fund. In addition, the use of an investment professional to trade shares is correlated with even worse investment timing performance."

Friesen added that "the thing that stands out most is the negative performance gap for index no-load funds." He admits to using an active strategy in some of his own investing, but is confident that index funds are "the best place to be despite their lack of glamour." "The smart money is finding its way to index funds, and this is the most noteworthy result," added Friesen. Friesen notes that investors can still attempt to time their index fund investments and suffer the consequences, but the data shows that index funds are not attracting poor market timers. "As investors, we need to be collectively cautious, take as much emotion out as possible, and automate the process as much as possible," says Friesen.

Our Analysis

The study provides illustrative data about the market timing decisions of investors. Combined with the results of the study by Braverman, Kandel, and Wohl, the study leaves little doubt that fund investors, as a whole, lose value through market timing.

The study provides far less persuasive evidence that poor market timing correlates either with funds transacted through non-discount brokerage firms or with active management strategies. Our analysis below cites three important caveats to the study, which support our skepticism.

We do not fault the methodology of the study, nor do we see any reason to suspect the results are biased because of the financial support they received from the Zero Alpha Group, who advocates passive management.

Our first caveat concerns the conclusions based on the performance gaps of B shares. B shares have fallen into regulatory disfavor. As a result, there has been a steady exodus by investors from B shares over the last five years. The



data below, obtained from the Investment Company Institute (a trade organization for the mutual fund industry) illustrates this pattern:

**Net New Cash Flow to Long-Term Funds by Load Structure
(billions of dollars, 2000–2006)**

	2000	2001	2002	2003	2004	2005	2006
All Long-Term Funds	\$229	\$129	\$121	\$216	\$210	\$192	\$227
Load	70	47	20	48	44	29	37
Front Load	18	22	13	33	49	47	51
Back-End Load	25	0	-18	-19	-39	-48	-49
Level Load	29	23	23	27	21	19	22
Other Load	-1	2	2	8	13	11	12
No-Load	108	70	102	126	130	145	166
Retail	80	37	53	84	94	78	81
Institutional	28	33	49	42	35	67	85
Variable Annuities	51	13	-2	42	36	18	24

The study covers the period from 1991-2004, so the data in this table from 2005 and 2006 have no impact. The current bull market began in early 2003. Outflows immediately prior to this, or at the very beginning of the bull market will have the greatest impact on the performance gap, and the data shows negative flows in both 2002 and 2003. So, a plausible explanation for the performance gap in B shares is that investors are exiting due to regulatory disfavor, rather than due to proactively poor timing decisions. We asked Friesen about this. He correctly pointed out that, at some level, it does not matter, noting that “the reason for pulling money out does not affect the consequences of the actions.” To fully study this question, the analysis would need to be conducted over a time period ending in 2001 or 2002, prior to when B shares lost popularity. In any case, we believe the results for B shares should be taken with caution.

If we disregard the results for B shares, then the question becomes whether the study’s findings for A and C shares are strong enough to justify the conclusions. A and C shares had performance gaps of 1.62% and 1.33%, respectively, less than that of legal no-load funds (1.91%). If the A and C shares represent the investments influenced by brokerage firms, then these investments are better timed than those in legal no-load funds. Pure no-load funds have a performance gap of .78%. If legal no-load funds are distinguishable from pure no-load funds only by a small 12b-1 fee (averaging .12%), then the difference in their performance gaps seems curious and unusual.

Our second caveat concerns the effect of cash flows from defined contribution (DC) plans. These plans utilize primarily no-load funds, although some may



utilize load-waived A shares. Flows from DC plans follow a regular pattern and are “timing neutral.” A fund consisting entirely of DC plans would exhibit a performance gap of close to zero, assuming investors are not trying to actively time the funds by switching money between funds once it is invested. DC plan flows have the effect of dampening the observed performance gap in the share classes where they are present. To the extent that DC flows are primarily in legal no-load and pure no-load share classes, then the performance gap for non-DC flows in these share classes is higher than what is reported in the study. This would weaken the study’s conclusions with respect to timing ability of funds transacted through brokerage firms. To study this question, the analysis would need to segregate DC from non-DC flows, and would need to quantify the amount of DC flows from no-load share classes and fee-waived A shares.

Our third caveat concerns the conclusions related to active versus passive strategies. When investors switch funds, they do so in expectation of higher total returns within some new funds as opposed to the funds they hold. Even in very aggressively managed funds, the majority of total return arises from the market return in the type of securities in which the fund participates. As such, the fund switch decision is predominantly a market timing decision, rather than a switch to a "hot hands" active manager. The ineffectiveness of retail investors in making market timing decisions has little to do with whether the funds involved are passive or actively managed in theory. Passive index funds tend to be less volatile as they are more diversified, so bad timing choices are less costly, but this is an effect of volatility not the passive nature of the management process. A passive index fund of the biotech sector would still be more volatile than typical actively managed funds.

We asked Friesen whether the observed performance gap between active and index funds was more a result of volatility than of active management. Prior studies have shown that higher volatility correlates with a higher performance gap. But volatility on its own does not cause a performance gap. Friesen believes investors attempting market timing are drawn to more volatile funds, because volatility amplifies their degree of success if they are right. To fully study the question of whether poor timing comes from active management, or from higher volatility, Friesen suggested looking within the active funds, and comparing the performance gaps between low and high volatility funds.

These three caveats do not necessarily refute any of the findings of the study, but rather suggest areas where further research is justified. The research does not suggest that A, B, or C share classes are inherently bad, just that investors in these share classes exhibit poor timing. Investors (and advisors) should ask themselves whether they are being advised (or advising) to pursue a market timing strategy. As with many studies, the data represents an average – some investors and financial professionals may be skillful at market timing, while some



are not. If you believe market timing can add value, the challenge is finding the ways to make good timing decisions. The evidence is clearly that the odds are against you. With respect to the question of whether poor timing decisions correlate with either the use of brokerage channels or with active funds, more research is warranted.

Notes:

1. Shmuel Kandel , the former Dean of the Faculty of Management of Tel Aviv University passed away in January 2007 after a brief struggle with cancer. This article is dedicated to his memory.

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