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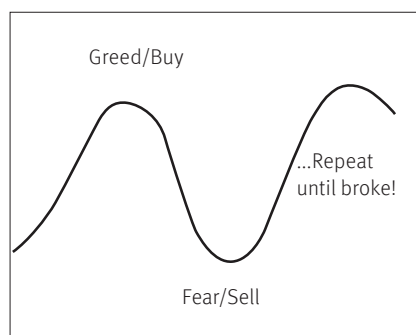
Bridging the gap: Why the Investor Gap exists and how to close it

Aaron Hanson, CFA

Senior Analyst

aaron.hanson@rbc.com

Whether intentional or not, human emotions play a large part in investment decision-making. In fact, the relatively new field of Behavioral Finance was developed to make sense of why investors make the decisions they do. Investor behavior is imperative to one's long-term performance experience. As stated in the 2015 Dalbar QAIB study, "investor behavior is not simply buying and selling at the wrong time, it is the psychological traps, triggers, and misconceptions that cause investors to act irrationally." As humans, we are hard-wired in a way that actually makes successful long-term investing quite challenging. The herd instinct takes over. We prefer to avoid pain and seek out security. Investing where others are not can be an uncomfortable and lonely place. Most investors have heard Warren Buffet's famous quote: "Be fearful when others are greedy. Be greedy when others are fearful." Very few investors follow it. In this Analyst Perspectives we will discuss the "Investor Gap," why this gap exists, some observations of the Investor Gap amongst various asset classes, and how investors can potentially narrow or close the Investor Gap.



What is the Investor Gap and what does it tell us?

What has been referred to as the "Investor Gap" (also called the behavior gap) is the difference between a stated investment return and the actual investor-experienced return. The investment return (also called time-weighted return) is straightforward; it is the total return over a specific time without the effect of cash flows. Essentially, you can think of this as a buy-and-hold return with any distributions reinvested. Let's say mutual fund A has a ten-year annualized return of 8.5%. As an investor, you would have only achieved this stated 8.5% return if you have invested ten years ago and then did absolutely nothing with your investment. The investment return is typically the trailing returns you will see published in investment databases like Morningstar or Lipper, and on

Global Manager Research Team

Jessica Beinlich

Associate

Cedric Buermann, CFA

Analyst

Aaron Hanson, CFA,

Senior Analyst

Rebecca Kamsin, CFA

Analyst

Chris Koppelman, CFA, CAIA

Senior Analyst

John MacIsaac, CFA

Senior Analyst

Chris May, CFA

Analyst

Kent McClanahan, CFA

Analyst

Kevin McDevitt, CFA, CAIA

Manager

Mark Steffen, CFA

Senior Analyst

Alex Zachman

Associate

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marketing materials such as mutual fund fact sheets. Sadly, it is common that investors don't actually match the investment return.

Firms such as Morningstar have started to calculate what is called "Investor Return" in an effort to better measure how investors have actually fared over time. The investor return, also called dollar-weighted return, take the impact of cash inflows and outflows, and the growth of fund assets into account. This can also be thought of as an Internal Rate of Return "IRR". It is a measurement of how well the average investor fared in a fund. As a very simple example, let's say a fund had a one-year return of 15%, but the bulk of that return came within the 1st quarter. Well, investors who may have invested in the fund after that 1st quarter would miss out on most of the annual return, and hence, the investor return would be much lower.

So put it all together, and the Investor Gap is the difference between investment return and investor return. In essence, the Investor Gap can help us get a sense of the average investor's performance experience for both whole categories, for example international equity funds, and also for individual, specific funds. In particular, it helps to illustrate the buying and selling decisions of the average investor and how effectively they are utilizing a particular investment strategy or asset class.

The Investor Gap: We are our own worst enemy

There are a variety of reasons that we see the Investor Gap in mutual funds, but primarily, it can be attributed to investor behavior. Specifically, investors' timing of their investments whether it is at the asset class level or within investment styles. Investors tend to move in and out of funds at the wrong time, to the detriment of long-term results. Impatience with short-term trailing performance, recency bias (i.e., thinking the foreseeable future will be like the

recent past), and chasing strong recent performance or certain asset classes, sectors, regions or countries are all reasons why the Investor Gap exists. It is all too common for investors to invest in trendy strategies, chase hot themes, or invest in what has been producing incredible results at what turns out to be the wrong time.

Studies done by Dalbar and Morningstar have shown that the average investor has tended to lag actual fund returns across a variety of asset classes. As stated in the 2015 DALBAR QAIB Study, "Investment results are more dependent on investor behavior than on fund performance. Mutual fund investors who hold on to their investments have been more successful than those who try to time the market." The study found that as of 2014, the 20-year annualized S&P return was 9.85%, while the 20-year annualized return for the average equity mutual fund investor was only 5.19%.¹

Morningstar's look at Investor Gaps through 2014 provided some data (shown in the table) behind their findings with some interesting takeaways.² More volatile funds (as measured by Standard Deviation) produced significantly lower Investor Returns than less volatile funds and tended to have bigger Investor Gaps. In fact, the lower volatile funds (Risk Quartile 1) actually had a positive Investor Gap. Given what we know about investor performance-chasing tendencies, the Investor Gap with volatile funds makes sense. Often these more volatile funds have large, outsized short-term gains because they are taking bigger risks. The big gains attract investment in the fund, and when performance subsequently drops off, investors react unfavorably and end up selling. This greed and fear cycle leads to poor decisions, which translates into lower returns for investors.

Risk Quartile	10-year Investor Return	Ave. 10-year Total Return	10-year Investor Gap
1	6.56%	5.30%	1.26%
2	5.88%	5.91%	-0.04%
3	5.63%	5.95%	-0.32%
4	4.53%	5.84%	-1.32%

Kinzel, Morningstar FundInvestor 2015

Another takeaway from Morningstar's work on the Investor Gap is that many niche funds; such as sector-specific funds or regional stock funds tend to have the poorest Investor Gap returns. This is not altogether surprising. Investors often pile into hot industries or try to make macroeconomic calls which leads to timing investments into these type of funds.

The record for monthly net inflows into equity mutual funds before January 2000 was \$29 billion, and the average was about \$15 billion. But in January 2000, inflows into equity mutual funds were \$46 billion, followed by \$54 billion in February, and \$39 billion in March.³ The then-peak for the NASDAQ was reached in March 2000. Remember how popular technology funds were leading up to 2000? In 1999-2000, over 120 new technology funds were launched. In the years following the tech bubble, over 100 funds were shut down or merged away.⁴ Today, a quick screen in Morningstar yields 52 distinct funds categorized as Technology. Anyone remember BRIC funds? Those funds were the flavor du jour in the mid-2000s when emerging markets were booming. Today there is one BRIC fund available to U.S. investors. Regionally, investors often make country calls with funds focused on Japan, Europe, Asia-Pacific, or even places like India. As the Investor Gap on the regional stock fund categories show, these timing attempts often do not work out as hoped.

Why hot funds spell big losses

Technology Year	Total Return (%)	Yearly Wealth Creation/ Destruction	# of New Funds	# of Liquidated Funds
1999	129.22	\$40.5B	41	2
2000	-31.36	-\$49.7	85	3
2001	-36.89	-\$34.4	13	29
2002	-43.86	-\$23.4	1	30
2003	55.77	\$14.5	1	18
2004	4.24	\$0.7	1	10
2005	5.76	\$1.8	1	8
2006	7.08	\$2.3	1	7
2007	16.12	\$4.4	0	8
2008	-45.33	-\$12.3	1	14
10 year overall	-3.82	-\$55.50		

Kinnel, Morningstar FundInvestor 2009

Finally, there is also evidence that big pivot years in markets tend to lead to the worst timing by investors. This works in two ways; chasing a bull market that is near its end, and selling in bear markets that trough out and become new bull markets. Investors tend to make emotionally-driven decisions at precisely the wrong times in these inflection point environments, hence investor returns tend to easily trail investment returns for periods that encompass these market extremes. Again, think of the tech bubble that peaked in March 2000. Prior to the bubble peak, investors were in a frenzy to be involved with anything related to technology. Investors flooded into growth-oriented strategies that invested heavily in technology stocks. With the bubble bursting, investors flowed out of those products in 2001-2002 just as fast as they entered in 1999-2000. Bear markets and the ensuing snapback are also poor for investor returns as investors often make emotional, fear-based decisions in bear markets. Consider the market environment coming out of the 2007-2008 Financial Crisis. Equity markets were down sharply in 2008. March 2009 turned out to be the bottom for the S&P 500 and the beginning of the most recent six-year bull market in U.S. equities. In the

months leading up to March 2009, outflows from equity funds were at extremely high levels. Most investors wanted nothing to do with equities. However, equity markets rebounded sharply in 2009 as the S&P 500 was up nearly 27% and the MSCI ACWI was up over 35%. Investors who moved to the sidelines away from equities not only incurred a brunt of the losses during the market declines, but also missed out on the rebound as markets moved back in an upward trend.

Investor gap in action

Looking at specific fund level investor return information can help illustrate the poor timing investors often exhibit. One of the top performing funds within the Mid Cap Growth category over the last five years has been the Eventide Gilead fund. The fund has tended to own large slugs of health care and technology stocks, which have been increasingly popular areas of the U.S. markets over the past few years. Although the fund's five-year return puts it in top 3% within the Mid Cap Growth category, the five-year investor return of the fund is actually near the bottom of the category. While the trailing five-year investment return of the fund was 10.77%, the five-year investor return was -11.39%!

If you simplistically look at historical annual performance and corresponding assets under management, it's easy to see why the Investor Gap was so great. Five years ago in early 2011, the fund was a relatively new product with roughly \$15 million in assets. After a solid 18% return in 2012, and an eye-popping 53% return in 2013, the fund was up to \$324 million by year-end. Investors increasingly began to take notice and performance continued to be strong in 2014, up almost 18% for the year. Assets nearly tripled to \$987 million by the end of 2014. 2015 saw the fund assets double in size. Just as assets were really pouring into the fund in early 2015, with over \$800 million net inflows in the first half of the year, performance turned sharply as the fund declined nearly -16% in the 3rd quarter of 2015. So all of those investors who flooded money into the fund in 2014 and 2015 are likely still waiting for outsized returns, or they possibly even sold out of the fund already. With simple math we see that over 80% of the assets in the fund at year-end 2015 did not participate in the outsized 2013 performance. The mediocre or even negative performance experienced by the bulk of the fund's asset base is exactly what creates the 20% five-year Investor Gap for the fund.

So while the fund produced fantastic results over the trailing five years, the average investor not only didn't participate, they likely lost money. Now, we are certainly not trying to single out the Eventide Gilead fund. It is likely a perfectly good investment solution for investors and could be a solid long-term holding, but we highlight this example as it illustrates how, over short and medium-term time periods, performance-chasing can be perilous to investors.

Closing the gap: How do investors get closer to actual investment returns?

As Jason Hsu from Research Affiliates stated; “the investment ecosystem has conspired against the end investor. Oddly, the end investor is leading the conspiracy against himself. The path of least resistance is the path most often taken: buy recent performance.”⁵ But if investors are cognizant that the Investor Gap exists from their actions, what steps and behaviors can be practiced to avoid the pitfalls that create it? While challenging, there are a few behaviors that can help: creating a long-term wealth management plan, being patient, tuning out the noise, avoiding the temptation of market timing, and focusing on other attributes of an investment strategy beyond performance.

Investors are well-served by creating a long-term wealth management plan and sticking to it. Importantly, investors should create a plan that works for them and their own risk tolerances. One needs to carefully consider their core investment beliefs. If you are strategically investing across a diversified group of assets, stay invested in those assets through tough and good market environments. Revisit the wealth management plan during both good and challenging times and make decisions accordingly. Be patient, disciplined, and consistent in applying an investment approach. Often this means regular rebalancing, particularly counter-cyclical rebalancing into recent portfolio laggards and trimming outperformers. If investors cannot handle the inevitable volatile swings that come with investing in certain asset classes, stick to less volatile funds to help dampen the volatility. Having a long-term wealth management plan brings investors back to their initial goals and helps them make clear, rational decisions during times of heightened market volatility.

Patience is also key to successful long-term investing and is certainly part of following a long-term wealth management plan. If you haven’t read it yet, my colleague, Chris May, discussed the virtue of investing with patience in his August 2015 Analyst Perspectives. All investment strategies go through periods of underperformance. With a long-term plan and patience, investors that stick with strategies through periods of underperformance tend to be rewarded in the long-run. Additionally, investors can benefit from tuning out the noise and not trying to time markets. CNBC and other financial media television is great entertainment, but not-so-great for investment guidance. Fretting over weekly and quarterly relative performance often feels important, but it can be helpful to take a step back and look at the bigger, long-term picture. Remember, nearly all investment strategies are out of favor at some point and go through periods of relative underperformance. As the Investor Gap data suggests, market timing is extremely difficult and very challenging to apply consistently over time.

Finally, it is useful for investors to look beyond performance in assessing an investment strategy and also setting performance expectations given a particular investment approach. A focus on evaluating other characteristics that make investment strategies attractive; such as looking at firm structure and culture, the experience, tenure and depth of investment personnel, and the investment approach and its consistent application are all critical to assess. Despite recent underperformance, has the investment team remained stable? Has the team continued to apply the same investment process? Has the firm structure or culture been materially altered over this timeframe?

When a portfolio faces the inevitable periods of underperformance, answering questions about factors beyond performance provides a more holistic picture and instills confidence the strategy can meet performance expectations looking forward. Consistency and stability within these other criteria and the continued assessment of these factors can help give investors reassurance in their initial decision-making and wealth management plan.

Investors often get in their own way when attempting to achieve long-term investment success. We’ve illustrated what the Investor Gap is, why it exists, and some of the type of funds and market environments that are likely to produce wider Investor Gaps. Unfortunately, the Investor Gap is alive and well, but the good news is, it can be closed. Our own behaviors will make the biggest difference in determining if it can be closed. It is important that investors recognize the behavioral traps that create the Investor Gap. Armed with this recognition, they can create a wealth management plan that combats destructive investment behaviors and bridges the gap to better long-term investment returns!

Sources:

¹ Dalbar 2015 Quantitative Analysis of Investor Behavior

² Kinneil: Morningstar FundInvestor (March 2015) "Mind the Gap 2015: Better Results for Investors"

³ Richards: The Behavior Gap (2013). cfapubs.org

⁴ Kinneil: Morningstar FundInvestor (May 2009) "Mind the Gap III: Ten Years of Bad Timing"

⁵ Hsu: Fundamentals (November 2015) "If Factor Returns Are Predictable, Why Is There an Investor Return Gap?"

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