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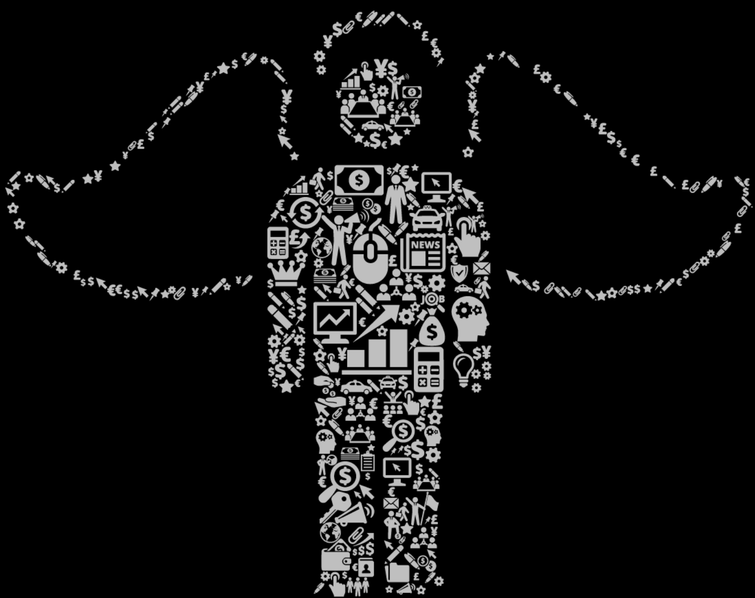

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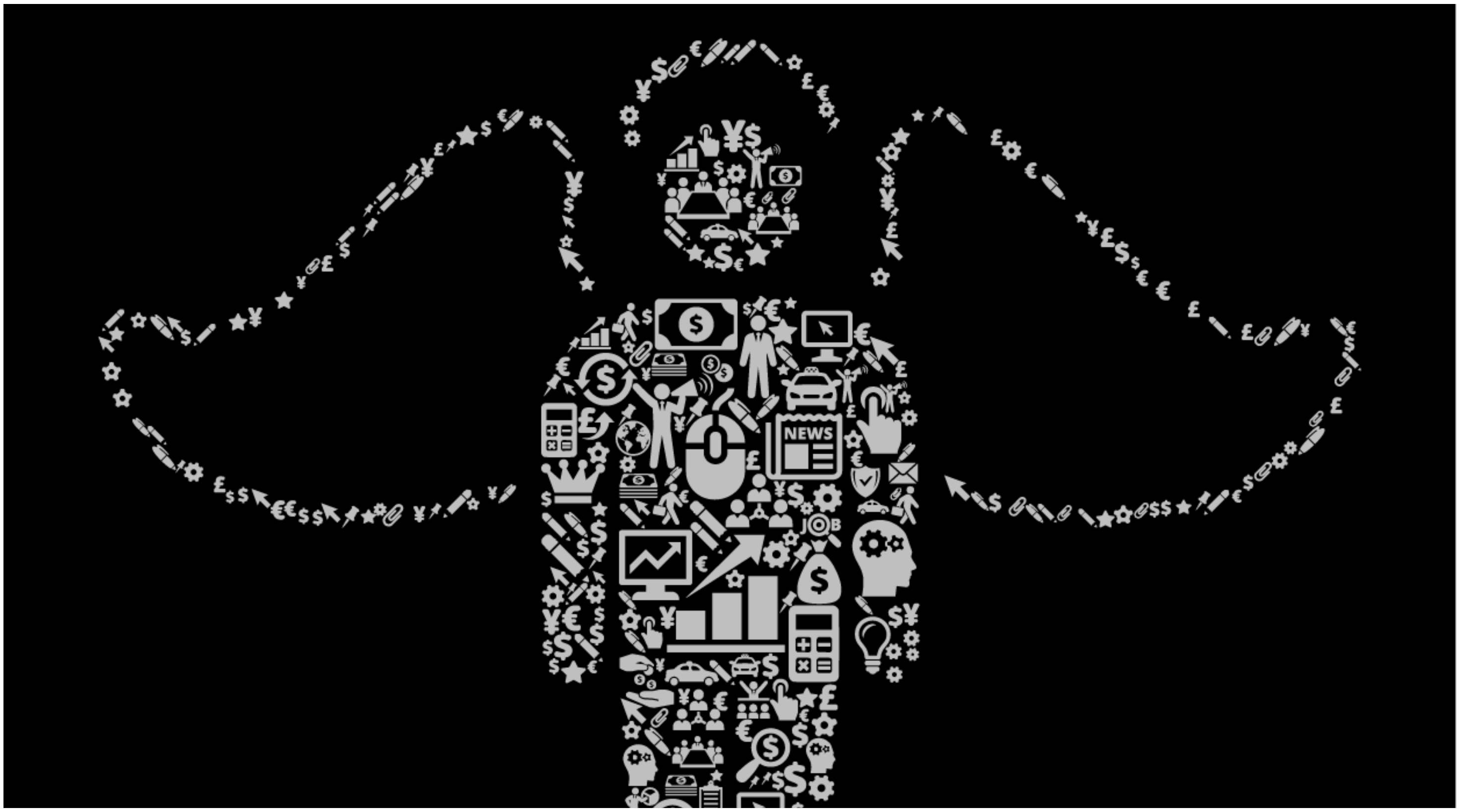

Fallen Angels: The Last Free Lunch

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A defining characteristic of markets is that structural alpha opportunities are arbitraged away over time. What if there was an area where market mechanisms actually bolstered a structural alpha opportunity? We think this would be the last free lunch for investors. Welcome to the world of fallen angels—investment grade credits that have been downgraded to high yield.

Unlike their namesakes that were expelled from heaven, fallen angels, as represented by the Bloomberg Barclays US High Yield Fallen Angel 3% Capped Index, have outperformed major asset classes since the index was introduced in January 2005 (see Exhibit 1). The primary reason for fallen angels' strong performance is that they enter the index at oversold prices. Selling by investment grade managers, both in anticipation of and after a downgrade, distorts prices relative to original-issue high yield bonds. Our research shows that fallen angels enter the index priced 150 basis points cheaper than high yield peers, on average.

While a fallen angel allocation may appear straightforward, there are impediments to successfully capturing the risk premium, resulting in few investment vehicles devoted to the asset class. A narrow universe, high trading costs, and low dealer inventory create significant implementation challenges. In our view, a strategy that exploits the mispricing amongst fallen angels and minimizes trading costs can overcome these obstacles.

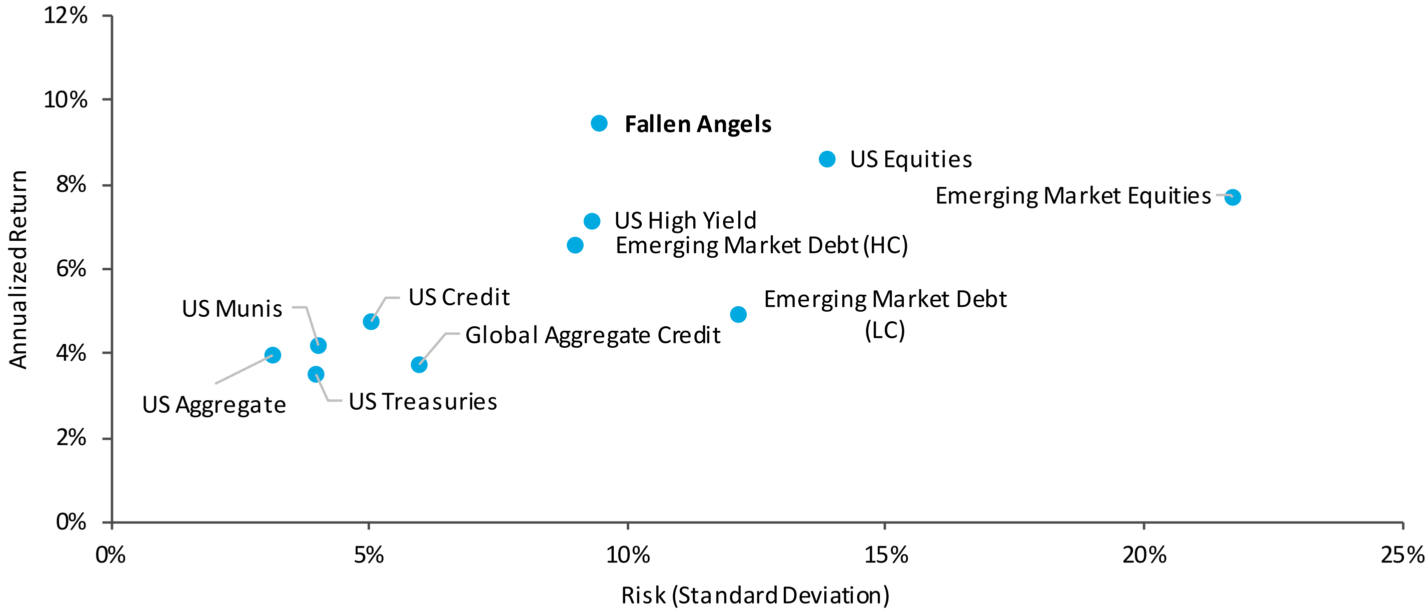

Exhibit 1: Fallen Angels Have Outperformed Major Asset Classes
Source: Bloomberg Barclays, MSCI, BofA Merrill Lynch. January 1, 2005 to March 31, 2019

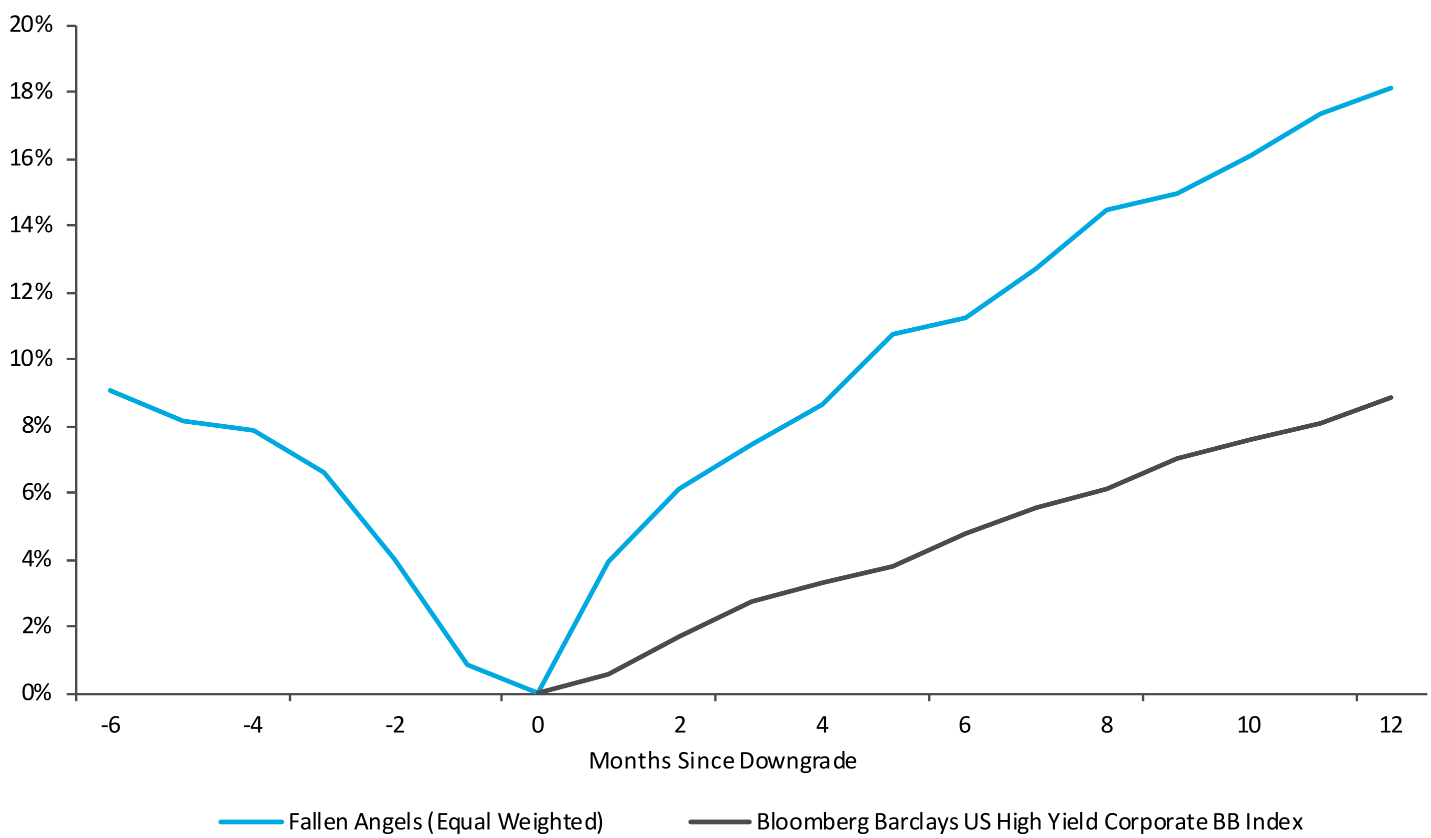

Exhibit 2: Initial Overreaction Leads to Subsequent Outperformance
Source: Bloomberg Barclays, Mellon Analysis

Fallen Angel Gets No Love

There is a clear divide between investment grade and high yield investors. On the investment grade side, passive managers tend to sell fallen angels when they drop from the index the manager is tracking, as holding downgraded issues introduces credit risk and increases tracking error. In many cases, selling is mandatory to avoid violating guidelines against holding non-index securities. Passive managers typically sell at or near month-end when index providers rebalance. With the growth of passive investing, index-related selling may increase.

Some active managers have leeway to hold fallen angels, but large downgrades increase portfolio risk and can appear unattractive relative to other opportunities. Further, active managers typically keep a close eye on ratings and are more inclined to sell in anticipation of a downgrade.

Demand for fallen angels does not improve at the time they enter the high yield universe. The investment grade universe is approximately two and a half times larger than the high yield universe. When large downgrades occur, the high yield market cannot absorb these issues due to high trading costs and downward price momentum associated with newly fallen angels.

Our research finds that the technical selling pressure overshoots fallen angels' intrinsic value versus high yield peers and undervalues their ability to regain their investment grade credit rating. Additionally, our research indicates that recovery from oversold prices tends to be stronger than bonds with similar credit quality (see Exhibit 2).

Clipped Wings, but Not Junk

With their sterling investment grade reputation, tarnished, fallen angels are lumped into a bucket of junk bonds. However, fallen angels compare favorably to their high yield peers in three aspects: quality, performance, and potential upgrades.

Quality

Relative to the broad high yield universe, fallen angels are higher credit quality. This makes sense as the vast majority of fallen angels enter the Index at a BB rating, the most creditworthy high yield rating and a step below investment grade. Historically, the Bloomberg Barclays US High Yield Fallen Angel 3% Capped Index has comprised of more than 70% BB-rated issuers, relative to 40% in the Bloomberg Barclays US Corporate High Yield Index. The higher average credit quality translates into a lower default rate. Since the index's inception in 2005, fallen angels have experienced a lower average default rate of 0.39% versus 0.99% for high yield.

Performance

As noted above, fallen angels produced the highest total returns across most major asset classes since the Index's launch in 2005. Relative to their high yield peers, fallen angels have delivered a lower maximum drawdown and outperformed the Bloomberg Barclays US Corporate High Yield Index in 10 of the 14 calendar years since 2005. While the duration of fallen angels is typically longer, they have generally outperformed during periods of rising interest rates, such as 2006, 2009, 2013, and 2015-2016 (see Exhibit 3).

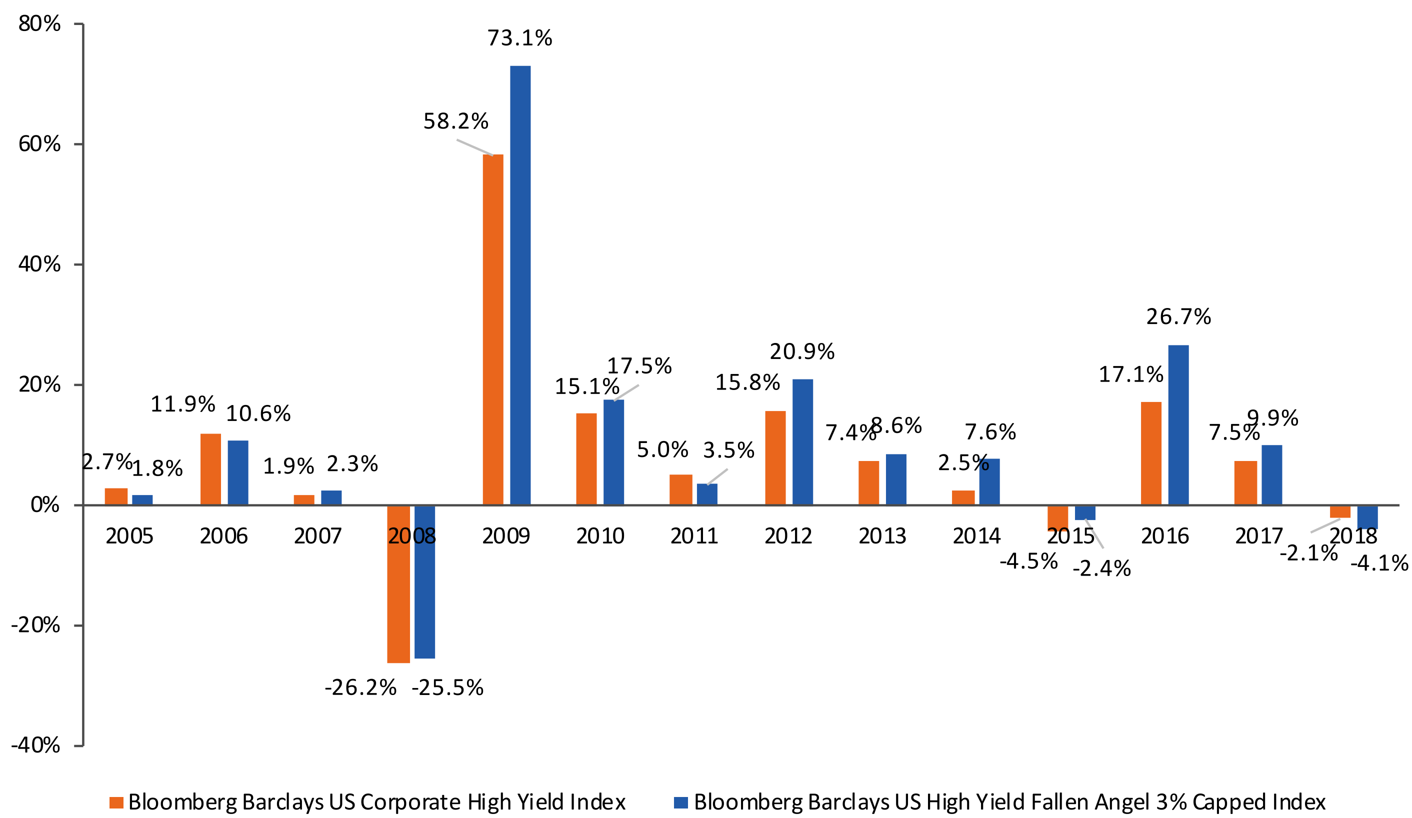

Exhibit 3: Fallen Angel and High Yield Calendar Year Returns
Source: Bloomberg Barclays, Grey shading denotes rising rate periods

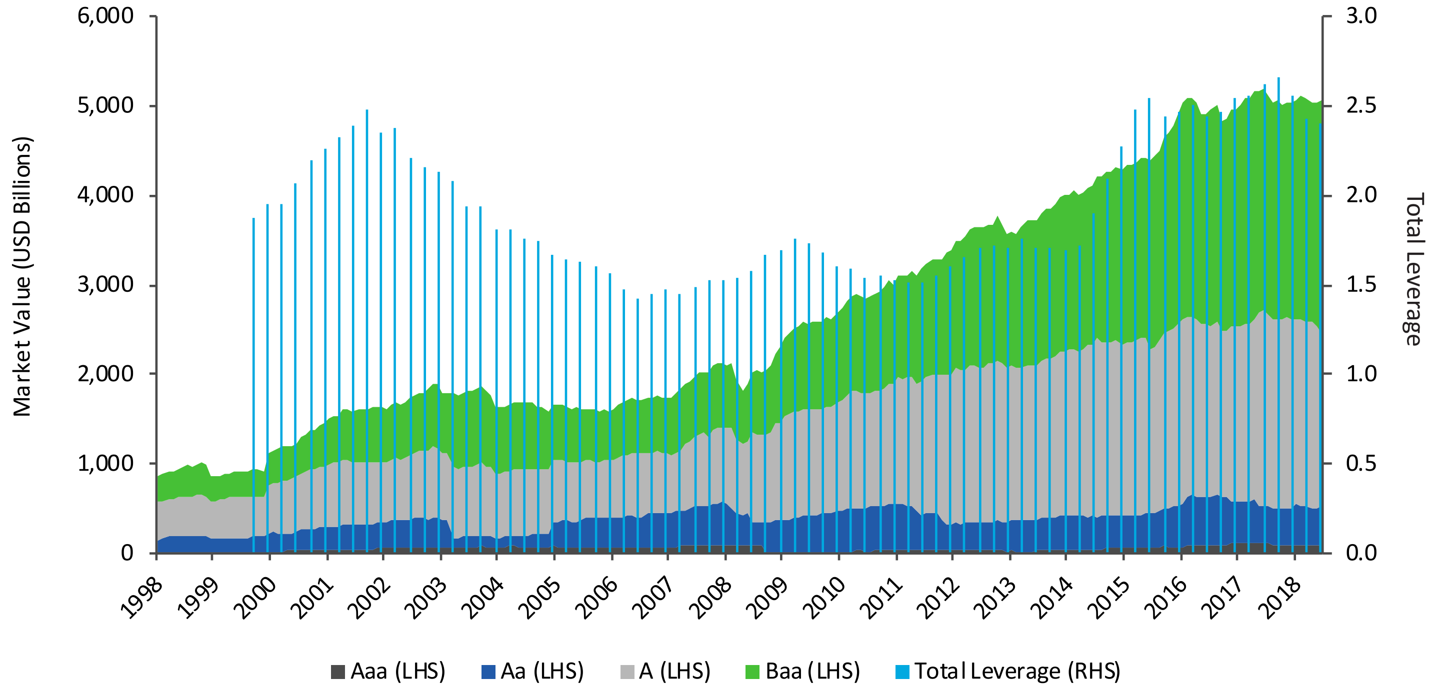

Exhibit 4: BBBs Have Grown Since Global Financial Crisis Growth of US Investment Grade Corporate Universe
Source: Bloomberg Barclays, Mellon Analysis

Potential Upgrades

In addition to the value proposition that makes fallen angels compelling, the asset class has more potential for upgrades than the general high yield market. Most fallen angels are large brand names that have better access to capital markets than original-issue high yield companies, allowing them to fund both operations and any restructurings that may occur. Further, management tends to be motivated and incentivized to regain investment grade status, which is not typically the goal of original-issue high yield companies.

Catching Fallen Angels

As fallen angels take on high yield bond characteristics, three significant trading challenges emerge. The first is high costs, which average approximately 65 basis points per transaction. The second is the narrow universe, which currently contains approximately 250 bonds with a market cap near $150 billion. Finally, in the wake of Dodd-Frank and Basel banking regulations, dealers have become unwilling to commit risk capital to trading, which caused a steep reduction in dealer inventory and higher bid/ask spread volatility. Due to these challenges, both active and passive (including exchange-traded funds, ETFs) managers have experienced difficulty in capturing the full return potential of the asset class.

The Future Looks Bright

We expect the fallen angel universe to expand. The growth of the BBB sector, combined with the latter stages of the credit cycle, may increase downgrades, which would enlarge the opportunity set. As shown in Exhibit 4, bonds rated BBB now make up a significant portion (about 50%) of the investment grade corporate market. Along with increasing concerns of excess leverage, a number of large upcoming maturities could put pressure on companies to either raise more debt, spend down cash or face downgrades/defaults. Nearly 20% of bonds in the BBB bucket have leverage metrics similar to high yield, and rating agencies announced they will start downgrading if current BBBs do not execute on their stated financial plans to reduce leverage. These data points imply an increased pool of potential downgrades and an expanded universe of fallen angels. For these reasons, now is a particularly opportune time to consider a fallen angel strategy.

A Place for Fallen Angels

Fallen angels have a number of compelling features that warrant close examination. While the strong historical return of the asset class is enticing on its own, the idiosyncratic nature of the market creates potential for adding alpha to a diversified portfolio. We believe a systematically driven fallen angel strategy, one that can overcome frictional headwinds and harvest the available alpha opportunities, deserves a permanent allocation within a broader asset allocation framework.

Disclosure

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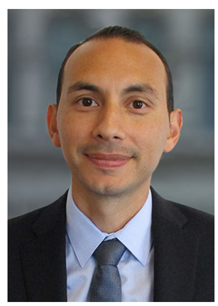
Authors Bios'

Paul L. Benson, *CAIA, CFA*
Mellon

Paul is the head of multi-factor and index fixed income portfolio management. In this role, he leads a team responsible for managing the team's multi-factor and fixed income index strategies, including the High Yield Beta strategy. Previously at the firm, Paul was a senior portfolio manager responsible for the yield curve arbitrage strategy within global asset allocation portfolios. Additionally, he engineered and built the process to automate fixed income portfolio rebalancing and improve operational risk control.

Prior to joining the firm, Paul was a senior fixed income portfolio associate at PIMCO, where he analyzed portfolios, and implemented and managed active US and global fixed income portfolios. Previously, he was a trader at Westdeutsche Landesbank Tokyo, where he built the interest rate swaps trading desk, and a trader at Bankers Trust Tokyo, where he ran the Japanese government bond book. Both positions included market making and proprietary trading. Paul has been in the investment industry since 1994.

Paul received a BA from University of Michigan at Ann Arbor. He holds the CFA® designation and is a member of CFA Institute.



Manuel Hayes
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Manuel is a senior portfolio manager responsible for managing investment grade and high yield cash strategies. He actively works with credit researchers to develop new investment grade and high yield strategies. Additionally, Manuel has pioneered innovation in bond trading with "bond basket" trading to enable lower transaction costs, scalability and enhanced liquidity in the credit space.

Previously at the firm, he served as the primary credit trader on all Global Investment Corporate, High Yield, Emerging Market Hard Currency, Sovereigns and Municipal bonds.

Manuel has been in the investment industry since 2004. Before joining the firm in 2009, he was a credit portfolio associate with Pacific Investment Management Company (PIMCO). Prior to that, he was a fixed income trading associate with Metropolitan West Securities (Wachovia, now Wells Fargo).

Manuel earned a BS in economics from the University of California at Berkeley.