The Efficacy of Indexation -- A Case Study

Over the past twenty years indexation has expanded its share of the asset management market relentlessly. Driven in large part by the advent of ETFs, the characteristics of indexation have changed markedly throughout this growth period.

There are some 2,234 exchange-traded products listed with approximately $3.77 trillion in assets under management (AUM)[1]. Of these, over one thousand niche indexes, including single and multi-sector, country, thematic, single and multi-factor, and commodity ETFs held well over one trillion dollars in total assets.

Smart Beta ETFs and ETPs, which embrace a number of the aforementioned categories garnered 10.1% growth in the month of January 2019 alone and total assets now exceed $700 billion. This marked the 36th consecutive month of net inflows into Smart Beta exchange-traded products[2].

Below is a general breakdown of the ETF industry:

**ETFs only, no ETNs*	**Size & Style**	**Sector & Industry**	**Region & Country**	**Theme**	**Fixed Income**	**Commodities**	**Total**
Beta	137	203	179	42	204	26	**791**
Enhanced	567	136	63	82	82	32	**962**
Active	73	13	2	10	95	3	**196**
Total	**777**	**352**	**244**	**134**	**381**	**61**	**1949**
Sourced from ETF Action (www.etfaction.com), accessed March 28, 2019							

In many respects, these niche indexes provide desired exposures that, when integrated into a diversified portfolio, provide opportunity to enhance performance and diminish risk.

To illustrate the benefits of niche indexes, we would like to examine the specific characteristics of the S-Network Composite Closed-End Fund Index (CEFX). CEFX comprises a total of 135 individual closed-end funds that offer high dividend payouts. As of March 31, 2019, the index was yielding approximately 7.9% per annum and served as the basis of an ETF offered by Invesco PowerShares -- the Invesco CEF Income Composite ETF (PCEF) which holds over $700 million in assets.

Why Closed-End Funds

The most unique characteristic of CEFX lies in the exposure it provides -- Closed-End Funds (CEFs). Closed-end funds are 40-Act mutual funds that trade on recognized stock exchanges. Altogether, CEFs hold approximately $275 billion in assets[3], with roughly 60% pursuing yield-oriented strategies, including fixed income and covered call writing. Unlike ETFs, CEFs are closed to fresh contributions and redemptions. Capital held by CEFs is permanent, which gives

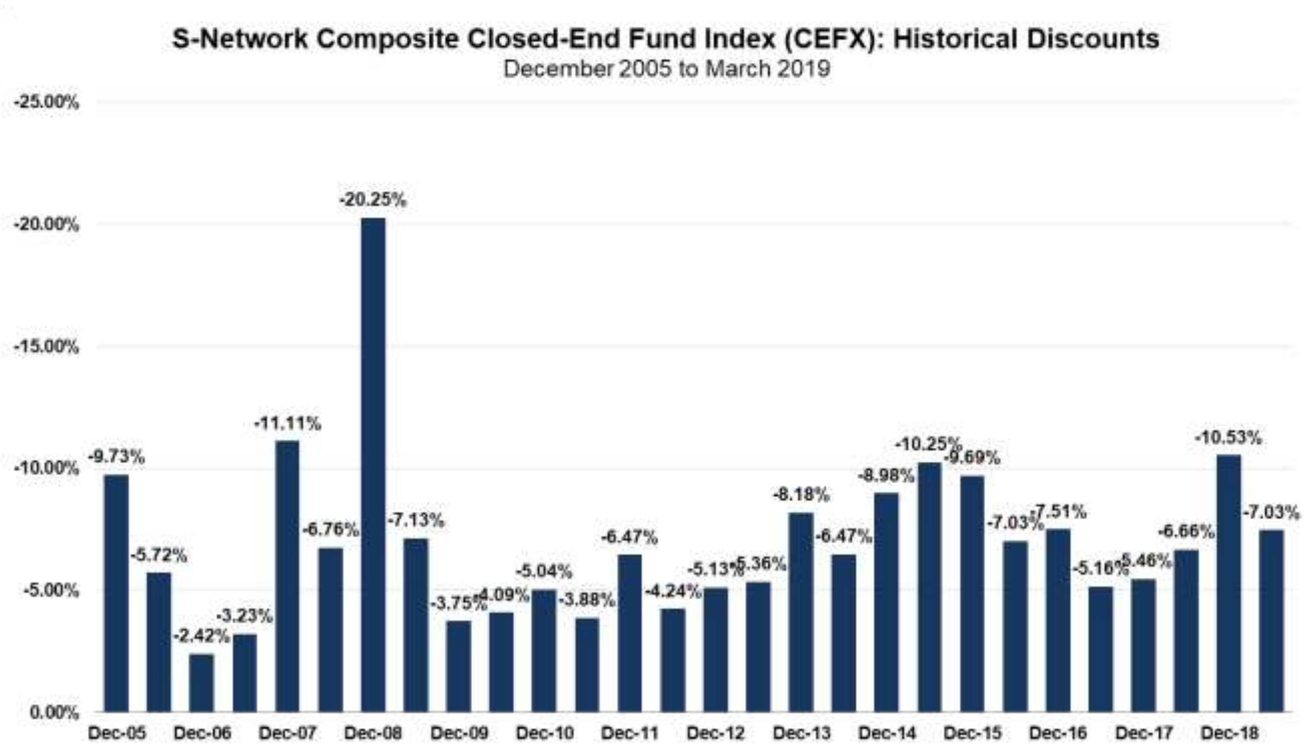
---

[1] Source: www.etfaction.com, accessed March 28, 2019
[2] Source: https://finance.yahoo.com/news/etf-trends-seen-10-old-180006268.html
[3] Source: https://www.ici.org/pdf/per24-02.pdf

CEFs a tactical advantage over open-end mutual funds, which offer daily contributions and redemptions at the funds' Net Asset Values (NAVs).

For example, because CEFs are not required to make redemptions, they needn't hold cash in reserve for such occasions. By the same token, they can invest in less-liquid securities, which in the case of bonds may be held to maturity, making them less subject to the ups and downs of market turbulence. Most CEFs are actively managed, which is another important characteristic, because the managers may employ proprietary investment strategies aimed at enhancing yield. Many CEFs employ leverage whereby they borrow against their assets to buy additional assets in order to enhance yield.

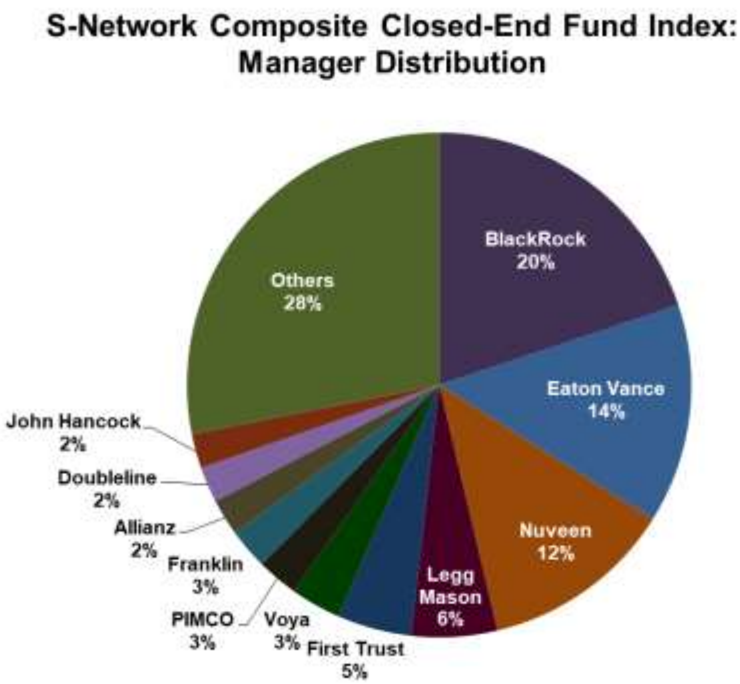
A possible downside of CEFs is that they often trade at discounts to their NAVs. These discounts occur precisely because the CEFs do not offer redemptions at their NAVs. But there is also opportunity to be found in these discounts. In turbulent markets, the discounts tend to widen. But then, when market stability is restored, the discounts tend to narrow. However, buying yield oriented funds at a discount actually increases the yield on their market prices and can provide additional returns when discounts narrow.



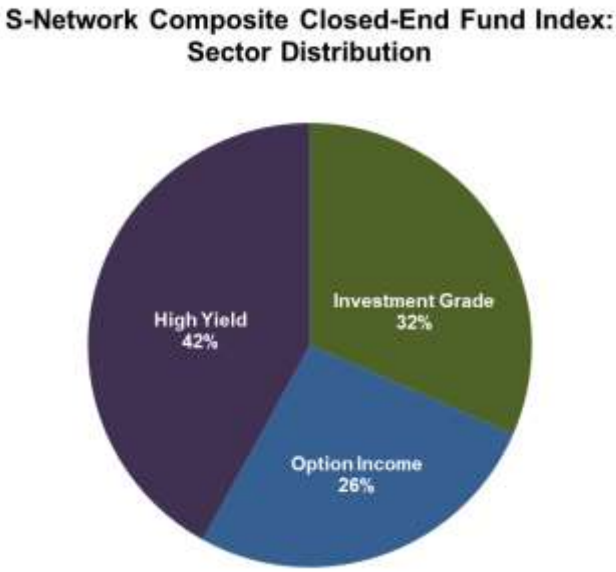
Diversifying Risk

The biggest problem with CEFs, however, is the age-old investment problem of picking the right CEF to include in one's portfolio. A CEF that cuts its dividend, for example, is likely to experience a decline in price, thus negating the higher yield that the CEF may have provided.

The chief benefit of CEFX is the diversification it offers. Since CEFX contains 135 separate CEFs, an investor seeks higher yield by employing 42 separate management companies, including many of the most prominent names in the asset management industry, such as BlackRock, Eaton Vance and Nuveen. Each manager employs their own unique investment strategy. Simply put, it would strain credulity to believe that 42 different managers -- all highly skilled and supported by sophisticated data and analytic systems -- could all get it wrong at the same time.



But the diversification principles that underlie CEFX do not stop with managers. Included in CEFX are 41 funds that specialize in investment-grade fixed income, 59 funds that specialize in high-yield fixed income, and 35 funds that pursue option income or covered call strategies. Included in this diversified investment mix are certain high-yielding instruments that fit well into the CEF structure, such as bank loans, emerging-market bonds and, in the case of option income CEFs, global stocks.



This diversification policy is built into the rule set of CEFX, so that individual CEF risk is substantially mitigated. Of course, diversification comes at a price. It is certainly possible to get lucky, pick a single CEF and enjoy a slightly higher yield than CEFX offers. That is a personal decision based on risk preferences and the analytic resources at one's disposal.

Constituents Chosen Based on Objective Criteria

As a composite index, CEFX includes every US-listed CEF over a certain size -- AUM greater than $100 million -- that fits into its sector selection criteria. Further screens are applied to define criteria for liquidity, expense ratio and discount/premium to NAV. The index rules governing all of these factors that are applied to the selection of constituent funds provide another valuable dimension of risk mitigation.

Index performance can be compromised, however, through high levels of turnover. This is especially true in the CEF market, where liquidity is often limited. To deal with this factor, CEFX employs buffers that prevent high turnover rates related to its quarterly reconstitutions. For example, a CEFX constituent must have $100 million in AUM to be selected for inclusion in the index, but once in the index, the constituent's AUM must fall below $75 million to be dropped from the index. Buffers for liquidity are also applied. As a result, CEFX has maintained very low turnover rates throughout its history, thereby mitigating performance drag.

Importantly, CEFs with high expense ratios are excluded from the index, using a dynamic threshold based on the 30-day LIBOR. This keeps the expense ratios -- including the cost of leverage -- from exceeding industry norms by an excessive amount.

Capitalizing on the Discount

The CEFX rules for selection produce a dependable and cost-efficient index. Rules governing the weightings of CEFX constituents are also applied. Unlike most stock market indexes, which weight constituents based on their market capitalizations, CEFX weights its constituents based on their Total Net Assets. Since most CEFs trade at a discount to NAV, this weighting methodology produces a more accurate representation of the holdings while a traditional market cap weighting would favor CEFs selling at premiums or rich relative valuations

CEFX also builds a smart beta component into its weighting methodology. Simply put, weights are adjusted (at quarterly rebalancings) to give the CEFs with the highest discounts the highest weights and to reduce the weights of CEFs trading at a premium to NAV. This is a technique often used by professional CEF investors, because CEFs trading at a discount tend to revert to the mean.

Discount/Premium	Threshold	Adjustment Factor
Discount	d >= 6%	1.3
Discount	3% > d > 6%	1.2
Discount	0% > d > 3%	1.1
Premium	0% > p > 3%	0.9
Premium	3% > p > 6%	0.8
Premium	p >= 6%	0.7

What Does It All Mean?

The overall architecture of CEFX uses custom rules-based indexing technology to capitalize on the advantages inherent in CEFs, while diminishing the impact of their flaws. Accordingly, CEFX is complex from a methodological standpoint. But what is the result of all the complexity?

CEFX offers a yield of approximately 7.9% in an environment where yields over 3% are persistently hard to attain.

CEFX is but one example of how indexation can provide important disciplines to improve performance and mitigate risk. At S-Network, we have developed a number of indexes that rank among the best performers in their respective sectors. Many S-Network indexes mirror the best investment practices of leading active managers, only without the subjectivity.

With the recent growth of SMA platforms, indexes create a new opportunity set for growth. When integrated into a financial practice, custom indexes can help financial strategists and wealth managers build a solid platform for generating success.

About S-Network Global Indexes
S-Network Global Indexes, Inc. is a publisher and developer of proprietary and custom indexes. S-Network began publishing indexes in 2006 and currently publishes over 300 indexes, which serve as the underlying portfolios for financial products with approximately USD 7 billion in assets under management. S-Network indexes, which are supported by a state-of-the-art technology platform, are known for their transparency and efficiency.

This research article was published in the Fred Report: Monthly Review on April 4, 2019.