NUVEEN

Tax-Management Season and the January Effect

THE JANUARY EFFECT is a stock market phenomenon wherein stocks tend to deliver abnormally strong returns during the month of January. It is often attributed to year-end tax-loss harvesting activity and the subsequent redeployment of assets back into the market.

For example, an investor sells stocks at losses late in the year to offset realized capital gains they have incurred on other stocks in their portfolio, which helps reduce the investor's overall tax liability for the year. Then in January, they reinvest the proceeds from the stocks that were sold. The cumulative impact of all the cash being redeployed, so the theory goes, is a measurable boost in the market's performance.

Not just a stock market anomaly

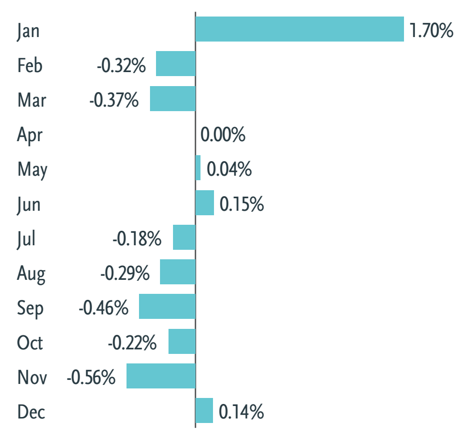
The January Effect isn't unique to the stock market; it has also been observed in the closed-end fund (CEF) market.

The chart at right shows the average monthly change in CEF discounts over the past 20 years. Note that toward the end of the year share prices have historically lagged net asset values (NAVs), causing discounts to widen. This selling pressure may be due to tax-management related activity. December appears to be a month of transition as discounts begin to narrow, likely the result of investors beginning to put the capital raised from their tax-management strategies back to work. This has led to CEF share prices, on average, outperforming their NAVs in January, causing further narrowing of discounts.

Two attributes of CEFs can make them a focus of tax-management strategies:

- Tax-loss selling candidates: Because they are required to distribute most of their income and realized capital gains every year, CEFs have limited capital appreciation potential.
- Tax-swapping candidates: Because the CEF market includes many funds that invest in similar (but not substantially identical) portfolios of securities, investors can sell shares of one fund and buy those of another without losing asset-class exposure or cash flow, and without triggering IRS wash sale rules.

Average change in CEF discounts by month



Source: Morningstar as of 9/30/2017. Discounts for each period are averages of all closed-end funds for 1/1/1997 to 1/31/2017. A positive number indicates that the discount has improved (narrowed), a negative number indicates the discount has widened.

How should CEF investors approach tax-management season?

While tax-management season activity and the January Effect have historically been observed, they are not necessarily an annual occurence. CEF discounts have widened toward the end of the year in 13 of the past 20 years and have narrowed in January in 17 of the past 20 years. Investors should not assume, therefore, that they can "time the market" around these events.

Investors should also bear in mind that wide discounts are not necessarily indicative of future outperformance. It is possible that an investor could sell their shares when the discount was narrow and buy them back when the discount was wider — but at a *higher* price per share.

What's more, investors have historically been well served by staying the course — holding positions through both tax-management season and the January Effect. As the chart below illustrates, over the past 20 years, from September through January of the following year, CEFs have delivered, on average, a cumulative 2.71% share price total return of which 0.60% has come from discount narrowing.

Investors seeking to establish or increase a position in CEFs may find November to be a good time to do so, based on historical prices.

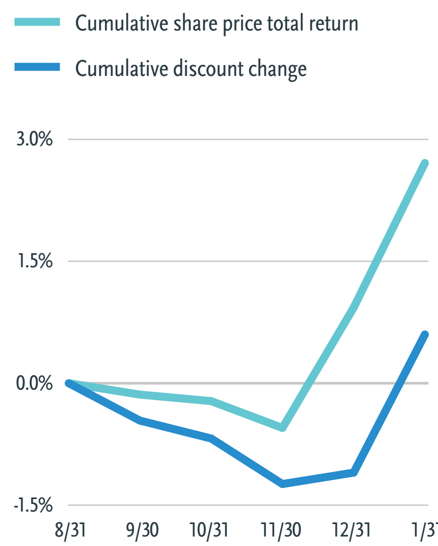
Over the past 20 years, CEFs have delivered an average 2.71% cumulative return (on market price) from September through January

2017 tax-management season outlook

2017 HAS BEEN A STRONG YEAR FOR CEFS: 62 of the 67 Morningstar CEF categories have posted positive year-to-date share price returns through September 30th. Year to date, closing share prices were higher, on average, than the September 30th close just 31% of the time, suggesting that tax-loss-motivated selling will likely be muted. Tax-swapping to lock in gains to offset losses elsewhere in a portfolio is also likely to be subdued due to the strength of CEF performance across asset classes this year.

Nonetheless, the latter part of the year has historically seen some widening in discounts. Nuveen continues to believe that investors' search for yield remains strong and could drive even narrower CEF discounts longer term.

CEF investors have been well served by staying the course



Source: Morningstar as of 9/30/2017. Data shown is for 1/1/1997 to 1/31/2017.

This material is not intended to be a recommendation or investment advice, does not constitute a solicitation to buy or sell securities, and is not provided in a fiduciary capacity. The information provided does not take into account the specific objectives or circumstances of any particular investor, or suggest any specific course of action. Investment decisions should be made based on an investor's objectives and circumstances and in consultation with his or her advisors.

IMPORTANT RISK CONSIDERATIONS

Closed-end fund shares are subject to investment risk, including the possible loss of the entire principal amount that you invest. Common shares frequently trade at a discount to their NAV. At any point in time, your common shares may be worth less than you paid, even after considering the reinvestment of fund distributions. Closed-end fund historical distribution sources have included net investment income, realized gains, and return of capital.

Past performance is no guarantee of future results and any predicted results may not occur.

Nuveen Securities, LLC, member FINRA and SIPC.

ESI-TMSJAN-1117P 285884-INV-Y-11/18