Closed-end fund Market Commentary

First Quarter 2023

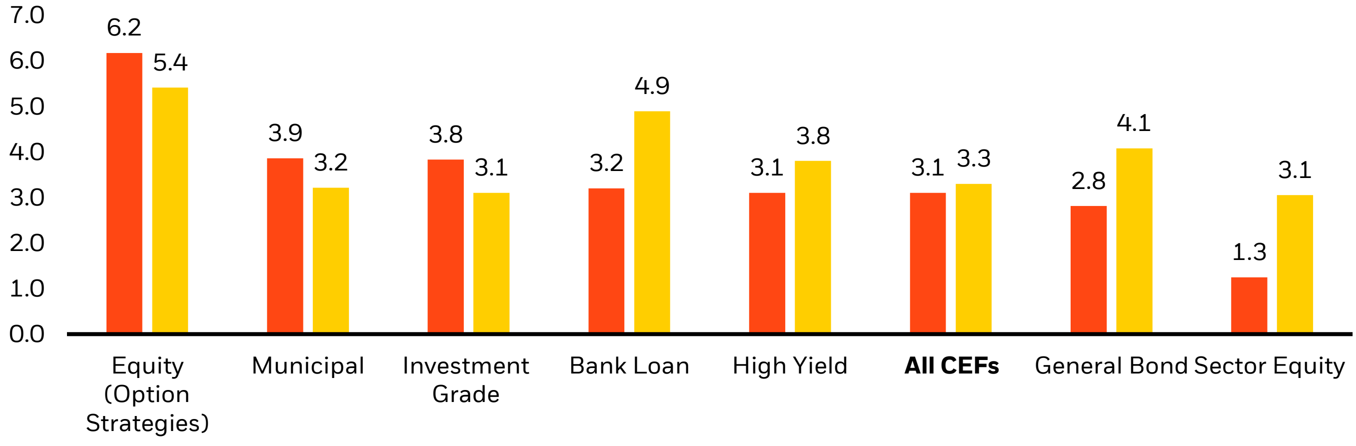
BlackRock.

Closed-end fund market overview

Despite increased volatility related to regional bank instability, equities finished positive for the quarter, with the S&P 500 up 7.5% over the period[1]. The Federal Reserve ("Fed") raised interest rates in January and March, but data showing inflation abating has led to the expectations the rate hike cycle is nearing an end. Longer dated yields fell over the quarter, as the 10-year treasury started the quarter at 3.79% and finished at 3.48%. Falling yields helped propel fixed income assets and the Bloomberg US Aggregate Bond Index, finished up 3.0%[1].

Closed-end funds ("CEFs") were up across almost all major categories in the first quarter, with the median CEF up 3.1% on net asset value ("NAV") and up 3.3% on market price. Equity CEFs (option strategies) were the best performing category for the quarter, up 6.2% on NAV and up 5.4% on market price[2].

First Quarter CEF total returns % (NAV and market price)



Closed-end funds are represented by the following categories: municipal CEFs represented by the General & Insured Muni Debt Funds (Leveraged) Lipper category. High Yield is represented by the High Yield Funds (Leveraged) Lipper category, Investment Grade is represented by the Corporate BBB-Rated Debt Funds (Leveraged) Lipper category. Sector Equity is represented by the Sector Equity CEF Lipper Category, Equity (Options Strategies) is represented by the Options Arbitrage/Option Strategies Lipper Category, General Bond is represented by the General Bond Lipper category and Bank Loans is represented by the Loan Participation Funds Lipper category. "All CEFs" is the median of all the CEF categories.

Source: Lipper as of 3/31/2023. Returns are shown net of advisory fees paid by the fund and net of the fund's operating fees and expenses. Investors who purchase shares of the fund through an investment adviser or other financial professional may separately pay a fee to that service provider. **Past performance is not indicative of future results.**

CEF discounts widened slightly over the first three months of the year by 10 basis points. The median CEF industry discount is now -10.2%, wider than the 5-year median of -7.4%. Discounts, which are largely driven by market sentiment remain wide relative to historical levels. On the fixed income side, investors are wary of the impact of continued increases in short-term rates to distributions. We have already seen a number of distribution reductions in the municipal space this year given rising leverage costs. On the equity side, investors have been cautious about allocating to growth sectors and continue to trade at wide discounts given market uncertainty.

1 Source: Morningstar as of 3/31/2023
2 Source: Lipper as of 3/31/2023

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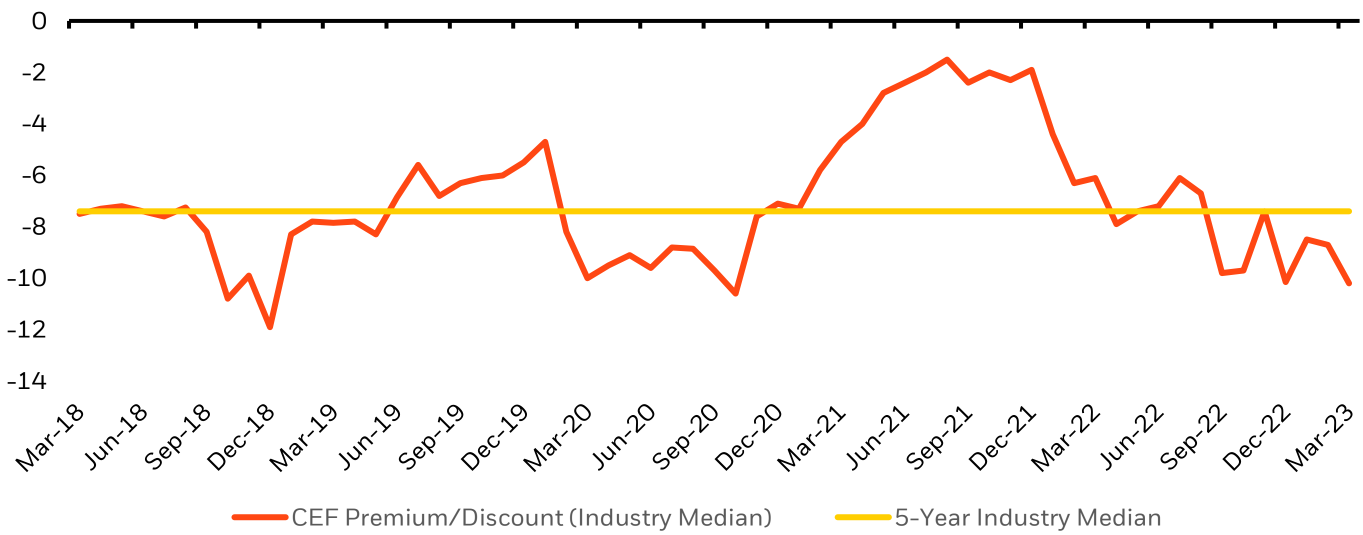
5-Year Industry CEF Premium/Discounts



Source: Lipper as of 3/31/2023. Includes entire CEF universe and uses the median premium/discount.

Municipal[3]

Municipal bonds were up in the first quarter despite continued volatility in fixed income markets. Municipal CEFs, which are typically longer duration funds, were positive for the quarter aided by falling interest rates. The median municipal CEF was up 3.9% on NAV and up 3.2% on market price over the quarter.

Municipal CEF discounts widened over the first quarter by 140 basis points, finishing at a median of -10.5%. Discounts in the space remain elevated compared to their 5-year median of -7.4%. We believe investors remain focused the impact of rising short-term interest rates on Muni CEF distributions. Because Muni CEFs borrow at short term interest rates and typically invest in Muni bonds with longer maturities, a flatter yield curve (i.e. narrower spread) may negatively impact the earnings of a leveraged CEF. Over the past year, leverage costs have increased sharply as the Fed has rapidly raised short-term interest rates by 5%. The SIFMA Municipal Swap Index, a common base rate used to calculate municipal CEF leverage costs, currently sits a 3.97%, which is 295 basis points higher than the 5-year average rate of 1.02%[4]. This increase has led to distribution reductions across the industry as fund earnings have declined. While the municipal yield curve rarely inverts and is not nearly as flat as the Treasury curve, this is a dynamic that investors should be aware of going forward

Fixed income[3]

Bond* returns were positive in the first quarter in the face of increased interest rate volatility. The Fed increased short-term rates by 25bps in January and again by 25bps in March. Long-term yields moved lower for the quarter, sending bond prices higher. Despite credit spread volatility related to the regional banking concerns, credit CEFs finished positive for the quarter. Fixed Income CEFs were up 3.2% on NAV and up 4.0% on market price for the quarter.

Fixed income CEF discounts narrowed 100 basis points over the first quarter, finishing at a median discount of -8.9%. Discounts remain wide as investors have shied away from leveraged products in this environment. Similar to the Muni CEFs, leveraged fixed income CEFs have also seen pressure on earnings from rising leverage costs.

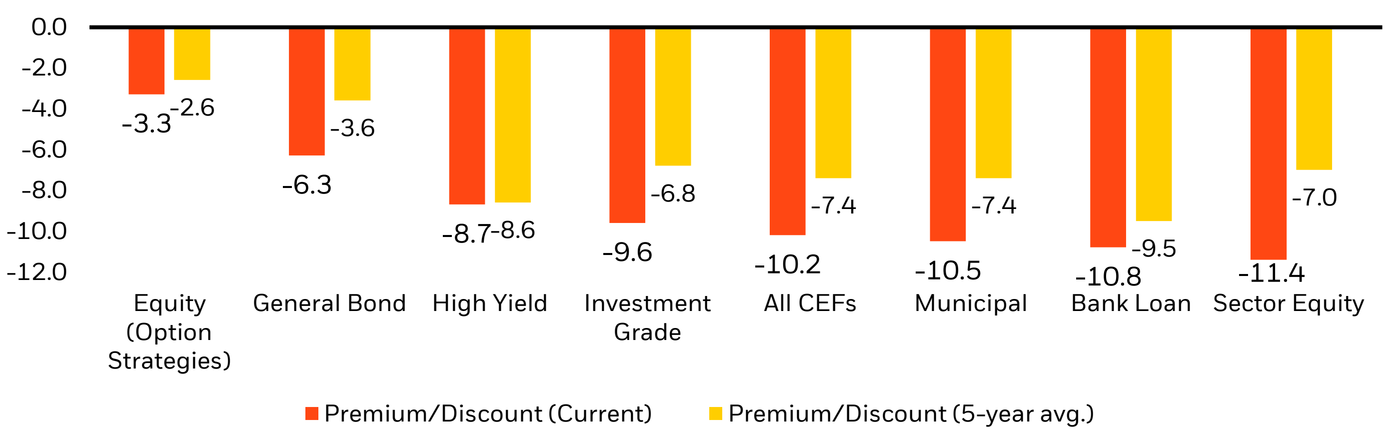
*Bonds are represented by the Bloomberg US Aggregate Bond Index.
3Source: Lipper as of 3/31/2023
4Source: SIFMA as of 3/29/23. The SIFMA Municipal Swap Index is a 7-day high-grade market index comprised of tax-exempt Variable Rate Demand Obligations (VRDOs) with certain characteristics. The Index is calculated and published by Bloomberg. The Index is overseen by SIFMA's Municipal Swap Index Committee.

Equity[3]

Equities** moved higher during the first quarter in the face of elevated volatility stemming from the banking sector turmoil. The Fed raised short-term rates twice over the quarter, but improving inflation numbers has led many investors to believe that the Fed is nearing the end of their hiking cycle. Equity CEFs finished the quarter up a median of 3.7% on NAV and up 4.2% on market price.

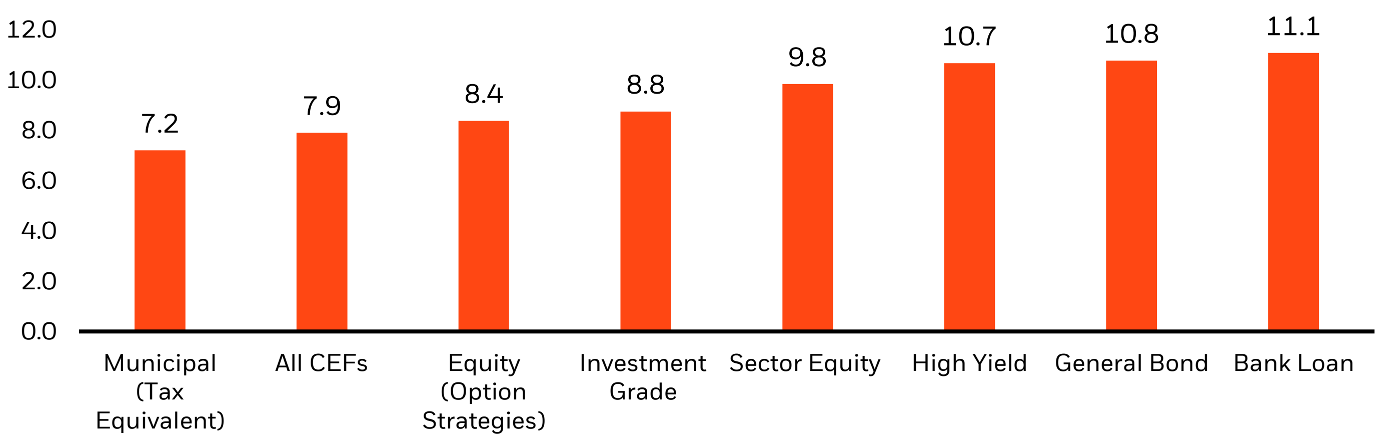
Equity (option strategies) discounts widened in the first quarter by 70 bps to finish at a median of -3.3%. Sector equity CEF discounts narrowed 280 basis points over the quarter, finishing at a median of -11.4%. Sector equity CEFs trade at some of the widest levels in the CEF market. This is likely due to investors shying away from growth sectors like technology and healthcare.

Current Premium/Discount versus 5-Year Median as of March 31, 2023



Source: Lipper as of 3/31/2023

Distribution Rate (% of Market Price) as of March 31, 2023



Source: Lipper as of 3/31/2023. Distribution rate is calculated by annualizing the fund's latest declared regular distributio n and dividing that number by the funds market price as of the stated date. Distributions are sourced from net investment income, unless noted otherwise. Tax-Equivalent Distribution Rate calculated using a 40.8% effective tax rate.

**: Equities are represented by the S&P500 Index.
3 Data sourced from Lipper as of 3/31/2023.

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Index description:

SIFMA Municipal Swap Index: 7-day high-grade market index comprised of tax-exempt Variable Rate Demand Obligations (VRDOs) with certain characteristics. The Index is calculated and published by Bloomberg. The Index is overseen by SIFMA's Municipal Swap Index Committee.

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