SECOND
QUARTER 2018

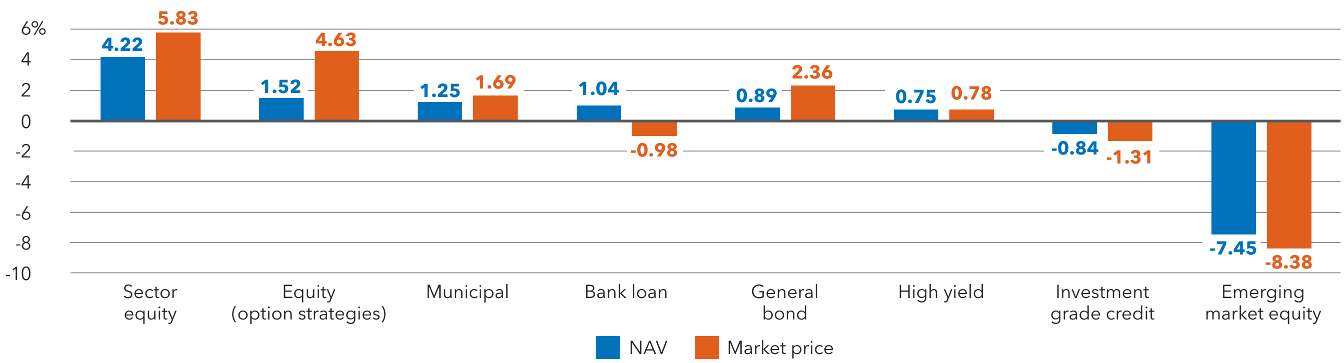
# Closed-end fund market review

## Market overview

Despite an uptick in market volatility due to concerns around global trade, improving economic data and strong job growth led the S&P 500 to finish up 3.43% over the second quarter. The Fed increased the federal funds rate by 0.25% for the second time this year. Rising interest rates contributed to negative bond performance in the second quarter. The Barclays Aggregate Bond Index was down -0.16%. The 10 year US treasury yield finished 11 basis points higher on the quarter. The 10 year hit over 3% in May for the first time in three years, and finished the quarter at 2.85%.

Closed-end funds ("CEFs"), on average, had a positive second quarter. The average CEF was up 0.17% on NAV and 0.58% on market price as of June 30, 2018. Discounts narrowed slightly this quarter, starting the quarter at an average of -6.43 % and ending at an average discount of -6.11%. As investors continue to look for cash flow for their portfolio, many investors are finding income opportunities in the CEF market. As of the end of June, the average CEF was yielding 6.7% on market price.

### Second quarter CEF total returns (NAV and market price)




Source: Lipper as of 6/30/2018. 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

## Municipal

Municipal bonds performed well in the second quarter, which carried over to the municipal CEF market. Municipal CEFs were up 1.25% on NAV and up 1.69% on market price over the second quarter. Discounts in the space narrowed slightly, starting the quarter at an average of -8.10% and finishing at an average -7.90%. Muni issuance continues to be depressed in 2018 as a result of tax reform (which eliminated the exemption for advanced refunding bonds), down 19% year-to-date as of June 30th versus the same period last year and remaining below the 5-year average. The reinvestment of payouts from calls, coupons and matured bonds outweighed gross supply in June, driving prices higher. The benefits of this net negative supply environment were slightly mitigated by activity in the secondary market, where dealer inventories remain bloated. The market's persistently strong technical environment provided solid footing for muni bonds to benefit from interest rates remaining range bound amid geopolitical uncertainty and mounting fears around the impact of international trade wars. For municipal CEFs, which typically use leverage, an increase in leverage costs have caused distribution reductions across the industry. The recent rise in short-term interest rates has pushed leverage costs higher. For example, the SIFMA Municipal Swap Index, a base rate used to calculate interest rates on various forms of municipal fund leverage, is at 1.51% as of June 27, 2018, well above its three year average of 0.64%. As a result, municipal CEF earnings have declined, causing many funds across the space to announce distribution reductions which, we believe, has driven discounts wider.

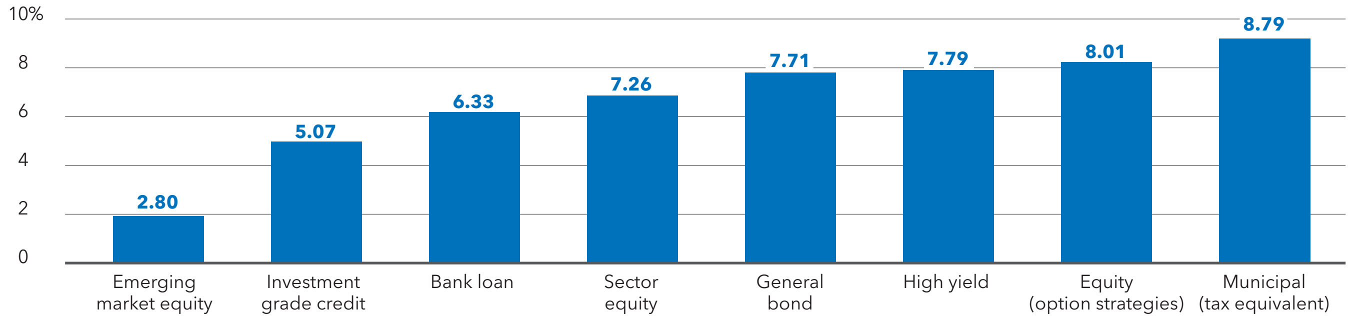
## Taxable fixed income

Taxable fixed income CEFs were relatively flat on both NAV and market price during the second quarter. The average taxable fixed income CEF was down -0.46% on NAV and down -0.22% on market price. Discounts widened from -6.28% at the start of quarter and to -6.45% at the end of the second quarter. Bank loan CEFs had the best performance in the taxable fixed income space in the second quarter from a NAV standpoint, up an average of 1.04% on NAV, but were down -0.98% on market price. Discount widening in the category led to market price underperformance. Bank loans CEFs started the quarter at an average discount of -5.60%, but widened to -7.40%. While higher LIBOR rates have increased bank loan coupons, spreads have compressed, potentially leading to less value in the space. High yield CEFs were up an average of 0.75% on NAV and 0.78% on market price over the second quarter. Discounts in high yield CEFs narrowed from an average of -8.30% to start the quarter to an average of -7.80%. High yield bonds performed well on the back on strong economic growth, low defaults and range-bound credit spreads. Investment grade CEFs were down over the quarter as investment grade corporate bond spreads widened due to technical factors. The average investment grade CEF was down -0.84% on NAV and down -1.31% on market price. Discounts in the sector widened 60 basis points and finished the quarter at an average of -9.20%.

## Equity

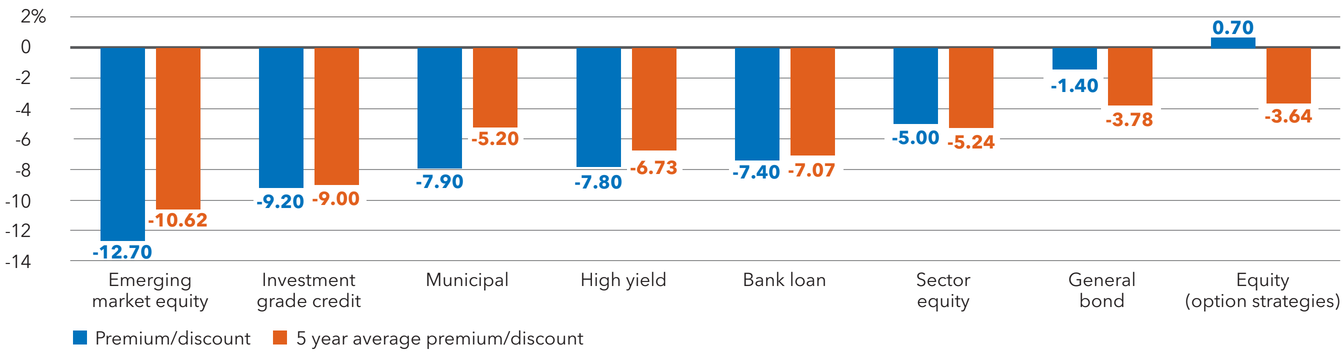
Equity CEFs were dragged down by emerging markets in the second quarter. Equity CEFs were down an average of -0.57% on NAV and up 0.69% on market price. Discounts narrowed slightly finishing at an average -5.67%, down 39 basis points from the start of the quarter. Emerging market equity CEFs were the worst performing equity category over the second quarter, down an average of -7.45% on NAV and -8.93% on market price. Discounts in emerging market CEFs widened 200 basis points, finishing at an average of -12.7%. Category underperformance may be attributed to continued policy divergence between the Federal Reserve and global central banks, which has helped to push US rates and the dollar higher. Sector equity CEFs performed well, led by healthcare and technology funds. The average sector equity CEF was up 4.22% on NAV and up 5.83% on market price. The average sector equity CEF discount narrowed by 40 basis points, finishing the quarter at an average of -5.00%.

## Distribution rate (market price) as of June 30, 2018




Source: Lipper as of 6/30/2018. Distribution rate is calculated by annualizing the fund's latest declared regular distribution 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.

## Current premium/discount versus 5-Year average as of June 30, 2018




Source: Lipper as of 6/30/2018.

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## Availability of fund updates

BlackRock will update performance and certain other data for the Funds on a monthly basis on its website in the "Closed-end Funds" section of www.blackrock.com as well as certain other material information as necessary from time to time. Investors and others are advised to check the website for updated performance information and the release of other material information about the Funds. This reference to BlackRock's website is intended to allow investors public access to information regarding the Funds and does not, and is not intended to, incorporate BlackRock's website in this release.

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*AUM as of 3/31/18.

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Some BlackRock CEFs make distributions of ordinary income and capital gains at calendar year end. Those distributions temporarily cause extraordinarily high yields. There is no assurance that a fund will repeat that yield in the future. Subsequent monthly distributions that do not include ordinary income or capital gains in the form of dividends will likely be lower. Fund details, holdings and characteristics are as of the date noted and subject to change.

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**General market and credit risks:** Debt instruments are subject to credit and interest rate risks. Credit risk refers to the likelihood that an obligor will default in the payment of principal or interest on an instrument. Financial strength and solvency of an obligor are the primary factors influencing credit risk. In addition, lack or inadequacy of collateral or credit enhancement for a debt instrument may affect its credit risk. Credit risk may change over the life of an instrument and debt instrument that are rated by rating agencies are often reviewed and may be subject to downgrade. Interest rate risk refers to the risks associated with market changes in interest rates. Interest rate changes may affect the value of a debt instrument indirectly (especially in the case of fixed rate obligations or directly (especially in the case of instrument whose rates are adjustable). In general, rising interest rates will negatively impact the process of a fixed rate debt instrument and falling interest rates will have a positive effect on price. Adjustable rate instruments also react to interest rate changes in a similar manner although generally to a lesser degree (depending, however, on the characteristics of the reset terms, including the index chosen, frequency of reset and reset caps or floors, among other factors).

**Municipal market risks:** There may be less information available on the financial condition of issuers of municipal securities than for public corporations. The market for municipal bonds may be less liquid than taxable bonds. A portion of the income may be taxable. Some investors may be subject to Alternative Minimum Tax (AMT). Capital gain distributions, if any, are taxable. The Fund may utilize leveraging to seek to enhance the yield and net asset value of its common stock, as described in the Fund's prospectus. These objectives will not necessarily be achieved in all interest rate environments. The use of leverage involves risk, including the potential for higher volatility and greater declines of the Fund's net asset value, fluctuations of dividends and other distributions paid by the Fund and the market price of the Fund's common stock, among others.

**Equity market risks:** The price of equities may rise or fall because of changes in the broad market or changes in a company's financial condition—sometimes rapidly or unpredictable. These price movements may result form factor affecting individual companies, sectors or industries, such as changes in economic or political conditions. Equity securities are subject to "stock market risk" meaning that stock prices may decline over short or extended periods of time.

**Index descriptions**

Barclays Municipal Bond Index: The Barclays Municipal Bond Index is a rules-based, market-value-weighted index engineered for the long-term tax-exempt bond market.

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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