Dreyfus Municipal Bond Infrastructure Fund, Inc.
Form N-CSRS
October 31, 2018

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM N-CSR

CERTIFIED SHAREHOLDER REPORT OF REGISTERED MANAGEMENT INVESTMENT COMPANIES

Investment Company Act file number 811-22784

Dreyfus Municipal Bond Infrastructure Fund, Inc.
(Exact name of Registrant as specified in charter)

c/o The Dreyfus Corporation

200 Park Avenue

New York, New York 10166
(Address of principal executive offices) (Zip code)

Bennett A. MacDougall, Esq.

200 Park Avenue

New York, New York 10166
(Name and address of agent for service)

Registrant's telephone number, including area code: (212) 922-6400

Date of fiscal year end: 02/28(9)

Date of reporting period: 08/31/18

FORM N-CSR

Item 1. Reports to Stockholders.

Dreyfus Municipal Bond Infrastructure Fund, Inc.

SEMIANNUAL REPORT
August 31, 2018

Dreyfus Municipal Bond Infrastructure Fund, Inc.

Protecting Your Privacy
Our Pledge to You

THE FUND IS COMMITTED TO YOUR PRIVACY. On this page, you will find the Fund's policies and practices for collecting, disclosing, and safeguarding "nonpublic personal information," which may include financial or other customer information. These policies apply to individuals who purchase Fund shares for personal, family, or household purposes, or have done so in the past. This notification replaces all previous statements of the Fund's consumer privacy policy, and may be amended at any time. We'll keep you informed of changes as required by law.

YOUR ACCOUNT IS PROVIDED IN A SECURE ENVIRONMENT. The Fund maintains physical, electronic and procedural safeguards that comply with federal regulations to guard nonpublic personal information. The Fund's agents and service providers have limited access to customer information based on their role in servicing your account.

THE FUND COLLECTS INFORMATION IN ORDER TO SERVICE AND ADMINISTER YOUR ACCOUNT. The Fund collects a variety of nonpublic personal information, which may include:

• Information we receive from you, such as your name, address, and social security number.

• Information about your transactions with us, such as the purchase or sale of Fund shares.

• Information we receive from agents and service providers, such as proxy voting information.

THE FUND DOES NOT SHARE NONPUBLIC PERSONAL INFORMATION WITH ANYONE, EXCEPT AS PERMITTED BY LAW.

Thank you for this opportunity to serve you.

The views expressed in this report reflect those of the portfolio manager(s) only through the end of the period covered and do not necessarily represent the views of Dreyfus or any other person in the Dreyfus organization. Any such views are subject to change at any time based upon market or other conditions and Dreyfus disclaims any responsibility to update such views. These views may not be relied on as investment advice and, because investment decisions for a Dreyfus fund are based on numerous factors, may not be relied on as an indication of trading intent on behalf of any Dreyfus fund.

Not FDIC-Insured • Not Bank-Guaranteed • May Lose Value

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THE FUND

Dreyfus Municipal Bond Infrastructure Fund, Inc.

A LETTER FROM THE PRESIDENT OF DREYFUS

Dear Shareholder:

We are pleased to present this semiannual report for Dreyfus Municipal Bond Infrastructure Fund, Inc., covering the six-month period from March 1, 2018 through August 31, 2018. For information about how the fund performed during the reporting period, as well as general market perspectives, we provide a Discussion of Fund Performance on the pages that follow.

U.S. stocks continued to post gains over the reporting period, reaching new highs despite rising interest rates and heightened trade tensions, while fixed-income markets improved as well. Corporate earnings remained robust, due in part to the corporate tax cut enacted last year. Growth stocks, facing little exposure to the effects of trade tensions, outpaced value stocks and small caps, and easily outperformed large caps. Overseas, stocks largely posted losses, particularly in emerging markets, which have been hurt by a stronger U.S. dollar and concerns about contagion from the lira crisis in Turkey. In the fixed-income arena, municipal bonds, high yield bonds and longer-dated Treasuries stood out.

The performance of U.S. markets was supported by robust fundamentals, including sustained economic growth, a healthy labor market and strong consumer and business confidence. We expect these conditions to persist, but we continue to monitor economic data for signals that might suggest that a change is on the horizon. As always, we encourage you to discuss the risks and opportunities of today's investment environment with your financial advisor.

Thank you for your continued confidence and support.

Sincerely,

Renee Laroche-Morris
President
The Dreyfus Corporation
September 17, 2018

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DISCUSSION OF FUND PERFORMANCE (Unaudited)

For the period from March 1, 2018 through August 31, 2018, as provided by Daniel Rabasco and Jeffrey Burger, Portfolio Managers

Market and Fund Performance Overview

For the six-month period ended August 31, 2018, Dreyfus Municipal Bond Infrastructure Fund achieved a total return of 3.26% on a net-asset-value basis.[1] Over the same period, the fund provided aggregate income dividends of $0.3180 per share, which reflects an annualized distribution rate of 5.03%.[2]

Municipal bonds produced positive total returns as favorable supply-and-demand dynamics in the municipal securities market supported bond prices. While short-term municipal rates increased, long-term rates fell modestly during the period. The fund continued to produce competitive levels of current income through an emphasis on longer-term and higher-yielding municipal bonds issued for infrastructure purposes.

The Fund's Investment Approach

The fund seeks to provide as high a level of current income exempt from regular federal income tax as is consistent with the preservation of capital. The fund's portfolio is composed principally of investments that finance the development, support, or improvement of America's infrastructure.

Under normal circumstances, the fund pursues its investment objective by investing at least 80% of its Managed Assets[3] in municipal bonds issued to finance infrastructure sectors and projects in the United States. Also, under normal circumstances, the fund will invest at least 50% of its Managed Assets in municipal bonds that, at the time of investment, are rated investment grade, meaning that up to 50% of Managed Assets can be invested in below-investment-grade municipal bonds. Projects in which the fund may invest include (but are not limited to) those in the transportation, energy and utilities, social infrastructure, and water and environmental sectors. We focus on identifying undervalued sectors and securities and minimize the use of interest-rate forecasting. We select municipal bonds using fundamental credit analysis to estimate the relative value and attractiveness of various sectors and securities and to exploit pricing inefficiencies.

The fund employs leverage by issuing preferred stock and participating in tender-option bond programs. The use of leverage can magnify gain-and-loss potential depending on market conditions.

Tax Reform and Hunger for Yield Drive Municipal Market Behavior

Market weakness early in the reporting period abated as municipal bonds rebounded, supported by strong seasonal reinvestment demand and very manageable new issue supply levels. Demand from individuals in high, tax states increased significantly as the search for immunization against the newly imposed tax restrictions on state and local tax deductions provided a catalyst. Conversely, tax cuts to corporations have softened institutional demand for municipal bonds, particularly from banks and property and casualty insurance companies, as companies perceive less of a need to seek out tax-advantaged investments in the wake of lower tax rates. As the economy remains strong, tax revenues continue to support the underlying financial conditions of many municipalities, reducing the perceived risk of lending money to these entities.

In this historically low-rate environment, investors continued to display yield-seeking behavior, emphasizing lower-quality credits and longer-maturity profiles. The trend towards longer-maturity bonds was exacerbated by the Federal Reserve's (the "Fed") consistent increases of the federal

funds rate. These increases have driven up the short part of the yield curve, causing many investors to avoid that part of the curve due to the challenge the rising rates pose for bond prices. This activity, in conjunction with demand on the long end, caused the yield curve to flatten. This flattening action detracted from bond returns through the five-year portion of the curve. In addition to seeking longer-maturity securities, investors opted for lower-quality credit, purchasing bonds in the lower-investment-grade and high-yield credit sectors. This demand supported prices in these sectors and contributed to spread compression.

Long Yield-Curve Positioning and Revenue-Backed Bonds Supported Fund Results

The fund's ability to generate competitive levels of tax-exempt income was enhanced during the reporting period by exposure to the long end of the curve, lower-quality spread sectors, and an overweight exposure to revenue-backed bonds. During the period, longer-maturity bonds outperformed shorter-maturity bonds. Increased exposure to the long end of the curve, coupled with a lack of exposure to the shorter end of the curve, benefited results. Lower-quality bonds outperformed higher-quality credits due to demand and spread tightening. Exposure to BBB and BBB rated bonds bolstered returns. Security selection and sector behavior also benefited results. Bonds backed by revenues from the health care sector, airports, financial institutions, and certain states' settlement of litigation with U.S. tobacco companies were additive.

Although disappointments proved relatively mild during the reporting period, higher-quality bonds lagged the overall municipal market. The fund moved out of higher-quality power company bonds into lower-quality tobacco, industrial development, and Chicago Board of Education bonds. Recognizing the constraints posed by higher financing costs in the current rising interest-rate environment, the fund maintained leverage consistent with the historical averages.

Anticipating Seasonal Effects

As the calendar year rolls over, less positive seasonal effects may contribute to market volatility as supply increases and reinvestment demand falls. Additionally, Fed action may continue to boost rates at the short end of the yield curve. While spreads have continued to tighten, thereby benefiting performance, we believe they may widen going forward. If that spread widening materializes, we plan to use proceeds from higher-quality bonds to increase our positioning in lower-quality credits to capture incremental yield and the potential for future price appreciation. In the meantime, we will continue to focus on security selection of issuers possessing strong fundamentals within the revenue bond sector that provide attractive yield.

September 17, 2018

[1] Total return includes reinvestment of dividends and any capital gains paid, based upon net asset value per share. Past performance is no guarantee of future results. Income may be subject to state and local taxes, and some income may be subject to the federal alternative minimum tax for certain investors. Capital gains, if any, are fully taxable.

[2] Annualized distribution rate per share is based upon dividends per share paid from net investment income during the period, divided by the market price per share at the end of the period, adjusted for any capital gain distributions.

[3] "Managed Assets" of the fund means the fund's total assets, including any assets attributable to effective leverage, minus certain defined accrued liabilities.

Bonds are subject generally to interest-rate, credit, liquidity, and market risks, to varying degrees. Generally, all other factors being equal, prices of investment-grade bonds are inversely related to interest-rate changes, and rate increases can cause price declines.

High yield bonds are subject to increased credit and liquidity risk and are considered speculative in terms of the issuer's perceived ability to pay interest on a timely basis and to repay principal upon maturity. Unlike investment-grade bonds, prices of high yield bonds may fluctuate unpredictably and not necessarily inversely with changes in interest rates.

The use of leverage may magnify the fund's gains or losses. For derivatives with a leveraging component, adverse changes in the value or level of the underlying asset can result in a loss that is much greater than the original investment in the derivative.

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STATEMENT OF INVESTMENTS
August 31, 2018 (Unaudited)

Description	Coupon Rate (%)	Maturity Date	Principal Amount ($)	Value ($)
Long-Term Municipal Investments - 144.7%				
Alabama - 2.5%				
	5.75	6/1/45	1,500,000	1,642,815

Birmingham Special Care Facilities Financing Authority, Improvement Revenue Bonds (Methodist Home for the Aging)				
Birmingham Special Care Facilities Financing Authority, Improvement Revenue Bonds (Methodist Home for the Aging)	6.00	6/1/50	2,350,000	2,603,917
Jefferson County, Sewer Revenue Bonds Warrants	0/7.90	10/1/23	2,500,000	a 2,151,550
				6,398,282
Arizona - 5.3%				
Phoenix Industrial Development Authority, Education Facility Revenue Bonds (BASIS Schools Projects)	5.00	7/1/45	2,000,000	b 2,048,620
Pima County Industrial Development Authority, Education Revenue Bonds (American Leadership Academy Project)	5.00	6/15/52	1,000,000	b 1,006,420
Pima County Industrial Development Authority, Education Revenue Bonds (Arizona Charter Schools Refunding Project)	5.38	7/1/31	4,375,000	4,677,181
Salt Verde Financial Corporation, Senior Gas Revenue Bonds	5.00	12/1/37	5,000,000	5,942,250
				13,674,471
California - 12.8%				
California Statewide Communities Development Authority, Revenue Bonds (Baptist University)	5.00	11/1/41	1,875,000	b 2,076,563
California Statewide Communities Development Authority, Revenue Bonds (California Baptist University)	6.38	11/1/43	2,035,000	2,349,143
Golden State Tobacco Securitization Corporation, Tobacco Settlement Asset-Backed Bonds	0.00	6/1/47	14,000,000	c 2,485,420
Golden State Tobacco Securitization Corporation, Tobacco Settlement Asset-Backed Bonds	5.00	6/1/47	2,500,000	2,570,125
Long Beach Bond Finance Authority, Natural Gas Purchase Revenue Bonds	5.50	11/15/37	5,000,000	6,438,100

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STATEMENT OF INVESTMENTS (Unaudited) (continued)

Description	Coupon Rate (%)	Maturity Date	Principal Amount ($)	Value ($)
Long-Term Municipal Investments - 144.7% (continued)				
California - 12.8% (continued)				
Riverside County Transportation Commission, Senior Lien Toll Revenue Bonds	5.75	6/1/44	3,250,000	3,601,000
San Buenaventura, Revenue Bonds (Community Memorial Health System)	7.50	12/1/41	2,500,000	2,775,975
Tobacco Securitization Authority, North Tobacco Settlement Revenue Bonds (Capital Appreciation-2nd Sub-Asset Backed C)	0.00	6/1/45	29,370,000	c 3,578,147
Tobacco Securitization Authority, Tobacco Settlement Revenue Bonds	0.00	6/1/46	10,000,000	c 1,763,700
	5.00	5/15/43	5,000,000	5,506,000

University of California Regents, Medical Center Pooled Revenue Bonds				
				33,144,173
Colorado - 4.6%				
City and County of Denver, Airport System Subordinate Revenue Bonds	5.25	11/15/43	5,000,000	5,562,600
Colorado Health Facilities Authority, Revenue Bonds (Sisters of Charity of Leavenworth Health System)	5.00	1/1/44	2,500,000	2,715,950
Dominion Water and Sanitation District, Tap Fee Revenue Bonds	6.00	12/1/46	1,910,000	2,027,179
Sterling Ranch Community Authority Board, Board Supported Revenue Bonds	5.00	12/1/38	1,500,000	1,527,225
				11,832,954
District of Columbia - 1.3%				
District of Columbia, Revenue Bonds (Knowledge is Power Program, District of Columbia Issue) (Prerefunded)	6.00	7/1/23	1,700,000	[d] 2,003,348
District of Columbia Tobacco Settlement Financing Corporation, Tobacco Settlement Asset-Backed Bonds	0.00	6/15/46	7,400,000	[c] 1,312,538
				3,315,886
Florida - 2.0%				
Davie, Educational Facilities Revenue Bonds (Nova Southeastern University Project)	5.63	4/1/43	4,805,000	**5,309,765**
Georgia - .9%				
Fulton County Development Authority, Hospital Revenue Bonds (Wellstar Health Systems)	5.00	4/1/47	1,250,000	1,375,150

Description	Coupon Rate (%)	Maturity Date	Principal Amount ($)	Value ($)
Long-Term Municipal Investments - 144.7% (continued)				
Georgia - .9% (continued)				
Gainesville and Hall County Development Authority, Educational Facilities Revenue Bonds (Riverside Military Academy)	5.00	3/1/37	1,000,000	1,057,360
				2,432,510
Illinois - 10.3%				
Chicago, Customer Facility Charge Senior Lien Revenue Bonds (Chicago O'Hare International Airport)	5.75	1/1/43	3,750,000	4,210,237
Chicago, GO (Project and Refunding Series)	6.00	1/1/38	2,500,000	2,833,775
Chicago Board of Education, GO	5.00	12/1/35	1,500,000	1,554,660
Illinois, GO, Refunding	5.00	12/1/27	3,500,000	3,742,795

Metropolitan Pier and Exposition Authority, Dedicated Tax Revenue Bonds (Capital Appreciation-McCormick Place Expansion Project) (Insured; MBIA Insurance Corporation)	0.00	12/15/36	2,500,000	c	1,081,000
Metropolitan Pier and Exposition Authority, Revenue Bonds (McCormick Place Expansion Project)	5.00	6/15/53	2,500,000		2,636,975
Tender Option Bond Trust Receipts (Series 2017-XM0492), 10/1/40, (Illinois Finance Authority, Revenue Bonds (The University of Chicago)) Non-recourse	5.00	10/1/40	7,000,000	b,e	7,756,385
University of Illinois Board of Trustees, Auxiliary Facilities System Revenue Bonds (University of Illinois)					