

Leverage in Nuveen Closed-End Funds

| Funds | Regulatory leverage | | | Portfolio leverage | |
|--|---------------------|-----|------|--------------------|-------|
| | Debt | VRP | VRRP | TOBs | Repos |
| Multi-asset | | | | | |
| NMAI | ● | | | | ● |
| Taxable fixed income | | | | | |
| JFR | ● | ● | ● | | |
| JGH | ● | | | | |
| JLS, JPI | ● | | | | ● |
| NPCT | ● | ● | | | ● |
| JQC, JPC, NPFD | ● | | ● | | ● |
| JMM | | | | | ● |
| Public real asset | | | | | |
| JRI | ● | | | | |
| Public real estate | | | | | |
| JRS | ● | | | | |
| Municipal fixed income | | | | | |
| Taxable NBB | | | | ● | ● |
| National NDMO, NMZ | | ● | | ● | |
| National NAD, NEA, NMCO, NVG, NZF | | ● | ● | ● | |
| Arizona NAZ | | ● | | | |
| California NAC | | ● | ● | ● | |
| California NKX | | | ● | ● | |
| Massachusetts NMT | | ● | | | |
| Minnesota NMS | | ● | | | |
| Missouri NOM | | ● | | ● | |
| New Jersey NXJ | | ● | | ● | |
| New York NAN | | ● | ● | ● | |
| New York NRK | | | ● | ● | |
| Pennsylvania NQP | | ● | | ● | |
| Virginia NPV | | ● | | ● | |

Includes all Nuveen funds for which effective leverage of more than 10% is a strategic part of the fund's design.

About leverage in a closed-end fund

Leverage is used by closed-end funds seeking to increase distributable income and enhance total returns. Closed-end funds may review and adjust leverage in an effort to reduce risk or capitalize on market conditions.

Leverage is created whenever a closed-end fund common shareholder has investment exposure (both reward and risk) equivalent to more than 100% of his or her investment capital.

Closed-end funds create leverage through:

- **Regulatory leverage**, which is created by the fund's issuance of debt (borrowings) or preferred shares. This type of leverage, which changes a fund's capital structure, is regulated by the Investment Company Act of 1940, as amended.
- **Portfolio leverage**, which is created by holding certain investments in a fund's portfolio that can create leverage. These investments give the closed-end fund investment exposure that is greater than the investment amount.

- **Financial transactions**, such as reverse repurchase agreements, that create leverage.

Leverage typically magnifies the total return of a fund's portfolio, whether that return is positive or negative. Leverage adds risk by creating the possibility of higher volatility for a fund's per share NAV, market price, and distributions. The use of leverage creates an opportunity for increased common share net income, but there is no assurance that a fund's leveraging strategy will be successful.

Nuveen leverage definitions

See web glossary at nuveen.com/glossary for full definitions.

Regulatory leverage

Debt

Borrowings by the fund.

Term Preferred Shares (TPS)

Taxable preferred shares issued by a closed-end fund featuring a fixed term and mandatory redemption. Issued via registered offering or private placement.

Variable Rate Preferred (VRP)

Preferred shares issued by a closed-end fund featuring a floating rate dividend based on a predetermined formula or spread to an index rate, with a fixed term and mandatory redemption.

Variable Rate Remarketed Preferred (VRRP)

Preferred shares issued by a closed-end fund featuring floating rate dividends set by a remarketing agent via a regular remarketing, with a fixed term and mandatory redemption.

Fixed Rate Preferred (FRP)

Preferred shares issued by a closed-end fund featuring fixed rate dividends, with a fixed term and mandatory redemption.

Important information on risk

There are risks inherent in any investment, including the possible loss of principal. There can be no assurance that fund objectives will be achieved. Closed-end funds frequently trade at a discount to their net asset value.

For tax-exempt funds, income is generally exempt from regular federal income tax and may be subject to state and local taxes as well as the alternative minimum tax. Capital gains, if any, are subject to tax.

This material is not intended to be a recommendation or investment advice, does not constitute a solicitation to buy, sell or hold a security or investment strategy 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 financial professionals.

Portfolio leverage

Tender Option Bonds (TOBs)

Inverse floating-rate security issued by a special purpose trust for the purpose of creating a leveraged bond security.

Reverse Repos (Repos)

A combined agreement to sell securities now, and buy them back later at a stated higher price, which effectively acts like a secured loan.

To-Be-Announced Mortgage Backed Securities (TBA-MBS)

TBAs are contracts on mortgage backed securities in which a buyer and a seller agree on general parameters (issue, mortgage type, maturity, coupon and settlement date) at trade execution for the delivery of a given amount of agency pass-through MBS on a specified date.

This document does not constitute tax advice; investors should consult their tax professionals when making investment decisions. The London Interbank Offered Rate or LIBOR, is used throughout global banking and financial industries to determine interest rates for a variety of financial instruments (such as debt instruments and derivatives) and borrowing arrangements. The United Kingdom's Financial Conduct Authority has undertaken a multi-year phase out of LIBOR. As a result, the administrator of LIBOR ceased publishing certain LIBOR settings after December 31, 2021 and expects to cease publication of all settings after June 30, 2023. The transition away from LIBOR may involve, among other things, increased volatility or illiquidity in markets for instruments that currently rely on LIBOR, such as floating-rate debt obligations. Libor risk is assessed quarterly in arrears.

Nuveen Securities, LLC, member FINRA and SIPC.