

Nuveen Proxy Voting Policy

Policy Purpose and Statement

Proxy voting is the primary means by which shareholders may influence a publicly traded company's governance and operations and thus create the potential for value and positive long-term investment performance. When an SEC registered investment adviser has proxy voting authority, the adviser has a fiduciary duty to vote proxies in the best interests of its clients and must not subrogate its clients' interests to its own. In their capacity as fiduciaries and investment advisers, Nuveen Asset Management, LLC ("NAM"), Teachers Advisors, LLC ("TAL") and TIAA-CREF Investment Management, LLC ("TCIM"), (each an "Adviser" and collectively, the "Advisers"), vote proxies for the Portfolio Companies held by their respective clients, including investment companies and other pooled investment vehicles, institutional and retail separate accounts, and other clients as applicable. The Advisers have adopted this Policy, the Nuveen Proxy Voting Guidelines, and the Nuveen Proxy Voting Conflicts of Interest Policy for voting the proxies of the Portfolio Companies they manage. The Advisers leverage the expertise and services of an internal group referred to as the Responsible Investing Team (RI Team) to administer the Advisers' proxy voting. The RI Team adheres to the Advisers' Proxy Voting Guidelines which are reasonably designed to ensure that the Advisers vote client securities in the best interests of the Advisers' clients.

Applicability

This Policy applies to Nuveen employees acting on behalf of Nuveen Asset Management, LLC, Teachers Advisors, LLC, and TIAA-CREF Investment Management, LLC

Policy Statement

Proxy voting is a key component of a Portfolio Company's corporate governance program and is the primary method for exercising shareholder rights and influencing the Portfolio Company's behavior. Nuveen makes informed voting decisions in compliance with Rule 206(4)-6 (the "Rule") of the Investment Advisers Act of 1940, as amended (the "Advisers Act") and applicable laws and regulations, (e.g., the Employee Retirement Income Security Act of 1974, "ERISA").

Enforcement

As provided in the TIAA Code of Business Conduct, all employees are expected to comply with applicable laws and regulations, as well as the relevant policies, procedures and compliance manuals that apply to Nuveen's business activities. Violation of this Policy may result in disciplinary action up to and including termination of employment.

Terms and Definitions

Advisory Personnel includes the Adviser's portfolio managers and/or research analysts.

Proxy Voting Guidelines (the "Guidelines") are a set of pre-determined principles setting forth the manner in which the Advisers intend to vote on specific voting categories, and serve to assist clients, Portfolio Companies, and other interested parties in understanding how the Advisers intend to vote on proxy-related matters. The Guidelines are not exhaustive and do not necessarily dictate how the Advisers will ultimately vote with respect to any proposal or resolution.

Portfolio Company includes any publicly traded company held in an account that is managed by an Adviser.

Policy Requirements

Investment advisers, in accordance with the Rule, are required to (i) adopt and implement written policies and procedures that are reasonably designed to ensure that proxies are voted in the best interest of clients, and address resolution of material conflicts that may arise, (ii) describe their proxy voting procedures to their clients and provide copies on request, and (iii) disclose to clients how they may obtain information on how the Advisers voted their proxies.

The Nuveen Proxy Voting Committee (the "Committee"), the Advisers, the RI Team and Nuveen Compliance are subject to the respective requirements outlined below under Roles and Responsibilities.

Although it is the general policy to vote all applicable proxies received in a timely fashion with respect to securities selected by an Adviser for current clients, the Adviser may refrain from voting in certain circumstances where such voting would be disadvantageous, materially burdensome or impractical, or otherwise inconsistent with the overall best interest of clients.

Roles and Responsibilities

Nuveen Proxy Voting Committee

The purpose of the Committee is to establish a governance framework to oversee the proxy voting activities of the Advisers in accordance with the Policy. The Committee has delegated responsibility for the implementation and ongoing administration of the Policy to the RI Team, subject to the Committee's ultimate oversight and responsibility as outlined in the Committee's Proxy Voting Charter.

Advisers

1. Advisory Personnel maintain the ultimate decision-making authority with respect to how proxies will be voted, unless otherwise instructed by a client, and may determine to vote contrary to the Guidelines and/or a vote recommendation of the RI Team if such Advisory Personnel determines it is

in the best interest of the Adviser's clients to do so. The rationale for all such contrary vote determinations will be documented and maintained.

2. When voting proxies for different groups of client accounts, Advisory Personnel may vote proxies held by the respective client accounts differently depending on the facts and circumstances specific to such client accounts. The rationale for all such vote determinations will be documented and maintained.
3. Advisory Personnel must comply with the Nuveen Proxy Voting Conflicts of Interest Policy with respect to potential material conflicts of interest.

Responsible Investing Team

1. Performs day-to-day administration of the Advisers' proxy voting processes.
2. Seeks to vote proxies in adherence to the Guidelines, which have been constructed in a manner intended to align with the best interests of clients. In applying the Guidelines, the RI Team, on behalf of the Advisers, takes into account several factors, including, but not limited to:
 - Input from Advisory Personnel
 - Third party research
 - Specific Portfolio Company context, including environmental, social and governance practices, and financial performance.
3. Delivers copies of the Advisers' Policy to clients and prospective clients upon request in a timely manner, as appropriate.
4. Assists with the disclosure of proxy votes as applicable on corporate websites and elsewhere as required by applicable regulations.
5. Prepares reports of proxies voted on behalf of the Advisers' investment company clients to their Boards or committees thereof, as applicable.
6. Performs an annual vote reconciliation for review by the Committee.
7. Arranges the annual service provider due diligence, including a review of the service provider's potential conflicts of interests, and presents the results to the Committee.
8. Facilitates quarterly Committee meetings, including agenda and meeting minute preparation.
9. Complies with the Nuveen Proxy Voting Conflicts of Interest Policy with respect to potential material conflicts of interest.
10. Creates and retains certain records in accordance with Nuveen's Record Management program.
11. Oversees the proxy voting service provider in making and retaining certain records as required under applicable regulation.
12. Assesses, in cooperation with Advisory Personnel, whether securities on loan should be recalled in order to vote their proxies.

Nuveen Compliance

1. Ensures proper disclosure of Advisers' Policy to clients as required by regulation or otherwise.
2. Ensures proper disclosure to clients of how they may obtain information on how the Advisers voted their proxies.
3. Assists the RI Team with arranging the annual service provider due diligence and presenting the results to the Committee.
4. Monitors for compliance with this Policy and retains records relating to its monitoring activities pursuant to Nuveen's Records Management program.

Governance

Review and Approval

This Policy will be reviewed at least annually and will be updated sooner if substantive changes are necessary. The Policy Leader, the Committee and the NEFI Compliance Committee are responsible for the review and approval of this Policy.

Implementation

Nuveen has established the Committee to provide centralized management and oversight of the proxy voting process administered by the RI Team for the Advisers in accordance with its Proxy Voting Committee Charter and this Policy.

Exceptions

Any request for a proposed exception or variation to this Policy will be submitted to the Committee for approval and reported to the appropriate governance committee(s), where appropriate.

Related Documents

- Nuveen Proxy Voting Committee Charter
- Nuveen Proxy Voting Guidelines
- Nuveen Proxy Voting Conflicts of Interest Policy and Procedures
- Nuveen Policy Statement on Responsible Investing

Policy Adoption Date	February 3, 2020
Current Policy Effective Date	October 1, 2022
Current Policy Approval Date	August 31, 2022
Policy Owner	Nuveen Proxy Voting Committee
Policy Leader	Managing Director, Nuveen Compliance
Policy Portal Administration	Leader: Managing Director, Nuveen Compliance Owner: Managing Director, Head of Affiliate Compliance
Criticality/Tier	Moderate