COMPENSATION COMMITTEE CHARTER OF AG MORTGAGE INVESTMENT TRUST, INC.

Purpose

The purpose of the Compensation Committee (the "Committee") of the Board of Directors (the "Board") of AG Mortgage Investment Trust, Inc. (the "Company"), if the Company is externally managed, is to: (i) evaluate the performance of AG REIT MANAGEMENT, LLC (the "Manager"); (ii) review the equity compensation and fees payable to the Manager under the management agreement between the Company and the Manager (the "Management Agreement"); (iii) administer any equity incentive plan (the "Equity Incentive Plans") and any other compensation plans, policies and programs of the Company; (iv) discharge the Board's responsibilities relating to compensation of the Company's independent directors; (v) review and recommend to the Board compensation plans, policies and programs, as desirable; (vi) prepare the compensation committee report on executive compensation required to be included in the Company's annual proxy statement; (vii) review and discuss with management the Company's compensation discussion and analysis ("CD&A") to be included in the Company's annual proxy statement; (viii) review and approve the compensation payable by the Company, if any, to the Company's officers; and (ix) review the Manager's general staffing an employee retention framework to ensure that the Manager devotes appropriate resources to the Company.

The purpose of the Committee, if the Company is internally managed, is to: (i) evaluate the performance of the Company's officers; (ii) review (and in the case of the Chief Executive Officer determine) the compensation payable, if any, to the Company's officers; (iii) administer any Equity Incentive Plans and any other compensation plans, policies and programs of the Company; (iv) discharge the Board's responsibilities relating to compensation of the Company's independent directors; (v) review and recommend to the Board compensation plans, policies and programs; (vi) prepare the compensation committee report on executive compensation required to be included in the Company's annual proxy statement; and (vii) review and discuss with management the Company's CD&A to be included in the Company's annual proxy statement.

Composition of the Committee

The Committee shall be comprised of three or more directors, each of whom (i) is determined by the Board to meet the independence standards of the New York Stock Exchange (the "NYSE") as then in effect and (ii) meets the requirements for a "Non-Employee Director" contained in Rule 16b-3 under the Securities Exchange Act of 1934, as amended, as well as any other applicable legal or regulatory requirements. Determinations as to whether a particular director satisfies the requirements for membership of the Committee shall be made by the Board.

Any vacancy on the Committee shall be filled by the Board on the recommendation of the Nominating and Corporate Governance Committee, and members shall serve for such terms as the Board may determine, or until their earlier resignation, death or removal by the Board.

Meetings

The Committee shall meet with such frequency and at such intervals as it shall determine is necessary to carry out its duties and responsibilities but, in any case, not less than twice a year. Meetings of the Committee may be called, notice of all meetings shall be given, and waiver thereof determined, and all actions of the Committee shall be conducted in accordance with the Company's by-laws.

Delegation

Except to the extent prohibited by NYSE rules or other applicable law or regulation, the Committee may form, and delegate authority to, subcommittees when it deems appropriate.

External Advisors

- 1. The Committee may, in its sole discretion, retain or obtain the advice of a compensation consultant, independent legal counsel, accounting or other advisor to assist in the evaluation of the compensation of a director, Manager, Chief Executive Officer, or executive officer, as applicable.
- 2. The Committee shall be directly responsible for the appointment, compensation and oversight of the work of any such consultant, counsel, accountant or other adviser so retained by the Committee.
- 3. The Committee shall have appropriate funding from the Company, as determined by the Committee, for the payment of reasonable compensation to any such consultant, counsel, accountant or other adviser retained by the Committee.
- 4. The Committee may select any such consultant, counsel, accountant or other adviser to the Committee only after taking into consideration all factors relevant to that entity's or person's independence from management in accordance with the requirements of NYSE as then in effect, and any standards promulgated by the Securities and Exchange Commission.

Duties and Responsibilities

If the Company is externally managed, the Committee shall:

- 1. Review at least annually the terms of the Management Agreement.
- 2. Annually review the compensation and fees payable to the Manager under the Management Agreement and evaluate the Manager's performance in light of such compensation and fees and the goals and objectives of the Company.
- 3. Evaluate annually the performance of the Manager in light of the Company's goals and objectives and to make recommendations to the Board as to any renewal terms (or with respect to any new management agreement).

- 4. Periodically review the Manager's policies and procedures regarding the allocation of investment opportunities between (i) the Company and (ii) the affiliates of the Manager and the Company to determine whether any asset allocation conflict is likely to occur and the proposed resolutions of any such conflict.
- 5. Review, at least annually, the Manager's general staffing and employee retention framework to ensure that the Manager devotes appropriate resources to the Company.
- 6. Review and monitor any Company employee and management compensation and benefit plans and policies and provide oversight of any Company employee benefit plan, to the extent applicable.
- 7. Review and make recommendations to the Board regarding the Company's compensation plans, including with respect to incentive-compensation plans and equity-based plans, policies and programs, including any Equity Incentive Plan.
- 8. Approve grants and/or awards of restricted shares, restricted share units, share options, LTIP units and other forms of equity-based compensation under any Equity Incentive Plan or other share option, incentive-compensation and equity-based plans.
- 9. Approve (i) the adoption of, and any material revisions to, plans intended to meet the requirements of Section 401(a) or Section 423 of the Internal Revenue Code or the requirements for a "parallel excess plan" contained in Section 303A.08 of the NYSE's Listed Company Manual, (ii) grants and/or awards of equity-based compensation under any plans acquired in corporate acquisitions or mergers and any conversions, replacements or adjustments of outstanding share options or other equity-based compensation awards made to reflect an acquisition or a merger and (iii) any inducement grants of share options or other equity-based compensation made to persons hired or rehired by the Company or any of its subsidiaries, if any.
- 10. If the Company chooses to separately compensate the Chief Executive Officer, determine his or her compensation level, based on the Company's performance and the Committee's evaluation of the Chief Executive Officer and other relevant factors.
- 11. If the Company chooses to separately compensate the other executive officers of the Company, the Committee and the Chief Executive Officer shall together recommend appropriate compensation of such officers to the Board. The Committee and Chief Executive Officer shall consider all relevant factors in determining its recommendation.
- 12. If the Company determines to enter into employment agreements, severance agreements and/or change in control agreements with the Chief Executive Officer and/or the other executive officers of the Company, review and make recommendations to the Board regarding whether to approve such agreements.
- 13. Evaluate and recommend to the full Board appropriate compensation for the Company's directors, including compensation and expense reimbursement policies for attendance at Board

and committee meetings.

- 14. Prepare the compensation committee report on executive compensation required to be included in the Company's annual proxy statement.
- 15. Review and discuss with management the Company's CD&A, and based on that review and discussion, recommend to the Board that the CD&A be included in the Company's annual proxy statement.
- 16. In consultation with counsel to the Company, review and assess on a periodic basis the Company's compliance with all laws and regulations relating to compensation and employee benefits, ERISA, labor laws, employment discrimination and other human resources matters, if applicable.
- 17. Review and approve any perquisites or other personal benefits to the Company's executive officers and directors.
- 18. Review and reassess the adequacy of this Charter annually and recommend any proposed changes to the Board for approval.
- 19. Conduct an annual performance evaluation of the Committee to, at a minimum, (i) compare the performance of the Committee to the requirements of this Charter and any other duties or responsibilities delegated to the Committee by the Board and (ii) recommend to the Board any improvements to this Charter that the Committee deems to be necessary or appropriate, and report to the Board the results of the evaluation, which may take the form of an oral presentation by a member of the Committee to the Board.
- 20. Report to the Board on a regular basis and make such recommendations with respect to any of the above and other matters as the Committee deems necessary or appropriate.
- 21. Perform such other duties and responsibilities, consistent with this Charter, delegated to the Committee by the Board or required under the provisions of any compensation or benefit plan maintained by the Company.

If the Company is internally managed, the Committee shall:

- 1. Review and monitor any Company employee and management compensation and benefit plans and policies and provide oversight of any Company employee benefit plan, to the extent applicable.
- 2. Review and make recommendations to the Board regarding the Company's compensation plans, including with respect to incentive-compensation plans and equity-based plans, policies and programs, including any Equity Incentive Plan.
- 3. Approve grants and/or awards of restricted shares, restricted share units, share options, LTIP units and other forms of equity-based compensation under any Equity Incentive Plan or

other share option, incentive-compensation and equity-based plans.

- 4. Approve (i) the adoption of, and any material revisions to, plans intended to meet the requirements of Section 401(a) or Section 423 of the Internal Revenue Code or the requirements for a "parallel excess plan" contained in Section 303A.08 of the NYSE's Listed Company Manual, (ii) grants and/or awards of equity-based compensation under any plans acquired in corporate acquisitions or mergers and any conversions, replacements or adjustments of outstanding share options or other equity-based compensation awards made to reflect an acquisition or a merger and (iii) any inducement grants of share options or other equity-based compensation made to persons hired or rehired by the Company or any of its subsidiaries, if any.
- 5. Review and approve corporate goals and objectives of the Company relevant to the Chief Executive Officer's compensation. Evaluate annually the performance of the Chief Executive Officer in light of such goals and objectives and present its evaluation to the independent directors.
- 6. Determine the compensation level of the Chief Executive Officer, based on the Company's performance, the Committee's evaluation of the Chief Executive Officer, and any other relevant factors.
- 7. Evaluate annually the performance of the executive officers of the Company in light of the goals and objectives of the Company.
- 8. The Committee and the Chief Executive Officer shall together recommend appropriate compensation of the other executive officers to the Board. The Committee and Chief Executive Officer shall consider all relevant factors in determining its recommendations.
- 9. Review and make recommendations to the Board regarding whether to enter into and/or approve employment agreements, severance agreements and/or change of control agreements with the Chief Executive Officer and/or the other executive officers of the Company.
- 10. Evaluate and recommend to the full Board appropriate compensation for the Company's directors, including compensation and expense reimbursement policies for attendance at Board and committee meetings.
- 11. Prepare the compensation committee report on executive compensation required to be included in the Company's annual proxy statement.
- 12. Review and discuss with management the Company's CD&A, and based on that review and discussion, recommend to the Board that the CD&A be included in the Company's annual proxy statement.
- 13. In consultation with counsel to the Company, review and assess on a periodic basis the Company's compliance with all laws and regulations relating to compensation and employee benefits, ERISA, labor laws, employment discrimination and other human resources matters.

- 14. Review and approve any perquisites or other personal benefits to the Company's executive officers and directors.
- 15. Review and reassess the adequacy of this Charter annually and recommend any proposed changes to the Board for approval.
- 16. Conduct an annual performance evaluation of the Committee to, at a minimum, (i) compare the performance of the Committee to the requirements of this Charter and any other duties or responsibilities delegated to the Committee by the Board and (ii) recommend to the Board any improvements to this Charter that the Committee deems to be necessary or appropriate, and report to the Board the results of the evaluation, which may take the form of an oral presentation by a member of the Committee to the Board.
- 17. Report to the Board on a regular basis and make such recommendations with respect to any of the above and other matters as the Committee deems necessary or appropriate.
- 18. Perform such other duties and responsibilities, consistent with this Charter, delegated to the Committee by the Board or required under the provisions of any compensation or benefit plan maintained by the Company.

As Amended Effective February 26, 2020