

TWELFTH AMENDED AND RESTATED
OPERATING AGREEMENT
OF
NYSE AMERICAN LLC

This Twelfth Amended and Restated Operating Agreement (this “Agreement”) of NYSE American LLC, previously named NYSE MKT LLC, American Stock Exchange 2, LLC, NYSE Alternext US LLC and NYSE Amex LLC (the “Company”), dated and effective as of December 17, 2018, is entered into by NYSE Group, Inc. (the “Member”), a Delaware corporation and an indirect wholly owned subsidiary of Intercontinental Exchange, Inc. (“ICE”), under the Delaware Limited Liability Company Act, 6 Del. C. §18-101, *et seq.* (as amended from time to time and any successor statute thereto, the “Act”).

WHEREAS, the Company was formed by the filing of the Certificate of Formation with the Secretary of State of the State of Delaware on January 9, 2008;

WHEREAS, an amendment to the Certificate of Formation, changing the Company’s name from “American Stock Exchange 2, LLC” to “NYSE Alternext US LLC,” was filed with the Secretary of State of the State of Delaware on September 30, 2008 and effective on October 1, 2008; another amendment to the Certificate of Formation, changing the Company’s name from “NYSE Alternext US LLC” to “NYSE Amex LLC,” was filed with the Secretary of State of the State of Delaware on March 18, 2009 and effective on March 18, 2009; another amendment to the Certificate of Formation, changing the Company’s name from “NYSE Amex LLC” to “NYSE MKT LLC,” was filed with the Secretary of State of the State of Delaware on May 14, 2012 and effective on May 14, 2012; and another amendment to the Certificate of Formation, changing the Company’s name from “NYSE MKT LLC” to “NYSE American LLC,” was filed with the Secretary of State of the State of Delaware on July 20, 2017 and effective on July 21, 2017;

WHEREAS, American Stock Exchange Holdings, Inc. (“Holdings”), as the sole member of the Company, entered into an Operating Agreement of the Company, dated as of January 17, 2008 and amended as of September 18, 2008 (the “Original Operating Agreement”);

WHEREAS, Amsterdam Merger Sub, LLC was a party to a Merger Agreement, dated as of January 17, 2008 (as it may be amended from time to time, the “NYSE/Amex Merger Agreement”), by and among NYSE Euronext, Amsterdam Merger Sub, LLC, The Amex Membership Corporation, AMC Acquisition Sub, Inc., Holdings, American Stock Exchange LLC and the Company, pursuant to which, among other things, (i) American Stock Exchange LLC merged with and into the Company (such merger, the “LLC Merger”) and (ii) Holdings merged with and into Amsterdam Merger Sub, LLC (such merger, the “NYSE/Amex Merger”);

WHEREAS, upon the completion of the NYSE/Amex Merger, Amsterdam Merger Sub, LLC became the sole member of the Company as the successor to Holdings;

WHEREAS, following the NYSE/Amex Merger, NYSE Euronext contributed its interest in Amsterdam Merger Sub, LLC to the Member, and the Member became an indirect parent of the Company;

WHEREAS, Amsterdam Merger Sub, LLC merged with and into the Company (such merger, the “Internal Merger”) and the Member became the sole member of the Company;

WHEREAS, in connection with the transactions contemplated by the NYSE/Amex Merger Agreement and the changes of the Company’s name as described above, each of the Board (as defined below) and the Member, in its capacity as the sole member of the Company, approved and adopted an Amended and Restated Operating Agreement effective as of October 1, 2008;

WHEREAS, this Agreement was subsequently amended and restated as of March 18, 2009 and May 14, 2012 in connection with the changes of the name of the Company referenced above, on August 23, 2012 to modify the requirements for Directors (as defined herein), on November 13, 2013 in connection with the acquisition by ICE (then known as IntercontinentalExchange Group, Inc.) of the Company’s ultimate parent, NYSE Euronext (reconstituted on that date as NYSE Euronext Holdings LLC), and in connection with the renaming of ICE, NYSE Euronext Holdings LLC and certain other affiliated entities on June 2, 2014 , and on December 29, 2014, in connection with the dissolution of a certain trust established in 2007 in connection with the combination of the Member with Euronext N.V.;

WHEREAS, this Agreement was further amended and restated as of June 12, 2015, in connection with an amendment to Article II, Section 2.03 hereof, and as of February 16, 2016 in connection with the establishment of the Committee for Review of the Board of Directors of the Company;

WHEREAS, this Agreement was further amended and restated as of May 25, 2016, in connection with amendments to Article II, Section 2.03 hereof and to revise obsolete terms; as of November 7, 2016 in connection with amendments to Article IV, Section 4.05 hereof; and as of March 15, 2018, in connection with the Company’s renaming;

WHEREAS, the Member has determined to amend and restate this Agreement in connection with amendments to Article II, Section 2.03(h)(ii) and Article VI, Section 6.02 and Section 6.03 hereof; and

NOW, THEREFORE, the Member hereby amends and restates in its entirety the Original Operating Agreement, as previously amended and restated as of October 1, 2008, March 18, 2009, May 14, 2012, August 23, 2012, November 13, 2013, June 2, 2014, December 29, 2014, June 12, 2015, February 16, 2016, May 25, 2016,

November 7, 2016, and March 15, 2018; and adopts the following as the operating agreement of the Company within the meaning of the Act:

ARTICLE I

NAME, FORMATION, CONTINUATION AND POWERS

SECTION 1.01. Name. The name of the limited liability company for which this Agreement serves as the operating agreement under the Act is “NYSE American LLC”.

SECTION 1.02. Certificate of Formation and Continuation. The Company has been formed as a limited liability company pursuant to the provisions of the Act by the execution of the Certificate of Formation, and the filing of the Certificate of Formation with the office of the Secretary of State of the State of Delaware, on January 9, 2008. This Agreement shall be deemed to be effective as of the effective time of the Internal Merger. The Member hereby adopts, confirms and ratifies the Certificate of Formation, as amended, and all acts taken in connection therewith. The Member or a manager under the Act shall execute, deliver and file any other certificates (and any amendments and/or restatements thereof) necessary for the Company to qualify to do business in a jurisdiction in which the Company may wish to conduct business.

SECTION 1.03. Purpose and Scope of Activity. The Company has been formed for the object and purpose of, and the nature of the business to be conducted by the Company is, to: (a) conduct and carry on the functions of an “exchange” within the meaning of that term in the U.S. Securities Exchange Act of 1934, as amended (the “Exchange Act”), (b) to engage in any other lawful business purpose or activity for which limited liability companies may be formed under the Act, and (c) to engage in any and all activities necessary or incidental to the foregoing. The Company shall possess and may exercise all the powers and privileges granted by the Act or by any other law or by this Agreement, together with any powers incidental thereto, that are necessary or convenient to the conduct, promotion or attainment of the business, purposes or activities of the Company.

SECTION 1.04. Principal Place of Business. For purposes of the Act, the principal place of business of the Company shall be located in New York, New York or at such other place as may hereafter be designated from time to time by the Member.

SECTION 1.05. Registered Office. The address of the registered office of the Company in the State of Delaware is United Agent Group Inc. located at 3411 Silverside Road, Tatnall Building No. 104, Wilmington, County of New Castle, State of Delaware 19810. At any time, the Company may designate another registered office.

SECTION 1.06. Registered Agent. The name and address of the registered agent of the Company for service of process on the Company in the State of Delaware is United Agent Group Inc. located at 3411 Silverside Road, Tatnall Building No. 104, Wilmington, County of New Castle, State of Delaware 19810. At any time, the Company may designate another registered agent.

SECTION 1.07. Authorized Persons. The execution and causing to be filed of the Certificate of Formation by the applicable authorized persons are hereby specifically ratified, adopted and confirmed. The officers of the Company are hereby designated as authorized persons, within the meaning of the Act, to act in connection with executing and causing to be filed, when approved by the appropriate governing body or bodies hereunder, any certificates required or permitted to be filed with the Secretary of State of the State of Delaware and any certificates (and any amendments and/or restatements thereof) necessary for the Company to file in any jurisdiction in which the Company is required to make a filing.

ARTICLE II

MANAGEMENT

SECTION 2.01. Management Generally. Except as otherwise expressly provided in this Agreement, the business and affairs of the Company shall be managed under the direction of the board of directors of the Company (the “Board”). In addition to the powers and authorities by this Agreement expressly conferred upon them, the Board may exercise all such powers of the Company and do all such lawful acts and things as are not by the Act or by this Agreement required to be exercised or done by the Member(s). Certain powers and authorities of the Board may be concurrently allocated to or executed by the Chief Executive Officer, or one or more other officers, when and to the extent expressly delegated thereto by the Board in accordance with this Agreement; provided, that any such delegation may be revoked at any time and for any reason by the Board. Approval by or action taken by the Board in accordance with this Agreement shall constitute approval or action by the Company and shall be binding on the Member(s). Each Director (as defined below) on the Board shall be a “manager” of the Company within the meaning of the Act.

SECTION 2.02. Rules; Supervision of Member Organizations. In furtherance and not in limitation of the foregoing, the Board shall have general supervision over members and member organizations (as defined in Rules 18 and 24 of the Company, respectively) of the Company (collectively, “Member Organizations”) and over approved persons (as defined in Rule 25 of the Company) in connection with their conduct with or affecting Member Organizations. The Board may examine into the business conduct and financial condition of Member Organizations, shall have supervision over partnership and corporate arrangements and over all offices of Member Organizations, whether foreign or domestic, and over all persons employed by such Member Organizations (and may, by affirmative vote of a majority of the Directors then in office, adopt, amend or repeal rules with respect to the employment, compensation and duties of such employees), shall have supervision relating to the collection, dissemination and use of quotations and of reports of prices on the exchange operated by the Company, shall have the power to approve or disapprove of any connection or means of communication with the floor and may require the discontinuance of any such connection or means of communication, may disapprove of any member acting as a specialist, designated market maker (as defined in Rule 2 of the Company Rules) (“DMM”) or odd lot dealer, and may, by affirmative vote of a majority of the Directors then in office,

adopt, amend or repeal any rules as it may deem necessary or appropriate in connection with any of the foregoing, including, without limitation, rules relating to: the discipline of Member Organizations, approved persons and registered and non-registered employees of Member Organizations for the violation of applicable law or the rules of the Company; and the arbitration of any controversy between parties who are Member Organizations and any controversy between a Member Organization and any other person arising out of the business of such Member Organization. For purposes of clarity, each reference to a “member” in this Section 2.02 shall refer to a member of the Company as a self-regulatory organization under the Exchange Act, and not as a member of the Company under the Act.

SECTION 2.03. Board. (a) Composition.

(i) Generally. The Board shall consist of a number of managers (referred to herein as “Directors”) as determined by the Member from time to time; provided that (1) a majority of the Directors of the Company shall be U.S. Persons that satisfy the independence requirements of the Company (the “Company Director Independence Policy” and each such member, an “Independent Director”); and (2) at least twenty percent (20%) of the Directors shall be persons who are not members of the board of directors of ICE (the “Non-Affiliated Directors”). The Non-Affiliated Directors need not be independent, and must meet any status or constituent affiliation qualifications prescribed by the Company and filed with and approved by the U.S. Securities and Exchange Commission (the “SEC”). Any person who is not qualified to serve pursuant to this Section 2.03(i) shall not be eligible to serve as a Director and therefore shall not be elected or appointed to serve as a Director. For purposes of calculation of the minimum number of Non-Affiliated Directors, if 20 percent of the Directors is not a whole number, such number of Directors to be nominated and selected by the Member Organizations will be rounded up to the next whole number. A “U.S. Person” shall mean, as of the date of his or her most recent election or appointment as a director, any person whose domicile as of such date is and for the immediately preceding twenty-four (24) months shall have been the United States.

(ii) Independent Directors. Subject to the requirements set forth in Section 2.03(a)(i), each member of the board of directors who ceases to be an Independent Director, whether because of removal, resignation, death, retirement or any other reason, shall, immediately as of such cessation of being an Independent Director and without any further action on the part of the Member or the Company, be removed as a Director and shall cease to be a manager of the Company within the meaning of the Act.

(iii) Non-Affiliated Directors. The Member shall appoint or elect as Non-Affiliated Directors the candidates nominated by the Director Candidate Recommendation Committee of the Company (such committee, the “NYSE American DCRC” and such candidates, the “Non-Affiliated Director Candidates”). The Non-Affiliated Director Candidates shall be the candidates (the

“DCRC Candidates”) recommended by the NYSE American DCRC; provided, however, that, if there shall be any Petition Candidates (as defined below), the Non-Affiliated Director Candidates shall be the candidates that emerge from the process described in Sections 2.03(a)(iv) and (v) below (such recommended candidates, or the DCRC Candidates if there are no Petition Candidates, the “Fair Representation Candidates”). The number of available Fair Representation Candidate positions shall be limited to the number necessary so that twenty percent (20%) of the Directors are Fair Representation Candidates. For the avoidance of doubt, it is noted that there may be additional Non-Affiliated Directors who are not appointed or elected from Fair Representation Candidates.

(iv) Petition Candidates. The DCRC Candidates that are recommended by the NYSE American DCRC will be announced to the Member Organizations on a date in each year (the “Announcement Date”) sufficient to accommodate the process described in this Section 2.03(a)(iv) and Section 2.03(a)(v) for the proposal by Member Organizations of alternate candidates by petition (such candidates, the “Petition Candidates”) for any available Fair Representation Candidate position. Following the Announcement Date, and subject to the limitations described in this Section 2.03(a)(iv) and Section 2.03(a)(v), a person shall be a Petition Candidate if a properly completed petition shall be completed and such person shall be endorsed by a number of signatures equal to at least ten percent (10%) of the signatures eligible to endorse a candidate as described below. For purposes of determining whether a person has been endorsed by the requisite ten percent (10%) of signatures to be a Petition Candidate, each Member Organization in good standing shall be entitled to one signature for each 86 Trinity Permit (as the term is defined in the rules of the Company), equity trading permit or options trading permit issued by the Company owned by it; provided, however, that no Member Organization, either alone or together with its affiliates as defined under Rule 12b-2 under the Exchange Act (“Affiliates”), may account for more than fifty percent (50%) of the signatures endorsing a particular Petition Candidate, and any signatures of such Member Organization, either alone or together with its Affiliates, in excess of such fifty percent (50%) limitation shall be disregarded.

Each petition for a Petition Candidate must include a completed questionnaire used to gather information concerning Non-Affiliated Director candidates (the Company shall provide the form of questionnaire upon the request of any Member Organization). The petitions must be filed with the Company within two weeks after the Announcement Date. Notwithstanding anything to the contrary, the Company will determine whether any person endorsed to be a Petition Candidate is eligible to be a Fair Representation Candidate (including whether such person is free of any statutory disqualification (as defined in section 3(a)(39) of the Exchange Act)), and such determination will be final and conclusive.

(v) Voting. If the sum of the number of DCRC Candidates and the number of Petition Candidates exceeds the number of available Fair

Representation Candidate positions, all such candidates shall be submitted to the Member Organizations for a vote. The candidates receiving the highest number of votes for the available Fair Representation Candidate positions shall be the Fair Representation Candidates nominated by the NYSE American DCRC. The Member Organizations will be afforded a confidential voting procedure and will be given no less than 20 business days to submit their votes. For purposes of determining which candidates received the highest number of votes and therefore should be the Fair Representation Candidates nominated by the NYSE American DCRC, each Member Organization in good standing shall be entitled to one vote for each 86 Trinity Permit (as the term is defined in the rules of the Company), equity trading permit or options trading permit issued by the Company owned by it; provided, however, that no Member Organization, either alone or together with its Affiliates, may account for more than twenty percent (20%) of the votes cast for a candidate, and any votes cast by such Member Organization, either alone or together with its Affiliates, in excess of such twenty percent (20%) limitation shall be disregarded.

(b) Compensation. Directors of the Company, in their capacity as such, shall not be entitled to compensation, unless, and to the extent, approved by the Member.

(c) Meetings. Meetings of the Board shall be held at the Company's principal place of business or such other place, within or without the State of Delaware, that has been designated from time to time by the Board. Meetings of the Board for any purpose or purposes may be called at any time by (i) the Member, (ii) the Chief Executive Officer, (iii) the Chairman of the Board, or (iv) a majority of the Directors then in office. Notice of any meeting of the Board shall be given to each Director at his business or residence in writing by hand delivery, first-class or overnight mail or courier service, electronic mail transmission, telegram or facsimile transmission, or orally by telephone. If mailed by first-class mail, such notice shall be deemed adequately delivered when deposited in the United States mails so addressed, with postage thereon prepaid, at least five (5) days before such meeting. If by telegram, overnight mail or courier service, such notice shall be deemed adequately delivered when the telegram is delivered to the telegraph company or the notice is delivered to the overnight mail or courier service company at least twenty-four (24) hours before such meeting. If by electronic mail transmission, such notice shall be deemed adequately delivered when the notice is transmitted at least twenty-four (24) hours before such meeting. If by facsimile transmission, such notice shall be deemed adequately delivered when the notice is transmitted at least twelve (12) hours before such meeting. If by telephone or by hand delivery, the notice shall be given at least twelve (12) hours prior to the time set for the meeting. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the Board need be specified in the notice of such meeting. A meeting may be held at any time without notice if all the Directors are present or if those not present waive notice of the meeting in accordance with Section 2.03(f) of this Agreement.

(d) Quorum; Alternates; Participation in Meetings by Conference Telephone Permitted. Except as otherwise required by law, the presence of a majority of the Directors then in office shall constitute a quorum for the transaction of business. If at any meeting of the Board there shall be less than a quorum present, a majority of the Directors present may adjourn the meeting from time to time without further notice. Directors may participate in a meeting of the Board through use of conference telephone or similar communications equipment, so long as all Directors participating in such meeting can communicate with and hear one another. The Directors present at a duly organized meeting may continue to transact business until adjournment, notwithstanding the withdrawal of enough Directors to leave less than a quorum.

(e) Vote Required for Action. The act of the majority of the Directors present at a meeting of the Board at which a quorum is present shall be the act of the Board.

(f) Waiver of Notice; Consent to Meeting. Notice of a meeting need not be given to any Director who signs a waiver of notice or a consent to holding the meeting or an approval of the minutes thereof, whether before or after the meeting, or who attends the meeting without protesting, prior thereto or at its commencement, the lack of notice to such Director. All such waivers, consents and approvals shall be filed with the Company's records and made a part of the minutes of the meeting.

(g) Action by Board Without a Meeting. Any action required or permitted to be taken by the Board may be taken without a meeting and without prior notice if a majority of the Directors then in office shall individually or collectively consent in writing to such action. Such written consent or consents shall be filed with the minutes of the proceedings of the Board. Such action by written consent shall have the same force and effect as a vote of the Board in favor of such action.

(h) Committees. The Board may delegate any of its powers to a committee appointed by the Board which may consist partly or entirely of non-Directors and every such committee shall conform to such directions as the Board shall impose on it. Vacancies in the membership of any committee shall be filled by the Board.

(i) NYSE American DCRC. The Board shall, on an annual basis, appoint the NYSE American DCRC. The NYSE American DCRC will be responsible for nominating Non-Affiliated Director Candidates. The NYSE American DCRC shall include individuals who are (i) associated with a Member Organization that engages in a business involving substantial direct contact with securities customers, (ii) associated with a Member Organization and registered as a specialist or DMM and spend a substantial part of their time on the trading floor of the Company, or (iii) associated with a Member Organization and spend a majority of their time on the trading floor of the Company and have as a substantial part of their business the execution of transactions on the trading floor of the Company for other than their own account or the account of his or her Member Organization, but are not registered as a specialist or DMM. The Board

will appoint such individuals after appropriate consultation with representatives of Member Organizations.

(ii) Regulatory Oversight Committee. The Board shall, on an annual basis, appoint the Regulatory Oversight Committee (“ROC”). The ROC shall oversee the Company’s regulatory and self-regulatory organization responsibilities and evaluate the adequacy and effectiveness of the Company’s regulatory and self-regulatory organization responsibilities; assess the Company’s regulatory performance; and advise and make recommendations to the Board or other committees of the Board about the Company’s regulatory compliance, effectiveness and plans. In furtherance of its functions, the ROC shall (A) review the regulatory budget of the Company and specifically inquire into the adequacy of resources available in the budget for regulatory activities; (B) meet regularly with the Chief Regulatory Officer in executive session; (C) in consultation with the Chief Executive Officer of the Company, establish the goals, assess the performance, and recommend the compensation of the Chief Regulatory Officer; and (D) keep the Board informed with respect to the foregoing. The ROC shall consist of at least three members, each of whom shall be a Director of the Company that satisfies the independence requirements of the Company Director Independence Policy. The Board may, on affirmative vote of a majority of directors then in office, at any time remove a member of the ROC for cause. A failure of the member to qualify as independent under the independence policy shall constitute a basis to remove a member of the ROC for cause. If the term of office of a ROC committee member terminates under this Section, and the remaining term of office of such committee member at the time of termination is not more than three months, during the period of vacancy the ROC shall not be deemed to be in violation of the compositional requirements of such committee set forth in this Agreement by virtue of such vacancy.

(iii) Committee for Review. The Board shall, on an annual basis, appoint a Committee for Review (“CFR”) as a sub-committee of the ROC. The CFR will be responsible for reviewing the disciplinary decisions on behalf of the Board of Directors; reviewing determinations to limit or prohibit the continued listing of an issuer's securities on the exchange operated by the Company; and acting in an advisory capacity to the Board with respect to disciplinary matters, the listing and delisting of securities, regulatory programs, rulemaking, and regulatory rules, including trading rules. The CFR will be comprised of both Directors of the Company that satisfy the independence requirements for Directors of the Company as well as persons who are not Directors; provided, however, that a majority of the members of the CFR voting on a matter subject to a vote of the CFR must be Directors of the Company. Among the persons on the CFR who are not Directors, there will be included at least one individual from each of the following categories: (i) individuals who are associated with a Member Organization that engages in a business involving substantial direct contact with securities customers, (ii) individuals who are associated with a Member Organization and registered as a DMM or specialist, and (iii) individuals who are associated with a Member Organization and have as a substantial part of

their business the execution of transactions on the trading floor of the Company for other than their own account or the account of his or her Member Organization, but are not registered as a DMM or specialist. The Board will appoint such individuals associated with Member Organizations.

(i) Records. The Board shall cause to be kept a record containing the minutes of the proceedings of the meetings of the Board, appropriate books and registers and such books of records and accounts as may be necessary for the proper conduct of the business of the Company.

(j) Agents. To the extent of their powers set forth in this Agreement, the Directors are agents of the Company for the purpose of the Company's business, and the actions of the Directors taken in accordance with such powers set forth in this Agreement shall bind the Company. Except as provided in this Agreement or in a resolution of the Directors, a Director may not bind the Company.

(k) Considerations of the Board. In discharging his or her responsibilities as a member of the Board, each Director must, to the fullest extent permitted by applicable law, take into consideration the effect that the Company's actions would have on the ability of the Company to carry out its responsibilities under the Exchange Act.

(l) Term of Office; Resignation; Removal; Vacancies. Each Director shall hold office until his or her successor is elected or appointed and qualified or until his or her earlier resignation or removal. Any Director may resign at any time upon written notice to the Board or to such person or persons as the Board may designate. Such resignation shall take effect at the time specified therein, and unless otherwise specified therein no acceptance of such resignation shall be necessary to make it effective. The Member may remove any Director with or without cause at any time; provided, however, that any Director that is appointed or elected from the Fair Representation Candidates may be removed only for cause, which shall include, without limitation, the failure of such Director to be free of any statutory disqualification (as defined in section 3(a)(39) of the Exchange Act). Vacancies and newly created directorships resulting from any increase in the authorized number of Directors or from any other cause shall be filled by, and only by, a majority of the Directors then in office, although less than a quorum, or by the sole remaining Director; provided that, if a vacancy results from the death, retirement, resignation, disqualification or removal from office of a U.S. Person, then the Director chosen to fill such vacancy shall be a U.S. Person. If a vacancy results from an increase in the number of Directors which occurs between annual meetings of the stockholders at which Directors are elected, then, if necessary for U.S. Persons to remain a majority of the Board, a U.S. Person shall fill such vacancy. Any Director appointed to fill a vacancy or a newly created directorship shall hold office until his or her successor is elected and qualified or until his or her earlier resignation or removal.

SECTION 2.04. Officers. (a) The Company may have one or more officers as the Board from time to time may deem proper. Such officers shall have such powers and duties as from time to time may be conferred by the Board or by any

committee thereof. Any number of offices may be held by the same person and directors may hold any office. For so long as ICE directly or indirectly owns all of the equity interest of the Member and the Member holds 100 percent of the limited liability company interest of the Company, the Chief Executive Officer of the Company shall be a U.S. Person.

(b) Term of Office; Resignation; Removal; Vacancies. Unless otherwise provided in the resolution of the Board electing or authorizing the appointment of any officer, each officer shall hold office until his or her successor is elected or appointed and qualified or until his or her earlier resignation or removal. Any officer may resign at any time upon written notice to the Board or to such person or persons as the Board may designate. Such resignation shall take effect at the time specified therein, and unless otherwise specified therein no acceptance of such resignation shall be necessary to make it effective. The Board may remove any officer with or without cause at any time. Any officer authorized by the Board to appoint a person to hold an office of the Company may also remove such person from such office with or without cause at any time, unless otherwise provided in the resolution of the Board providing such authorization. Any vacancy occurring in any office of the Company by death, resignation, removal or otherwise may be filled by the Board at any regular or special meeting or by an officer authorized by the Board to appoint a person to hold such office.

(c) Powers and Duties. The officers of the Company shall have such powers and duties in the management of the Company as shall be stated in this Agreement or in a resolution of the Board which is not inconsistent with this Agreement and, to the extent not so stated, as generally pertain to their respective offices, subject to the control of the Board. The Board may require any officer, agent or employee to give security for the faithful performance of his or her duties.

(d) Contracts. Notwithstanding any other provision contained in this Agreement and except as required by law, any contracts or other instruments may be executed and delivered in the name and on the behalf of the Company by such officer or officers of the Company as the Board may from time to time direct. Such authority may be general or confined to specific instances as the Board may determine.

ARTICLE III

MEMBER; INTERESTS; LIMITED LIABILITY

SECTION 3.01. Member. The sole member under §18-101 of the Act shall be the Member. The name and the mailing address of the Member is set forth on Schedule A attached hereto.

SECTION 3.02. Interests. There shall be only one class of limited liability company interests, all of which are held by the Member(s).

SECTION 3.03. No Transfers. The Member may not transfer or assign its limited liability company interest, in whole or in part, to any person or entity, unless such

transfer or assignment shall be filed with and approved by the SEC under Section 19 of the Exchange Act and the rules promulgated thereunder. Any transferee shall be admitted to the Company as a member upon its execution of an instrument signifying its agreement to be bound by the terms and conditions of this Agreement. If the Member transfers all of its interest in the Company pursuant to this Section 3.03, such admission shall be deemed effective immediately prior to the transfer, and, immediately following such admission, the transferor Member shall cease to be a member of the Company.

SECTION 3.04. Resignation. The Member may resign from the Company only if an additional member shall be admitted to the Company as the Member, upon its execution of an instrument signifying its agreement to be bound by the terms and conditions of this Agreement; provided that any resignation of the Member and any admission of an additional member shall be filed with and approved by the SEC under Section 19 of the Exchange Act and the rules promulgated thereunder. Such admission shall be deemed effective immediately prior to the resignation, and, immediately following such admission, the resigning Member shall cease to be a member of the Company.

SECTION 3.05. Admission of Additional Members. One (1) or more additional members of the Company may be admitted to the Company with the written consent of the Member; provided that any admission of an additional member shall be filed with and approved by the SEC under Section 19 of the Exchange Act and the rules promulgated thereunder.

SECTION 3.06. Limited Liability. Except as otherwise expressly provided by the Act and notwithstanding anything in herein to the contrary, the debts, obligations and liabilities of the Company, whether arising in contract, tort or otherwise, shall be solely the debts, obligations and liabilities of the Company, and neither the Member nor any Director shall be obligated personally for any such debt, obligation or liability of the Company solely by reason of being a member, manager or director of the Company.

SECTION 3.07. Other Business. The Member may engage in or possess an interest in other business ventures (unconnected with the Company) of every kind and description, independently or with others. The Company shall not have any rights in or to such independent ventures or the income or profits therefrom by virtue of this Agreement.

ARTICLE IV

CAPITAL; ALLOCATIONS; DISTRIBUTIONS

SECTION 4.01. Capital Contributions. The Member is deemed admitted as the Member of the Company upon its execution and delivery of this Agreement. The Member has contributed to the Company the amount listed on Schedule A attached hereto.

SECTION 4.02. Additional Capital Contributions. The Member is not required to make any additional capital contribution to the Company. However, the Member may make additional capital contributions to the Company in its sole discretion.

SECTION 4.03. Allocation of Profits and Losses. The net profits or net losses of the Company for each fiscal period (and each item of income, gain, loss, deduction, or credit for income tax purposes) shall be allocated to the Member. The percentage interest of the Member in the Company is 100%.

SECTION 4.04. Distributions. Distributions shall be made to the Member at the times and in the aggregate amounts determined by the Member. Notwithstanding any provision to the contrary contained in this Agreement, the Company shall not make a distribution to any Member on account of its interest in the Company if such distribution would violate the Act or other applicable law.

SECTION 4.05. Limitation on Distributions. Any regulatory assets or any regulatory fees, fines or penalties collected by Company regulatory staff will be applied to fund the legal, regulatory and surveillance operations of the Company, and the Company shall not distribute such assets, fees, fines or penalties to the Member or any other entity.

ARTICLE V

DISSOLUTION; LIQUIDATION

SECTION 5.01. Dissolution. (a) The Company shall dissolve, and its affairs shall be wound up upon the first to occur of the following: (i) the written consent of the Member, (ii) at any time there are no members of the Company unless the Company is continued in a manner permitted by the Act, or (iii) the entry of a decree of judicial dissolution under the Act or applicable law.

(b) The bankruptcy of the Member will not cause the Member to cease to be a member of the Company and upon the occurrence of such an event, the business of the Company shall continue without dissolution.

(c) In the event of dissolution, the Company shall conduct only such activities as are necessary to wind up its affairs (including the sale of the assets of the Company in an orderly manner), and the assets of the Company shall be applied in the manner, and in the order of priority, set forth under the Act.

SECTION 5.02. Liquidation. Upon a dissolution pursuant to Section 5.01, the Company's business and assets shall be wound up promptly in an orderly manner. The Board shall be the liquidator to wind up the affairs of the Company. In performing its duties, the Board is authorized to sell, exchange or otherwise dispose of the Company's business and assets in accordance with the Act in any reasonable manner that the Board determines to be in the best interests of the Members.

SECTION 5.03. Cancellation of Certificate of Formation. Upon

completion of a liquidation pursuant to Section 5.02 following a dissolution of the Company pursuant to Section 5.01, the Member shall execute, acknowledge and cause to be filed a certificate of cancellation of the Certificate of Formation of the Company in the office of the Secretary of State of the State of Delaware.

ARTICLE VI

INDEMNIFICATION AND EXCULPATION

SECTION 6.01. Exculpation. A Director shall not be personally liable to the Company or its Members for monetary damages for breach of fiduciary duty as a Director, except to the extent such exemption from liability or limitation thereof is not permitted under the Act as the same exists or may hereafter be amended. Any repeal or modification of the immediately preceding sentence shall not adversely affect any right or protection of a Director existing hereunder with respect to any act or omission occurring prior to such repeal or modification.

SECTION 6.02. Indemnification. (a) The Company shall, to the fullest extent permitted by Law (as defined below), as such Law may be amended and supplemented from time to time, indemnify any director or officer made, or threatened to be made, a party to any action, suit or proceeding, whether criminal, civil, administrative or investigative, by reason of being a director or officer of the Company or a predecessor company or, at the Company's request, a director, officer, partner, member, employee or agent of another entity; provided, however, that the Company shall indemnify any director or officer in connection with a proceeding initiated by such person only if such proceeding was authorized in advance by the Board of Directors of the Company. The indemnification provided for in this Section 6.02 shall: (i) not be deemed exclusive of any other rights to which those indemnified may be entitled under any bylaw, agreement or vote of stockholders or disinterested directors or otherwise, both as to action in their official capacities and as to action in another capacity while holding such office; (ii) continue as to a person who has ceased to be a director or officer; and (iii) inure to the benefit of the heirs, executors and administrators of an indemnified person.

(b) Expenses incurred by any such person in defending a civil or criminal action, suit or proceeding by reason of the fact that he is or was a director or officer of the Company (or was serving at the Company's request as a director, officer, partner, member, employee or agent of another entity) shall be paid by the Company in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such director or officer to repay such amount if it shall ultimately be determined that he or she is not entitled to be indemnified by the Company as authorized by Law. Notwithstanding the foregoing, the Company shall not be required to advance such expenses to a person who is a party to an action, suit or proceeding brought by the Company and approved by a majority of the Board of Directors of the Company that alleges willful misappropriation of corporate assets by such person, disclosure of confidential information in violation of such person's fiduciary or contractual obligations to the Company or any other willful and deliberate breach in bad faith of such person's duty to the Company or its stockholders.

(c) The foregoing provisions of this Section 6.02 shall be deemed to be a contract between the Company and each director or officer who serves in such capacity at any time while this bylaw is in effect, and any repeal or modification thereof shall not affect any rights or obligations then existing with respect to any state of facts then or theretofore existing or any action, suit or proceeding theretofore or thereafter brought based in whole or in part upon any such state of facts. The rights provided to any person by this bylaw shall be enforceable against the Company by such person, who shall be presumed to have relied upon it in serving or continuing to serve as a director or officer or in such other capacity as provided above.

(d) The Board of Directors in its discretion shall have power on behalf of the Company to indemnify any person, other than a director or officer, made or threatened to be made a party to any action, suit or proceeding, whether criminal, civil, administrative or investigative, by reason of the fact that such person, or his or her testator or intestate, is or was an officer, employee or agent of the Company or, at the Company's request, is or was serving as a director, officer, partner, member, employee or agent of another company or other entity.

(e) For purposes of this Section 6.02, "Law" shall mean the laws governing the indemnification of, and advancement of expenses to, directors, officers, employees and agents of Delaware corporations, including Section 145 of the General Corporation Law of the State of Delaware ("Section 145"), with such laws being applicable to the Exchange as if the Exchange were a Delaware corporation. To assure indemnification under this Section 6.02 of all directors, officers, employees and agents who are determined by the Company or otherwise to be or to have been "fiduciaries" of any employee benefit plan of the Company that may exist from time to time, Section 145 shall, for the purposes of this Section 6.02, be interpreted as follows: an "other enterprise" shall be deemed to include such an employee benefit plan, including without limitation, any plan of the Company that is governed by the Act of Congress entitled "Employee Retirement Income Security Act of 1974," as amended from time to time; the Company shall be deemed to have requested a person to serve an employee benefit plan where the performance by such person of his duties to the Company also imposes duties on, or otherwise involves services by, such person to the plan or participants or beneficiaries of the plan; excise taxes assessed on a person with respect to an employee benefit plan pursuant to such Act of Congress shall be deemed "fines."

SECTION 6.03. Insurance. The Company may maintain insurance, at its expense, to protect itself and any Director, officer, employee or agent of the Company or another corporation, partnership, joint venture, trust or other enterprise against any expense, liability or loss, whether or not the Company would have the power to indemnify such person against such expense, liability or loss under the DGCL if the Company were a corporation organized under the DGCL.

SECTION 6.04. Survival. This Article VI shall survive any termination of this Agreement.

ARTICLE VII

CONFIDENTIAL INFORMATION

To the fullest extent permitted by applicable law, all confidential information pertaining to the self-regulatory function of the Company (including, but not limited to, disciplinary matters, trading data, trading practices and audit information) contained in the books and records of the Company shall: (1) not be made available to any Persons (other than as provided in the next sentence) other than to those officers, directors, employees and agents of the Company that have a reasonable need to know the contents thereof; (2) be retained in confidence by the Company and the officers, directors, employees and agents of the Company; and (3) not be used for any commercial purposes. Notwithstanding the foregoing sentence, nothing in this Agreement shall be interpreted so as to limit or impede the rights of the SEC to access and examine such confidential information pursuant to the federal securities laws and the rules and regulations thereunder, or to limit or impede the ability of any officers, directors, employees or agents of the Company to disclose such confidential information to the SEC. The Company's books and records shall be maintained within the United States.

ARTICLE VIII

MISCELLANEOUS

SECTION 8.01. Amendments. This Agreement may not be modified, altered, supplemented or amended except pursuant to a written agreement executed and delivered by the Member; provided, however, that the Board may authorize, without further approval of another person or group, any amendment to this Agreement to correct any technicality, incorrect statement or error apparent on the face hereof in order to further the intent of the parties hereto.

SECTION 8.02. Benefits of Agreement. Except as provided in Article VI, none of the provisions of this Agreement shall be for the benefit of or enforceable by any creditor of the Company or by any creditor of any of the Members. Except as provided in Article VI, nothing in this Agreement shall be deemed to create any right in any person not a party hereto, and this instrument shall not be construed in any respect to be a contract in whole or in part for the benefit of any third person. Without limiting the generality of the foregoing, except as provided in Article VI, no person not a party hereto shall have any right to compel performance by a manager of its obligations hereunder.

SECTION 8.03. Waiver of Notice. Whenever any notice is required to be given to any Member or Director under the provisions of the Act or this Agreement, a waiver thereof in writing, signed by the person or persons entitled to such notice, whether before or after the time stated therein, shall be deemed equivalent to the giving of such notice. Neither the business to be transacted at, nor the purpose of, any meeting of the Members (if any shall be called) or the Board or committee thereof need be specified in any waiver of notice of such meeting.

SECTION 8.04. Successors and Assigns. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto, their respective estates, heirs, legal representatives, successors and permitted assigns, any additional Member admitted in accordance with the provisions hereof and any successor to a trustee of a trust that is or becomes a party hereto.

SECTION 8.05. Severability. If any one or more of the provisions contained in this Agreement shall be invalid, illegal or unenforceable in any respect under any applicable law, the validity, legality and enforceability of the remaining provisions contained herein shall not in any way be affected or impaired.

SECTION 8.06. Headings. The Article, Section and other headings contained in this Agreement are for reference purposes only and shall not affect the meaning or interpretation of this Agreement.

SECTION 8.07. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without regard to its conflicts of law principles.

IN WITNESS WHEREOF, the undersigned, intending to be legally bound hereby, has duly executed this Twelfth Amended and Restated Operating Agreement of NYSE American LLC as of the 17th day of December, 2018.

NYSE GROUP, INC.

By: /s/ Martha Redding
Name: Martha Redding
Title: Assistant Secretary

MEMBER

Name	Mailing Address	Agreed Value of Capital Contribution Interest	Percentage Interest
NYSE Group, Inc.	11 Wall Street, New York, New York 10005	\$100	100% (100 interests)