

**EXHIBIT 5A** – Second Amended and Restated Limited Liability Company Agreement of Nasdaq GEMX, LLC

Text of the proposed rule change.  
All text to be deleted.

[SECOND AMENDED AND RESTATED  
LIMITED LIABILITY COMPANY AGREEMENT

OF

NASDAQ GEMX, LLC

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SECOND LIMITED LIABILITY COMPANY AGREEMENT  
OF  
NASDAQ GEMX, LLC

International Securities Exchange Holdings, Inc., a Delaware corporation (the “Sole LLC Member”), hereby forms Nasdaq GEMX, LLC, a Delaware limited liability company (the “Company”), pursuant to and in accordance with the Delaware Limited Liability Company Act, 6 Del.C. § 18-101, et seq. (the “Act”), and hereby declares the following to be the Limited Liability Company Agreement (the “LLC Agreement”) of the Company.

ARTICLE I  
FORMATION OF THE COMPANY

Section 1.1. Formation of the Company. The Company concurrently herewith is being formed as a limited liability company under the Act by the filing of the Certificate of Formation with the Office of the Secretary of State of the State of Delaware. The Sole LLC Member agrees to be bound by and comply with the provisions thereof and hereof.

Section 1.2. Name. The name of the Company is “Nasdaq GEMX, LLC”.

Section 1.3. Purpose of the Company. The purpose of the Company shall be to conduct the operations of an “exchange” within the meaning of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and to conduct any lawful business or activity whatsoever, as permitted by applicable law and as determined from time to time by the board of directors of the Company (the “Board of Directors”).

Section 1.4. Principal Place of Business. The location of the principal place of business of the Company shall be 60 Broad Street, New York, New York 10004 or such other place as determined by the Board of Directors from time to time.

Section 1.5. Registered Office; Registered Agent. The registered office of the Company required by the Act to be maintained in the State of Delaware shall be National Registered Agents, Inc., 160 Greentree Drive, Suite 101, City of Dover, Delaware 19904 or such other office as the Board of Directors may designate from time to time. The registered agent for the Company shall be National Registered Agents, Inc., or such other registered agent as the Board of Directors may designate from time to time.

Section 1.6. Term. The Company shall continue until the Company is terminated in accordance with the provisions of this LLC Agreement.

## ARTICLE II SOLE LLC MEMBER; VOTING

Section 2.1. Admission of the Sole LLC Member. Effective as of the date of the filing of the Certificate of Formation with the Office of the Secretary of State of the State of Delaware, the Sole LLC Member shall be admitted as the sole member of the Company.

Section 2.2. Rights and Powers of the Sole LLC Member; Voting. Other than as set forth in this LLC Agreement and, to the extent not inconsistent with this LLC Agreement and the Act, the Sole LLC Member shall not participate in the management or control of the Company's business nor shall the Sole LLC Member transact any business for the Company, nor shall the Sole LLC Member have the power to act for or bind the Company, said powers being vested solely and exclusively in the Board of Directors. Subject to the right of the Board of Directors to fill any vacancies as provided in the Constitution (as defined below), the Sole LLC Member shall have the sole right to elect each of the Non-Industry Directors (as defined in the Constitution) and the Chief Executive Officer of the Company as a director (who shall be elected as the Chief Executive Officer and thereafter nominated by the Board of Directors for a directorship by virtue of his or her office, as provided in Section 4.6 of the Constitution), and shall have no other voting rights, except with respect to those matters specifically set forth in this LLC Agreement and as required by the Act. In particular, the Sole LLC Member shall have no voting rights with respect to any increase in the number of authorized PMM Rights (as defined below) or CMM Rights (as defined below), the election of the Exchange Directors (as defined in the Constitution) or any other matters relating to the Exchange Rights (as defined below).

Section 2.3. Liability of the Sole LLC Member. The Sole LLC Member shall not have any liability under this LLC Agreement or under the Act except as provided herein or as required by the Act. Except as required by the Act, the debts, obligations and liabilities of the Company, whether arising in contract, tort or otherwise (including, without limitation, those arising as member, owner or shareholder of another company, partnership or entity) shall be solely the debts, obligations or liability of the Company, and the Sole LLC Member shall not be obligated for any such debt, obligation or liability of the Company solely by reason of being a member of the Company.

## ARTICLE III INTERESTS, DISTRIBUTIONS, AND TAX TREATMENT

Section 3.1. Interest. The Company shall be authorized to issue a single class of Limited Liability Company Interest, as defined in the Act (the "Interest"), to the Sole LLC Member, which shall convey all of the rights of the Sole LLC Member under this Agreement, all rights to the profits and losses of the Company and the right to receive distributions of the assets of the Company. The Company shall be authorized, but not required, to issue one or more certificates, executed by an authorized officer of the Company, evidencing the Interest.

Section 3.2. Capital Contributions. The Sole LLC Member may contribute cash or other property to the Company as it shall decide, from time to time. The Sole LLC Member shall not be entitled to interest on or with respect to capital contributions.

Section 3.3. Distributions. Notwithstanding any provision to the contrary contained in this LLC Agreement, (i) the Company shall not be required to make a distribution to the Sole LLC Member if such distribution would violate the Act or any other applicable law or is otherwise required to fulfill the regulatory functions or responsibilities of the Company, and (ii) Regulatory Funds shall not be used for non-regulatory purposes, but rather shall be used to fund the legal, regulatory and surveillance operations of the Company and the Company shall not make any distribution to the Sole LLC Member using Regulatory Funds. For the purposes of this Section 3.3, "Regulatory Funds" means fees, fines or penalties derived from the regulatory operations of the Company, provided that Regulatory Funds shall not include revenues derived from listing fees, market data revenues, transaction revenues or any other aspect of the commercial operations of the Company or a facility of the Company, even if a portion of such revenues are used to pay costs associated with the regulatory operations of the Company.

Section 3.4. Tax Characterization; Returns; Distributions in Respect of Taxes. It is the intention of the Sole LLC Member that the Company be disregarded as an entity for tax purposes, so that the Sole LLC Member will be treated as owning all of the Company's assets directly, as recognizing all of the Company's income and loss directly, and as being entitled to all distributions for U.S. federal and state income tax purposes. All provisions of the Company's Certificate of Formation and this LLC Agreement are to be construed so as to preserve that tax status. Each of the Directors (as defined below) and officers of the Company and the Sole LLC Member is authorized to file any necessary elections with tax authorities. At the request of the Sole LLC Member, the Company shall make distributions to the Sole LLC Member in amounts sufficient to fund payments of taxes by the Sole LLC Member attributable to the assets, income and losses of the Company.

#### ARTICLE IV BOOKS OF ACCOUNT; RECORDS, REPORTS, FISCAL MATTERS AND ANNUAL MEETING

Section 4.1. Books and Records. (a) Proper and complete books and records of account shall be kept by the Company, in which shall be entered fully and accurately all transactions and other matters relative to the Company's business as are usually entered into books and records of account maintained by Persons (as defined in the Constitution) engaged in businesses of a like character. The Company books and records shall be kept in a manner determined by the Board of Directors in its sole discretion to be most beneficial for the Company, provided the books and records shall always be kept within the United States.

(b) 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: (i) 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; (ii) be retained in confidence by the Company and the officers, directors, employees and agents of the Company; and (iii) not be used for any commercial purposes. Nothing in this LLC Agreement shall be interpreted as to limit or impede the rights of the United States Securities Exchange Commission (the “Commission”) 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 Commission or Nasdaq GEMX.

Section 4.2. Tax Returns. The Company shall file all required income and other tax returns required to be filed by the Company for each Fiscal Year (as defined below) or part thereof.

Section 4.3. Company Bank Accounts; Investments. All Company funds shall be deposited by the Company at such financial institutions as may be approved by the Board of Directors, or shall be invested by the Company, in accordance with parameters established by the Board of Directors, in furtherance of the purposes of the Company.

Section 4.4. Fiscal Year. The fiscal year of the Company (the “Fiscal Year”) shall end on December 31 of each calendar year. Each Fiscal Year shall consist of four fiscal quarters ending on March 31, June 30, September 30 and December 31.

Section 4.5. Annual Meeting. The Board of Directors shall call an annual meeting (the “Annual Meeting”) of the Sole LLC Member and the holders of Exchange Rights, as prescribed in Articles I and II of the Company’s Constitution, the same initially to be in the form attached hereto as Exhibit A and as amended from time to time in accordance with its terms (the “Constitution”).

Section 4.6. Bylaws. The Constitution shall constitute the Bylaws of the Company.

## ARTICLE V MANAGEMENT; BOARD OF DIRECTORS

Section 5.1. General. (a) The administration and management of the Company shall be carried out by a Board of Directors elected or appointed in the manner prescribed in the Constitution, and by executive officers appointed from time to time by the Board of Directors. The Board of Directors shall have the powers and duties provided in Article III of the Constitution; provided, however, that, holders of PMM Rights, CMM Rights and EAM Rights, as such terms are defined in Article VI below, shall have the irrevocable right to vote with respect to the matter set forth in Article VI below. Each member of the Board of Directors shall constitute a “manager” within the meaning of Section 18-101(10) of the Act.

(b) In discharging his or her responsibilities as a member of the Board of Directors, each director shall take into consideration the effect that his or her actions would

have on the ability of the Company to carry out the Company's responsibilities under the Exchange Act and on the ability of the Company: to engage in conduct that fosters and does not interfere with the Company's ability to prevent fraudulent and manipulative acts and practices; to promote just and equitable principles of trade; to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities; to remove impediments to and perfect the mechanisms of a free and open market and a national market system; and, in general, to protect investors and the public interest. In discharging his or her responsibilities as a member of the Board of Directors or as an officer or employee of the Company, each such director, officer or employee shall comply with the federal securities laws and the rules and regulations thereunder and shall cooperate with the Company and the Commission pursuant to their respective regulatory authority.

Section 5.2. Board of Directors. The Board of Directors shall consist of no less than eight (8) and no more than sixteen (16) directors (the "Directors") as further prescribed in the Constitution. In no event shall the number of Industry Directors (as defined in the Constitution) constitute less than 30% of the members of the Board of Directors and in no event shall the number of Non-Industry Directors constitute less than the number of Industry Directors. The initial Board of Directors shall consist of the directors as set forth on Exhibit B hereto. At the end of the terms of such initial directors, the Board of Directors shall be elected as prescribed in Article III of the Constitution.

Section 5.3. Tenure. Each director shall serve for the term prescribed in Article III of the Constitution.

Section 5.4. Removal or Resignation. Any director may resign or be removed from office at any time in accordance with Article III of the Constitution.

Section 5.5. Meetings of the Board of Directors. Meetings of the Board of Directors shall be conducted as provided in Article III of the Constitution.

Section 5.6. Vacancies. A vacancy on the Board of Directors may be filled in accordance with the requirements set forth in Article III of the Constitution.

Section 5.7. Management; Officers. The Board of Directors shall have the powers and duties provided herein and in Article III of the Constitution. The Company shall have such officers with such duties, powers and responsibilities as provided in Article IV of the Constitution.

Section 5.8. Limitation on Liability; Indemnification. Directors shall be indemnified as set forth in Article VI of the Constitution.

## ARTICLE VI EXCHANGE RIGHTS

Section 6.1. Exchange Rights. (a) The Company shall have the authority to issue an unlimited number of non-transferable Exchange Rights and such rights may be divided into series of PMM Rights, CMM Rights, EAM Rights, and such other series of



rights as may be determined by the Board of Directors from time to time provided, however, the issuance of such other series of rights will be subject to prior approval by the Commission pursuant to the rule filing procedure under Section 19 of the Exchange Act.. The Exchange Rights shall not convey any portion of the Interest in the Company, and holders of Exchange Rights are not and shall not be deemed to be “members” of the Company for purposes of the Act or this LLC Agreement. A holder of Exchange Rights may withdraw from the Exchange upon the approval of the Exchange, which shall be given upon a determination that the holder of Exchange Rights has satisfied all obligations to the Exchange. Upon such approval and without any payment related thereto, the Exchange Rights will automatically terminate, as provided in the Constitution.

(b) The Board of Directors is hereby expressly authorized at any time, and from time to time, to create and provide for the issuance of Exchange Rights in one or more new series (hereinafter referred to as an “Exchange Right Designation”), to establish the number of rights to be included in each such series, and to fix the designations and relative, participating, optional or other special rights of the rights of each such series and the qualifications, limitations or restrictions thereof, as shall be stated and expressed in the resolution or resolutions providing for the issue thereof adopted by the Board of Directors, including, but not limited to, the following:

- (1) the designation of and the number of rights constituting such series, which number the Board of Directors may thereafter (except as otherwise provided in the Exchange Right Designation) increase or decrease (but not below the number of rights of such series then outstanding);
- (2) the extent, if any, to which the holders of Exchange Rights of such series shall be entitled to vote as a class or otherwise with respect to the election of directors or otherwise;
- (3) the restrictions, if any, on the issue or reissue of rights of the same series or of any other class or series; and
- (4) any other relative rights and limitations of that series.

Section 6.2. Trading Rights. (a) PMM Rights. A holder of a PMM Right shall exercise the trading rights and privileges associated with such PMM Right if such holder is approved as a Primary Market Maker under the Constitution and Rules.

(b) CMM Rights. A holder of a CMM Right shall exercise the trading rights and privileges associated with a CMM Right if such holder is approved as a Competitive Market Maker under the Constitution and Rules.

(c) EAM Rights. A holder of an EAM Right shall exercise the trading rights and privileges associated with an EAM Right if such holder is approved as an Electronic Access Member under the Constitution and Rules.

Section 6.3. Voting. Each holder of an Exchange Right shall have one vote in respect of each such Exchange Right thereof held by such holder of record on the books of

the Company on each matter for which the vote of the holders thereof is required. Holders of Exchange Rights shall have the following voting rights and no other voting rights:

(a) Election of Exchange Directors. The holders of Exchange Rights shall have the following rights with respect to election of directors. Holders of PMM Rights shall have the sole right to elect the PMM Directors (as defined in the Constitution). Holders of CMM Rights shall have the sole right to elect the CMM Directors (as defined in the Constitution). Holders of EAM Rights shall have the sole right to elect the EAM Directors (as defined in the Constitution). The Board of Directors shall have the right to fill any vacancies as provided in the Constitution.

(b) A holder of Exchange Rights, together with any affiliate, as such term is defined in the Constitution, may not exercise the voting rights associated with more than twenty percent (20%) of the outstanding Exchange Rights. Any exercise of voting rights in excess of twenty percent (20%) of the outstanding Exchange Rights by a holder of Exchange Rights, together with any affiliate, as such term is defined in the Constitution, shall be deemed null and void.

Section 6.4 Termination of Exchange Rights; Non-Transferability. The Exchange Rights shall not be transferable. In the event of a withdrawal of a holder of Exchange Rights, the Exchange Rights of such holder shall automatically terminate, as provided in the Constitution.

## ARTICLE VII

### ASSIGNMENTS; CESSATION OF MEMBERSHIP; WITHDRAWAL OF MEMBERS; LIQUIDATION AND DISTRIBUTION OF ASSETS

Section 7.1. Assignments; Additional LLC Members. The Sole LLC Member may assign all (but not less than all) of its Interest; provided, however, such assignment will be subject to prior approval by the Commission pursuant to the rule filing procedure under Section 19 of the Exchange Act. The assignment of all of the Interest shall entitle the assignee to exercise the rights of the Sole LLC Member of the Company under this LLC Agreement and to enjoy all of the benefits of the Interest. At no time may the Company have more than one holder of the Interest.

Section 7.2. Dissolution of Company. (a) The Company shall be dissolved, and its affairs wound up as provided herein commencing upon the earliest to occur of:

(i) the date on which the Board of Directors consents to its dissolution by approval of a majority of the Board of Directors;

(ii) the date on which is consummated the sale or disposition by the Company of substantially all of its assets; or

(iii) the date when any other event occurs that causes the dissolution of a limited liability company under the Act, unless the business of the Company is continued by unanimous approval of the Board of Directors within sixty (60) days

following the occurrence of any such event and such continuance is permitted under the Act.

(b) In the event of the dissolution of the Company for any reason, the Board of Directors shall wind up the affairs of the Company and liquidate the Company's assets. The Board of Directors shall have full right and unlimited discretion to determine the time, manner and terms of any sale or sales of Company assets pursuant to such liquidation, giving due regard to the activity and condition of the relevant market and general financial and economic conditions.

(c) The Board of Directors shall have all of the rights and powers with respect to the assets and liabilities of the Company in connection with the winding up of the affairs of the Company as the Board of Directors would have with respect to the assets and liabilities of the Company prior to the dissolution of the Company.

Section 7.3. Distribution in Liquidation. Upon the payment, provision for payment or other satisfaction of the liabilities of the Company, the Company's remaining assets shall be distributed to the Sole LLC Member.

Section 7.4. Termination. Upon the dissolution and the completion of the winding up of the Company and the distribution of the remaining assets of the Company as provided in Section 7.3, the Board of Directors shall cause to be executed and filed a Certificate of Cancellation of the Company with the office of the Secretary of State of the State of Delaware in accordance with the Act.

#### ARTICLE VIII AMENDMENT OF LLC AGREEMENT

Section 8.1. Amendments. Amendments to this LLC Agreement may be made by the Board of Directors provided, however, if such amendment would alter or change the powers, preferences or special rights of the Sole LLC Member's Interest so as to affect it adversely, such amendment shall also be approved by the Sole LLC Member, in the manner set forth in herein and in the Constitution.

Section 8.2. Amendment of Certificate. In the event this LLC Agreement shall be amended pursuant to Section 8.1, the Board of Directors shall cause the Company to amend the Certificate of Formation to reflect such change if the Board of Directors deems such amendment of the Certificate of Formation to be necessary or appropriate.

#### ARTICLE IX MISCELLANEOUS

Section 9.1. Governing Law. This LLC Agreement and the rights of the parties hereunder shall be governed by and interpreted in accordance with the law of the State of Delaware without regard to the conflicts of law principles thereof.

Section 9.2. Pronouns and Number. Wherever from the context it appears appropriate, each term stated in either the singular or the plural shall include the singular and

the plural, and pronouns stated in either the masculine, feminine or neuter shall include the masculine, feminine and neuter.

Section 9.3. Headings. Headings contained in this LLC Agreement are inserted only as a matter of convenience and in no way define, limit or extend the scope or intent of this LLC Agreement or any provision hereof.

Section 9.4. Partial Enforceability. If any provision of this LLC Agreement, or the application of such provision to any Person or circumstance, shall be held invalid, the remainder of this LLC Agreement, or the application of such provision to Persons or circumstances other than those to which it is held invalid, shall not be affected thereby.

IN WITNESS WHEREOF, the Sole LLC Member has caused this LLC Agreement to be executed by its duly authorized officer on December 18, 2014.

INTERNATIONAL SECURITIES EXCHANGE  
HOLDINGS, INC.

By /s/ Gary Katz  
Gary Katz  
President and Chief Executive Officer

## EXHIBIT B

## Interim Board of Directors of Nasdaq GEMX, LLC

Gary Katz and the following individuals shall be appointed as the initial directors of Nasdaq GEMX, LLC:

**Non-Industry Directors**

David Krell	Joseph B. Stefanelli
Michael P. Monaco	Marcus Thompson
Andreas Preuß	Kenneth A. Vecchione
Hauke Stars	Christianna Wood

**Industry Directors**

<b>Class 1</b>	<b>Class 2</b>
J. Slade Winchester	Michael T. Juneman
Patrick Hickey	Denis Medvedsek
Elizabeth R. Martin	Joseph Sellitto