



Registration of a Charge

Company name: **THE ROYAL BANK OF SCOTLAND PUBLIC LIMITED COMPANY**
Company number: **SC090312**



Received for Electronic Filing: **23/11/2016**

Details of Charge

Date of creation: **03/11/2016**
Charge code: **SC09 0312 0110**
Persons entitled: **DEUTSCHE BANK TRUST COMPANY AMERICAS, AS COLLATERAL AGENT**
Brief description:
Contains fixed charge(s).
Contains negative pledge.

Authentication of Form

This form was authorised by: **a person with an interest in the registration of the charge.**

Authentication of Instrument

Certification statement: **I CERTIFY THAT SAVE FOR MATERIAL REDACTED PURSUANT TO S.859G OF THE COMPANIES ACT 2006 THE ELECTRONIC COPY INSTRUMENT DELIVERED AS PART OF THIS APPLICATION FOR REGISTRATION IS A CORRECT COPY OF THE ORIGINAL INSTRUMENT.**

Certified by:

ALAN HOLLIDAY



CERTIFICATE OF THE REGISTRATION OF A CHARGE

Company number: 90312

Charge code: SC09 0312 0110

The Registrar of Companies for Scotland hereby certifies that a charge dated 3rd November 2016 and created by THE ROYAL BANK OF SCOTLAND PUBLIC LIMITED COMPANY was delivered pursuant to Chapter A1 Part 25 of the Companies Act 2006 on 23rd November 2016 .

Given at Companies House, Edinburgh on 24th November 2016

The above information was communicated by electronic means and authenticated by the Registrar of Companies under section 1115 of the Companies Act 2006



Companies House



THE OFFICIAL SEAL OF THE
REGISTRAR OF COMPANIES

CHICAGO MERCANTILE EXCHANGE INC.

SECURITY AND PLEDGE AGREEMENT

Dated as of November 3, 2016

among

**CHICAGO MERCANTILE EXCHANGE INC.,
and
THE OTHER GRANTORS PARTIES HERETO,**

and

**DEUTSCHE BANK TRUST COMPANY AMERICAS,
as Collateral Agent**

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SECURITY AND PLEDGE AGREEMENT

SECURITY AND PLEDGE AGREEMENT (this “**Agreement**”), dated as of November 3, 2016, among Chicago Mercantile Exchange Inc., a Delaware corporation (“**CME**”), the Clearing Members listed on the signature pages hereof and each other Clearing Member that becomes a party hereto pursuant to Section 8.13 (each, together with CME in its individually capacity, individually, a “**Grantor**” and collectively, together with CME in its individual capacity as a Grantor hereunder, the “**Grantors**”), and Deutsche Bank Trust Company Americas, as collateral agent, for its benefit, the benefit of the Administrative Agent and the ratable benefit of the Banks party to the Credit Agreement (together with its successors and assigns, in such capacity, the “**Collateral Agent**”).

RECITALS

CME, Bank of America, N.A., as administrative agent and Deutsche Bank Trust Company Americas, as Collateral Agent, and the Banks party thereto have entered into that certain Credit Agreement, dated as of November 3, 2016 (as amended, restated, supplemented or otherwise modified from time to time, the “**Credit Agreement**”), pursuant to which the Banks have agreed to make certain Advances to CME and the Collateral Agent has agreed to act as collateral agent on behalf of the Agents and the Banks.

Pursuant to the Rules, the Clearing Members have made available to the Clearing House certain Security Deposits and Performance Bonds to secure their obligations to the Clearing House.

Pursuant to the Rules, CME is authorized to act as Member Attorney-in-Fact for the Clearing Members, including for the purpose of executing and delivering this Agreement and granting a security interest to the Collateral Agent, for its benefit, the benefit of the Administrative Agent and the benefit of the Banks, in the Security Deposits and in the Performance Bonds made available to the Clearing House by such Clearing Members, which security interest, together with the security interest granted by CME to the Collateral Agent in its individual capacity as a Grantor hereunder, shall secure the Secured Obligations.

It is a condition precedent to the obligations of the Banks to enter into and perform their obligations under, and to extend to CME the financial accommodations contemplated by, the Credit Agreement that, inter alia, each Grantor enters into this Agreement.

AGREEMENT

NOW, THEREFORE, each Grantor hereby agrees with the Collateral Agent, for its benefit, the benefit of the Administrative Agent and the ratable benefit of the Banks, as follows:

ARTICLE I DEFINITIONS

1.1 Defined Terms. Capitalized terms used herein and not defined herein shall have the respective meanings assigned thereto in the Credit Agreement. In addition, the following terms shall have the following meanings:

“**Applicable Other Securities Intermediary**” means (a) with respect to any Other Clearing Member Securities Account, the Person identified in Schedule XXI (as such Schedule may be updated from time to time after the date hereof following written notice to and acknowledgment by the Collateral Agent) as the Applicable Other Securities Intermediary for such Securities Account, and (b) with respect

to any Other Collateral Securities Account, the Person identified in Schedule XXII (as such Schedule may be updated from time to time after the date hereof following written notice to and acknowledgment by the Collateral Agent) as the Applicable Other Securities Intermediary for such Securities Account, and in the case of each of clause (a) or (b), refers to such Person acting solely in its capacity as a “securities intermediary” as defined in Section 8-102(a)(14) of the UCC and, in respect of any Book-Entry Security, in its capacity as a “securities intermediary” (as defined in 31 C.F.R. § 357.2 or, as applicable to such Book-Entry Security, the corresponding Federal Book-Entry Regulations).

“Bank of China Clearing Member Securities Account” means each of the Securities Accounts listed on Schedule II hereto (including after giving effect to any Securities Accounts added to or removed from Schedule II after the date hereof following written notice to and written acknowledgment by the Collateral Agent), in each case as established and maintained with the Bank of China Securities Intermediary in accordance with Section 3.1(i).

“Bank of China Collateral Securities Account” means each of the Securities Accounts listed on Schedule III hereto (including after giving effect to any Securities Accounts added to or removed from Schedule III after the date hereof following written notice to and written acknowledgment by the Collateral Agent), in each case as established and maintained with the Bank of China Securities Intermediary in accordance with Section 3.1(i).

“Bank of China Securities Account” means each Bank of China Clearing Member Securities Account and Bank of China Collateral Securities Account.

“Bank of China Securities Account Control Agreement” means one or more Securities Account Control Agreements by and among the applicable Grantors, the Bank of China Securities Intermediary and the Collateral Agent, in such form as shall be reasonably satisfactory to the Collateral Agent and the Administrative Agent, as the same may from time to time be amended, supplemented, restated or modified in accordance therewith.

“Bank of China Securities Intermediary” means Bank of China Ltd, New York Branch acting solely in its capacity as a “securities intermediary” as defined in Section 8-102(a)(14) of the UCC and, in respect of any Book-Entry Security, in its capacity as a “securities intermediary” (as defined in 31 C.F.R. § 357.2 or, as applicable to such Book-Entry Security, the corresponding Federal Book-Entry Regulations).

“Bank of China Triggering Event” means, with respect to any particular Bank of China Clearing Member Securities Account, the time at which all of the following have occurred: (a) such Bank of China Clearing Member Securities Account is identified by CME in a Collateral Notice delivered pursuant to Section 3.1(a) of the Credit Agreement, (b) such Collateral Notice has been delivered in connection with an Advance Request, and (c) the Administrative Agent has made the Advance (requested in such Advance Request) to CME pursuant to Section 3.1(b)(iii) of the Credit Agreement, by initiating a federal wire transfer to the account identified by CME in such Advance Request.

“BBH Clearing Member Securities Account” means each of the Securities Accounts listed on Schedule IV hereto (including after giving effect to any Securities Accounts added to or removed from Schedule IV after the date hereof following written notice to and written acknowledgment by the Collateral Agent), in each case as established and maintained with the BBH Securities Intermediary in accordance with Section 3.1(f).

“BBH Collateral Securities Account” means each of the Securities Accounts listed on Schedule V hereto (including after giving effect to any Securities Accounts added to or removed from Schedule V

after the date hereof following written notice to and written acknowledgement by the Collateral Agent), in each case as established and maintained with the BBH Securities Intermediary in accordance with Section 3.1(f).

“BBH Securities Account” means each BBH Clearing Member Securities Account and BBH Collateral Securities Account.

“BBH Securities Account Control Agreement” means one or more Securities Account Control Agreements by and among the applicable Grantors, the BBH Securities Intermediary and the Collateral Agent, in such form as shall be reasonably satisfactory to the Collateral Agent and the Administrative Agent, as the same may from time to time be amended, supplemented, restated or modified in accordance therewith.

“BBH Securities Intermediary” means Brown Brothers Harriman & Co. acting solely in its capacity as a “securities intermediary” as defined in Section 8-102(a)(14) of the UCC and, in respect of any Book-Entry Security, in its capacity as a “securities intermediary” (as defined in 31 C.F.R. § 357.2 or, as applicable to such Book-Entry Security, the corresponding Federal Book-Entry Regulations).

“BBH Triggering Event” means, with respect to any particular BBH Clearing Member Securities Account, the time at which all of the following have occurred: (a) such BBH Clearing Member Securities Account is identified by CME in a Collateral Notice delivered pursuant to Section 3.1(a) of the Credit Agreement, (b) such Collateral Notice has been delivered in connection with an Advance Request, and (c) the Administrative Agent has made the Advance (requested in such Advance Request) to CME pursuant to Section 3.1(b)(iii) of the Credit Agreement, by initiating a federal wire transfer to the account identified by CME in such Advance Request.

“BMO Clearing Member Securities Account” means each of the Securities Accounts listed on Schedule VI hereto (including after giving effect to any Securities Accounts added to or removed from Schedule VI after the date hereof following written notice to and written acknowledgement by the Collateral Agent), in each case as established and maintained with the BMO Securities Intermediary in accordance with Section 3.1(g).

“BMO Collateral Securities Account” means each of the Securities Accounts listed on Schedule VII hereto (including after giving effect to any Securities Accounts added to or removed from Schedule VII after the date hereof following written notice to and written acknowledgement by the Collateral Agent), in each case as established and maintained with the BMO Securities Intermediary in accordance with Section 3.1(g).

“BMO Securities Account” means each BMO Clearing Member Securities Account and BMO Collateral Securities Account.

“BMO Securities Account Control Agreement” means one or more Securities Account Control Agreements by and among the applicable Grantors, the BMO Securities Intermediary and the Collateral Agent, in such form as shall be reasonably satisfactory to the Collateral Agent and the Administrative Agent, as the same may from time to time be amended, supplemented, restated or modified in accordance therewith.

“BMO Securities Intermediary” means BMO Harris Bank, N.A. acting solely in its capacity as a “securities intermediary” as defined in Section 8-102(a)(14) of the UCC and, in respect of any Book-Entry Security, in its capacity as a “securities intermediary” (as defined in 31 C.F.R. § 357.2 or, as applicable to such Book-Entry Security, the corresponding Federal Book-Entry Regulations).

“BMO Triggering Event” means, with respect to any particular BMO Clearing Member Securities Account, the time at which all of the following have occurred: (a) such BMO Clearing Member Securities Account is identified by CME in a Collateral Notice delivered pursuant to Section 3.1(a) of the Credit Agreement, (b) such Collateral Notice has been delivered in connection with an Advance Request, and (c) the Administrative Agent has made the Advance (requested in such Advance Request) to CME pursuant to Section 3.1(b)(iii) of the Credit Agreement, by initiating a federal wire transfer to the account identified by CME in such Advance Request.

“BNP Clearing Member Securities Account” means each of the Securities Accounts listed on Schedule IX hereto (including after giving effect to any Securities Accounts added to or removed from Schedule IX after the date hereof following written notice to and written acknowledgement by the Collateral Agent), in each case as established and maintained with the BNP Securities Intermediary in accordance with Section 3.1(b).

“BNP Collateral Securities Account” means each of the Securities Accounts listed on Schedule VIII hereto (including after giving effect to any Securities Accounts added to or removed from Schedule VIII after the date hereof following written notice to and written acknowledgement by the Collateral Agent), in each case as established and maintained with the BNP Securities Intermediary in accordance with Section 3.1(b).

“BNP Securities Account” means each BNP Clearing Member Securities Account and BNP Collateral Securities Account.

“BNP Securities Account Control Agreement” means one or more Securities Account Control Agreements by and among the applicable Grantors, the BNP Securities Intermediary and the Collateral Agent, in such form as shall be reasonably satisfactory to the Collateral Agent and the Administrative Agent, as the same may from time to time be amended, supplemented, restated or modified in accordance therewith.

“BNP Securities Intermediary” means BNP Paribas acting solely in its capacity as a “securities intermediary” as defined in Section 8-102(a)(14) of the UCC and, in respect of any Book-Entry Security, in its capacity as a “securities intermediary” (as defined in 31 C.F.R. § 357.2 or, as applicable to such Book-Entry Security, the corresponding Federal Book-Entry Regulations).

“BNP Triggering Event” means, with respect to any particular BNP Clearing Member Securities Account, the time at which all of the following have occurred: (a) such BNP Clearing Member Securities Account is identified by CME in a Collateral Notice delivered pursuant to Section 3.1(a) of the Credit Agreement, (b) such Collateral Notice has been delivered in connection with an Advance Request, and (c) the Administrative Agent has made the Advance (requested in such Advance Request) to CME pursuant to Section 3.1(b)(iii) of the Credit Agreement, by initiating a federal wire transfer to the account identified by CME in such Advance Request.

“BNY Mellon Clearing Member Securities Account” means each of the Securities Accounts listed on Schedule X hereto (including after giving effect to any Securities Accounts added to or removed from Schedule X after the date hereof following written notice to and written acknowledgement by the Collateral Agent), in each case as established and maintained with the BNY Mellon Securities Intermediary in accordance with Section 3.1(b).

“BNY Mellon Collateral Securities Account” means each of the Securities Accounts listed on Schedule XI hereto (including after giving effect to any Securities Accounts added to or removed from Schedule XI after the date hereof following written notice to and written acknowledgement by the

Collateral Agent), in each case as established and maintained with the BNY Mellon Securities Intermediary in accordance with Section 3.1(b).

“BNY Mellon Securities Account” means each BNY Mellon Clearing Member Securities Account and BNY Mellon Collateral Securities Account.

“BNY Mellon Securities Account Control Agreement” means one or more Securities Account Control Agreements by and among the applicable Grantors, the BNY Mellon Securities Intermediary and the Collateral Agent, in such form as shall be reasonably satisfactory to the Collateral Agent and the Administrative Agent, as the same may from time to time be amended, supplemented, restated or modified in accordance therewith.

“BNY Mellon Securities Intermediary” means The Bank of New York Mellon acting solely in its capacity as a “securities intermediary” as defined in Section 8-102(a)(14) of the UCC and, in respect of any Book-Entry Security, in its capacity as a “securities intermediary” (as defined in 31 C.F.R. § 357.2 or, as applicable to such Book-Entry Security, the corresponding Federal Book-Entry Regulations).

“BNY Mellon Triggering Event” means, with respect to any particular BNY Mellon Clearing Member Securities Account, the time at which all of the following have occurred: (a) such BNY Mellon Clearing Member Securities Account is identified by CME in a Collateral Notice delivered pursuant to Section 3.1(a) of the Credit Agreement, (b) such Collateral Notice has been delivered in connection with an Advance Request, and (c) the Administrative Agent has made the Advance (requested in such Advance Request) to CME pursuant to Section 3.1(b)(iii) of the Credit Agreement, by initiating a federal wire transfer to the account identified by CME in such Advance Request.

“Book-Entry Securities” means securities maintained in the form of entries (including, without limitation, the Security Entitlements in, and the Financial Assets based on, such securities) in the commercial book-entry system of the Fed and held for the related Entitlement Holder by a Fed Member. Book-Entry Securities shall not include, in any event, any Certificated Security (or any Security Entitlement in, or Financial Asset based on, any Certificated Security).

“Bullion Account” means the JPMorgan Bullion Account.

“Bullion Account Bank” means JPMorgan Bullion Account Bank.

“Bullion Security Agreement” means the JPMorgan Bullion Security Agreement.

“Certificated Security” has the meaning given in Section 8-102(a)(4) of the UCC.

“Citibank Clearing Member Securities Account” means each of the Securities Accounts listed on Schedule XII hereto (including after giving effect to any Securities Accounts added to or removed from Schedule XII after the date hereof following written notice to and written acknowledgement by the Collateral Agent), in each case as established and maintained with the Citibank Securities Intermediary in accordance with Section 3.1(c).

“Citibank Collateral Securities Account” means each of the Securities Accounts listed on Schedule XIII hereto (including after giving effect to any Securities Accounts added to or removed from Schedule XIII after the date hereof following written notice to and written acknowledgement by the Collateral Agent), in each case as established and maintained with the Citibank Securities Intermediary in accordance with Section 3.1(c).

“Citibank Securities Account” means each Citibank Clearing Member Securities Account and Citibank Collateral Securities Account.

“Citibank Securities Account Control Agreement” means one or more Securities Account Control Agreements by and among the applicable Grantors, the Citibank Securities Intermediary and the Collateral Agent, in such form as shall be reasonably satisfactory to the Collateral Agent and the Administrative Agent, as the same may from time to time be amended, supplemented, restated or modified in accordance therewith.

“Citibank Securities Intermediary” means Citibank, N.A. acting solely in its capacity as a “securities intermediary” as defined in Section 8-102(a)(14) of the UCC.

“Citibank Triggering Event” means, with respect to any particular Citibank Clearing Member Securities Account, the time at which all of the following have occurred: (a) such Citibank Clearing Member Securities Account is identified by CME in a Collateral Notice delivered pursuant to Section 3.1(a) of the Credit Agreement, (b) such Collateral Notice has been delivered in connection with an Advance Request, and (c) the Administrative Agent has made the Advance (requested in such Advance Request) to CME pursuant to Section 3.1(b)(iii) of the Credit Agreement, by initiating a federal wire transfer to the account identified by CME in such Advance Request.

“Clearing Fund Collateral Pool” means, for the applicable Clearing Business, at any date of determination, the collective reference to (a) all Clearing Member Securities then or theretofore transferred to or held in any Clearing Member Securities Account and not released from such account (other than in connection with a transfer of such Clearing Member Securities to a Collateral Account in accordance with Section 7.14 of the Credit Agreement) and in each case designated for such Clearing Business and identified in a Collateral Notice pursuant to Section 3.1(a) of the Credit Agreement, (b) all Company Securities then or theretofore transferred to or held in any Company Securities Account and not released from such account and in each case designated for such Clearing Business, (c) all Clearing Member Securities and Company Securities then or therefore transferred to or held in (and not released from) any Collateral Account or Company Securities Account and in each case designated for such Clearing Business, (d) the Clearing Member Money Fund Shares that constitute Eligible Assets and are designated for such Clearing Business subject to the perfected, first priority Lien of the Collateral Agent under this Agreement and subject to a Money Fund Control Agreement, (e) the Proceeds of the Clearing Member Securities and Company Securities then on deposit in each Clearing Member Securities Account or Company Securities Account and in each case designated for such Clearing Business, as applicable and identified in a Collateral Notice pursuant to Section 3.1(a) of the Credit Agreement and the Proceeds of the Clearing Member Money Fund Shares and designated for such Clearing Business subject to the perfected, first priority Lien of the Collateral Agent under this Agreement and subject to a Money Fund Control Agreement, (f) the Gold Bullion (if any) of the Clearing Members subject to the perfected, first priority Lien of the Collateral Agent under the Bullion Security Agreement, and (g) the Proceeds of the Clearing Member Securities and Company Securities then on deposit in each Collateral Account and in each case designated for such Clearing Business; provided that the Clearing Fund Collateral Pool for any Clearing Business shall not include any asset that is included in the Clearing Fund Collateral Pool for any other Clearing Business or in the Company Collateral Pool.

“Clearing Member Money Fund Shares” means all of the shares, units or other interests, however denominated, of a Money Fund Issuer held in book-entry form, registered on the books of such Money Fund Issuer or any transfer or servicing agent for such Money Fund Issuer in the names listed on Schedule XXIV.

“Clearing Member Securities Account” means each Bank of China Clearing Member Securities Account, BBH Clearing Member Securities Account, BMO Clearing Member Securities Account, BNP Clearing Member Securities Account, BNY Mellon Clearing Member Securities Account, Citibank Clearing Member Securities Account, DB Clearing Member Securities Account, JPMorgan Clearing Member Securities Account, Lakeside Bank Clearing Member Securities Account and each Other Clearing Member Securities Account.

“Clearing Member Security” means any Eligible Asset of a Clearing Member (other than any Money Fund Share and the Gold Bullion) which CME, as Member Attorney-in-Fact, is authorized to pledge as security for any Settlement Loan in accordance with the Rules, free and clear of any Lien (other than any Lien created pursuant to this Agreement or permitted by Section 7.8 of the Credit Agreement).

“Closing Date Collateral” has the meaning set forth in Section 2.1(a).

“Collateral” has the meaning set forth in Section 2.1(b).

“Collateral Account” means each Bank of China Collateral Securities Account, each BBH Collateral Securities Account, each BMO Collateral Securities Account, each BNP Collateral Securities Account, each BNY Mellon Collateral Securities Account, each Citibank Collateral Securities Account, each DB Collateral Securities Account, each JPMorgan Collateral Securities Account, each Lakeside Bank Collateral Securities Account and each Other Collateral Securities Account.

“Company Collateral Pool” means, at any date of determination, the collective reference to (a) all Company Securities then or theretofore transferred to or held in any Company Securities Account and not released from such account, (b) all Company Securities then or therefore transferred to or held in (and not released from) any Collateral Account, (c) the Proceeds of the Company Securities then on deposit in any Company Securities Account, and (d) the Gold Bullion of CME; provided that the Company Collateral Pool shall not include any asset that is included in any Clearing Fund Collateral Pool. (By way of example and without limiting the generality of the foregoing proviso, the Company Collateral Pool shall not include any Company Securities that have been designated for any Clearing Fund Business, as described in the definition of “Clearing Fund Collateral Pool.”)

“Company Security” means any Eligible Asset (i) owned solely by CME in its individual capacity and (ii) which CME has the unrestricted right to pledge as security for the Obligations, free and clear of any Lien (other than any Lien created pursuant to this Agreement or permitted by Section 7.8 of the Credit Agreement).

“Company Securities Account” means each DB Company Securities Account.

“Control Agreement” means the Bank of China Securities Account Control Agreement, BBH Securities Account Control Agreement, BMO Securities Account Control Agreement, BNP Securities Account Control Agreement, BNY Mellon Securities Account Control Agreement, Citibank Securities Account Control Agreement, JPMorgan Securities Account Control Agreement, Lakeside Bank Securities Account Control Agreement each Other Securities Account Control Agreement, each Money Fund Control Agreement and the DB Securities Account Control Agreement.

“Custodian” means Bank of China Securities Intermediary, BBH Securities Intermediary, BMO Securities Intermediary, BNP Securities Intermediary, BNY Mellon Securities Intermediary, Citibank Securities Intermediary, DB Securities Intermediary, JPMorgan Securities Intermediary, Lakeside Bank Securities Intermediary, any Money Fund Issuer (or its transferring or servicing agent) and any Applicable Other Securities Intermediary.

“DB Clearing Member Securities Account” means each of the Securities Accounts listed on Schedule XIV hereto (including after giving effect to any Securities Accounts added to or removed from Schedule XIV after the date hereof following written notice to and written acknowledgement by the Collateral Agent), in each case as established and maintained with the DB Securities Intermediary in accordance with Section 3.1(a).

“DB Collateral Securities Account” means each of the Securities Accounts listed on Schedule XV hereto (including after giving effect to any Securities Accounts added to or removed from Schedule XV after the date hereof following written notice to and written acknowledgement by the Collateral Agent), in each case as established and maintained with the DB Securities Intermediary in accordance with Section 3.1(a).

“DB Company Securities Account” means each of the Securities Accounts listed on Schedule XVI hereto (including after giving effect to any Securities Accounts added to or removed from Schedule XVI after the date hereof following written notice to and written acknowledgement by the Collateral Agent), in each case as established and maintained with the DB Securities Intermediary in accordance with Section 3.1(a).

“DB Securities Account” means each DB Clearing Member Securities Account, each DB Company Securities Account and each DB Collateral Securities Account.

“DB Securities Account Control Agreement” means one or more Securities Account Control Agreements by and among the applicable Grantors, the DB Securities Intermediary and the Collateral Agent, in such form as shall be reasonably satisfactory to the Collateral Agent and the Administrative Agent, as the same may from time to time be amended, supplemented, restated or modified in accordance therewith.

“DB Securities Intermediary” means Deutsche Bank Trust Company Americas, acting solely in its capacity as a “securities intermediary” as defined in Section 8-102(a)(14) of the UCC and, in respect of any Book-Entry Security, in its capacity as a “securities intermediary” (as defined in 31 C.F.R. § 357.2 or, as applicable to such Book-Entry Security, the corresponding Federal Book-Entry Regulations).

“DB Triggering Event” means the time at which all of the following have occurred: (a) the DB Clearing Member Securities Account is identified by CME in a Collateral Notice delivered pursuant to Section 3.1(a) of the Credit Agreement, (b) such Collateral Notice has been delivered in connection with an Advance Request, and (c) the Administrative Agent has made the Advance (requested in such Advance Request) to CME pursuant to Section 3.1(b)(iii) of the Credit Agreement, by initiating a federal wire transfer to the account identified by CME in such Advance Request.

“Delayed Attachment Collateral” has the meaning set forth in Section 2.1(b).

“Entitlement Holder” has the meaning given in Section 8-102(a)(7) of the UCC.

“Entitlement Order” has the meaning given in Section 8-102(a)(8) of the UCC.

“Fed” means the Federal Reserve Bank of New York.

“Federal Book-Entry Regulations” means (a) the federal regulations contained in Subpart B (“Treasury/Reserve Automated Debt Entry System (TRADES)” governing Book-Entry Securities consisting of U.S. Treasury bonds, notes and bills) and, to the extent related thereto, Subpart D (“Additional Provisions”) of 31 C.F.R. Part 357, 31 C.F.R. § 357.10 through § 357.15 and § 357.40

through § 357.45 (including related defined terms in 31 C.F.R. § 357.2), each as in effect from time to time; and (b) to the extent substantially identical to the federal regulations referred to in clause (a) above (as in effect from time to time), the federal regulations governing other Book-Entry Securities.

“Fed Member” means any Person that is eligible to maintain (and that maintains) with the Fed one or more Fed Member Securities Accounts in such Person’s name.

“Fed Member Securities Account” means, in respect of any Person, an account in the name of such Person at the Fed, to which account Book-Entry Securities held for such Person are or may be credited.

“Financial Asset” means “financial asset” as defined in Section 8-102(a)(9) of the UCC.

“Gold Bullion” means any gold bullion in which a security interest has been granted in favor of the Collateral Agent under the Bullion Security Agreement.

“Guaranty Fund Assets” means any assets deposited by Clearing Members to satisfy their guaranty fund obligations as required by the CME Rules.

“IEF2 Program” means the program under which shares of money market mutual funds are deposited with the Clearing House by Clearing Members participating in the IEF2TM Program to satisfy such Clearing Members’ obligations to the Clearing House pursuant to CME Rules 816, 817 and 820, NYMEX Rules 816, 817 and 820, CBOT Rules 816, 817 and 820 and any similar Rule.

“Instruction” means “instruction” as defined in Section 8-102(a)(12) of the UCC.

“Investment Property” means “investment property” as defined in Section 9-102(a)(49) of the UCC.

“Joinder Agreement” has the meaning set forth in Section 8.13.

“JPMorgan Bullion Account” means the allocated gold accounts identified on Schedule XXIII hereto opened or to be opened in the name of CME (and any sub-accounts and replacement or substituted accounts thereto or therefore) held with the JPMorgan Bullion Account Bank to the credit of which Gold Bullion will from time to time be deposited “Loco London”.

“JPMorgan Bullion Account Bank” means JPMorgan Chase Bank N.A.

“JPMorgan Bullion Security Agreement” means the Bullion Security Agreement, between the applicable Grantors and the Collateral Agent, in a form reasonably acceptable to the Collateral Agent, the Administrative Agent and CME, relating to gold bullion maintained in gold bullion accounts at the JPMorgan Bullion Account Bank, as the same may be amended, supplemented, restated or modified from time to time in accordance therewith.

“JPMorgan Clearing Member Securities Account” means each of the Securities Accounts listed on Schedule XVII hereto (including after giving effect to any Securities Accounts added to or removed from Schedule XVII after the date hereof following written notice to and acknowledgement by the Collateral Agent), in each case as established and maintained with the JPMorgan Securities Intermediary in accordance with Section 3.1(e).

“JPMorgan Collateral Securities Account” means each of the Securities Accounts listed on Schedule XVIII hereto (including after giving effect to any Securities Accounts added to or removed from Schedule XVIII after the date hereof following written notice to and acknowledgement by the Collateral Agent), in each case as established and maintained with the JPMorgan Securities Intermediary in accordance with Section 3.1(e).

“JP Morgan Securities Account” means each JPMorgan Clearing Member Securities Account and JPMorgan Collateral Securities Account.

“JPMorgan Securities Account Control Agreement” means one or more Securities Account Control Agreements by and among the applicable Grantors, the JPMorgan Securities Intermediary and the Collateral Agent, in such form as shall be reasonably satisfactory to the Collateral Agent and the Administrative Agent, as the same may from time to time be amended, supplemented, restated or modified in accordance therewith.

“JPMorgan Securities Intermediary” means JPMorgan Chase Bank, N.A., acting solely in its capacity as a “securities intermediary” as defined in Section 8-102(a)(14) of the UCC and, in respect of any Book-Entry Security, in its capacity as a “securities intermediary” (as defined in 31 C.F.R. § 357.2 or, as applicable to such Book-Entry Security, the corresponding Federal Book-Entry Regulations).

“JPMorgan Triggering Event” means the time at which all of the following have occurred: (a) any JPMorgan Clearing Member Securities Account is identified by CME in a Collateral Notice delivered pursuant to Section 3.1(a) of the Credit Agreement, (b) such Collateral Notice has been delivered in connection with an Advance Request, and (c) the Administrative Agent has made the Advance (requested in such Advance Request) to CME pursuant to Section 3.1(b)(iii) of the Credit Agreement, by initiating a federal wire transfer to the account identified by CME in such Advance Request.

“Lakeside Bank Clearing Member Securities Account” means each of the Securities Accounts listed on Schedule XIX hereto (including after giving effect to any Securities Accounts added to or removed from Schedule XIX after the date hereof following written notice to and acknowledgement by the Collateral Agent), in each case as established and maintained with the Lakeside Bank Securities Intermediary in accordance with Section 3.1(e).

“Lakeside Bank Collateral Securities Account” means each of the Securities Accounts listed on Schedule XX hereto (including after giving effect to any Securities Accounts added to or removed from Schedule XX after the date hereof following written notice to and acknowledgement by the Collateral Agent), in each case as established and maintained with the Lakeside Bank Securities Intermediary in accordance with Section 3.1(e).

“Lakeside Bank Securities Account” means each Lakeside Bank Clearing Member Securities Account and Lakeside Bank Collateral Securities Account.

“Lakeside Bank Securities Account Control Agreement” means one or more Securities Account Control Agreements by and among the applicable Grantors, the Lakeside Bank Securities Intermediary and the Collateral Agent, in such form as shall be reasonably satisfactory to the Collateral Agent and the Administrative Agent, as the same may from time to time be amended, supplemented, restated or modified in accordance therewith.

“Lakeside Bank Securities Intermediary” means Lakeside Bank, acting solely in its capacity as a “securities intermediary” as defined in Section 8-102(a)(14) of the UCC and, in respect of any Book-

Entry Security, in its capacity as a “securities intermediary” (as defined in 31 C.F.R. § 357.2 or, as applicable to such Book-Entry Security, the corresponding Federal Book-Entry Regulations).

“**Lakeside Bank Triggering Event**” means the time at which all of the following have occurred: (a) any Lakeside Bank Clearing Member Securities Account is identified by CME in a Collateral Notice delivered pursuant to Section 3.1(a) of the Credit Agreement, (b) such Collateral Notice has been delivered in connection with an Advance Request, and (c) the Administrative Agent has made the Advance (requested in such Advance Request) to CME pursuant to Section 3.1(b)(iii) of the Credit Agreement, by initiating a federal wire transfer to the account identified by CME in such Advance Request.

“**Money Fund Control Agreement**” means any control agreement by and among the applicable Grantors, any Money Fund Issuer or its transfer or servicing agent and the Collateral Agent, in such form as shall be reasonably satisfactory to the Administrative Agent and the Collateral Agent, as the same may be amended, restated, supplemented or otherwise modified from time to time in accordance herewith.

“**Money Fund Issuer**” means each issuer of a money market fund approved for the IEF2 Program, including, without limitation, in any event, those issuers listed on Schedule I hereto (including after giving effect to any money market fund added to or removed from Schedule I after the date hereof following written notice to and written acknowledgement by the Collateral Agent).

“**Money Fund Shares**” means the Clearing Member Money Fund Shares.

“**Money Fund Triggering Event**” means, with respect to any Clearing Member Money Fund Shares, the time at which all of the following have occurred: (a) the Clearing Member Money Fund Shares and the Money Fund Issuer of such Clearing Member Money Fund Shares are identified by CME in a Collateral Notice delivered pursuant to Section 3.1(a) of the Credit Agreement, (b) such Collateral Notice has been delivered in connection with an Advance Request, and (c) the Administrative Agent has made the Advance (requested in such Advance Request) to CME pursuant to Section 3.1(b)(iii) of the Credit Agreement, by initiating a federal wire transfer to the account identified by CME in such Advance Request.

“**Notice of Exclusive Control**” means a notice from the Collateral Agent to the Bank of China Securities Intermediary given pursuant to the Bank of China Securities Account Control Agreement (and substantially in the form required by the Bank of China Securities Account Control Agreement), a notice from the Collateral Agent to the BBH Securities Intermediary given pursuant to the BBH Securities Account Control Agreement (and substantially in the form required by the BBH Securities Account Control Agreement), a notice from the Collateral Agent to the BMO Securities Intermediary given pursuant to the BMO Securities Account Control Agreement (and substantially in the form required by the BMO Securities Account Control Agreement), a notice from the Collateral Agent to the BNP Securities Intermediary given pursuant to the BNP Securities Account Control Agreement (and substantially in the form required by the BNP Securities Account Control Agreement), a notice from the Collateral Agent to the BNY Mellon Securities Intermediary given pursuant to the BNY Mellon Securities Account Control Agreement (and substantially in the form required by the BNY Mellon Securities Account Control Agreement), a notice from the Collateral Agent to the Citibank Securities Intermediary given pursuant to the Citibank Securities Account Control Agreement (and substantially in the form required by the Citibank Securities Account Control Agreement), a notice from the Collateral Agent to the JPMorgan Securities Intermediary given pursuant to the JPMorgan Securities Account Control Agreement (and substantially in the form required by the JPMorgan Securities Account Control Agreement), a notice from the Collateral Agent to the Lakeside Bank Securities Intermediary given pursuant to the Lakeside Bank Securities Account Control Agreement (and substantially in the form

required by the Lakeside Bank Securities Account Control Agreement), a notice from the Collateral Agent to the Applicable Other Securities Intermediary given pursuant to the applicable Other Securities Account Control Agreement (and substantially in the form required by the applicable Other Securities Account Control Agreement), a notice from the Collateral Agent to the DB Securities Intermediary given pursuant to the DB Securities Account Control Agreement (and substantially in the form required by the DB Securities Account Control Agreement) or a notice from the Collateral Agent to any Money Fund Issuer or its transfer or servicing agent pursuant to any Money Fund Control Agreement (and substantially in the form required by such Money Fund Control Agreement), directing the Bank of China Securities Intermediary, BBH Securities Intermediary, BMO Securities Intermediary, BNP Securities Intermediary, BNY Mellon Securities Intermediary, Citibank Securities Intermediary, JPMorgan Securities Intermediary, Lakeside Bank Securities Intermediary, the Applicable Other Securities Intermediary, the DB Securities Intermediary or such Money Fund Issuer or its transfer or servicing agent, as the case may be, to cease following the direction of the Grantors and to only follow the direction of the Collateral Agent with respect to the Collateral subject to the applicable Control Agreement.

“Other Clearing Member Securities Account” means each of the Securities Accounts listed on Schedule XXI hereto (including after giving effect to any Securities Accounts added to or removed from Schedule XXI after the date hereof following written notice to and acknowledgement by the Collateral Agent), in each case as established and maintained with the Applicable Other Securities Intermediary in accordance with Section 3.1(j).

“Other Collateral Securities Account” means each of the Securities Accounts listed on Schedule XXII hereto (including after giving effect to any Securities Accounts added to or removed from Schedule XXII after the date hereof following written notice to and acknowledgement by the Collateral Agent), in each case as established and maintained with the Applicable Other Securities Intermediary in accordance with Section 3.1(j).

“Other Grantor Secured Obligations” means (i) with respect to the Collateral Agent’s security interest in any Collateral constituting Guaranty Fund Assets owned by any Grantor other than CME, the Obligations other than the GFX Loans and the CMECE Loans and interest thereon and (ii) with respect to the Collateral Agent’s security interest in any Collateral owned by any Grantor other than CME, which Collateral does not constitute Guaranty Fund Assets, all unpaid principal of, and accrued and unpaid interest on, the Settlement Loans (including, without limitation, interest accruing after the filing of any petition in bankruptcy, or the commencement of any insolvency, reorganization or like proceeding, relating to CME, whether or not a claim for such interest is allowed in such proceeding).

“Other Securities Account” means each Other Clearing Member Securities Account and Other Collateral Securities Account.

“Other Securities Account Control Agreement” means one or more Securities Account Control Agreements by and among the applicable Grantors, any Applicable Other Securities Intermediary and the Collateral Agent, in such form as shall be reasonably satisfactory to the Collateral Agent and the Administrative Agent, as the same may from time to time be amended, supplemented, restated or modified in accordance therewith.

“Other Triggering Event” means the time at which all of the following have occurred: (a) any Other Clearing Member Securities Account is identified by CME in a Collateral Notice delivered pursuant to Section 3.1(a) of the Credit Agreement, (b) such Collateral Notice has been delivered in connection with an Advance Request, and (c) the Administrative Agent has made the Advance (requested in such Advance Request) to CME pursuant to Section 3.1(b)(iii) of the Credit Agreement, by initiating a federal wire transfer to the account identified by CME in such Advance Request.

“**Proceeds**” means “proceeds” as such term is defined in Section UCC 9-102(a)(64) of the UCC.

“**Secured Obligations**” means (i) with respect to the Collateral Agent’s security interest in any Collateral owned by CME, the Obligations, and (ii) with respect to the Collateral Agent’s security interest in any Collateral owned by any Grantor other than CME, the Other Grantor Secured Obligations.

“**Securities Account**” means any “securities account” as defined in Section 8-501(a) of the UCC.

“**Securities Control**” means “control” as defined in Section 8-106 of the UCC.

“**Securities Intermediary**” means a Person that is a “securities intermediary” (as defined in Section 8-102(a)(14) of the UCC) and, in respect of any Book-Entry Security, a “securities intermediary” (as defined in 31 C.F.R. § 357.2 or, as applicable to such Book-Entry Security, the corresponding Federal Book-Entry Regulations).

“**Security Entitlement**” means a “security entitlement” as defined in Section 8-102(a)(17) of the UCC.

“**Triggering Event**” means each of the Bank of China Triggering Event, BBH Triggering Event, BMO Triggering Event, BNP Triggering Event, BNY Mellon Triggering Event, the Citibank Triggering Event, the DB Triggering Event, JPMorgan Triggering Event, Lakeside Triggering Event, the Other Triggering Event and each Money Fund Triggering Event.

“**UCC**” means the Uniform Commercial Code as in effect from time to time in the State of New York.

ARTICLE II GRANT OF SECURITY INTERESTS

2.1 Pledge, Grant of Security Interest. (a) Each Grantor hereunder hereby assigns, pledges and transfers to the Collateral Agent (for its benefit, the benefit of the Administrative Agent and the ratable benefit of the Banks) and grants to the Collateral Agent (for its benefit, the benefit of the Administrative Agent and the ratable benefit of the Banks) a security interest in and continuing lien on all of such Grantor’s right, title and interest in, to and under the following, in each case, whether now owned or existing or hereafter acquired or arising, and wherever located (all of which being hereinafter collectively called the “**Closing Date Collateral**”):

- (i) each Collateral Account;
- (ii) all Security Entitlements carried in each Collateral Account;
- (iii) all Financial Assets credited to each Collateral Account;
- (iv) all Investment Property credited to each Collateral Account
- (v) each Company Securities Account;
- (vi) all Security Entitlements carried in each Company Securities Account;
- (vii) all Financial Assets credited to each Company Securities Account;
- (viii) all Investment Property credited to each Company Securities Account; and

(ix) all Proceeds of any or all of the foregoing.

(b) Each Grantor hereunder hereby assigns, pledges and transfers to the Collateral Agent (for its benefit, the benefit of the Administrative Agent and the ratable benefit of the Banks) and grants to the Collateral Agent (for its benefit, the benefit of the Administrative Agent and the ratable benefit of the Banks) a security interest in and continuing lien on all of such Grantor's right, title and interest in, to and under the following, in each case, whether owned or existing or thereafter acquired or arising, and wherever located (all of which being hereinafter collectively called the **"Delayed Attachment Collateral"** and together with the **"Closing Date Collateral"**, the **"Collateral"**):

(i) each Bank of China Clearing Member Securities Account, all Security Entitlements carried in each Bank of China Clearing Member Securities Account, all Financial Assets credited to each Bank of China Clearing Member Securities Account, all Investment Property credited to each Bank of China Clearing Member Securities Account and all Proceeds of any and all of the foregoing (the **"Bank of China Clearing Member Collateral"**);

(ii) each BBH Clearing Member Securities Account, all Security Entitlements carried in each BBH Clearing Member Securities Account, all Financial Assets credited to each BBH Clearing Member Securities Account, all Investment Property credited to each BBH Clearing Member Securities Account and all Proceeds of any and all of the foregoing (the **"BBH Clearing Member Collateral"**);

(iii) each BMO Clearing Member Securities Account, all Security Entitlements carried in each BMO Clearing Member Securities Account, all Financial Assets credited to each BMO Clearing Member Securities Account, all Investment Property credited to each BMO Clearing Member Securities Account and all Proceeds of any and all of the foregoing (the **"BMO Clearing Member Collateral"**);

(iv) each BNP Clearing Member Securities Account, all Security Entitlements carried in each BNP Clearing Member Securities Account, all Financial Assets credited to each BNP Clearing Member Securities Account, all Investment Property credited to each BNP Clearing Member Securities Account and all Proceeds of any and all of the foregoing (the **"BNP Clearing Member Collateral"**);

(v) each BNY Mellon Clearing Member Securities Account, all Security Entitlements carried in each BNY Mellon Clearing Member Securities Account, all Financial Assets credited to each BNY Mellon Clearing Member Securities Account, all Investment Property credited to each BNY Mellon Clearing Member Securities Account and all Proceeds of any and all of the foregoing (the **"BNY Mellon Clearing Member Collateral"**);

(vi) each Citibank Clearing Member Securities Account, all Security Entitlements carried in each Citibank Clearing Member Securities Account, all Financial Assets credited to each Citibank Clearing Member Securities Account, all Investment Property credited to each Citibank Clearing Member Securities Account and all Proceeds of any and all of the foregoing (the **"Citibank Clearing Member Collateral"**);

(vii) each DB Clearing Member Securities Account, all Security Entitlements carried in each DB Clearing Member Securities Account, all Financial Assets credited to each DB Clearing Member Securities Account, all Investment Property credited to each DB Clearing Member Securities Account and all Proceeds of any and all of the foregoing (the **"DB Clearing Member Collateral"**);

(viii) each JPMorgan Clearing Member Securities Account, all Security Entitlements carried in each JPMorgan Clearing Member Securities Account, all Financial Assets credited to each

JPMorgan Clearing Member Securities Account, all Investment Property credited to each JPMorgan Clearing Member Securities Account and all Proceeds of any and all of the foregoing (the “JPMorgan Clearing Member Collateral”);

(ix) each Lakeside Bank Clearing Member Securities Account, all Security Entitlements carried in each Lakeside Bank Clearing Member Securities Account, all Financial Assets credited to each Lakeside Bank Clearing Member Securities Account, all Investment Property credited to each Lakeside Bank Clearing Member Securities Account and all Proceeds of any and all of the foregoing (the “Lakeside Bank Clearing Member Collateral”);

(x) each Other Clearing Member Securities Account, all Security Entitlements carried in each Other Clearing Member Securities Account, all Financial Assets credited to each Other Clearing Member Securities Account, all Investment Property credited to each Other Clearing Member Securities Account and all Proceeds of any and all of the foregoing (the “Other Clearing Member Collateral”); and

(x) all Clearing Member Money Fund Shares and all Proceeds of any and all of the foregoing (the “Clearing Member Money Fund Collateral”);

provided, however, for purposes of Section 9-203(a) of the UCC, the security interest granted pursuant to this Section 2.1(b) with respect to any particular Clearing Member Securities Account and any Security Entitlements, Financial Assets and Investment Property credited to such account and any Proceeds thereof shall not attach (A) with respect to any such Bank of China Clearing Member Collateral, until a Bank of China Triggering Event has occurred with respect to such Bank of China Clearing Member Securities Account, (B) with respect to any such BBH Clearing Member Collateral, until a BBH Triggering Event has occurred with respect to such BBH Clearing Member Securities Account, (C) with respect to any such BMO Clearing Member Collateral, until a BMO Triggering Event has occurred with respect to such BMO Clearing Member Securities Account, (D) with respect to any such BNP Clearing Member Collateral, until a BNP Triggering Event has occurred with respect to such BNP Clearing Member Securities Account, (E) with respect to any such BNY Mellon Clearing Member Collateral, until a BNY Mellon Triggering Event has occurred with respect to such BNY Mellon Clearing Member Securities Account, (F) with respect to any such Citibank Clearing Member Collateral, until a Citibank Triggering Event has occurred with respect to such Citibank Clearing Member Securities Account, (G) with respect to any such DB Clearing Member Collateral, until a DB Triggering Event has occurred with respect to such DB Clearing Member Securities Account, (H) with respect to any such JPMorgan Clearing Member Collateral, until a JPMorgan Triggering Event has occurred with respect to such JPMorgan Clearing Member Securities Account, (I) with respect to any such Lakeside Bank Clearing Member Collateral, until a Lakeside Bank Triggering Event has occurred with respect to such Lakeside Bank Clearing Member Securities Account, and (J) with respect to any such Other Clearing Member Collateral, until an Applicable Other Triggering Event has occurred with respect to such Other Clearing Member Securities Account;

provided, further, for purposes of Section 9-203(a) of the UCC, the security interest granted pursuant to this Section 2.1(b) with respect to any Clearing Member Money Fund Shares and any Proceeds of such Clearing Member Money Fund Shares shall not attach to any particular Clearing Member Money Fund Shares or any Proceeds thereof until a Money Fund Triggering Event has occurred from such Money Fund Shares being identified in a Collateral Notice.

(c) Upon the request of CME, the Administrative Agent and Collateral Agent shall deliver to CME a release notice substantially in the form of Exhibit B hereto (a “Release Notice”) when the following conditions have been satisfied:

(A) with respect to any Clearing Member Securities Account, there are no assets maintained in any Clearing Member Securities Account as a result of a withdrawal or transfer of assets permitted by the Loan Documents;

(B) with respect to any Clearing Member Money Fund Shares, such Clearing Member Money Fund Shares have been retitled back into the name under which they were held prior to the attachment of the lien of the Collateral Agent described above as a result of a transfer of such shares permitted by the Loan Documents; and

(C) in each case, there are no outstanding Advances relating to such Clearing Member Securities Account or Clearing Member Money Fund Shares (whether such Clearing Member Securities Account or Clearing Member Money Fund Shares were initially identified in a Collateral Notice as Collateral to be associated with an Advance or otherwise); and

(D) in each case, no Default or Unmatured Default exists.

In the Release Notice, the Collateral Agent shall identify the applicable Clearing Member Securities Account or Clearing Member Money Fund Shares and state that the security interest in such Clearing Member Securities Account or Clearing Member Money Fund Shares is released. In addition, such Release Notice shall contain a grant of a security interest by the Grantors in such Clearing Member Securities Account or Clearing Member Money Fund Shares which will not attach except as provided in Section 2.1(b). Upon the execution and delivery of a Release Notice by the Administrative Agent and the Collateral Agent to CME and the acknowledgment and agreement thereto by CME, the security interest pursuant to this Section 2.1(b) in such Clearing Member Securities Account or Clearing Member Money Fund Shares listed in such Release Notice shall be automatically released, subject to the immediately preceding sentence. Nothing contained herein shall prevent any security interest granted to the Collateral Agent in any Clearing Member Securities Account or Clearing Member Money Fund Shares from attaching pursuant to Section 2.1(b) to such Clearing Member Securities Account or Clearing Member Money Fund Shares if a Triggering Event occurs with respect to such Clearing Member Securities Account or Clearing Member Money Fund Shares after the execution and delivery by the parties thereto of a Release Notice relating to such Clearing Member Securities Account or Clearing Member Money Fund Shares.

(d) The security interests granted by CME pursuant to Sections 2.1(a) and 2.1(b) secure the prompt and complete payment and performance in full of all Obligations. The security interests granted by the Grantors other than CME pursuant to Sections 2.1(a) and 2.1(b) secure the prompt and complete payment and performance in full of all Other Grantor Secured Obligations.

2.2 Control Agreements; Transfer of Collateral. (a) To the extent required by Section 5.2 of the Credit Agreement, all Money Fund Shares and each of the Bank of China Securities Accounts, each of the BBH Securities Accounts, each of the BMO Securities Accounts, each of the BNP Securities Accounts, each of the DB Securities Accounts, each of the BNY Mellon Securities Accounts, each of the Citibank Securities Accounts, each of the JPMorgan Securities Accounts, each of the Lakeside Bank Securities Accounts and each of the Other Securities Accounts shall be subject to a Control Agreement.

(b) In addition, except with respect to the Money Fund Shares, the Grantors shall use commercially reasonable efforts to, promptly following any Advance or pledge of additional Collateral to cure any Borrowing Base deficiency pursuant to Section 2.9 of the Credit Agreement, transfer, or cause to be transferred, each item of Collateral to a Collateral Account or a Company Securities Account, in a form and manner that shall create a perfected first priority lien on or security interest in favor of the Collateral Agent for the benefit of the Banks with respect to such item.

ARTICLE III
MAINTENANCE OF THE SECURITIES ACCOUNTS; MONEY FUND SHARES

3.1 Establishment of Collateral Accounts and Securities Accounts; Control of Money Fund Shares.

(a) CME has established, and at all times until the Secured Obligations (other than unasserted contingent indemnification obligations not due and payable) shall have been paid in full and this Agreement is terminated, shall maintain, the DB Securities Accounts. The following provisions shall apply to the establishment and maintenance of each of the DB Securities Accounts:

(i) CME shall cause each DB Securities Account to be, and each DB Securities Account shall be, separate from all other accounts (including any other DB Securities Account) maintained by or at the direction of the DB Securities Intermediary.

(ii) Upon the execution and delivery of the DB Securities Account Control Agreement, the Collateral Agent shall, in accordance with and subject to all applicable requirements of law, have (A) Securities Control over, and (B) the power to originate Entitlement Orders with respect to, each DB Securities Account listed on the applicable schedules to such DB Securities Account Control Agreement and all Clearing Member Securities, Company Securities and other Financial Assets held therein or credited thereto. CME shall, pursuant to the DB Securities Account Control Agreement, instruct the DB Securities Intermediary, notwithstanding any other term or condition to the contrary in any other agreement, (I) to comply with all Entitlement Orders originated by the Collateral Agent without further consent of CME and (II) following receipt by such Securities Intermediary of a Notice of Exclusive Control, to comply with the Entitlement Orders of no other Person other than a Person authorized (and to the extent authorized) by the Collateral Agent. No Collateral shall be released to or for the account of, or withdrawn or transferred by or for the account of CME or any other Person except as expressly permitted in this Agreement or as expressly permitted in the Credit Agreement. In furtherance whereof, for all purposes of this Agreement, the Collateral Agent shall be deemed to have authorized (and directed each Securities Intermediary to comply with) any and all notices, directions and Entitlement Orders by or on behalf of CME, which CME is permitted to give under this Agreement or under the Credit Agreement.

(b) CME may establish, and, if established, at all times until the Secured Obligations (other than unasserted contingent indemnification obligations not due and payable) shall have been paid in full and this Agreement is terminated, shall maintain, the BNY Mellon Securities Accounts. The following provisions shall apply to the establishment and maintenance of each of the BNY Mellon Securities Accounts:

(i) The BNY Mellon Securities Intermediary shall cause each BNY Mellon Securities Account to be, and each BNY Mellon Securities Account shall be, separate from all other accounts (including any other BNY Mellon Securities Account) maintained by or at the direction of the BNY Mellon Securities Intermediary.

(ii) Upon the execution and delivery of the BNY Mellon Securities Account Control Agreement, the Collateral Agent shall, in accordance with and subject to all applicable requirements of law, have (A) Securities Control over, and (B) the power to originate Entitlement Orders with respect to, each BNY Mellon Securities Account listed on the applicable schedules to such BNY Securities Account Control Agreement and all Clearing Member Securities and other Financial Assets held therein or credited thereto. CME shall, pursuant to the BNY Mellon Securities Account Control Agreement, instruct the BNY Mellon Securities Intermediary, notwithstanding any other term or condition to the contrary in

any other agreement, (I) to comply with all Entitlement Orders originated by the Collateral Agent without further consent of CME and (II) following receipt by such Securities Intermediary of a Notice of Exclusive Control, to comply with the Entitlement Orders of no other Person other than a Person authorized (and to the extent authorized) by the Collateral Agent. No Collateral shall be released to or for the account of, or withdrawn or transferred by or for the account of CME or any other Person except as expressly permitted in this Agreement or as expressly permitted in the Credit Agreement.

(c) CME has established, and at all times until the Secured Obligations (other than unasserted contingent indemnification obligations not due and payable) shall have been paid in full and this Agreement is terminated shall maintain, the Citibank Securities Accounts. The following provisions shall apply to the establishment and maintenance of each of the Citibank Securities Accounts:

(i) The Citibank Securities Intermediary shall cause each Citibank Securities Account to be, and each Citibank Securities Account shall be, separate from all other accounts (including any other Citibank Securities Account) maintained by or at the direction of the Citibank Securities Intermediary.

(ii) Upon the execution and delivery of the Citibank Securities Account Control Agreement, the Collateral Agent shall, in accordance with and subject to all applicable requirements of law, have (A) Securities Control over, and (B) the power to originate Entitlement Orders with respect to, each Citibank Securities Account listed on the applicable schedules to such Citibank Securities Account Control Agreement and all Clearing Member Securities and other Financial Assets held therein or credited thereto. CME shall, pursuant to the Citibank Securities Account Control Agreement, instruct the Citibank Securities Intermediary, notwithstanding any other term or condition to the contrary in any other agreement, (I) to comply with all Entitlement Orders originated by the Collateral Agent without further consent of CME and (II) following receipt by such Securities Intermediary of a Notice of Exclusive Control, to comply with the Entitlement Orders of no other Person other than a Person authorized (and to the extent authorized) by the Collateral Agent. No Collateral shall be released to or for the account of, or withdrawn or transferred by or for the account of CME or any other Person except as expressly permitted in this Agreement or as expressly permitted in the Credit Agreement.

(d) Upon the execution and delivery of each Money Fund Control Agreement, the Collateral Agent shall, in accordance with and subject to all applicable requirements of law, have (A) Securities Control over, and (B) the power to originate Instructions with respect to, each Money Fund Share pledged by CME as Collateral and subject to such Money Fund Control Agreement. CME shall, pursuant to each applicable Money Fund Control Agreement, instruct each applicable Money Fund Issuer or its transfer or servicing agent, notwithstanding any other term or condition to the contrary in any other agreement, (I) to comply with all Instructions originated by the Collateral Agent with respect to each such Money Fund Share without further consent of CME and (II) following receipt by such Money Fund Issuer or its transfer or servicing agent of a Notice of Exclusive Control, to comply with the Instructions of no other Person other than a Person authorized (and to the extent authorized) by the Collateral Agent. No Money Fund Share included in any Collateral Pool shall be released to or for the account of, or withdrawn or transferred by or for the account of CME or any other Person except as expressly permitted in this Agreement or as expressly permitted in the Credit Agreement.

(e) CME may establish, and, if established, at all times until the Secured Obligations (other than unasserted contingent indemnification obligations not due and payable) shall have been paid in full and this Agreement is terminated, shall maintain, the JPMorgan Securities Accounts. The following provisions shall apply to the establishment and maintenance of each of the JPMorgan Securities Accounts:

(i) The JPMorgan Securities Intermediary shall cause each JPMorgan Securities Account to be, and each JPMorgan Securities Account shall be, separate from all other accounts (including any other JPMorgan Securities Account) maintained by or at the direction of the JPMorgan Securities Intermediary.

(ii) Upon the execution and delivery of the JPMorgan Securities Account Control Agreement, the Collateral Agent shall, in accordance with and subject to all applicable requirements of law, have (A) Securities Control over, and (B) the power to originate Entitlement Orders with respect to each JPMorgan Securities Account listed on the applicable schedules to such JPMorgan Securities Account Control Agreement and all Clearing Member Securities and other Financial Assets held therein or credited thereto. CME shall, pursuant to the JPMorgan Securities Account Control Agreement, instruct the JPMorgan Securities Intermediary, notwithstanding any other term or condition to the contrary in any other agreement, (I) to comply with all Entitlement Orders originated by the Collateral Agent without further consent of CME and (II) following receipt by such Securities Intermediary of a Notice of Exclusive Control, to comply with the Entitlement Orders of no other Person other than a Person authorized (and to the extent authorized) by the Collateral Agent. No Collateral shall be released to or for the account of, or withdrawn or transferred by or for the account of CME or any other Person except as expressly permitted in this Agreement or as expressly permitted in the Credit Agreement.

(f) CME may establish, and, if established, at all times until the Secured Obligations (other than unasserted contingent indemnification obligations not due and payable) shall have been paid in full and this Agreement is terminated, shall maintain, the BBH Securities Accounts. The following provisions shall apply to the establishment and maintenance of each of the BBH Securities Accounts:

(i) The BBH Securities Intermediary shall cause each BBH Securities Account to be, and each BBH Securities Account shall be, separate from all other accounts (including any other BBH Securities Account) maintained by or at the direction of the BBH Securities Intermediary.

(ii) Upon the execution and delivery of the BBH Securities Account Control Agreement, the Collateral Agent shall, in accordance with and subject to all applicable requirements of law, have (A) Securities Control over, and (B) the power to originate Entitlement Orders with respect to, each BBH Securities Account listed on the applicable schedules to such BBH Securities Account Control Agreement and all Clearing Member Securities and other Financial Assets held therein or credited thereto. CME shall, pursuant to the BBH Securities Account Control Agreement, instruct the BBH Securities Intermediary, notwithstanding any other term or condition to the contrary in any other agreement, (I) to comply with all Entitlement Orders originated by the Collateral Agent without further consent of CME and (II) following receipt by such Securities Intermediary of a Notice of Exclusive Control, to comply with the Entitlement Orders of no other Person other than a Person authorized (and to the extent authorized) by the Collateral Agent. No Collateral shall be released to or for the account of, or withdrawn or transferred by or for the account of CME or any other Person except as expressly permitted in this Agreement or as expressly permitted in the Credit Agreement.

(g) CME may establish, and, if established, at all times until the Secured Obligations (other than unasserted contingent indemnification obligations not due and payable) shall have been paid in full and this Agreement is terminated, shall maintain, the BMO Securities Accounts. The following provisions shall apply to the establishment and maintenance of each of the BMO Securities Accounts:

(i) The BMO Securities Intermediary shall cause each BMO Securities Account to be, and each BMO Securities Account shall be, separate from all other accounts (including any other BMO Securities Account) maintained by or at the direction of the BMO Securities Intermediary.

(ii) Upon the execution and delivery of the BMO Securities Account Control Agreement, the Collateral Agent shall, in accordance with and subject to all applicable requirements of law, have (A) Securities Control over, and (B) the power to originate Entitlement Orders with respect to, each BMO Securities Account listed on the applicable schedules to such BMO Securities Account Control Agreement and all Clearing Member Securities and other Financial Assets held therein or credited thereto. CME shall, pursuant to the BMO Securities Account Control Agreement, instruct the BMO Securities Intermediary, notwithstanding any other term or condition to the contrary in any other agreement, (I) to comply with all Entitlement Orders originated by the Collateral Agent without further consent of CME and (II) following receipt by such Securities Intermediary of a Notice of Exclusive Control, to comply with the Entitlement Orders of no other Person other than a Person authorized (and to the extent authorized) by the Collateral Agent. No Collateral shall be released to or for the account of, or withdrawn or transferred by or for the account of CME or any other Person except as expressly permitted in this Agreement or as expressly permitted in the Credit Agreement.

(h) CME may establish, and, if established, at all times until the Secured Obligations (other than unasserted contingent indemnification obligations not due and payable) shall have been paid in full and this Agreement is terminated, shall maintain, the BNP Securities Accounts. The following provisions shall apply to the establishment and maintenance of each of the BNP Securities Accounts:

(i) The BNP Securities Intermediary shall cause each BNP Securities Account to be, and each BNP Securities Account shall be, separate from all other accounts (including any other BNP Securities Account) maintained by or at the direction of the BNP Securities Intermediary.

(ii) Upon the execution and delivery of the BNP Securities Account Control Agreement, the Collateral Agent shall, in accordance with and subject to all applicable requirements of law, have (A) Securities Control over, and (B) the power to originate Entitlement Orders with respect to, each BNP Securities Account listed on the applicable schedules to such BNP Securities Account Control Agreement and all Clearing Member Securities and other Financial Assets held therein or credited thereto. CME shall, pursuant to the BNP Securities Account Control Agreement, instruct the BNP Securities Intermediary, notwithstanding any other term or condition to the contrary in any other agreement, (I) to comply with all Entitlement Orders originated by the Collateral Agent without further consent of CME and (II) following receipt by such Securities Intermediary of a Notice of Exclusive Control, to comply with the Entitlement Orders of no other Person other than a Person authorized (and to the extent authorized) by the Collateral Agent. No Collateral shall be released to or for the account of, or withdrawn or transferred by or for the account of CME or any other Person except as expressly permitted in this Agreement or as expressly permitted in the Credit Agreement.

(i) CME may establish, and, if established, at all times until the Secured Obligations (other than unasserted contingent indemnification obligations not due and payable) shall have been paid in full and this Agreement is terminated, shall maintain, the Bank of China Securities Accounts. The following provisions shall apply to the establishment and maintenance of each of the Bank of China Securities Accounts:

(i) The Bank of China Securities Intermediary shall cause each Bank of China Securities Account to be, and each Bank of China Securities Account shall be, separate from all other accounts (including any other Bank of China Securities Account) maintained by or at the direction of the Bank of China Securities Intermediary.

(ii) Upon the execution and delivery of the Bank of China Securities Account Control Agreement, the Collateral Agent shall, in accordance with and subject to all applicable requirements of law, have (A) Securities Control over, and (B) the power to originate Entitlement Orders

with respect to, each Bank of China Securities Account listed on the applicable schedules to such Bank of China Securities Account Control Agreement and all Clearing Member Securities and other Financial Assets held therein or credited thereto. CME shall, pursuant to the Bank of China Securities Account Control Agreement, instruct the Bank of China Securities Intermediary, notwithstanding any other term or condition to the contrary in any other agreement, (I) to comply with all Entitlement Orders originated by the Collateral Agent without further consent of CME and (II) following receipt by such Securities Intermediary of a Notice of Exclusive Control, to comply with the Entitlement Orders of no other Person other than a Person authorized (and to the extent authorized) by the Collateral Agent. No Collateral shall be released to or for the account of, or withdrawn or transferred by or for the account of CME or any other Person except as expressly permitted in this Agreement or as expressly permitted in the Credit Agreement.

(j) CME may establish, and, if established, at all times until the Secured Obligations (other than unasserted contingent indemnification obligations not due and payable) shall have been paid in full and this Agreement is terminated, shall maintain, the Lakeside Bank Securities Accounts. The following provisions shall apply to the establishment and maintenance of each of the Lakeside Bank Securities Accounts:

(i) The Lakeside Bank Securities Intermediary shall cause each Lakeside Bank Securities Account to be, and each Lakeside Bank Securities Account shall be, separate from all other accounts (including any other Lakeside Bank Securities Account) maintained by or at the direction of the Lakeside Bank Securities Intermediary.

(ii) Upon the execution and delivery of the Lakeside Bank Securities Account Control Agreement, the Collateral Agent shall, in accordance with and subject to all applicable requirements of law, have (A) Securities Control over, and (B) the power to originate Entitlement Orders with respect to, each Lakeside Bank Securities Account listed on the applicable schedules to such Lakeside Bank Securities Account Control Agreement and all Clearing Member Securities and other Financial Assets held therein or credited thereto. CME shall, pursuant to the Lakeside Bank Securities Account Control Agreement, instruct the Lakeside Bank Securities Intermediary, notwithstanding any other term or condition to the contrary in any other agreement, (I) to comply with all Entitlement Orders originated by the Collateral Agent without further consent of CME and (II) following receipt by such Securities Intermediary of a Notice of Exclusive Control, to comply with the Entitlement Orders of no other Person other than a Person authorized (and to the extent authorized) by the Collateral Agent. No Collateral shall be released to or for the account of, or withdrawn or transferred by or for the account of CME or any other Person except as expressly permitted in this Agreement or as expressly permitted in the Credit Agreement.

(j) CME may establish, and, if established, at all times until the Secured Obligations (other than unasserted contingent indemnification obligations not due and payable) shall have been paid in full and this Agreement is terminated, shall maintain, the Other Securities Accounts. The following provisions shall apply to the establishment and maintenance of each of the Other Securities Accounts:

(i) The Applicable Other Securities Intermediary shall cause each applicable Other Securities Account to be, and each Other Securities Account shall be, separate from all other accounts (including any other Other Securities Account) maintained by or at the direction of such Applicable Other Securities Intermediary.

(ii) Upon the execution and delivery of any Other Securities Account Control Agreement, the Collateral Agent shall, in accordance with and subject to all applicable requirements of law, have (A) Securities Control over, and (B) the power to originate Entitlement Orders with respect to,

each Applicable Other Securities Account listed on the applicable schedules to such Other Securities Account Control Agreement and all Clearing Member Securities and other Financial Assets held therein or credited thereto. CME shall, pursuant to such Other Securities Account Control Agreement, instruct the Applicable Other Securities Intermediary, notwithstanding any other term or condition to the contrary in any other agreement, (I) to comply with all Entitlement Orders originated by the Collateral Agent without further consent of CME and (II) following receipt by such Securities Intermediary of a Notice of Exclusive Control, to comply with the Entitlement Orders of no other Person other than a Person authorized (and to the extent authorized) by the Collateral Agent. No Collateral shall be released to or for the account of, or withdrawn or transferred by or for the account of CME or any other Person except as expressly permitted in this Agreement or as expressly permitted in the Credit Agreement.

3.2 Investments. Amounts credited to the Bank of China Securities Accounts, the BBH Securities Accounts, the BMO Securities Accounts, the BNP Securities Accounts, the DB Securities Accounts, the BNY Mellon Securities Accounts, the Citibank Securities Accounts, the JPMorgan Securities Accounts, the Lakeside Bank Securities Accounts and the Other Securities Accounts in the form of cash shall be invested from time to time in such investments as CME shall determine (or, if a Default has occurred and is continuing, as the Administrative Agent may determine), which investments shall be of the types described in CME Rules 816, 817 and 820, NYMEX Rules 816, 817 and 820, CBOT Rules 816, 817 and 820 and any similar Rules, as applicable.

3.3 Maintenance of Securities Accounts. So long as no Default shall have occurred and be continuing:

(a) Voting Rights. Each applicable Grantor shall be entitled to exercise any and all voting and other consensual rights pertaining to the Collateral or any part thereof for any purposes not inconsistent with the terms of this Agreement.

(b) Dividends and Distributions. The Grantors and the Collateral Agent agree that all cash, distributions, dividends, additional securities and any and all other property or Proceeds received, distributed in respect of or in exchange for any Collateral pledged by any Grantor hereunder shall be credited to the applicable Bank of China Securities Account, BBH Securities Account, BMO Securities Account, BNP Securities Account, DB Securities Account, BNY Mellon Securities Account, Citibank Securities Account, JPMorgan Securities Account, the Lakeside Bank Securities Account or Other Securities Account and covered by the security interest granted to the Collateral Agent hereunder.

3.4 Successor Accounts. In the event a successor account to any Bank of China Securities Account, any BBH Securities Account, any BMO Securities Account, any BNP Securities Account, DB Securities Account, any BNY Mellon Securities Account, any Citibank Securities Account, any JPMorgan Securities Account, any Lakeside Bank Securities Account or any Other Securities Account is established, such account shall be established with the existing Securities Intermediary for such account or another Securities Intermediary in accordance with the definitions of the terms "DB Clearing Member Securities Account", "DB Collateral Securities Account", "DB Company Securities Account", "BNY Mellon Clearing Member Securities Account", "BNY Mellon Collateral Securities Account", "Citibank Clearing Member Securities Account", "Citibank Collateral Securities Account", "JPMorgan Clearing Member Securities Account", "JPMorgan Collateral Securities Account", "BBH Clearing Member Securities Account", "BBH Collateral Securities Account", "BMO Clearing Member Securities Account", "BMO Collateral Securities Account", "Bank of China Clearing Member Securities Account", "Bank of China Collateral Securities Account", "Other Clearing Member Securities Account", "Other Collateral Securities Account", "Lakeside Bank Clearing Member Securities Account", "Lakeside Bank Collateral Securities Account", "BNP Clearing Member Securities Account" or "BNP Collateral Securities Account" as applicable.

ARTICLE IV REPRESENTATIONS AND WARRANTIES

Representations and Warranties of Grantors. Each Grantor hereby represents and warrants to the Collateral Agent, which representations and warranties shall survive execution and delivery of this Agreement, as follows:

4.1 Validity, Perfection and Priority. The security interests granted to the Collateral Agent hereunder constitute (or, in the case of Delayed Attachment Collateral, will constitute as of the occurrence of the applicable Triggering Event) valid security interests in the Collateral in favor of the Collateral Agent for the benefit of the Banks. Upon the execution and delivery of each applicable Control Agreement, the security interests granted to the Collateral Agent hereunder shall be valid, perfected, first-priority security interests in the Closing Date Collateral in favor of the Collateral Agent for the benefit of the Agents and the Banks. Upon (a) the execution and delivery of each applicable Control Agreement and (b) the occurrence of the applicable Triggering Event, the security interests granted to the Collateral Agent hereunder shall be valid, perfected, first-priority security interests in the respective Delayed Attachment Collateral in favor of the Collateral Agent for the benefit of the Agents and the Banks.

4.2 No Liens.

(a) Except for the Lien granted to the Collateral Agent hereunder, or as otherwise permitted under Section 7.8 of the Credit Agreement, each item of the Collateral pledged by such Grantor is (and in the case of the Delayed Attachment Collateral, will be as of the occurrence of the applicable Triggering Event) free and clear of any and all Liens, rights or claims of all other Persons.

(b) Except for the filing of financing statements filed with respect to the Liens granted by this Agreement, no financing statement or other evidence of any Lien covering or purporting to cover any of the Collateral pledged by any Grantor is on file or recorded in any public office.

4.3 Organization. Such Grantor is duly incorporated, validly existing and in good standing under the laws of the jurisdiction of its incorporation and has all requisite authority to conduct its business in each jurisdiction in which its business is conducted and where the failure to have such authority would reasonably be expected to have a Material Adverse Effect.

4.4 Power and Authority; Authorization; Enforceability. Such Grantor has (and as of the occurrence of any Triggering Event, will have) the power and authority (corporate or otherwise) and legal right to execute and deliver this Agreement and to perform its obligations hereunder and each Grantor other than CME has granted to CME, pursuant to CME Rules 816, 817 and 820, NYMEX Rules 816, 817 and 820, CBOT Rules 816, 817 and 820 and any other similar applicable Rule, the power to execute and deliver this Agreement and the Control Agreements on such Grantor's behalf as Member Attorney-in-Fact. Each Grantor's entering into this Agreement and the performance of its obligations hereunder has been duly authorized by proper proceedings (corporate or otherwise). This Agreement constitutes each Grantor's legal, valid and binding obligation, enforceable in accordance with its terms, except as enforceability may be limited by bankruptcy, insolvency or similar laws affecting the enforcement of creditors' rights generally and by general principles of equity (whether enforcement is considered in a proceeding at law or in equity).

4.5 No Conflict. Neither the execution or delivery, nor compliance by such Grantor with the provisions hereof, (i) will violate any law, rule, regulation, order, writ, judgment, injunction, decree or award binding on such Grantor's articles of incorporation, bylaws or other governing documents, or (ii) will violate the provisions of any material indenture, instrument or agreement to which such Grantor is a

party or is subject, or by which such Grantor or such Grantor's property is bound, or conflict with, or constitute a default thereunder, or result in the creation or imposition of any Lien (except pursuant to this Agreement) upon any of the property or assets of such Grantor pursuant to the terms of any such indenture, instrument or agreement.

4.6 Grantors In Good Standing with Clearing House. As of the date hereof, each Grantor (other than CME in its individual capacity) is a Clearing Member in good standing with the Clearing House under the Rules.

4.7 Corporate Name and Jurisdiction of Organization. The legal name of CME is "Chicago Mercantile Exchange Inc." and its jurisdiction of organization is the State of Delaware.

4.8 Money Fund Shares. Each Grantor other than CME has granted to CME, pursuant to the Rules, the power and authority to pledge the Money Fund Shares on such Grantor's behalf as Member Attorney-in-Fact as security for the payment and performance in full of the Secured Obligations.

4.9 Gold Collateral. Notwithstanding that any Clearing Member has executed this Agreement, (i) CME owns all legal and beneficial right, title and interest in and to the Gold Bullion, the Bullion Account and any and all rights, proceeds and property whatsoever in connection with or arising out of the Gold Bullion or any Bullion Account (collectively with the Gold Bullion and the Bullion Account, the "Gold Collateral") (except with respect to Liens permitted under Section 7.8 of the Credit Agreement), (ii) no Clearing Member other than CME has, or at any time hereafter (prior to such time as the Secured Obligations (other than unasserted contingent indemnification obligations not due and payable) have been paid and performed in full and the Aggregate Commitments have expired or been terminated) shall have, any right, title or interest (including any lien, charge or security interest) in or to any Gold Collateral.

ARTICLE V COVENANTS

Each Grantor covenants and agrees with the Collateral Agent, and with respect to Sections 5.6 and 5.7, the Collateral Agent agrees with each Grantor, that from and after the date of this Agreement, so long as any Obligations (other than unasserted contingent indemnification obligations not due and payable) are outstanding and until the Credit Agreement has been terminated:

5.1 Further Assurances. At any time and from time to time, upon the reasonable request of the Collateral Agent, and at the sole expense of such Grantor, such Grantor shall (i) execute and deliver any and all such further instruments, endorsements, powers of attorney and other documents, make such filings, give such notices and (ii) take such further action as the Administrative Agent may deem desirable in obtaining the full benefits of this Agreement and of the rights, remedies and powers herein granted, including, without limitation, the following:

(a) file any financing statements, in form reasonably acceptable to the Administrative Agent under the Uniform Commercial Code in effect in any jurisdiction with respect to the Liens and security interests granted hereby. Such Grantor also hereby authorizes the Administrative Agent, the Collateral Agent and their agents and attorneys to file any such financing statement without the signature of such Grantor to the extent permitted by applicable law. A photocopy or other reproduction of this Agreement shall be sufficient as a financing statement and may be filed in lieu of the original to the extent permitted by applicable law; and

(b) furnish to the Collateral Agent from time to time statements and schedules further identifying and describing the Collateral and such other reports in connection with the Collateral as the Collateral Agent may reasonably request, all in reasonable detail and in form reasonably satisfactory to the Administrative Agent.

For the avoidance of doubt, nothing herein shall require the Collateral Agent to file financing statements or continuation statements, or be responsible for maintaining the security interests purported to be created as described herein (except for the safe custody of any Collateral in its possession and the accounting for moneys actually received by it hereunder or under any other Loan Document).

5.2 Compliance with Laws. Such Grantor will comply with all laws, rules, regulations, orders, writs, judgments, injunctions, decrees or awards to which it may be subject, except where the failure to so comply would not reasonably be expected to have a Material Adverse Effect.

5.3 Payment of Obligations. Such Grantor will pay when due all taxes, assessments and governmental charges and levies upon the Collateral pledged by such Grantor or in respect of any income, profits or property or profits therefrom, except those (i) which are being contested in good faith by appropriate proceedings and with respect to which adequate reserves have been set aside in accordance with GAAP on the books of such Grantor and (ii) as to which the failure to pay would not reasonably be expected to have a Material Adverse Effect.

5.4 Security Interest; Validity. Such Grantor will not assert the invalidity of the security interest of the Collateral Agent in the Collateral or the invalidity or unenforceability of any Collateral Document.

5.5 Negative Pledge. Such Grantor will not create, incur or permit to exist, any Lien or claim on or to the Collateral (other than the Liens created hereunder and the other Collateral Documents or as otherwise permitted under Section 7.8 of the Credit Agreement), and such Grantor will defend the right, title and interest of the Collateral Agent in and to any of such Collateral against the claims and demands of all Persons whomsoever, in each case, at such Grantor's expense.

5.6 Performance by Collateral Agent of Grantor's Obligations; Reimbursement. If any Grantor fails to perform or comply with any of its agreements contained herein, the Collateral Agent may, without notice to or consent by any Grantor and without obligation, perform or comply or cause performance or compliance therewith and the reasonable costs and expenses of the Collateral Agent incurred in connection with such performance or compliance shall be payable by the Grantors to the Collateral Agent on demand and such reimbursement obligation shall be secured as a Secured Obligation hereby.

5.7 Notice of Exclusive Control/Triggering Event. The Collateral Agent agrees that it will not deliver a Notice of Exclusive Control under Section 7.2 with respect to any Clearing Member Securities Account unless the Collateral Agent has been notified in writing by the Administrative Agent that a Triggering Event has occurred with respect to such Clearing Member Securities Account. The Collateral Agent shall not be deemed to have knowledge that any Triggering Event has occurred unless and until notice describing such Triggering Event is given in writing to the Collateral Agent by the Administrative Agent.

**ARTICLE VI
POWER OF ATTORNEY**

6.1 Collateral Agent's Appointment as Attorney-in-Fact.

(a) Each Grantor hereby irrevocably constitutes and appoints the Collateral Agent and any officer or agent thereof, with full power of substitution, as its true and lawful attorney-in-fact with full irrevocable power and authority in the place and stead of such Grantor and in the name of any Grantor, or in its own name, from time to time in the Collateral Agent's discretion, for the purpose of carrying out the terms of this Agreement, to take any and all appropriate action and to execute any and all documents and instruments which may be necessary to accomplish the purposes of this Agreement and each Control Agreement, such power and authority to be exercisable solely in accordance with Section 7.1. Without limitation, each Grantor hereby gives the Collateral Agent the power and right, without notice to or assent by any Grantor, to do the following, subject to and in accordance with Section 7.1:

(1) in the case of any Collateral now or hereafter pledged by any Grantor hereunder, to (A) receive, take possession of and indorse and collect any checks, drafts, notes, acceptances or other instruments for the payment of moneys due under, or with respect to, or distributed in respect of any such Collateral, (B) direct any issuer of or any party liable for any payment under any of the Collateral now or hereafter pledged by such Grantor hereunder to make payment of any and all moneys due or to become due thereunder directly to the Collateral Agent or as the Collateral Agent shall direct and (C) ask or demand for, collect, receive payment of and receipt for, any and all moneys, claims and other amounts due or to become due at any time in respect of or arising out of any Collateral now or hereafter pledged by such Grantor hereunder;

(2) at such Grantor's expense, to (A) commence and prosecute any suits, actions or proceedings at law or in equity in any court of competent jurisdiction to collect the Collateral now or hereafter pledged by such Grantor hereunder, and to enforce any other right in respect of any such Collateral, (B) defend any suit, action or proceeding brought against such Grantor with respect to any Collateral now or hereafter pledged hereunder, (C) settle, compromise or adjust any suit, action or proceeding described in the preceding clause and, in connection therewith, to give such discharges or releases as the Administrative Agent may deem appropriate and (D) generally, sell or transfer and make any agreement with respect to or otherwise deal with any of the Collateral pledged hereunder as fully and completely as though the Administrative Agent were the absolute owner thereof for all purposes, and do, at the Administrative Agent's option, at any time, or from time to time, all acts and things which the Administrative Agent deems necessary to protect, preserve or realize upon the Collateral now or hereafter pledged hereunder and the Liens of the Collateral Agent thereon and to effect the intent of this Agreement, all as fully and effectively as such Grantor might do; and

(3) at any time and from time to time, to execute, in connection with any foreclosure, any indorsements, assignments or other instruments of conveyance or transfer with respect to the Collateral now or hereafter pledged hereunder.

Each Grantor hereby ratifies all that said attorneys shall lawfully do or cause to be done by virtue hereof. This power of attorney is a power coupled with an interest and shall be irrevocable.

Each Grantor hereby acknowledges and agrees that in acting pursuant to this power-of-attorney, the Collateral Agent shall be acting in its own interest, that the Collateral Agent shall have no fiduciary

duties to any Grantor and that each Grantor hereby waives any claims to the rights of a beneficiary of a fiduciary relationship hereunder.

(b) No Duty on the Part of Collateral Agent. Subject to the provisions of Article X and Section 11.9 of the Credit Agreement, the powers conferred on the Collateral Agent hereunder are solely to protect the interests of the Collateral Agent in the Collateral and shall not impose any duty upon the Collateral Agent to exercise any such powers. The Collateral Agent shall be accountable only for amounts that it actually receives as a result of the exercise of such powers, and neither it nor any of its officers, directors, employees or agents shall be responsible to any Grantor for any act or failure to act hereunder, except as is found in a final and non-appealable judgment to have resulted from the Collateral Agent's bad faith, gross negligence or willful misconduct.

ARTICLE VII PAYMENTS; REMEDIES; RIGHTS UPON DEFAULT

7.1 Rights and Remedies Generally. In accordance with Section 9.1 of the Credit Agreement, at any time after which the Secured Obligations have become due and payable and the obligations of the Banks to make Loans have terminated, then, in every such case, the Collateral Agent shall have all the rights of a secured party under the UCC, shall have all rights now or hereafter existing under all other applicable laws, and, subject to any mandatory requirements of applicable law then in effect, shall have all the rights set forth in this Agreement and all the rights set forth with respect to the Collateral in this Agreement and in all other Loan Documents including without limitation, the right to exercise the power of attorney set forth in Section 6.1(a). No enumeration of rights in this Article or elsewhere in this Agreement or in any other Loan Document shall be deemed to in any way limit the rights of the Collateral Agent as described in this Section.

7.2 Notice of Exclusive Control; Liquidation of Collateral. (a) (i) Upon delivery by CME of any Collateral Notice pursuant to Section 3.1(a) of the Credit Agreement in which CME identifies Collateral held in any applicable Bank of China Securities Account, any applicable BBH Securities Account, any applicable BMO Securities Account, any applicable DB Securities Account, any applicable BNY Mellon Securities Account, any applicable Citibank Securities Account, any applicable BNP Securities Account, any applicable JPMorgan Securities Account, any applicable Lakeside Bank Securities Account, any applicable Other Securities Account or any applicable Money Fund Share as being pledged to secure an Advance, (ii) in the event that CME pledges additional Collateral in the form of any Money Fund Share or Collateral held in any applicable Bank of China Securities Account, any applicable BBH Securities Account, any applicable BMO Securities Account, any applicable DB Securities Account, any applicable BNP Securities Account, any applicable BNY Mellon Securities Account, any applicable Citibank Securities Account, any applicable JPMorgan Securities Account, any applicable Lakeside Bank Securities Account or any applicable Other Securities Account in accordance with Section 2.6 of the Credit Agreement in order to cure a Borrowing Base deficiency for the applicable Clearing Business or (iii) at any other time, with the consent of CME, the Collateral Agent may (A) immediately with respect to the Closing Date Collateral and (B) upon the occurrence of the applicable Triggering Event with respect to the respective Delayed Attachment Collateral, deliver a Notice of Exclusive Control to the Bank of China Securities Intermediary in accordance with the Bank of China Securities Account Control Agreement with respect to each such Bank of China Securities Account identified by CME, the BBH Securities Intermediary in accordance with the BBH Securities Account Control Agreement with respect to each such BBH Securities Account identified by CME, the BMO Securities Intermediary in accordance with the BMO Securities Account Control Agreement with respect to each such BMO Securities Account as identified by CME, the DB Securities Intermediary in accordance with the DB Securities Account Control Agreement with respect to each such DB Securities Account as identified by CME, the BNP Securities Intermediary in accordance with the BNP Securities

Account Control Agreement with respect to each such BNP Securities Account as identified by CME the BNY Mellon Securities Intermediary in accordance with the BNY Mellon Securities Account Control Agreement with respect to each such BNY Mellon Securities Account identified by CME, the Citibank Securities Intermediary in accordance with the Citibank Securities Account Control Agreement with respect to each such Citibank Securities Account identified by CME, the Lakeside Bank Securities Intermediary in accordance with the Lakeside Bank Securities Account Control Agreement with respect to each such Lakeside Bank Securities Account identified by CME, the JPMorgan Securities Intermediary in accordance with the JPMorgan Securities Account Control Agreement with respect to each such JPMorgan Securities Account identified by CME, the Applicable Other Securities Intermediary in accordance with the Other Securities Account Control Agreement with respect to each such Other Securities Account as identified by CME, and the applicable Money Fund Issuer or its transfer or servicing agent in accordance with the Money Fund Control Agreement with respect to each such Money Fund Share identified by CME; provided that, notwithstanding anything herein or in any other Loan Document to the contrary, (x) CME shall be permitted to replace, withdraw, transfer or liquidate any Clearing Member Security or any Company Security, as applicable, from each such Bank of China Securities Account, each such BBH Securities Account, each such BMO Securities Account, each such BNP Securities Account, each such Lakeside Bank Securities Account, each such DB Securities Account, each such BNY Mellon Securities Account, each such Citibank Securities Account, each such JPMorgan Securities Account, each such Other Securities Account and Money Fund Shares in accordance with Sections 2.9(b), (c) or (d) of the Credit Agreement and (y) upon any such replacement, withdrawal, transfer or liquidation in accordance with Sections 2.9(b), (c) or (d) of the Credit Agreement, the Lien of the Collateral Agent on the replaced, withdrawn, transferred or liquidated Clearing Member Security, Company Security or Money Fund Shares, as the case may be, shall be deemed released without further consent of the Collateral Agent or any Bank in accordance with Section 2.9(e) of the Credit Agreement. With respect to any Collateral, the Collateral Agent shall rescind any Notice of Exclusive Control which it has delivered with respect to any applicable Custodian hereunder following payment in full of all outstanding Advances and accrued and unpaid interest thereon.

(b) In accordance with Section 9.1 of the Credit Agreement, at any time after which the Secured Obligations have become due and payable, the Collateral Agent may liquidate any Clearing Member Security, any Company Security or Money Fund Shares and shall apply the proceeds thereof to the Secured Obligations (whether matured or unmatured) in such order as set forth in Section 7.5 below; provided that upon any such liquidation, the Lien of the Collateral Agent on the liquidated Clearing Member Security, Company Security or Money Fund Shares as the case may be, shall be deemed released without further consent of the Collateral Agent or any Bank in accordance with Section 2.9(e) of the Credit Agreement.

7.3 Recourse. CME shall remain liable for any deficiency if the proceeds of any sale or other disposition of the Collateral are insufficient to satisfy the Secured Obligations.

7.4 Expenses. CME shall reimburse the Collateral Agent for all of its reasonable costs and expenses in accordance with Section 11.9 of the Credit Agreement.

7.5 Application of Proceeds. The proceeds of any disposition, liquidation or redemption of Collateral shall be applied as follows:

(a) to the payment of any and all expenses and fees (including attorneys' fees and disbursements) incurred by the Collateral Agent in connection with the exercise of its rights and remedies hereunder, including without limitation, expenses and fees in connection with preparing for sale and disposing of or otherwise liquidating or redeeming Collateral;

(b) to the satisfaction of the Secured Obligations, pro rata among the Applicable Tranches (and pro rata among the Secured Obligations under each such Applicable Tranche), in the following order: first, to accrued and unpaid fees owing under the Credit Agreement; second, to accrued and unpaid interest on the Loans; third, to outstanding principal on the Loans (in chronological order in accordance with the dates such Loans were made); and fourth, to all other accrued and unpaid Secured Obligations; provided that, if at any time insufficient funds are received by and available to the Administrative Agent to pay fully all amounts of principal, interest and fees then due hereunder, such funds shall be applied first, towards payment of all Secured Obligations in respect of Swingline Loans; second, towards payment of interest and fees then due in respect of Revolving Loans (in accordance with the applicable Collateral Pools), ratably among the parties entitled thereto in accordance with the amounts of interest and fees then due to such parties; and third, towards payment of principal then due in respect of Revolving Loans, ratably among the parties entitled thereto in accordance with the amounts of principal then due to such parties;

(c) to the payment of any other amount required to be paid by the Collateral Agent by law; and

(d) upon termination of this Agreement, to the applicable Grantor, or to whomsoever may lawfully be entitled to receive the same, or as a court of competent jurisdiction may direct.

7.6 Limitation on Duties Regarding Preservation of Collateral.

(a) The Collateral Agent shall have no obligation to take any steps to preserve rights against any of the parties to any Collateral.

(b) Subject to Article X and Section 11.9 of the Credit Agreement, neither the Collateral Agent nor any of its directors, officers, employees or agents shall be liable for failure to demand, collect or realize upon all or any part of the Collateral or for any delay in doing so or shall be under any obligation to sell or otherwise dispose of any Collateral upon the request of any Grantor or otherwise.

7.7 Waiver of Claims. EACH GRANTOR HEREBY WAIVES, TO THE EXTENT PERMITTED BY APPLICABLE LAW, NOTICE AND JUDICIAL HEARING IN CONNECTION WITH THE DISPOSITION BY THE COLLATERAL AGENT OF ANY OF THE COLLATERAL, INCLUDING, WITHOUT LIMITATION, ANY AND ALL PRIOR NOTICE AND HEARING FOR ANY PREJUDGMENT REMEDY OR REMEDIES, and each Grantor hereby further waives, to the extent permitted by law:

(a) all other requirements as to the time, place and terms of sale or other requirements with respect to the enforcement of the rights of the Collateral Agent hereunder;

(b) demand of performance or other demand, notice of intent to demand or accelerate, notice of acceleration presentment, protest, advertisement or notice of any kind to or upon any Grantor or any other Person; and

(c) all rights of redemption, appraisalment, valuation, diligence, stay, extension or moratorium now or hereafter in force under any applicable law in order to hinder or delay the enforcement of this Agreement or the absolute sale of the Collateral or any portion thereof; and each Grantor, in each case both for itself and for all who may claim under it, insofar as it or they now or hereafter lawfully may, hereby waives the benefit of all such laws.

7.8 Discontinuance of Proceedings. In case the Collateral Agent shall have instituted any proceeding to enforce any right, power or remedy under this Agreement by foreclosure, sale, entry or otherwise, and such proceeding shall have been discontinued or abandoned for any reason or shall have been determined adversely to the Collateral Agent, then and in every such case each Grantor, on the one hand, and the Collateral Agent, on the other hand, shall be returned to their former positions and rights hereunder with respect to the Collateral subject to the security interest created under this Agreement, and all rights, remedies and powers of the Collateral Agent shall continue as if no such proceeding had been instituted.

ARTICLE VIII MISCELLANEOUS

8.1 Governing Law; Submission to Jurisdiction.

(a) **THIS AGREEMENT SHALL BE CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK.**

(b) Each Grantor hereby irrevocably submits to the non-exclusive jurisdiction of any United States federal or New York state court sitting in New York, New York in any action or proceedings arising out of or relating to any Loan Documents and each Grantor hereby irrevocably agrees that all claims in respect of such action or proceeding may be heard and determined in any such court. Each of the parties hereto agrees that a final judgment in any such action or proceeding shall be conclusive and may be enforced in other jurisdictions by suit on the judgment or in any other manner provided by law. Nothing in this Agreement shall affect any right that the Collateral Agent may otherwise have to bring any action or proceeding relating to this Agreement against any Grantor or its properties in the courts of any jurisdiction. Each party irrevocably consents to service of process in the manner provided for notices in Section 13.1 of the Credit Agreement. Nothing in this Agreement will affect the right of any party to this Agreement to serve process in any other manner permitted by law.

8.2 Limitation of Liability. To the extent permitted by applicable law, no Grantor shall assert, and each Grantor hereby waives, any claim against the Administrative Agent or the Banks on any theory of liability, for special, indirect, consequential or punitive damages (as opposed to direct or actual damages) arising out of, in connection with, or as a result of, this Agreement or any agreement or instrument contemplated hereby, or the use of the proceeds thereof.

8.3 Notices. Except as otherwise expressly provided herein, all notices, requests and demands to or upon the respective parties hereto to be effective shall be given in the manner provided in, and deemed delivered as described in, and to the applicable notice addresses as described in, Section 13.1 of the Credit Agreement.

8.4 Successors and Assigns. This Agreement shall be binding upon each Grantor and their respective successors and assigns and shall inure to the benefit of each Grantor and the Collateral Agent and all holders of the Obligations and their respective successors and assigns.

8.5 Waivers and Amendments. None of the terms or provisions of this Agreement may be waived, amended, supplemented or otherwise modified except (i) in accordance with Section 9.2 of the Credit Agreement and (ii) by a written instrument executed by each Grantor and the Collateral Agent (with the consent of the Required Banks (except that such consent of the Required Banks shall not be required in connection with a Joinder Agreement executed and delivered pursuant to Section 8.13 hereof or to make any change to the schedules to this Agreement)). Any such amendment, supplement, modification or waiver shall be binding upon each Grantor and the Collateral Agent and all holders of the

Secured Obligations. In the case of any waiver, each Grantor and the Collateral Agent shall be restored to their former position and rights hereunder and under the outstanding Secured Obligations, and any Unmatured Default or Default waived shall be deemed to be cured and not continuing, but no such waiver shall extend to any subsequent or other Default or Unmatured Default, or impair any right consequent thereon.

8.6 No Waiver; Remedies Cumulative. No failure or delay on the part of the Collateral Agent in exercising any right, power or privilege hereunder and no course of dealing between any Grantor and the Collateral Agent shall operate as a waiver thereof; nor shall any single or partial exercise of any right, power or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, power or privilege. A waiver by the Collateral Agent of any right or remedy hereunder on any one occasion shall not be construed as a bar to any right or remedy which the Collateral Agent would otherwise have on any future occasion. The rights and remedies herein expressly provided are cumulative, may be exercised singly or concurrently and as often and in such order as the Collateral Agent deems expedient and are not exclusive of any rights or remedies which the Collateral Agent would otherwise have whether by agreement or now or hereafter existing under applicable law. No notice to or demand on any Grantor in any case shall entitle such Grantor to any other or further notice or demand in similar or other circumstances or constitute a waiver of the rights of the Collateral Agent to any other or further action in any circumstances without notice or demand.

8.7 Termination; Release. This Agreement shall create a continuing security interest in the Collateral (or, in the case of Delayed Attachment Collateral, will create such a continuing security interest as of the occurrence of the applicable Triggering Event) and shall remain in full force and effect until released in accordance with this Section 8.7. When the Secured Obligations (other than unasserted contingent indemnification obligations not due and payable) have been paid and performed in full and the Aggregate Commitments have expired or been terminated, this Agreement shall terminate. This Agreement may also be terminated by a written instrument executed each Grantor and the Collateral Agent (with the consent of all of the Banks). Upon any termination of this Agreement, at the request and sole expense of CME, the Collateral Agent will execute and deliver to CME the proper instruments (including UCC termination statements) acknowledging the termination of this Agreement, and will duly assign, transfer and deliver to each Grantor, without recourse, representation or warranty of any kind whatsoever, such of the Collateral pledged by such Grantor as may be in possession of the Collateral Agent and has not theretofore been disposed of, applied or released. Upon any replacement, liquidation, transfer or withdrawal of Collateral pursuant to subsection (b) or (c) of Section 2.9 of the Credit Agreement (other than a transfer of any such assets to a securities account or other account that is subject to the Lien of the Collateral Agent pursuant to the Loan Documents which has attached), the security interest of the Collateral Agent on the replaced, liquidated, transferred or withdrawn Collateral, as applicable, shall be automatically released without further consent of the Collateral Agent or any Bank. Upon delivery of a fully executed Release Notice in accordance with Section 2.1(c) by the Administrative Agent and the Collateral Agent to CME, the security interest of the Collateral Agent in the assets specified in such notice will be automatically released without further consent of the Collateral Agent or any Bank; provided that each such Release Notice shall simultaneously grant a security interest in such assets which will not attach except as provided in Section 2.1(b). To the extent there are no Loans outstanding and no Secured Obligations are due and payable, any Grantor which ceases to be a Clearing Member shall cease to be a Grantor hereunder and the Collateral Agent's lien hereunder in such Grantor's Collateral shall automatically be released, in each case without further action of any Person. Upon the release of any security interest in the Collateral granted hereunder, the assets so released shall cease to constitute "Collateral" for purposes of this Agreement and all other Loan Documents.

8.8 Counterparts. This Agreement may be executed in any number of counterparts, all of which taken together shall constitute one agreement, and any of the parties hereto may execute this Agreement by signing any such counterpart. Delivery of an executed signature page by facsimile or email shall be effective as delivery of a manually executed counterpart hereof.

8.9 Effectiveness. This Agreement shall become effective on the date on which it has been executed by each Grantor and the Collateral Agent.

8.10 Headings Descriptive. Section headings in this Agreement are for convenience of reference only, and shall not govern the interpretation of any of the provisions of this Agreement.

8.11 Severability. Any provision in or obligation under this Agreement or the Secured Obligations that is held to be inoperative, unenforceable, or invalid in any jurisdiction shall, as to that jurisdiction, be inoperative, unenforceable, or invalid without affecting the remaining provisions in that jurisdiction or the operation, enforceability, or validity of that provision in any other jurisdiction, and to this end the provisions of this Agreement are declared to be severable.

8.12 Powers Coupled with an Interest. All authorizations and agencies herein contained with respect to the Collateral are irrevocable and powers coupled with an interest (but shall lapse upon the termination of this Agreement).

8.13 Additional Grantors. Each Clearing Member that is required to become a party to this Agreement pursuant to Section 7.9 of the Credit Agreement shall become a Grantor for all purposes of this Agreement and shall be subject to the terms hereof upon execution and delivery by such Clearing Member of an agreement substantially in the form of Exhibit A hereto (a "Joinder Agreement"), including revised versions of each of the schedules to this Agreement, as applicable, setting forth all information required to be provided therein with respect to such Clearing Member.

8.14 WAIVER OF TRIAL BY JURY. TO THE EXTENT PERMITTED BY APPLICABLE LAW, EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES ALL RIGHT OF TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT OR ANY MATTER ARISING HEREUNDER OR THEREUNDER.

8.15 Reinstatement. The granting of a security interest in the Collateral (including any specified assets identified in any Collateral Notice as Collateral associated with any Advance) and the other provisions hereof shall continue to be effective or be reinstated, as the case may be, if at any time any payment of any of the Secured Obligations is rescinded or must otherwise be returned by the Collateral Agent, the Administrative Agent or any Bank or is repaid by the Collateral Agent, the Administrative Agent or any Bank in whole or in part in good faith settlement of a pending or threatened avoidance claim, whether upon the insolvency, bankruptcy or reorganization of any Grantor or otherwise, all as though such payment had not been made. The provisions of this Section 8.15 shall survive repayment of all of the Secured Obligations and the termination or expiration of this Agreement in any manner.


8.16 Conflicts. In the event that any Grantor or any Custodian, execute a customer or similar agreement in connection with, or purporting to govern, any Clearing Member Securities Account, any Company Securities Account or any Money Fund Share and there are terms and conditions therein or thereof which are inconsistent or conflict with this Agreement or any Control Agreement, then this Agreement (with reference to the applicable Control Agreement) shall govern. In the event of any

conflict or inconsistency between the provisions of the Credit Agreement and this Agreement (other than Section 2.1 hereof), the provisions of the Credit Agreement shall govern and control.

[Signature page follows.]

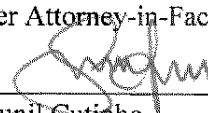
IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed and delivered as of the date first above written.

CHICAGO MERCANTILE EXCHANGE INC.

By: 
Name: Sunil Cutinho
Title: Senior Managing Director and President,
CME Clearing


ABN AMRO CLEARING CHICAGO LLC
 ADM INVESTOR SERVICES, INC.
 ADVANTAGE FUTURES LLC
 BANK OF MONTREAL
 BARCLAYS CAPITAL INC.
 BMO CAPITAL MARKETS CORP.
 BNP PARIBAS PRIME BROKERAGE, INC.
 BNP PARIBAS SECURITIES CORP.
 BOCI COMMODITIES & FUTURES (USA) LLC
 BP ENERGY COMPANY
 BP PRODUCTS NORTH AMERICA INC.
 BUNGE CHICAGO, INC.
 CANTOR FITZGERALD & CO.
 CHINA MERCHANTS FUTURES (HK) CO.,
 LIMITED
 CHS HEDGING, LLC
 CIBC WORLD MARKETS CORP.
 CITIGROUP GLOBAL MARKETS INC.
 CREDIT AGRICOLE CORPORATE AND
 INVESTMENT BANK
 CREDIT SUISSE INTERNATIONAL
 CREDIT SUISSE SECURITIES (USA) LLC
 CUNNINGHAM COMMODITIES, LLC
 DAIWA CAPITAL MARKETS AMERICA INC.
 DEUTSCHE BANK SECURITIES INC.
 DORMAN TRADING, L.L.C.
 E D & F MAN CAPITAL MARKETS INC.
 EAGLE MARKET MAKERS, INC.
 EFL FUTURES LIMITED
 G.H. FINANCIALS, LLC
 GELBER GROUP, LLC
 GF FINANCIAL MARKETS (UK) LTD.
 GOLDMAN, SACHS & CO.
 HSBC SECURITIES (USA) INC.
 INTERACTIVE BROKERS LLC
 INTL FCSTONE FINANCIAL INC.
 J.P. MORGAN SECURITIES LLC
 JUMP TRADING FUTURES, LLC

By: **Chicago Mercantile Exchange Inc.,**
 as Member Attorney-in-Fact

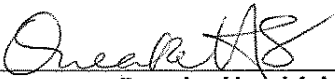
By: 
 Name: Sunil Cutinho
 Title: Senior Managing Director and
 President,
 CME Clearing

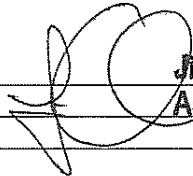
KCG AMERICAS LLC
 MACQUARIE FUTURES USA LLC
 MAREX NORTH AMERICA LLC
 MERRILL LYNCH, PIERCE, FENNER & SMITH
 INCORPORATED
 MIZUHO SECURITIES USA INC.
 MORGAN STANLEY & CO. LLC
 NANHUA USA LLC
 NOMURA SECURITIES INTERNATIONAL, INC.
 PHILLIP CAPITAL INC.
 PROXIMA CLEARING, LLC
 R.J. O'BRIEN & ASSOCIATES, LLC
 RABO SECURITIES USA, INC.
 RAND FINANCIAL SERVICES INC.
 RBC CAPITAL MARKETS LLC
 RBS SECURITIES INC.
 RDG TRADING
 RONIN CAPITAL, LLC
 ROSENTHAL COLLINS GROUP, L.L.C.
 ROYAL BANK OF CANADA
 SANTANDER INVESTMENT SECURITIES INC.
 SCOTIA CAPITAL (USA) INC.
 SG AMERICAS SECURITIES LLC
 SOCIETE GENERALE SA
 STATE STREET GLOBAL MARKETS, LLC
 STRAITS FINANCIAL LLC
 TERM COMMODITIES INC.
 THE BANK OF NOVA SCOTIA
 THE ROYAL BANK OF SCOTLAND PLC
 THE TORONTO-DOMINION BANK
 TIMBER HILL LLC
 TRADESTATION SECURITIES INC.
 UBS SECURITIES LLC
 UOBBF CLEARING LIMITED
 WEDBUSH SECURITIES, INC.
 WELLS FARGO SECURITIES, LLC

By: **Chicago Mercantile Exchange Inc.,**
 as Member Attorney-in-Fact

By: 
 Name: Sunil Cutinho
 Title: Senior Managing Director and
 President,
 CME Clearing

DEUTSCHE BANK TRUST COMPANY
AMERICAS, as Collateral Agent

By: 
Name: Oneaka Hendricks
Title: Vice President

By: 
Name: Jin Choi
Title: Associate

FORM OF JOINDER

Reference is hereby made to the Chicago Mercantile Exchange Inc. Security and Pledge Agreement dated as of November 3, 2016 (as amended, restated, supplemented or otherwise modified from time to time, the “**Agreement**”), by and among the Grantors party thereto, Chicago Mercantile Exchange Inc., a Delaware corporation (“**CME**”), and Deutsche Bank Trust Company Americas, as collateral agent (in such capacity, the “**Collateral Agent**”). Capitalized terms used herein and not defined herein shall have the meanings given to them in the Agreement.

By its execution below, the undersigned [____], a [____], agrees to become, and does hereby become, a Grantor under the Agreement and agrees to be bound by such Agreement as if originally a party thereto. Without limiting the generality of the foregoing, the undersigned hereby confirms and grants to the Collateral Agent, for the benefit of the Agents and the Banks, a continuing security interest in any and all of its right, title and interest in and to the Collateral owned by it to secure the prompt and complete payment, observance and performance of the Secured Obligations.

By its execution below, the undersigned represents and warrants as to itself that all of the representations and warranties contained in Article IV of the Agreement are true and correct in all respects as of the date hereof.

Attached hereto as Annex A are revised versions of each of the schedules to the Agreement, setting forth all information required to be provided therein with respect to the undersigned.

[Signature page follows.]

IN WITNESS WHEREOF, [_____,], has executed and delivered this Joinder to the Agreement as of this ____ day of _____, 20__.

[NAME OF CLEARING MEMBER]

By: CHICAGO MERCANTILE EXCHANGE
INC., as Member Attorney-in-Fact

By: _____
Name: _____
Title: _____

Address for Notices:
c/o Chicago Mercantile Exchange Inc.
20 South Wacker Drive
Chicago, Illinois 60606
Fax: (312) 930-3187
S.W.I.F.T.: XCMEUS4C
Email: [_____]_____
Attention: [_____]_____

Accepted and Agreed as of this
____ day of _____, 20__:

DEUTSCHE BANK TRUST COMPANY
AMERICAS, as Collateral Agent

By: Deutsche Bank National Trust Company

By: _____
Name: _____
Title: _____

By: _____
Name: _____
Title: _____

[FORM OF JOINDER]
Annex A

FORM OF RELEASE NOTICE

[Date]

Chicago Mercantile Exchange Inc.
20 South Wacker Drive
Chicago, Illinois 60606
Attention: President CME Clearing
Telecopier: (312) 634-1592
Electronic Mail: sunil.cutinho@cmegroup.com

Re: Release Notice

Ladies and Gentlemen:

Reference is made to the Security and Pledge Agreement (the “**Security Agreement**”), dated as of November 3, 2016, among Chicago Mercantile Exchange Inc., a Delaware corporation (“**CME**”), the Clearing Members listed on the signature pages thereof and each other Clearing Member that becomes a party thereto pursuant to Section 8.13 thereof (each, a “**Grantor**” and collectively, together with CME in its individual capacity as a Grantor thereunder, the “**Grantors**”), and Deutsche Bank Trust Company Americas, as collateral agent (together with its successors and assigns, in such capacity, the “**Collateral Agent**”), for its benefit, the benefit of the Administrative Agent (together with its successors and assigns, in such capacity, the “**Administrative Agent**”) and the ratable benefit of the Banks party to the Credit Agreement. Terms used and not otherwise defined herein shall the meanings provided therefor in the Security Agreement. This notice constitutes a “Release Notice” as defined in the Security Agreement.

The security interest of the Collateral Agent in all of the following property is hereby automatically released upon the execution by CME and each of the other Grantors of the provision set forth following our signature hereof:

[Describe applicable Clearing Member Securities Account or Clearing Member Money Fund Shares to be released] (collectively, the “**Specified Collateral**”)

[Remainder of page intentionally left blank.]

Very truly yours,

DEUTSCHE BANK TRUST COMPANY
AMERICAS, as Collateral Agent

By: _____
Name: _____
Title: _____

BANK OF AMERICA, N.A., as Administrative
Agent

By: _____
Name: _____
Title: _____

Each undersigned Grantor hereby assigns, pledges and transfers to the Collateral Agent (for its benefit, the benefit of the Administrative Agent and the ratable benefit of the Banks) and grants to the Collateral Agent (for its benefit, the benefit of the Administrative Agent and the ratable benefit of the Banks) a security interest in and continuing lien on all of such Grantor's right, title and interest in, to and under the Specified Collateral, which security interest will not attach except as provided in Section 2.1(b) of the Security Agreement, and such security interest shall secure the respective obligations described in Section 2.1(d) of the Security Agreement.

Agreed to and Accepted:

CHICAGO MERCANTILE EXCHANGE INC.

By: _____
Name: _____
Title: _____

[Insert signature blocks for other Grantors]

By: Chicago Mercantile Exchange Inc.,
as Member Attorney-in-Fact

By: _____
Name: _____
Title: _____

MONEY FUND ISSUERS

Futures Clearing Business

1. BlackRock Funds III, a Delaware statutory trust, on behalf of its series Black Rock Cash Funds: Prime
2. Blackrock Liquidity Funds, a Delaware statutory trust, on behalf of its series (i) FedFund and (ii) TempFund
3. Deutsche Money Market Trust, a Massachusetts business trust, on behalf of its series Deutsche Government Money Market Series
4. Dreyfus Treasury & Agency Cash Management, a Massachusetts business trust
5. Dreyfus Government Cash Management Funds, a Massachusetts business trust, on behalf of its series Dreyfus Government Cash Management
6. First American Funds, Inc., a Minnesota corporation, on behalf of its series Government Obligations Fund
7. Goldman Sachs Trust, a Delaware business trust, on behalf of its series (i) Goldman Sachs Financial Square Government Fund, (ii) Goldman Sachs Financial Square Treasury Solutions Fund, (iii) Goldman Sachs Financial Square Prime Obligations Fund and (iv) Goldman Sachs Financial Square Money Market Fund
8. HSBC Funds, a Delaware statutory trust, on behalf of its series HSBC U.S. Government Money Market Fund
9. JPMorgan Trust I, a Delaware statutory trust, on behalf of its series JPMorgan Prime Money Market Fund
10. JPMorgan Trust II, a Delaware statutory trust, on behalf of its series (i) JPMorgan U.S. Government Money Market Fund and (ii) JPMorgan U.S. Treasury Plus Money Market Fund
11. Money Market Obligations Trust, a Massachusetts business trust, on behalf of its series (i) Federated Institutional Money Market Management, (ii) Federated Institutional Prime Obligations Fund and (iii) Federated Government Obligations Fund
12. Morgan Stanley Institutional Liquidity Funds, a Massachusetts business trust, on behalf of its series Treasury Portfolio
13. Morgan Stanley Institutional Liquidity Funds, a Massachusetts business trust, on behalf of its series (i) Prime Portfolio and (ii) Government Portfolio
14. Short Term Investments Trust, a Delaware statutory trust, on behalf of its series (i) Government & Agency Portfolio and (ii) Treasury Portfolio
15. State Street Institutional Investment Trust, a Massachusetts business trust, on behalf of its series (i) State Street Institutional Liquid Reserves Fund and (ii) State Street Institutional U.S. Government Money Market Fund
16. UBS Money Series, a Delaware statutory trust, on behalf of its series (i) UBS Select Prime Preferred Fund, (ii) UBS Select Treasury Preferred Fund and (iii) UBS Select Government Preferred Fund
17. Wells Fargo Funds Trust, a Delaware statutory trust, on behalf of its series Wells Fargo Advantage Heritage Money Market Fund

Schedule II

BANK OF CHINA CLEARING MEMBER SECURITIES ACCOUNTS

None.

Schedule III

BANK OF CHINA COLLATERAL SECURITIES ACCOUNTS

None.

Schedule IV**BBH CLEARING MEMBER SECURITIES ACCOUNTS**

Account Number	Account Name
[REDACTED]	Chicago Mercantile Exchange Inc. CFTC 1.20 Futures Customer Segregated Omnibus
[REDACTED]	Chicago Mercantile Exchange Inc. Cleared Swaps Customer Draw Account

Schedule V

BBH COLLATERAL SECURITIES ACCOUNTS

Account Number	Account Name
[REDACTED]	Chicago Mercantile Exchange Inc. Member Firm Proprietary Draw Account

Schedule VI**BMO CLEARING MEMBER SECURITIES ACCOUNTS**

Account Number	Account Name
[REDACTED]	Chicago Mercantile Exchange Inc. Cleared Swaps Customer Draw Account
[REDACTED]	Chicago Mercantile Exchange Inc. CFTC 1.20 Futures Customer Segregated Omnibus

Schedule VII

BMO COLLATERAL SECURITIES ACCOUNTS

Account Number	Account Name
[REDACTED]	Chicago Mercantile Exchange Inc. Member Firm Proprietary Draw Account

Schedule VIII

BNP PARIBAS COLLATERAL SECURITIES ACCOUNTS

None.

Schedule IX

BNP PARIBAS CLEARING MEMBER SECURITIES ACCOUNTS

None.

Schedule X

BNY MELLON CLEARING MEMBER ACCOUNTS

None.

Schedule XI

BNY MELLON COLLATERAL SECURITIES ACCOUNTS

None.

Schedule XII

CITIBANK CLEARING MEMBER SECURITIES ACCOUNTS

Account Number	Account Name
[REDACTED]	CME Inc Cleared Swaps Customer
[REDACTED]	CME Inc CFTC 1.20 Fut Cust Seg

Schedule XIII

CITIBANK COLLATERAL SECURITIES ACCOUNTS

Account Number	Account Type	Account Name
	Collateral	CME Inc House Account

Schedule XIV

DB CLEARING MEMBER SECURITIES ACCOUNTS

Account Number	Account Name
██████████-██████████	DB FBO CME COLLAGT CST SEG PB
██████████-██████████	DB FBO CME COLLAGT CLR SWP CST

DB COLLATERAL SECURITIES ACCOUNTS

Account Number		Account Name
		DB FBO CME COLLAGT HOUSE PB AC
		DB FBO CME COLLAGT BASE GF ACT
		DB FBO CME COLLAGT CDS GF ACT
		DB FBO CME COLLAGT IRS GF ACCT

DB COMPANY SECURITIES ACCOUNTS

Account Number	Account Name
██████████-██████████	DB FBO CME COLLAGTCME CPNY FD

Schedule XVII

JPMORGAN CLEARING MEMBER SECURITIES ACCOUNTS

None.

Schedule XVIII

JPMORGAN COLLATERAL SECURITIES ACCOUNTS

None.

Schedule XIX

LAKESIDE BANK CLEARING MEMBER SECURITIES ACCOUNTS

None.

Schedule XX

LAKESIDE BANK COLLATERAL SECURITIES ACCOUNT

None.

Schedule XXI

OTHER CLEARING MEMBERS SECURITIES ACCOUNT

None.

Schedule XXII

OTHER COLLATERAL SECURITIES ACCOUNT

None.

Schedule XXIII

JPMORGAN BULLION ACCOUNTS

Account Number	Account Name
██████	JPM as coll agt gold coll allocated

CLEARING MEMBER MONEY FUND SHARE REGISTRATIONS

Chicago Mercantile Exchange Inc. Member Firm Proprietary Draw Account

Chicago Mercantile Exchange Inc. Part 22 Cleared Swaps Customer Draw Account

Chicago Mercantile Exchange Inc. CFTC 1.26 Futures Customer Segregated Omnibus Draw Account