



**Federal Reserve Banks
Operating Circular No. 7**

**~~BOOK-ENTRY~~ FEDWIRE[®] SECURITIES ~~ACCOUNT MAINTENANCE AND~~
~~TRANSFER SERVICES~~ SERVICE**

Effective ~~October 29~~ February 15, ~~2017~~ 2022

FEDERAL RESERVE BANKS
 OPERATING CIRCULAR NO. 7
 Effective ~~October 29~~ February 15, 2017 ~~2022~~

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~~SERVICES~~ SERVICE

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~~1.0~~

1.0 PURPOSE, SCOPE, AND EFFECT OF THIS OPERATING CIRCULAR

- 1.1. ~~1.1~~ This Operating Circular (~~“Circular”~~)7, including its appendixes, sets forth the terms under which ~~the Federal~~each Reserve Bank ~~of (City)~~ maintains Securities Accounts ~~and~~, effects Transfers ~~of~~, makes payments of principal and interest on Book-Entry Securities ~~for Participants, and performs other related services over or in connection with the Fedwire Securities Service~~. By maintaining a Securities Account, a Participant agrees to all the provisions of this ~~Circular~~operating circular, as amended from time to time. Capitalized terms are defined in ~~Paragraph~~section 3.
- 1.2. ~~1.2~~ Each Reserve Bank has issued ~~a~~an Operating Circular ~~No.~~ 7 identical to this one. Applicable Regulations may also apply to a Book-Entry Security depending on the Issuer of the Book-Entry Security. This operating circular is a rule adopted by a clearing corporation under section 8-111 of Article 8 of the Uniform Commercial Code and an agreement governing a securities account within the meaning of the Convention on the Law Applicable to Certain Rights in Respect of Securities Held with an Intermediary except as otherwise specified in the appendixes.

~~2.0 GOVERNING REGULATIONS~~

- ~~2.1~~ This Circular ~~incorporates by reference~~ the current provisions of the regulations listed in Appendix A as such regulations are amended from time to time.

~~3.0~~

2.0 [RESERVED]

3.0 DEFINITIONS

- 3.1. ~~3.1~~ For purposes of this ~~Circular~~operating circular, the following definitions apply.

- (a) **ACAP Claim** means the amount that is to be debited from one Participant's Master Account (or that of its Correspondent) and credited to another Participant's Master Account (or that of the other Participant's Correspondent) in accordance with Appendix D.
- (b) **Acknowledgment** means a Message sent to a Sender that indicates that the Reserve Bank on whose books the Sender's Securities Account is maintained has accepted and processed a Message from that Sender. If the Sender's Message effects a Transfer Against Payment or an Issuance Against Payment, the Acknowledgment also advises the Sender of a credit of funds to its Master Account.
- (c) **3.2 Administrative Reserve Bank** means, with respect to a Participant means, the Reserve Bank in whose ~~District~~ Federal Reserve district the Participant is located in accordance with section 4.6.1.
- (d) **Advice** means a Message sent to a Receiver that advises the Receiver of (1) a credit or debit of Book-Entry Securities to its Securities Account, (2) in the case of a Transfer Against Payment or an Issuance Against Payment, a debit of funds to its Master Account, (3) in the case of a Message relating to the payment of principal and/or interest, a credit or debit of funds to its Master Account (or that of its Correspondent), and (4) in the case of an ACAP Claim or a correction to a payment of principal and/or interest, a credit or debit of funds to its Master Account (or that of its Correspondent).
- (e) **3.3 Amortizing Book-Entry Security** means a Book-Entry Security on which principal, as well as interest, is paid periodically over the life of the Book-Entry Security (e.g., a mortgage-backed Book-Entry Security).
- (f) **Applicable Regulations** means the regulations listed in Appendix A, as such regulations are amended from time to time.
- (g) **Appropriate Reserve Bank** means the Reserve Bank identified by the Participant's Administrative Reserve Bank as the Reserve Bank with which the Participant should communicate on particular matters.
- (h) **3.4 Board** means the Board of Governors of the Federal Reserve System.
- (i) **3.5 Book-Entry Security** means a marketable security that (1) is issued in electronic form by ~~the United States Government (the "Treasury"), any agency or instrumentality thereof, certain international organizations, or others, that~~ an Issuer and (2) the Reserve Banks have determined is eligible (a) to be held in a Securities Account and ~~is eligible~~ (b) for Transfer.

- (j) **Correspondent** means a “Correspondent” as defined in the Reserve Banks’ Operating Circular 1, *Account Relationships*, that has authorized a Reserve Bank to settle the following transaction activity to its Master Account for a Participant:
- (1) credits and debits relating to the payment, and associated correction to a payment, of principal and/or interest on Book-Entry Securities;
 - (2) credits and debits relating to ACAP Claims; and
 - (3) debits relating to fees under section 13.
- (k) **Cutoff Time** means:
- (1) for Online Messages, the latest time on a Securities Business Day that a Message must be received by a Reserve Bank for it to be processed on that Securities Business Day; and
 - (2) for Offline Messages, the latest time on a Securities Business Day that a Reserve Bank will accept a Message on that Securities Business Day.
- (l) **Electronic Connection** means an “Electronic Connection” as defined in the Reserve Banks’ Operating Circular 5, *Electronic Access*.
- (m) **~~3.6 The Fedwire~~[®] Securities Service** means the electronic facility operated by the Reserve Banks for maintaining Securities Accounts and for effecting Transfers.
- (n) **~~3.7 Free Transfer~~** means a Transfer that does not involve any credit or debit to a Master Account other than a transaction fee.
- (o) **Interception** means a Message sent to a Sender that indicates that the Reserve Bank on whose books the Sender’s Restricted Securities Account is maintained has intercepted a Transfer Message from that Sender and that the Transfer Message is subject to Reserve Bank review and approval before the Transfer will be acknowledged or rejected.
- (p) **Issuance** means the process by which the Reserve Banks effect an instruction by an Issuer to credit a par amount of Book-Entry Securities issued by that Issuer to a designated Securities Account of a Receiver. An Issuance may be an original issuance or a supplemental issuance of a Book-Entry Security.
- (q) **Issuance Against Payment** means an Issuance that is effected with a credit to a funds account of the Issuer maintained on the books of a

Reserve Bank and a debit to the Master Account of the Receiver for the amount of the payment.

- (r) **Issuance Message** means an instruction of an Issuer to a Reserve Bank that the Reserve Bank uses to effect an Issuance on behalf of the Issuer.
- (s) **Issuer** means an agency, instrumentality, or establishment of the United States (including the Treasury); an international organization; or another entity that the Reserve Banks have determined is eligible to issue and maintain Book-Entry Securities over the Fedwire Securities Service.
- (t) ~~**3.8 Master Account** means a “Master Account” (as defined in the Reserve Banks’ Operating Circular 1, *Account Relationships*), maintained on the books of a Reserve Bank. A Master Account is a Funds Account for purposes of the regulations listed in Appendix A. A Master Account does not contain Book-Entry Securities.~~

~~**3.9 On-Line Access** means a connection for~~

- (u) **Message** means any message (whether a value or nonvalue message), notice, or other communication sent, received, processed, or otherwise transmitted over the Fedwire Securities Service. A Message includes any Acknowledgment, Advice, Issuance Message, Offline Message, Online Message, Transfer Message, and any other message, notice, or other communication relating to the payment, or correction to a payment, of principal and/or interest or an ACAP Claim.
- (v) **Offline** refers to the transmission of a ~~Transfer~~ Message directly to or from a Reserve Bank ~~by electronic data~~ using means other than an Electronic Connection, including oral transmission by telephone.
- (w) **Online** refers to the transmission of a Message directly to or from a Reserve Bank using an Electronic Connection, excluding ~~facsimile and~~ oral transmission by telephone.

~~**3.10 On-Line Participant** means a Participant with On-Line Access.~~

~~**3.11 Off-line Access** means a connection other than On-Line Access for sending and receiving Transfer Messages to or from a Reserve Bank such as by written, facsimile, or telephone voice instruction.~~

~~**3.12 Off-line Participant** means a Participant with Off-line Access.~~

~~**3.13**~~

- (x) **Participant** means an entity that maintains a Securities Account with a Reserve Bank ~~in the entity’s name~~. Subject to the Reserve Banks’ and the Board ~~of Governor~~’s risk reduction policies, where applicable, entities

authorized by law, regulation, policy, or agreement to be Participants may include:

- (1) ~~(a)~~ depository institutions as defined in ~~Section~~section 19(b)(1)(A) of the Federal Reserve Act, ~~as amended~~ (12 U.S.C. § 461(b)(1)(A));
 - (2) ~~(b) agencies and U.S.~~ branches or agencies of ~~a foreign banks~~bank as defined in ~~Section 1(b) of the International Banking Act of 1978, as amended (12 U.S.C. §§3101(1) and section 211.21(b) or (e) of Regulation K (12 C.F.R. § 211.21(3b) or (e));~~
 - ~~(c) —~~
 - (3) member banks, as defined in section 1 of the Federal Reserve System pursuant to Regulation H issued by the Board (12 C.F.R. Part 208 Act (12 U.S.C. § 221));
 - (4) ~~(d)~~ the Treasury and any other entity specifically authorized by Federal statute to use the Reserve Banks as fiscal agents or depositories;
 - (5) ~~(e)~~ entities designated by the Secretary of the Treasury in accordance with ~~Section~~section 15 of the Federal Reserve Act (12 U.S.C. § 391);
 - (6) ~~(f)~~ foreign central banks, foreign monetary authorities, foreign governments, and certain international organizations;
 - (7) ~~(g) entities authorized~~Edge Act corporations organized under ~~Section 25, Paragraph 3, and Section~~section 25A of the Federal Reserve Act (12 U.S.C. §§~~601 (Third), 611–614~~ or corporations that have entered into an agreement with the Board to limit their activities to those of Edge Act corporations under section 25(5) of the Federal Reserve Act (12 U.S.C. § 603) and Regulation K (12 C.F.R. § 211.5(g)));
 - (8) designated financial market utilities pursuant to Regulation HH (12 C.F.R. part 234); and
 - (9) ~~(h)~~ any other entity authorized by a Reserve Bank to use the Fedwire[®] Securities Service.
- (y) **3.14 Receiver** means ~~the~~a Participant ~~receiving a Book-Entry Security as a result of a Transfer~~that receives a Message.

- (z) Rejection means a Message sent to a Sender that indicates that the Reserve Bank on whose books the Sender's Securities Account is maintained has rejected a Message from that Sender.
- (aa) ~~3.15 Reserve Bank~~ means one of the 12 Federal Reserve Banks ~~and its branches.~~
- (bb) ~~3.16 Restricted Securities Account~~ means a Securities Account used ~~for pledging to hold~~ Book-Entry Securities ~~to a pledgee on the books of a Reserve Bank~~ as collateral for a secured party in accordance with section 4.5 of this Circular ~~operating circular.~~
- (cc) ~~3.17 Securities Account~~ means an account ~~at~~ used to hold Book-Entry Securities maintained on the books of a Reserve Bank ~~containing.~~
- (dd) Securities Business Day means a day on which the Fedwire Securities Service is open for business, including sending and receiving Transfers, conducting Issuances, and paying principal and/or interest on Book-Entry Securities.
- (ee) Securities Schedule means the schedule published by the Reserve Banks on the FRBservices.org[®] website stating (1) the Cutoff Times, the opening and closing times for each Securities Business Day, and each processing window for various types of Messages and (2) each holiday observed by the Reserve Banks that is not a Securities Business Day.
- (ff) ~~3.18 Sender~~ means ~~the~~ a Participant ~~sending that sends~~ a ~~Transfer~~ Message.
- (gg) Service Provider means, on behalf of a Participant, a "Service Provider" as defined in the Reserve Banks' Operating Circular 6, *Funds Transfers through the Fedwire Funds Service*.
- (hh) ~~3.19 Transfer~~ means the ~~electronic movement~~ process by which the Reserve Banks effect over the Fedwire[®] Securities Service ~~of a Sender's entitlement order with respect to~~ a par amount of Book-Entry Securities by (1) debit to the designated Securities Account of the Sender and by credit to the designated Securities Account of the Receiver, or ~~by~~ (2) debit to one Securities Account of a Participant and credit to another Securities Account of that same Participant, in which case that Participant is both a Sender and a Receiver. ~~A Transfer is either a Free Transfer or a Transfer Against Payment.~~
- ~~3.20 Transfer Message~~ means an instruction of a Participant to a Reserve Bank ~~to effect a Transfer.~~
- ~~3.21~~

- (ii) **Transfer Against Payment** means a Transfer that is effected with a credit to the Master Account of the Sender and a debit to the Master Account of the Receiver, for the amount of the payment.
- (jj) **Transfer Message** means an entitlement order or other instruction of a Participant to a Reserve Bank that the Reserve Bank uses to effect a Transfer.
- (kk) **Transfer Processing Window** means the part of a Securities Business Day during which the Fedwire Securities Service is open for processing Transfer Messages.
- (ll) **Treasury** means the United States Department of the Treasury.
- (mm) **3.22 Unrestricted Securities Account** means a Securities Account used to maintainhold Book-Entry Securities for a Participant and does not include other than a Restricted Securities Account.

4.0 ~~4.0~~ SECURITY ENTITLEMENTS; MASTER ACCOUNTS AND SECURITIES ACCOUNT MAINTENANCE ACCOUNTS; LOCATION OF PARTICIPANTS

4.1 —

4.1. SECURITY ENTITLEMENTS

4.1.1 A Reserve Bank credits a Book-Entry Security to a Participant's Securities Account to create a security entitlement in that Book-Entry Security in the name of the Participant and debits a Book-Entry Security from a Participant's Securities Account to terminate a security entitlement in that Book-Entry Security in the name of the Participant. For purposes of this operating circular, references to a Participant holding a Book-Entry Security in its Securities Account should be understood as a recognition of the Participant's security entitlement in that Book-Entry Security as an entitlement holder under Applicable Regulations or Article 8 of the Uniform Commercial Code.

4.2. CLARIFICATION OF MEANING OF MASTER ACCOUNT

4.2.1 A Master Account is a funds account for purposes of the Applicable Regulations. A Securities Account is not a Master Account.

4.2.2 For purposes of this operating circular, references to “Master Account” are deemed to include a funds account of an Issuer where applicable, even if such an account would not otherwise meet the definition of “Master Account” as set forth in this operating circular.

4.2.3 A Master Account does not contain Book-Entry Securities.

4.3. ~~MULTIPLE SECURITIES ACCOUNT LOCATION AND IDENTIFICATION OF THE ADMINISTRATIVE RESERVE BANK~~

4.1.1 ~~MASTER ACCOUNTS~~

4.3.1 A Participant may have one or more Securities Accounts at its Administrative Reserve Bank, subject to the approval of and terms required by the Administrative Reserve Bank. Securities Accounts may be ~~restricted or unrestricted~~ Unrestricted Securities Accounts or Restricted Securities Accounts.

~~4.1.2—A Participant’s Administrative Reserve Bank is the Reserve Bank in whose district the Participant is located. For purposes of this Circular, a Participant is located in the Federal Reserve District as determined under the procedure described in 12 C.F.R. Part 204 even if the Participant would not otherwise be subject to Part 204. A foreign central bank Sender or Receiver is located in the Second Federal Reserve District.~~

~~4.2—~~

4.3.2 Under limited circumstances a Participant (or its Correspondent) may have multiple Master Accounts at its Administrative Reserve Bank, with each Master Account having associated Securities Accounts, or may have one or more Master Accounts at Reserve Banks other than its Administrative Reserve Bank, with each Master Account having associated Securities Accounts. Notwithstanding any other provision of this operating circular, during any period in which a Participant (or its Correspondent) is authorized to maintain multiple Master Accounts and Securities Accounts, any debits or credits made pursuant to this operating circular will be made to the Master Account and Securities Account associated with the identifying number of the Participant (or its Correspondent) used in the Message.

4.4. UNRESTRICTED SECURITIES ACCOUNTS

4.4.1 ~~4.2.1~~ A Participant may hold Book-Entry Securities ~~it owns, as well as Book-Entry Securities it holds for the account of its customers,~~ in one or more Unrestricted Securities Accounts. Regardless of (1)

the ~~combination of~~ number of Unrestricted Securities Accounts maintained by a Participant, ~~all Book-Entry Securities held in~~(2) any name used by a Participant or a Reserve Bank to identify an Unrestricted Securities Account ~~are held by a Reserve Bank for, and subject to, the sole order of~~(including any reference to a person other than the Participant in the title of a Securities Account or in a Message), or (3) any relationship between the Participant and its customers with respect to Book-Entry Securities held in such Unrestricted Securities Accounts, the Participant is exclusively entitled to exercise the rights and powers with respect to the Book-Entry Securities in such Unrestricted Securities Accounts, including sending Transfer Messages with respect to the Book-Entry Securities in such Securities Accounts.

- 4.4.2 ~~4.2.2~~ Any name used by a Participant or a Reserve Bank to identify an Unrestricted Securities Account (including any reference to a person other than the Participant in the title of a Securities Account or in a Message) is for convenience only. A Reserve Bank does not recognize or reflect in its records any interest of ~~a Participant's customers~~any third party in Book-Entry Securities ~~held by the Reserve Bank for the Participant~~ in an Unrestricted Securities Account, and a Participant shall not seek to create or represent to any person, including the Participant's customers, that any such interest exists. A Reserve Bank is not responsible for the content or accuracy ~~or content~~ of the records ~~of a Participant~~ maintains with respect to any interest granted by the Participant to any person in connection with Book-Entry Securities held by the Participant for the account of its customers. ~~A Participant shall not represent to its customers that the Reserve Bank's records reflect the interests of the Participant's customers.~~
- ~~4.2.3~~ Any name used by a Participant or a Reserve Bank to identify in an Unrestricted Securities Account ~~is for convenience only and does not alter the Reserve Bank's right to treat the Participant as exclusively entitled to exercise the rights and powers with respect to the Book-Entry Securities in such Securities Accounts.~~

4.5. ~~4.3~~ RESTRICTED SECURITIES ACCOUNTS

- 4.5.1 ~~4.3.1~~ A Participant may hold Book-Entry Securities ~~pledged as collateral~~subject to a security interest described in section 4.5.2 in one or more Restricted Securities Accounts. Maintenance of Book-Entry Securities in a Restricted Securities Account is the Reserve Bank's means of marking its books to record the security interest in favor of a secured party. Except for the secured parties described in section 4.5.2, a Reserve Bank does not recognize or reflect in its records any interest of any other person in Book-Entry Securities held in a Securities Account and a Participant shall not seek to create or represent to any person that any such interest

exists. Credits of Book-Entry Securities to, and debits from, Restricted Securities Accounts may require the intervention of the Reserve Bank ~~and.~~ The Reserve Bank may ~~require the approval~~ comply with an instruction or authorization given by the secured party without further consent of the ~~pledgee~~ Participant.

4.5.2 ~~4.3.2~~ Restricted Securities Accounts include, but are not limited to, ~~the following:~~

~~(a) Restricted Securities Accounts~~ those in which ~~the Reserve Bank holds~~ a Participant may hold Book-Entry Securities ~~in its individual capacity:~~

(a) ~~(I)~~ as collateral for ~~advances (including extension of intraday obligations owed by the Participant to a Reserve Bank (including discounts and advances made by and intraday credit) by the~~ extended by a Reserve Bank to the Participant);

(b) ~~(II)~~ as collateral to secure the exercise of trust powers within a state or ~~deposits of~~ funds of public entities (including ~~states, municipalities, and other political subdivisions — see~~ a state, local, or tribal government or a unit or instrumentality of a state or local government) on deposit with the Participant in accordance with Appendix C);

(c) ~~(III)~~ as collateral ~~for~~ to secure bankruptcy funds on deposit with the Participant in favor of a United States trustee pursuant to 11 U.S.C. § 345; ~~and~~

~~(iv) for such other purposes as the Reserve Bank may designate; and~~

~~(b) Restricted Securities Accounts in which a Reserve Bank holds Book-Entry Securities in its capacity as fiscal agent of the United States:~~

~~(i)~~

(d) as collateral to secure ~~balances held by the Participant in Treasury Tax and Loan accounts under 31 C.F.R. part 203, as amended from time to time;~~

~~(ii)~~ as collateral for certain revenues and funds of the United States; and any funds the deposit of which is subject to the control or regulation of the United States or any of its officers, agents, or employees pursuant to 31 C.F.R. part 202, ~~as amended from time to time;~~

- (e) ~~(iii)~~ as security in favor of a United States government agency in lieu of a surety on penal or other bonds, pursuant to 31 C.F.R. part 225, ~~as amended from time to time~~; and
- (f) ~~(iv)~~ for such other purposes as the Secretary of the Treasury may approve, subject to Treasury ~~circulares~~ regulations or other relevant instructions; and

5.0 TERMS

- (g) for such other purposes as the Reserve Banks may designate.

4.6. LOCATION OF PARTICIPANTS

4.6.1 For purposes of this operating circular, a Participant is located in the Federal Reserve district as determined under the procedure described in section 204.3(g) of Regulation D (12 C.F.R. § 204.3(g)) even if the Participant would not otherwise be subject to Regulation D, unless otherwise provided in the next sentence. A Participant that is an Issuer, foreign central bank, foreign monetary authority, foreign government, or international organization is treated as located in the second Federal Reserve district, unless otherwise specified by the Reserve Banks.

5.0 CONDITIONS OF ACCESS; SECURITY PROCEDURE

~~5.1~~

5.1. RESPONSIBILITY FOR ACCESS TO SERVICE; REQUIREMENT TO MAINTAIN MASTER ACCOUNT; RESERVE BANK AUTHORITY TO IMPOSE REQUIREMENTS AND RESTRICTIONS

5.1.1 Each Participant is responsible for ~~all~~ its access to ~~the~~ the Fedwire Securities Service and for all debits and credits to ~~its~~ its Securities Accounts and its Master Account. A Participant may use ~~the services of a third party service provider,~~ a Service Provider as described in and subject to ~~Paragraph~~ section 18 ~~and Appendix C~~ of Operating Circular 6 ~~on~~ Funds Transfers through the Fedwire® Funds Service.

~~5.2~~

5.1.2 A Participant must maintain a Master Account at a Reserve Bank to be a Sender or a Receiver of ~~Transfers~~ Transfer Against Payment; ~~the~~ or an Issuance Against Payment. The Administrative Reserve Bank ~~reserves the right: may~~ (1) ~~to~~ require ~~at the~~ Participant to maintain a balance in its Master Account or to ~~pledge collateral~~ provide security to the Administrative Reserve Bank, sufficient ~~at all times~~ in each case to cover debits to the Participant's Master Account for Transfers Against Payment or Issuances Against Payment for which the Participant is the Receiver, ~~and~~ (2) ~~to limit a Receiver~~ otherwise prohibit or restrict a Participant's ability to ~~Free Transfers, send~~ or (3) ~~to limit~~ receive Transfers Against Payment or Issuances Against Payment.

5.1.3 The Reserve Banks will reject Transfer Messages for Transfers Against Payment or Issuance Messages for Issuances Against Payment if either the Sender or Receiver does not have a Master Account or is otherwise not permitted by its Administrative Reserve Bank to send or receive such Messages.

5.1.4 ~~5.3~~ A Participant that does not ~~have or is not permitted to have~~ maintain a Master Account ~~in its own name may only be a Sender or a Receiver of Free Transfers, and~~ must designate a ~~correspondent~~ (on a form provided by the ~~Administrative Reserve Bank~~) ~~with a Master Account on a Reserve Bank's books which shall be credited for~~ Banks) a Correspondent to settle credits and debits relating to the (1) payment, and correction to a payment, of principal and/or interest on Book-Entry Securities, (2) ACAP Claims, and (3) fees under section 13.

5.2. SECURITY PROCEDURES FOR MESSAGES

5.2.1 By using the Fedwire Securities Service, a Participant agrees to and shall comply with the terms of Appendix A to the Reserve Banks' Operating Circular 5, *Electronic Access*.

5.2.2 This operating circular incorporates by reference sections 2 and 4 of Appendix A to Operating Circular 5, including its description of the security procedures offered by the Reserve Bank on whose books a Participant's Securities Account is maintained.

5.2.3 Before selecting a security procedure, a Participant may discuss with the Appropriate Reserve Bank the various options offered by the Reserve Banks to determine which option best satisfies its business needs given the size, type, and frequency of Messages normally sent and received by the Participant using the Fedwire Securities Service.

5.2.4 If a Reserve Bank accepts a Message received in the name of the Participant in compliance with the security procedure selected by the Participant, the Message is effective, and the Reserve Bank is entitled to rely on the Message. By complying with the security procedure, the Reserve Bank has established its reasonable belief that the Message is genuine and is deemed to have acted in good faith and in the exercise of ordinary care.

6.0 MESSAGES

6.1. NATURE OF MESSAGES

6.1.1 Transfer Messages are entitlement orders with respect to security entitlements under the Applicable Regulations and Article 8 of the Uniform Commercial Code.

6.1.2 Transfer Messages to effect **Transfers Against Payment** and Issuance Messages to effect **Issuances Against Payment** each include instructions to one or more Reserve Banks to effect payment in connection with the related Transfer or Issuance, as the case may be, but are not payment orders as defined in Article 4A of the Uniform Commercial Code.

6.1.3 No Message is a negotiable instrument.

6.2. FORMAT AND CONTENT OF MESSAGES

6.2.1 A Message must be in the medium **and format the Reserve Banks prescribe** for the particular Message type. A Reserve Bank will not act on information in a Message other than information required by the format specifications and necessary for Reserve Bank processing.

6.2.2 A Reserve Bank is **not responsible for the accuracy of a routing number contained in or verbally supplied from a publication, list, or automated file disseminated or maintained by a Reserve Bank if the routing number becomes inaccurate after the effective date of the publication, list, or automated file.**

6.2.3 A Message must be sent using Primary RTNs (as defined in the Reserve Banks' Operating Circular 1, *Account Relationships*) assigned to the Sender and the Receiver or, for a Sender or Receiver authorized to have Securities Accounts with more than one Reserve Bank, the appropriate identifying number associated with the Securities Account to which the Message relates. If an appropriate identifying number is not used, the Message may be

rejected. A Reserve Bank may rely on the identifying number contained in a Message for processing the Message.

6.3. RECEIPT, ACCEPTANCE, REJECTION, CANCELLATION, AND AMENDMENT OF MESSAGES

6.3.1 A Reserve Bank may for any reason reject or impose conditions that must be satisfied before it will accept and process a Message from a Participant, including a Transfer Message or Issuance Message. A Reserve Bank will reject a Transfer Message if the Sender does not have sufficient par amount of a Book-Entry Security in the Securities Account from which the Transfer is to be sent to effect the Transfer.

6.3.2 A Message sent by a Participant is not received by the Reserve Bank unless and until received by the Fedwire Securities Service application. A Message sent by a Participant does not give rise to any obligation on the part of a Reserve Bank to act with respect to the Message unless and until the Message is received by the Fedwire Securities Service application. Messages sent by a Participant to the Fedwire Securities Service but not received by the Fedwire Securities Service application may be queued indefinitely. The Reserve Banks reserve the right to delete such queued Messages for any reason, including to manage problems with hardware, software, data transmission, or operations facilities of Participants or the Reserve Banks. A Participant shall be prepared to resend a Message if the Reserve Banks delete a Message not yet received by the Fedwire Securities Service or if that Message is otherwise lost. A Message is received by the Fedwire Securities Service application when the service time stamps the Message.

6.3.3 A Reserve Bank has no obligation to cancel or amend a Transfer Message, even if it receives from a Participant a request for reversal or other Message seeking to cancel or amend the Transfer Message. If such a Message seeking to cancel, amend, or reverse the Transfer Message is accepted by a Reserve Bank, the Reserve Bank's only obligation is to send the Message to the Receiver identified by the Sender in the Message.

6.3.4 Certain activities may occur on a Securities Business Day outside the Transfer Processing Window.

6.3.4.1. The Reserve Banks may allow Participants to begin sending Transfer Messages to the Fedwire Securities Service on a Securities Business Day before the Transfer Processing Window begins. These Messages are queued for release to

the Fedwire Securities Service application and can be released to and received by the Fedwire Securities Service application only upon the start of the Transfer Processing Window.

6.3.4.2. The Reserve Banks may process Messages relating to the payment of principal and/or interest ~~payments on~~ with respect to Book-Entry Securities, ~~and debited for transaction fees as described in Paragraph 14; a Reserve Bank will reject Transfer Messages for Transfers Against Payment to a Participant that does not have a Master Account or that is only permitted to be a Receiver of Free Transfers~~ on a Securities Business Day before the Transfer Processing Window begins.

~~6.0 THE ROLES OF THE RESERVE BANKS IN A BOOK-ENTRY SECURITIES TRANSFER~~

~~6.1~~

6.3.4.3. The Reserve Banks may conduct securities account maintenance activities on a Securities Business Day before the Transfer Processing Window begins, including pursuant to Participants' instructions.

6.3.5 The Reserve Banks may accept and process Messages in an order different from the order in which Participants send them to the Fedwire Securities Service. Among other reasons, the Reserve Banks may queue or reorder Messages to increase the speed or efficiency by which the Fedwire Securities Service processes such Messages.

6.4. DELIVERY OF MESSAGES BY RESERVE BANKS

6.4.1 The Reserve Banks deliver Advices and Acknowledgments through Electronic Connections to Participants that receive Online Messages. If a Participant that sends an Online Transfer Message does not receive an Acknowledgment, Rejection, or Interception relating to such Message, the Participant should notify the Appropriate Reserve Bank promptly.

6.4.2 A Participant that receives Online Messages must manage its Electronic Connection so as to permit it to receive on a timely basis a Message, including an Advice or Acknowledgment, sent to it during the Securities Business Day. If a Participant fails to

manage its Electronic Connection in such a manner, a Reserve Bank may limit attempts to send a Message to the Participant and is deemed to have delivered the Message when the Reserve Bank makes the Message available for the Participant to retrieve it. A Participant that loses its Electronic Connection shall reestablish connectivity as soon as possible.

6.4.3 For Participants sending and receiving Offline Messages, the Reserve Banks may send advices and acknowledgments by e-mail or first-class mail. The Reserve Banks also attempt to notify Participants sending and receiving Offline Messages by telephone of each debit or credit to their Securities Accounts resulting from Transfers. The Reserve Banks make no attempt to notify Participants sending and receiving Offline Messages by telephone regarding any other type of transaction, including (1) the credit of Book-Entry Securities upon Issuance and (2) the debit of Book-Entry Securities at maturity or when called for redemption.

6.4.4 A Participant that receives Offline Messages shall make staff available so as to permit it to receive on a timely basis a Message over the telephone during the Securities Business Day. If a Participant fails to make staff available in such a manner, a Reserve Bank may limit the number of attempts it makes to send a Message to the Participant and is deemed to have delivered the Message when the Reserve Bank makes the first attempt to contact the Participant over the telephone.

6.4.5 Except to the extent prohibited by law, a Participant, whether it sends or receives Offline or Online Messages, shall indemnify and hold harmless a Reserve Bank against any claim, loss, cost, or expense (including, but not limited to, attorneys' fees and expenses of litigation) that may arise **as a result of the Participant's delay in sending or receiving a Message if the delay results from the Participant's failure to be able to send or receive** Messages to or from the Reserve Banks during the Securities Business Day for the reasons described in section 6.4.2 or 6.4.4 above or otherwise.

6.4.6 In connection with principal and/or interest payments on Book-Entry Securities held by a Participant in a Securities Account, the Reserve Banks send to that Participant or its Correspondent (1) at the end of each day, a notice detailing principal and/or interest payments expected to be credited, if any, to the Participant's or its Correspondent's Master Account on the immediately following Securities Business Day; and (2) following each credit of a principal and/or interest payment to the Participant's Master Account (or the Correspondent's Master Account) on a Securities

Business Day, an Advice detailing such principal and/or interest payment.

6.4.7 If, for any reason, the Reserve Banks are unable to send, or the Participant does not receive, the Advice described in section 6.4.6, the Reserve Banks may instruct the Participant and its Correspondent to (1) rely on the notice provided by the Reserve Banks on the previous day, (2) reconcile information available in the Reserve Banks' accounting applications with the amount the Participant otherwise expected to receive (e.g., based on information provided by the Issuer), or (3) rely on any other notice from the Reserve Banks indicating they have made entries to effect the principal and/or interest payments. In each case, the Reserve Banks have met their obligation to deliver an Advice by providing such instructions and any related notice.

6.5. NONVALUE MESSAGES AND CERTAIN OTHER NOTICES

6.5.1 The Reserve Banks handle Messages that do not generate entries by the Fedwire Securities Service to Securities Accounts or Master Accounts. Like other Messages, such nonvalue Messages are subject to the Reserve Banks' format and media requirements, security procedures, and time and fee schedules. This operating circular does not impose any obligation on Participants to respond to nonvalue Messages.

6.5.2 The Reserve Banks also provide certain notices, summaries, and statements to Participants through the Fedwire Securities Service that do not generate entries to Securities Accounts or Master Accounts but may reflect past entries to these accounts, including (1) a daily summary of funds debited or credited to Participants' Master Accounts as a result of Messages and (2) a daily summary of net par balances for each Book-Entry Security for which Participants had transactions in their Securities Accounts.

6.5.3 A Reserve Bank's liability for damages caused by its failure to exercise ordinary care or act in good faith in processing or delivering a Message, notice, summary, or statement described in this section 6.5 is limited to the amount of any fee paid to a Reserve Bank for such Message, notice, summary, or statement.

6.6. REPORTING OF ERRORS AND OTHER EXCEPTIONS

6.6.1 A Participant is precluded from asserting that a Message was ineffective or unauthorized if it does not make such an assertion by written notice to the Appropriate Reserve Bank within 10 calendar days of the date of the Message.

6.6.2 In addition, a Participant shall notify the Appropriate Reserve Bank immediately if the Participant learns of or discovers, from any source other than a Rejection from a Reserve Bank, the possibility of error or lack of authority in the transmission or processing of a Transfer Message or Issuance Message.

6.6.3 A Participant shall notify the Appropriate Reserve Bank in writing of any error or other exception to any notice, summary, or statement as soon as possible (but in no event later than 10 calendar days from the date of the notice, summary, or statement).

7.0 ROLES OF RESERVE BANKS IN MESSAGES

7.1. For purposes of this operating circular, when a Participant sends a Transfer Message over the Fedwire Securities Service, the Participant is deemed to have sent it to the Reserve Bank on whose books the Participant's Securities Account identified in the Transfer Message is maintained regardless of which Reserve Bank operates the Participant's Electronic Connection or receives the Participant's Offline Transfer Messages.

7.2. For purposes of this operating circular, when a Participant receives an Advice or Acknowledgment over the Fedwire Securities Service, the Participant is deemed to have received the Advice or Acknowledgment from the Reserve Bank on whose books the Participant's Securities Account identified in the Advice or Acknowledgment is maintained regardless of which Reserve Bank operates the Participant's Electronic Connection or sends the Participant an Offline Advice or Acknowledgment.

7.3. A Reserve Bank that handles a Transfer Message, other than the Reserve Bank or Reserve Banks on whose books the Securities Accounts affected by that Transfer Message are maintained as provided under sections 7.1 and 7.2, is not a party to the Transfer in any way, including as a securities intermediary.

7.4. A Participant's Administrative Reserve Bank may instruct any other Reserve Bank concerning the other Reserve Bank's handling or settlement of a Transfer Message ~~affecting the Participant's Securities Account(s) and Master Account~~ for purposes of managing the Administrative Reserve Bank's risk.

~~7.0 EXECUTION OF TRANSFERS~~

~~7.1 DEBITS AND CREDITS~~

~~7.1.1~~

8.0 TERMINATION AND ACCESS RESTRICTIONS

- 8.1. A Reserve Bank may terminate or restrict Fedwire Securities Service access by a Participant or its Service Provider at any time without notice if the Reserve Bank has reason to believe that (1) the Participant's or Service Provider's use of the Fedwire Securities Service does not comply with any Reserve Bank agreement, including this operating circular and, with respect to the use by Participants of Service Providers, Operating Circular 6, *Funds Transfers through the Fedwire Securities Service*, or (2) the Participant's or Service Provider's use of the Fedwire Securities Service otherwise poses a risk to a Reserve Bank, any other Participant, or the security or proper functioning of the Fedwire Securities Service or any service the Reserve Banks provide under an appendix to this operating circular or under any other Reserve Bank operating circular.
- 8.2. Actions by a Reserve Bank to restrict access by a Participant or Service Provider to the Fedwire Securities Service may include, among others, restricting the ability to send or receive Messages (including limiting a Receiver to Free Transfers), restricting access through one or more Electronic Connections, delaying the release to the Fedwire Securities Service application of Messages sent through an Electronic Connection, restricting access by one or more individuals authorized to use the service on a Participant's behalf, and imposing, modifying, or restricting modifications to one or more of the processing options described in Appendix E to this operating circular.
- 8.3. In addition to the reasons described in section 8.1, a Reserve Bank may otherwise terminate or restrict a Participant's or Service Provider's access to the Fedwire Securities Service at any time. A Reserve Bank taking an action under this section 8.3 is not obliged but will endeavor to give notice at least five days in advance of terminating or restricting the Participant's or Service Provider's access to the service.

9.0 SETTLEMENT OF TRANSACTIONS; FINALITY; REVERSALS

9.1. SETTLEMENT OF TRANSACTIONS

- 9.1.1 Book-Entry Securities are credited to a Participant's Securities Account in accordance with Reserve Bank policies and, when relevant, ~~the regulations~~ Applicable Regulations and Issuer policies of the issuers of the Book-Entry Securities, including ~~whenever a Participant~~ when:

- ~~(a)~~ (a) The Participant is a Receiver, ~~or receives~~ of a Transfer;
- ~~(b)~~ Book-Entry Securities ~~moved~~ are transferred from the Legacy Treasury Direct® or ~~the Treasury Direct® Systems (described at 31 C.F.R. Part 357.20 et seq.) to its TreasuryDirect® systems to the Participant's Securities Account in accordance with Treasury regulations;~~
- ~~(b) purchases Book-Entry Securities on original issue; or~~
- ~~(c) converts eligible~~
- ~~(c)~~ The Participant is a Receiver of an Issuance;
- ~~(d)~~ Eligible definitive securities are converted to ~~book-entry form or~~ Book-Entry Securities for credit to the Participant's Securities Account; and
- ~~(e)~~ Eligible Book-Entry Securities are converted from one ~~book-entry form~~ Book-Entry Security to another ~~book-entry form~~ (e.g., stripping and reconstituting) for credit to the Participant's Securities Account.

9.1.2 ~~7.1.2~~ Book-Entry Securities are debited ~~to~~ from a Participant's Securities Account in accordance with Reserve Bank policies, and, when relevant ~~the instruction of the issuer, Applicable Regulations and Issuer instructions~~, including ~~whenever~~ when:

- ~~(a)~~ ~~a Reserve Bank effects a Transfer for a~~ The Participant that is a Sender, or of a Participant requests that Transfer;
- ~~(b)~~ Book-Entry Securities ~~be moved into the Legacy Treasury Direct® or the~~ are transferred from the Participant's Securities Account to the TreasuryDirect system in accordance with Treasury Direct® Systems regulations;
- ~~(c)~~ ~~(b)~~ Book-Entry Securities held in ~~at~~ the Participant's Securities Account mature, are called for redemption by the Issuer, or are otherwise paid off;
- ~~(d)~~ ~~(c)~~ ~~a Participant converts eligible~~ Eligible Book-Entry Securities are converted to bearer or registered definitive securities ~~or; and~~

(e) Eligible Book-Entry Securities are converted from one ~~book-entry form~~ Book-Entry Security to another ~~book-entry form~~ (e.g., stripping ~~and~~ or reconstituting);

~~7.1.3~~ ~~The Sender's Master Account is credited and the Receiver's Master Account is debited for the amount specified by the Sender in any Transfer Against Payment sent by the Sender for credit to the Participant's Securities Account.~~

9.1.3 ~~7.1.4~~ The Sender and the Receiver of a Transfer irrevocably authorize and instruct the Reserve ~~Bank(s)~~ Banks involved in ~~the~~ a Transfer to debit the Sender's designated Securities Account and credit the Receiver's ~~designated~~ Securities Account specified in the Transfer Message for the par amount of the Book-Entry Securities, ~~and specified in the Transfer Message and, in the case of a Transfer Against Payment,~~ to credit the Sender's Master Account and debit the Receiver's Master Account for the amount of the payment specified in the ~~case of a~~ Transfer Against Payment.

~~7.1.5~~ ~~If a Transfer is returned in accordance with this Circular, the Sender~~ Message. The Issuer and the Receiver of ~~the Transfer~~ an Issuance irrevocably authorize and instruct the Reserve ~~Bank(s)~~ Banks involved in ~~the Transfer~~ an Issuance to credit the Receiver's Securities Account specified in the Issuance Message for the par amount of the Book-Entry Securities specified in the Issuance Message and, in the case of an Issuance Against Payment, to ~~debit and~~ credit the Issuer's funds account specified in the Issuance Message and debit the Receiver's Master Account for the amount of the payment specified in the Issuance Message.

9.2. FINALITY

9.2.1 All debits and credits in connection with a Transfer become final at the time the debits and credits are posted to both the Sender's and the Receiver's Securities Accounts and ~~their corresponding Master Accounts in order to offset any, in the case of a Transfer Against Payment, their corresponding Master Accounts.~~ Notice of the Transfer in accordance with this operating circular is conclusive evidence that the debits ~~or~~ and credits ~~previously were~~ made.

9.2.2 All debits and credits in connection with ~~the Transfer~~ an Issuance become final at the time the credit is posted to ~~the Receiver's Securities Account and, in the case of an Issuance Against Payment, a credit is posted to an account of the Issuer and a debit is posted to the Receiver's Master Account.~~ Notice of the Issuance in accordance with this operating circular is conclusive evidence that the debits and credits were made.

~~7.2~~ — ~~CONDITIONS OF ACCESS~~

~~7.2.1~~ —

~~**9.2.3** The Reserve Banks provide Participants with On-line Access or Off-line Access but reserve the right to terminate a Participant's access without prior notice. debit or credit Securities Accounts or Master Accounts (without further authorization or instruction) to correct any Transfer or Issuance errors.~~

~~**7.2.2** The Reserve Banks may record by audio recording device any telephone call relating to a Transfer.~~

~~**7.2.3** A Participant, whether on-line or off-line, shall indemnify the Reserve Banks for any loss incurred by a Reserve Bank as a result of the Participant's delay in sending or receiving a Transfer, if the delay results from the Participant's failure to be able to send or receive a Transfer to or from the Reserve Banks.~~

~~**7.2.4** On-Line Access. By using the Fedwire Securities Service, an On-line Participant agrees to the terms of Appendix A to Operating Circular 5. An On-line Participant must manage its access in order to receive timely acknowledgment of credits and debits to its Securities Accounts and its Master Account during the Fedwire® Securities Service operating hours. If a Participant fails to manage its communications connection in such a manner, a Reserve Bank may limit any attempts to send acknowledgments of credits and debits to the Participant's computer. In such cases, the Participant should dial into the Reserve Bank's computer when its connection is reestablished.~~

~~**7.2.5** Off-Line Access. A Sender must provide Transfer Messages in writing, by facsimile transmission, or by telephone under an authorized name on file with the appropriate Reserve Bank handling the off-line Transfers. The Reserve Bank shall call the Participant's place of business to verify a Transfer Message or other instruction and may require verification of all Transfer Messages or other instructions.~~

~~7.3~~ — ~~FORMAT AND CONTENT OF TRANSFER MESSAGES~~

~~**7.3.1** A Transfer Message must be in the media and format the Reserve Banks prescribe. A Reserve Bank will not act on instructions in a~~

~~Transfer Message other than information required by the format specifications. The Reserve Banks are not responsible for the accuracy of a routing number contained in or verbally supplied from a publication, list or automated file issued or maintained by a Reserve Bank if the routing number becomes inaccurate after the effective date of the publication, list, or automated file.~~

~~7.3.2 A Transfer Message must use the identifying number of the Sender and the Receiver associated with its head office in the Administrative Reserve Bank's District or, for a Sender or Receiver authorized to have Securities Account(s) with multiple Reserve Banks, the appropriate identifying number associated with the Securities Account on the books of a Reserve Bank other than the Administrative Reserve Bank. If the appropriate identifying number is not used, the Transfer will be rejected.~~

~~7.3.3 If a Transfer Message does not designate which Securities Account of the Receiver is to be credited, the Transfer will be rejected.~~

~~7.3.4 A Reserve Bank is entitled to rely on any Transfer Message or instruction (whether or not authorized) that it reasonably believes to be genuine.~~

~~8.0 [RESERVED]~~

~~9.0 SETTLEMENT OF BOOK-ENTRY SECURITIES TRANSFERS;~~

9.3. REVERSING TRANSFERS

9.3.1 Transfers may be reversed by a Participant only by a separate Transfer effected by a Transfer Message using the reversal code.

9.3.2 A Participant shall not use the reversal code in a Transfer Message to initially send a Transfer at any time, including during the reversal period set forth in the Securities Schedule.

9.3.3 No misuse of the reversal code has occurred if a Transfer effected by a Transfer Message sent initially and properly during the origination period using the origination code is reversed one or more times by a Transfer Message using the reversal code. A

Reserve Bank will not handle any request for compensation arising from such a use of the reversal code; the Sender and the Receiver must deal directly with one another to resolve any request for compensation.

10.0 PRINCIPAL AND INTEREST PAYMENTS

9.1 — FINALITY

9.1.1 — ~~Unless a Transfer is rejected in accordance with this Circular, all debits and credits in connection with a Transfer become final at the time the debits and credits are posted to both the Sender's and the Receiver's Securities Accounts and, in the case of Transfer Against Payment, their corresponding Master Accounts. Notice of the Transfer is conclusive evidence that the debit(s) and credit(s) were made. Transfers may be reversed only by a separate Transfer effected by a Transfer Message using the reversal code, or Transfers may be returned by the Administrative Reserve Bank in accordance with this Circular. A Reserve Bank reserves the right to debit or credit Securities Accounts (without further authorization or instruction) to correct any Transfer errors.~~

9.2 —

10.1 PRINCIPAL AND INTEREST PAYMENTS IN GENERAL

10.1.1 ~~9.2.1~~ Subject to ~~Paragraph 9.3.1, and unless otherwise instructed by the issuer, this section 10.2, a~~ Reserve Bank credits ~~payments~~ any payment of principal and/or interest on Book-Entry Securities held in a Participant's Securities Accounts to the Participant's ~~(or, subject to prior written agreement on a form provided by a Reserve Bank, its correspondent's)~~ Master Account on the due payment date (or the next business day Securities Business Day, if the payment date falls on a weekend or holiday) ~~to the extent there are available funds of the issuer~~ day that is not a Securities Business Day) in accordance with the Issuer's instructions.

10.1.2 A Reserve Bank has the right not to credit such payment of principal and/or interest if the Issuer has not made available to the Reserve Bank sufficient funds to effect such payment.

10.1.3 ~~9.2.2 Credits~~ The Participant may, subject to prior agreement with a Reserve Bank, direct that payments of principal and/or interest payments on Book-Entry be credited to its Correspondent's Master Account, subject to section 10.2. Unless and until the Participant

has made a different designation (whether in general or with respect to a particular Securities to a Master Account are final, subject only to a Reserve Bank's right to debit or credit the), debits or credits in connection with ACAP Claims are also to be settled in that Correspondent's Master Account (without further authorization or instruction) to correct any payment errors.

10.2. ~~9.3~~ PRINCIPAL AND INTEREST PAYMENTS ON BOOK-ENTRY SECURITIES IN RESTRICTED SECURITIES ACCOUNTS

10.2.1 ~~9.3.1~~ A Reserve Bank may hold in a non-interest-bearing funds account on its books the principal of ~~maturing or fully called~~ Book-Entry Securities ~~maintained~~ in a Restricted Securities Account that have matured or been fully called until the secured party authorizes the release of the principal.

10.2.2 All interest payments and all other principal payments on Book-Entry Securities ~~maintained~~ in a Restricted Securities Account, including Amortizing Book-Entry Securities and partially called Book-Entry Securities, are credited in accordance with ~~Paragraph 9.2.1~~ section 10.1, except as provided in ~~Paragraph 5~~ section 6.0 of Appendix C to this operating circular.

10.3. FINALITY

10.3.1 Credits of principal and/or interest payments to a Master Account as described in this section 10.0 are final, subject only to a Reserve Bank's right to debit or credit the Master Account (without further authorization or instruction by the Participant or its Correspondent) to correct any payment errors by the Reserve Banks, the Issuer, or the Issuer's agents.

11.0 ~~10.0~~ LIMITATIONS ON TRANSFERS ~~OF BOOK-ENTRY SECURITIES~~

11.1. ~~40.1~~ GENERAL RESTRICTIONS ON TRANSFERS

~~11.1.1 10.1.1 Transfers are~~ A Participant may not authorized send a Transfer on or after the date of maturity of a particular issue, or on which a Book-Entry Security matures.

~~11.1.2~~ A Participant may not send a Transfer of a callable Book-Entry Security on or after the redemption date of a bond or note that has been called for redemption. Certain issues may contain restrictions which do not allow Transfers for a specified time period prior to maturity on which that Book-Entry Security is redeemed; and

~~10.1.2~~ A Reserve Bank will not accept instructions from a Sender (or a Receiver) to credit (or debit) a correspondent's Master Account for a payment in connection with a Transfer Against Payment.

~~40.2~~

~~11.1.3~~ A Participant may not send a Transfer of an Amortizing Book-Entry Security on or after the date on which that Book-Entry Security was paid off.

11.2. AMOUNT LIMITATIONS ON TRANSFERS

~~11.2.1 10.2.1~~ There is a par amount maximum of \$50 million for Transfers (the "Limit"). The Limit applies to all Transfers, as well as to transfers with the Federal Reserve's Open Market Desk, except Except as provided in Paragraph 10.2.2. A Reserve Bank will reject a section 11.2.2, no Transfer Message with may have a par amount greater than the Limit that exceeds \$50 million.

~~10.2.2~~ The Limit on Transfers does not apply to:

~~(a)~~ transactions, including the original issuance

~~11.2.2~~ Messages relating to the following transactions may have par amounts that exceed \$50 million, but such amounts must be less than \$1 billion:

~~(a)~~ Issuances and redemptions of Book-Entry Securities;

~~(b)~~ Requests, Transfers, and requests reissuances relating to strip stripping and reconstitute reconstituting eligible Book-Entry Securities; and

~~(c)~~ Transfers to or from a Reserve Bank in its capacity as fiscal agent of the United States, Federal and Federally sponsored agencies, or international organizations; and

~~(b) Debits or credits to Restricted Securities Accounts on a Reserve Bank's books~~Account.

~~10.2.3 Participants should establish procedures to ensure that large Transfers are not delayed until late in the day. Specifically, each Participant should encourage its customers to provide delivery instructions to it as soon as practical after a trade is executed and to deliver Book-Entry Securities as soon as (par amount) lots of Book-Entry Securities at the Limit are in position.~~

~~10.3 IMPROPER USE OF THE REVERSAL CODE~~

~~10.3.1 A Participant must not send a~~

~~11.2.3~~ No Transfer Message for the first time during the reversal period by using the reversal code may have a payment amount that exceeds \$1 billion.

~~10.3.2 No misuse of the reversal code has occurred if a Transfer effected by a Transfer Message sent initially and properly during the origination period using the origination code is reversed one or more times by a Transfer Message using the reversal code. However, a Reserve Bank will not handle any request for compensation arising from such a use of the reversal code; this must be handled directly by the Sender and the Receiver.~~

~~11.0 TRANSFER~~

~~11.2.4~~ Messages that exceed the limits in this section 11.2 will be rejected.

~~11.2.5~~ Messages used in connection with the services described in Appendix D may be subject to the limitations of this section 11.2 as set forth in Appendix D.

12.0 DAYS OF OPERATION; OPERATING HOURS AND EXTENSIONS

~~11.1 A Reserve Bank effects Transfers in accordance with the schedule of operating hours in Appendix B. However, the Reserve Banks may decide in their sole discretion to open or close the Fedwire[®] Securities Service at an earlier, or later time, to facilitate special market needs.~~

~~11.2~~—A Participant requiring an extension of the Fedwire[®]

12.1. DAYS OF OPERATION

12.1.1 The Fedwire Securities Service operates each Securities Business Day.

12.1.2 The Reserve Banks publish on the FRBservices.org website a Securities Service operating hours should contact the Federal Reserve Bank of New York or its designee as soon as possible. A request for an extension received less than twenty minutes before Schedule that sets forth those days on which the scheduled Fedwire[®] Securities Service closing time will does not be granted. An extension may be granted only if:

- ~~(a)~~—there is a failure of Reserve Bank and/or the Fedwire[®]-Securities Service network equipment; or
- ~~(b)~~—there is a significant operating problem at a bank or major dealer; and, as a result,
- ~~(c)~~—the extension is deemed necessary, in the Federal Reserve Bank of New York's (or its designee's) view, to prevent market disruption (i.e., the dollar value of delayed transfers exceeds \$1 billion).

~~11.3~~—When requesting an extension, the Participant will be required to state the dollar amount and volume of unprocessed Transfer Messages and to assess the severity of any operating problems.

~~11.4~~—Every extension of the Fedwire[®]-Securities Service is broadcast electronically to all Reserve Banks and all high-volume Participants.

~~12.0 NOTICES~~

~~12.1~~—The Reserve Bank sends to a location specified by a Participant a notice following each credit or debit to the Participant's Securities Account(s). The notice is not a negotiable or a transferable receipt but is merely confirmation of a completed Transfer. The Reserve Bank sends an On-line Participant an electronic notice, and an Off-Line Participant a printed notice, of each debit or credit to its Securities Account(s). The Reserve Bank also attempts to notify an Off-Line Participant by telephone of each debit or credit to its securities account resulting from a secondary market

~~Transfer. The Reserve Bank will make no attempt to notify an Off-Line Participant by telephone regarding either of the two following types of transactions: (1) the credit of securities received upon original issue since the issuer has already notified the participant of the securities to be deposited; (2) the debit of securities at maturity or when called for redemption.~~

- ~~12.2~~ After 3:30 p.m. eastern time (absent an extension of the Fedwire[®] Securities Service), each On-line Participant is provided with:
- ~~(a)~~ a summary of funds debited or credited to the Participant's Master Account as a result of Transfers Against Payment; and
 - ~~(b)~~ a summary of net balances for each Book-Entry Security issue for which there was activity.
- ~~12.3~~ Each Participant also receives information detailing principal and/or interest payments credited to its (or its correspondent's) Master Account.
- ~~12.4~~ A Participant must notify the Reserve Bank in writing of an ~~exception to any notice, summary, or statement as soon as possible (in no event later than 10 calendar days from the date of the notice, summary, or statement).~~

~~13.0 [RESERVED]~~

~~14.0 TRANSFER AND SECURITIES ACCOUNT MAINTENANCE~~ operate.

12.2. OPERATING HOURS

- 12.2.1 The Securities Schedule on the FRBservices.org website outlines the start and end times during which the Fedwire Securities Service performs various activities on Securities Business Days, including during the Transfer Processing Window. The Reserve Banks may amend the Securities Schedule from time to time.
- 12.2.2 The Securities Schedule states the Cutoff Times for the Securities Business Day. The Reserve Banks may set Cutoff Times for different categories of Messages, different types of Participants, or different methods by which Messages are sent to the Reserve Banks. The Reserve Banks also may set times prior to the Cutoff

Times by which a Participant must contact the Reserve Banks to send Offline Messages.

12.3. EXTENSIONS

12.3.1 The Reserve Banks publish on the FRBservices.org website guidelines that the Reserve Banks use to consider requests from Participants for extensions of a Cutoff Time or the Securities Business Day. These extension guidelines may identify (i) the timing for submission of an extension request; (ii) the information that must be included in an extension request; (iii) directions for how to submit an extension request; (iv) the considerations that Reserve Banks may take into account when deciding whether to extend a Cutoff Time or a Securities Business Day; and (v) how the Reserve Banks provide notification of an extension of a Cutoff Time or a Securities Business Day. The Reserve Banks may amend the extension guidelines from time to time. The Reserve Banks may decline to grant an extension request for any reason.

12.3.2 The Reserve Banks may extend a Cutoff Time or a Securities Business Day to facilitate special market needs.

13.0 FEES

~~14.1—FEES~~

~~14.1.1—~~

13.1. FEE SCHEDULE

13.1.1 The fees imposed for ~~Book-Entry~~Fedwire Securities ~~Service-related~~ services are listed in the fee schedules published by the Reserve Banks' ~~fee schedule as amended on the~~ FRBservices.org website or may be otherwise communicated to Participants as applicable. The Reserve Banks may amend the fee schedules from time to time. ~~Neither monthly account maintenance fees nor Transfer fees are assessed for~~

13.1.2 Restricted Securities Accounts maintained by the Reserve Banks under the ~~following programs: Treasury Tax and Loan (TT&L), Loans and Discounts, program and the~~ 31 C.F.R. part 202 program are not assessed for monthly account maintenance fees or fees for Transfers of Book-Entry Securities to or from such Restricted Securities Accounts. Restricted Securities Accounts maintained by the Reserve Banks under the 31 C.F.R. part 225 program are subject to monthly account maintenance fees but not ~~Transfer~~ fees for Transfers of Book-Entry Securities to or from such Restricted Securities Accounts.

13.1.3 Fees relating to Book-Entry Securities issued by the Treasury, including with respect to Transfers, account maintenance, and issue maintenance, are assessed by the Treasury as set forth on the fee schedules.

13.2. ~~14.2~~ **BILLING AND COLLECTION OF FEES**

13.2.1 ~~14.2.1~~ The Reserve Banks bill fees with respect to Book-Entry Securities issued by the Treasury at the end of every Securities Business Day for the Participant's transactions on that Securities Business Day. A Reserve Bank may debit the Participant's Master Account (or, subject to prior written agreement on a form provided by the Reserve Banks, its correspondent the Correspondent's) Master Account (is debited) for such fees for Treasury Book-Entry on the next Securities daily. These fees are assessed by Treasury Business Day.

13.2.2 ~~14.2.2 Fees for~~ The Reserve Banks bill fees with respect to Book-Entry Securities other than those issued by the Treasury Book-Entry Securities are billed monthly and debited to every month. A Reserve Bank may debit the Participant's Master Account (or, subject to prior written agreement on a form provided by the Reserve Banks, its correspondent the Correspondent's) Master Account) for such fees on a schedule determined by the Reserve Banks.

13.2.3 ~~14.2.3~~ A Participant that does not have a Master Account is not relieved of its liability for any fees it incurs by using the Fedwire[®] Securities Service, and the Reserve Banks reserve all rights to collect unpaid fees owed by a Participant.

~~15.0 EMERGENCY CONDITIONS~~

~~15.1~~ —

14.0 RECOVERY, RESILIENCY, AND TESTING

14.1. FAILURE OF A PARTICIPANT'S EQUIPMENT

14.1.1 ~~15.1.1 On-line~~ Participants are responsible for developing shall develop, implement, and maintain their own business contingency and disaster recovery plans, such as back-up computer hardware, software, and operations facilities, to ensure their ability to continue the their Fedwire[®] Securities Service operations in the event of equipment failure or other operational interruption. The

Reserve Banks assume no responsibility for providing any back-up access facilities ~~for Participants~~.

14.2. ~~15.2~~ FAILURE OF RESERVE BANK EQUIPMENT

14.2.1 ~~15.2.1~~ In the event of an emergency or failure of a Reserve Bank's ~~computer~~ hardware, software, data transmission, or operations facilities, ~~Transfers~~ including as a result of acts of war, riots, civil unrest, strikes, labor disputes, acts of terrorism, acts of God, or acts of nature, Messages may be delayed until the emergency or failure is resolved. During ~~extended disruptions~~ a disruption, the Reserve ~~Bank~~ Banks's Fedwire® Securities Service operations may be relocated to ~~a back-up site~~ an alternate production site and certain services may unavailable. Participants and their Correspondents and Service Providers should refer to the Reserve ~~Bank's contingency guidelines~~ Banks' business continuity guides and Operating Circular 5, Electronic Connections, regarding ~~Participant~~ their requirements and responsibilities during contingency operations.

14.2.2 ~~15.2.2 On-line~~ Participants ~~should~~ shall be prepared to reconcile their positions up to the point of the emergency or failure under the Reserve ~~Bank~~ Banks's instructions.

14.2.3 ~~15.2.3 A~~ The Reserve ~~Bank~~ Banks will ~~notify On-line~~ endeavor to provide Participants ~~of~~ with information about an operating problem at ~~another~~ a Reserve Bank ~~and, should the problem be deemed critical, will give instructions to On-line Participants. Such information may be provided through FRBservices.org or otherwise. Participants must be prepared to receive instructions from the Reserve Banks under such circumstances.~~

~~16.0 LIMITATIONS ON~~

14.2.4 In each case at the Participant's expense, the Reserve Banks may require a Participant (1) to test its ability to continue to use and access the Fedwire Securities Service following Reserve Bank prescribed contingency scenarios and (2) to establish and periodically test an additional Electronic Connection through which the Participant may send or receive Messages. In determining whether a Participant is subject to these requirements, the Reserve Banks may consider the aggregate value, the aggregate volume, or the purpose of Messages sent and received by that Participant.

14.2.5 Each Participant shall test its ability to continue to use and access the Fedwire Securities Service before it or its Service Provider makes changes to their operations, hardware, or software that might affect the Participant's ability to continue to use and access the service. Each Participant also shall, as directed by the Reserve Banks, test its ability to continue to use the Fedwire Securities Service in advance of changes to operations, hardware, or software the Reserve Banks make that may affect the Fedwire Securities Service.

14.2.6 A Participant that sends messages to the Fedwire Securities Service in connection with testing its ability to use the Fedwire Securities Service shall identify those messages as test messages by including the test indicator on such messages in accordance with Reserve Bank format specifications. A Participant that receives messages that include the test indicator shall handle these messages as test messages, not as production Messages.

14.2.7 The Reserve Banks are not liable for any loss or damage that might arise because a Participant or its Service Provider fails to perform its obligations under this section 14. Except to the extent prohibited by law, each Participant and the Service Provider shall indemnify and hold the Reserve Banks harmless against any claim, loss, cost or expense (including, but not limited to, attorneys' fees and expenses of litigation) that may arise because the Participant or its Service Provider fails to perform its obligations under this section 14.

15.0 **RESERVE BANK LIABILITY**

15.1. ~~16.1~~ The Reserve Banks are not liable for the insolvency, neglect, misconduct, mistake, or default of any other ~~entity or~~ person, including a Participant. Except as otherwise specifically provided ~~herein, the account-holding in this operating circular, a~~ Reserve Bank is liable only for the actual direct loss sustained by the ~~immediate~~ Participants that are party to a transaction effected through the Fedwire Securities Service and only to the extent such loss is proximately caused by the Reserve ~~Banks'~~ Bank's failure to exercise ordinary care or act in good faith: ~~with respect to Reserve Bank liability to such Participants, only the Reserve Bank holding the Sender's account is liable to the Sender and only the Reserve Bank holding the Receiver's account is liable to the Receiver in handling the transaction.~~ The amount of a Reserve Bank's liability to a Participant is further limited to no more than the dollar amount of the transaction plus reasonable interest and incidental expenses; unless the Participant's claim is based on delay of a transaction, in which case the Reserve Bank's liability is limited to reasonable interest and incidental expenses. In addition, the limitations on Reserve Bank liability set forth in section 5.2 of Operating Circular 5, Electronic Access, and section 4.2 of Appendix A to Operating Circular 5 apply with respect to unauthorized Messages. In no event ~~shall~~ is a Reserve Bank ~~be~~ liable for consequential, indirect, incidental, or special damages (including lost profits), however derived, (except to the extent specifically provided in this section 15.1) and regardless of whether ~~the any~~ Reserve Bank has been informed of the possibility ~~thereof~~ of such damages.

~~16.2~~ In addition to the liability of an account-holding Reserve Bank, a

15.2. To the extent any Reserve Bank has liability to a Participant under this operating circular, only the Reserve Bank maintaining a Securities Account for a Sender is liable to that Sender and only the Reserve Bank maintaining a Securities Account for a Receiver is liable to that Receiver. No other Reserve Banks are liable to Participants except as provided in section 15.3.

15.3. A Reserve Bank handling an ~~off-line~~ Offline Transfer is liable to ~~its immediate Participant~~ the Sender and Receiver of that Offline Transfer for the actual direct ~~losses resulting from the Reserve Bank's handling of the Transfer, that are~~ loss sustained by those Participants if such loss is proximately caused by the Reserve Bank's failure to exercise ordinary care or act in good faith, ~~subject to the first, third, and fourth sentences of Paragraph 16.4~~ in handling the Offline Transfer. If the Reserve Bank handling an Offline Transfer is liable to a Participant, no other Reserve Bank is liable to that Participant. Section 15.1 applies in determining the liability of a Reserve Bank handling an Offline Transfer.

~~16.3~~ The Administrative

- 15.4. The Reserve Banks are not liable for any loss or damage arising from a Participant's or Service Provider's use of any product or service not supplied, owned, or operated by a Reserve Bank that interacts or interfaces with, or otherwise facilitates a Participant's or Service Provider's use of or access to, the Fedwire Securities Service. The Reserve Banks provide no warranty, express or implied, as to the accuracy, timeliness, completeness, merchantability, fitness for a particular purpose, title, quality, or noninfringement with respect to any such product or service. This provision applies to, but is not limited to, any product or service not supplied, owned, or operated by a Reserve Bank through which the Reserve Banks make available information about the Fedwire Securities Service, such as format-related information.
- 15.5. To the extent a Reserve Bank has an obligation to pay interest under this operating circular, including its appendixes, the amount of any interest owed is to be calculated using the federal funds rate. A Reserve Bank may ~~in its discretion~~ satisfy an obligation of any of the Reserve Banks to pay interest ~~hereunder~~ under this operating circular by paying compensation.

~~17.0 MULTIPLE MASTER ACCOUNTS~~

- ~~17.1—Under certain circumstances a Participant may have multiple Master Accounts at its Administrative Reserve Bank with each Master Account having associated Securities Accounts and/or one or more Master Accounts at Reserve Banks other than its Administrative Reserve Bank with each Master Account having associated Securities Accounts.~~
- ~~17.2—Notwithstanding any provision of this Circular, during any period when a Participant is authorized to maintain Securities Accounts at multiple Reserve Banks, any debit or credit made pursuant to this Circular will be made to the Securities Account and Master Account associated with the identifying number of the Participant used in the Transfer.~~

~~18.0~~

16.0 [RESERVED]

17.0 RIGHT TO AMEND

- 17.1. ~~18.1~~ The Reserve Banks reserve the right to amend this ~~Circular~~ operating circular at any time without prior notice.

18.0 ELECTRONIC DOCUMENTS; RECORDING CALLS

18.1. A Reserve Bank may accept agreements or other documents in electronic form, notwithstanding any requirement in this operating circular that such documents be in writing.

18.2. The Reserve Banks may record any telephone call with a Participant.

19.0 ~~19.0~~ **EFFECT OF THIS OPERATING CIRCULAR ON PREVIOUS OPERATING CIRCULAR**

19.1. ~~19.1~~ This ~~Circular~~operating circular supersedes the Reserve Banks' Operating Circular 7, *Book-Entry Securities Account Maintenance and Transfer Services*, with an effective date of ~~June 30~~October 29, 2016~~2017~~ (including any supplements or ~~appendices thereto~~appendixes); and is effective on ~~October 29~~February 15, 2017~~2022~~.

20.0 GOVERNING LAW AND ACTIONS

20.1. This operating circular shall be governed by federal law, and, to the extent not inconsistent with controlling federal law, by the laws of the state of the Participant's Administrative Reserve Bank. Any action against a Reserve Bank for any act or omission relating to any activity contemplated by this operating circular must be brought within one calendar year from the date of the alleged act or omission in the United States district court in whose district the Administrative Reserve Bank is located.

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APPENDIX A: APPLICABLE REGULATORY CITATIONS GOVERNING BOOK-ENTRY SECURITIES OF AGENCIES, INSTRUMENTALITIES, AND ESTABLISHMENTS OF THE UNITED STATES REGULATIONS

- ~~12 C.F.R. Part 615, Subpart O~~ (Farm Credit System [\(12 C.F.R. part 615, subpart O\)](#));
- ~~12 C.F.R. Part 615, Subpart R~~ (Farm Credit System Financial Assistance Corporation);
- ~~12 C.F.R. Part 615, Subpart S~~ (Federal Agricultural Mortgage Corporation [\(12 C.F.R. part 615, subpart S\)](#));
- ~~12 C.F.R. Part 912~~ (Federal Home Loan Banks [\(12 C.F.R. part 1270, subpart D\)](#));
- ~~24 C.F.R. Part 81 Subpart H~~ (Federal Home Loan Mortgage Corporation);
- ~~24 (12 C.F.R. Part 81, Subpart H (part 1249)~~
- Federal National Mortgage Association); • ~~(12 C.F.R. Parts 912, 950.4 (Financing Corporation part 1249)~~);
- ~~24 C.F.R. Part 350~~ (Government National Mortgage Association [\(24 C.F.R. part 350\)](#));
- ~~12 C.F.R. Part 1511~~ (Resolution Funding Corporation);
- ~~31 (12 C.F.R. Part 354 (part 1511)~~
- Student Loan Marketing Association [\(31 C.F.R. part 354\)](#));
- ~~18 C.F.R. Part 1314~~ (Tennessee Valley Authority [\(18 C.F.R. part 1314\)](#));
- [Treasury](#) (31 C.F.R. ~~Part~~[part](#) 357, ~~Subpart B~~ (United States Department of the Treasury [subpart B](#));

**APPENDIX B: FEDWIRE[®] SECURITIES SERVICE OPERATING HOURS
FOR BOOK-ENTRY SECURITIES TRANSFERS [RESERVED]
ON-LINE TRANSFERS**

Opening of the Fedwire[®] Securities Service² 8:30 a.m. (ET)

Closing Time for Transfer Originations² 3:15 p.m. (ET)

Closing Time for Transfer Reversals² 3:30 p.m. (ET)

Closing Time for Repositions Against Payment³ 4:30 p.m. (ET)

Closing Time for Repositions Free of Payment 7:00 p.m. (ET)

OFF-LINE INSTRUCTIONS

Begin accepting instructions 9:00 a.m. (ET)

Cut-off for accepting instructions for current days processing⁴ 1:30 p.m.
(ET)⁵

Cut-off for accepting instructions for future days processing 4:00 p.m. (ET)⁵

² The Reserve Banks may decide, in their sole discretion, to open or close the Fedwire[®] Securities Service at an earlier, or later time to facilitate special market needs.

³ “Reposition against payment” means the transfer of Book-Entry Securities against payment between two accounts of the same Participant.

⁴ An attempt will be made to process Off-line instructions received after the cut-off time, but cannot be guaranteed. The requesting Participant will be notified if the Transfer is not effected.

⁵ A Reserve Bank, in its sole discretion, may extend this cutoff hour.

APPENDIX C: CUSTODY AGREEMENT FOR BOOK-ENTRY STATE, LOCAL, AND TRIBAL COLLATERAL PROGRAM (FEDWIRE SECURITIES JOINT CUSTODY SERVICE)

This ~~Appendix~~appendix sets forth the terms under which ~~this~~a Reserve Bank ~~holds~~marks its books to recognize a security interest in a Book-Entry ~~Securities~~Security in custody ~~for the benefit~~in favor of a state ~~or~~, local, or tribal government (or ~~a unit thereof~~instrumentality of a state or local government) and to ~~which~~enable the ~~securities~~secured party to have ~~been pledged~~been pledged. Unless otherwise agreed in writing between this Bank and a Pledgee, this Appendix applies only to Book-Entry Securities pledged for the purposes specified in Paragraphs 4.3.2(a)(ii) of this Operating Circular (“Circular”). ~~This Appendix constitutes an agreement, as described in the Applicable Regulations, regarding the security interest of a non-Participant in control over that Book-Entry Security in a designated Restricted Securities held by a Participant on the books of this Bank. Each Reserve Bank has issued an Appendix C to Circular No. 7 identical to this one.~~

1.0 Account.

1.0 DEFINITIONS

In addition to ~~the~~the terms defined in the ~~Circular~~body of this operating circular, the terms defined in this ~~Paragraph~~section have the following meanings when used in this ~~Appendix~~appendix:

(a) ~~Applicable Regulations~~ means the regulations of issuers of Book-Entry Securities listed in Appendix A to this Circular.

(b) ~~_____~~

(a) **Collateral Transaction** means ~~the pledge of Book-Entry Securities~~(i) a Transfer by a Pledgor to a ~~Pledgee~~Restricted Securities Account, ~~(ii) the release of a Pledged Securities Security to a Pledgor; or the from a Restricted Securities Account, or (iii) a Transfer by a Pledgor to a Restricted Securities Account in substitution of the same par value amount of new Pledged Securities for existing a Pledged Securities Security that are is to be released to the that Pledgor from that Restricted Securities Account.~~

(b) **Custodial Reserve Bank** means a Reserve Bank described in section 2.1 of this appendix.

(c) **Government Pledgee** means a state, local, or tribal government (or a unit or instrumentality of a state or local government) in favor of which a security interest in a Book-Entry Security has been granted by a Pledgor.

(d) ~~(e)~~ **Pledged Security** means a Book-Entry Security that is held in a Restricted Securities Account for one of the purposes specified in section 4.3.2(a)(2) of this operating circular and in accordance with this appendix.

~~(d)~~ — **Pledgee** means the state or local government or unit thereof, to which Book-Entry Securities have been pledged.

~~(e)~~ —

(e) **Pledgee Agreement** means a written agreement by which a Government Pledgee agrees to the terms of this appendix in the form available on FRBservices.org.

(f) **Pledgor** means the Participant that has ~~pledged the~~ granted a security interest in a Book-Entry ~~Securities~~ Security to a Government Pledgee.

2.0 GOVERNING LAW

~~2.1~~ —

(g) **Restricted Securities Account** means a Restricted Securities Account as defined in Operating Circular 7 and maintained by a Custodial Reserve Bank to recognize a security interest in a Pledged Security granted by a Pledgor in favor of a Government Pledgee.

2.0 ROLE OF RESERVE BANKS; NATURE OF AGREEMENT

2.1. A Custodial Reserve Bank is a Reserve Bank that maintains a Restricted Securities Account to recognize a security interest in a Pledged Security granted by a Pledgor in favor of a Government Pledgee.

2.2. This appendix constitutes an agreement by the Custodial Reserve Bank to recognize a security interest granted by a Pledgor in favor of a Government Pledgee with respect to Pledged Securities in a Restricted Securities Account on the books of the Custodial Reserve Bank. A Government Pledgee has control of a Pledged Security in a Restricted Securities Account, and the security interest granted to the Government Pledgee has priority over any other interest in the Pledged Security other than a security interest in favor of the United States.

2.3. Reserve Banks other than the Custodial Reserve Bank may act as agents of the Custodial Reserve Bank in connection with the services provided by the Custodial Reserve Bank under this appendix. Despite this, this agreement is solely between the Custodial Reserve Bank, the Pledgor, and the Government Pledgee.

3.0 APPLICABLE LAW; WARRANTIES

- 3.1. The Custodial Reserve Bank provides ~~custodial~~ services in accordance with ~~Paragraph 4.3.2(a)(ii) of the Circular and this Appendix~~this operating circular, this appendix, and the Applicable Regulations. The Custodial Reserve Bank's rights and obligations in providing ~~custodial~~these services ~~pursuant to this Appendix~~ are governed solely by ~~the Circular~~this operating circular, this ~~Appendix~~appendix, and the Applicable Regulations.
- 3.2. ~~2.2~~ The Pledgor and the Government Pledgee each warrant ~~that a pledge of Book Entry Securities marked on the books of the Bank under the provisions of this Appendix to the Custodial Reserve Bank that any security interest granted by the Pledgor in Pledged Securities is in accordance with applicable law. If any provision of~~The Government Pledgee shall ensure that the location of the Restricted Securities Account and the Pledgor each meet all geographic requirements imposed by applicable law.
- 3.3. Provisions of state, local, or tribal law that are inconsistent with, or in addition to, the provisions of this appendix, and any bond, pledge, security, or ~~pledge~~other agreement between the Pledgor and ~~Pledgee, or any subsequent waiver, modification~~the Government Pledgee are not binding on the Custodial Reserve Bank unless the Custodial Reserve Bank otherwise agrees in writing to be so bound. If any such bond, pledge, security, or other agreement or any subsequent waiver, modification, or amendment of such agreement, imposes any such agreement, imposes duties on ~~this~~the Custodial Reserve Bank that are inconsistent with ~~the provisions of this Appendix, the provisions of appendix, this Appendix~~appendix is to govern. Provisions of state law that are inconsistent with, or in addition to, the provisions of this Appendix are not binding on this Bank unless otherwise agreed in writing.
- 3.4. ~~2.3~~ Under the Applicable Regulations, the security interest of a Pledgee is perfected by this Bank's marking the security interest on its books, and the security interest ~~has priority over any other interest in the Pledged Securities, other than a security interest of the United States.~~

~~3.0 ESTABLISHMENT OF RESTRICTED SECURITIES ACCOUNT~~

- ~~3.1~~ — This Bank will establish a Restricted Securities Account for the benefit of a Pledgee once the Pledgee has agreed to the terms of this Appendix and has provided such other information as may be required by the Bank. Existing Pledgees may be required to execute a new agreement with the Bank but, in the absence of such new agreement, are deemed to have agreed to the provisions of this Appendix by continuing to hold Pledged Securities with the Bank. Forms for this purpose are available from the Bank.
- ~~3.2~~ —

4.0 AGREEMENT TO TERMS OF APPENDIX

- 4.1. A state, local, or tribal government (or a unit or instrumentality of a state or local government) that seeks to become a Government Pledgee shall enter into a Pledgee Agreement and provide such other information as the Custodial Reserve Bank may require.
- 4.2. By permitting the Pledgor to initially hold, or continue to hold, Pledged Securities with the Custodial Reserve Bank in favor of a Government Pledgee, the Government Pledgee is deemed to have agreed to the terms of this appendix as it may be amended from time to time and to the terms of the Pledgee Agreement required under section 4.1 of this appendix as that agreement may be amended from time to time.
- 4.3. By initiating a Collateral Transaction, a Pledgor agrees to ~~all the provisions~~ terms of this ~~Appendix, appendix~~ as it may be amended from time to time.

5.0 ~~4.0~~ COLLATERAL TRANSACTIONS

- 5.1. ~~4.1~~ A Collateral Transaction is initiated by the Pledgor and, except for ~~the pledge of new Pledged~~ a Transfer to a Restricted Securities Account or as noted in section 5.2 of this appendix, requires the prior approval of the Government Pledgee ~~or its authorized representative~~.
- 5.1.1 Collateral Transaction requests and ~~Pledgee authorization~~ the approval of such requests by Government Pledgees are subject to verification ~~procedures~~ by the ~~Bank specifies from time to time~~ Reserve Banks.
- 5.1.2 For purposes of this section 5.2 and any standing written instructions provided in a Pledgee Agreement, the Custodial Reserve Bank may use the book value of a Book-Entry Security at the time of substitution
- 5.1.3 ~~4.2~~ If a Pledged Security is unacceptable as collateral to a Pledgee, the Pledged Security will not be released to the Pledgor without the authorization of the Pledgee.—The Custodial Reserve Bank assumes no responsibility ~~to determine if~~ for determining whether a Pledged Security is acceptable to the Government Pledgee ~~or for assessing the collateral value of a Pledged Security subject to a Collateral Transaction~~.
- 5.2. ~~4.3~~ A Government Pledgee may provide the Custodial Reserve Bank with written standing instructions in the Pledgee Agreement to permit ~~substitutions of like par value~~ a Pledgor to substitute Book-Entry Securities with par amounts equal to or greater than the par amounts of Pledged Securities ~~without the consent~~ that are maturing, are paid off, or called for

redemption in full, or are to be otherwise withdrawn from the Restricted Securities Account.

5.2.1 If the Government Pledgee has provided such written standing instructions, the Custodial Reserve Bank has no obligation to obtain further approval of the Government Pledgee.~~A before permitting the substitution transaction involving a lesser par value amount of.~~

5.2.2 The Pledgor must Transfer the substitute Book-Entry Securities to the Restricted Securities Account on the same Securities Business Day as Pledgor makes the request to substitute Pledged Securities ~~requires Pledgee~~ to the Custodial Reserve Bank.

5.2.3 The Custodial Reserve Bank shall obtain the authorization ~~for~~ of the Government Pledgee to release of Pledged Securities.~~In, or the case proceeds of a substitution involving an Amortizing Pledged Securities retained by the Custodial Reserve Bank in accordance with section 6.0 of this appendix, if the Pledgor is seeking to substitute Book-Entry Security, Securities with par value refers to the outstanding book value of the Book-Entry Security at the time of a substitution transaction amounts less than the par amounts of the Pledged Securities.~~

5.3. ~~4.4 The Bank issues a confirmation~~ On each Securities Business Day on which there is a Collateral Transaction, the Custodial Reserve Bank sends an end-of-day statement to the Government Pledgee and the Pledgor. The Custodial Reserve Bank also sends an Advice for each Collateral Transaction. ~~The confirmation is conclusive evidence of the Collateral Transaction reflected therein to the Pledgor.~~

6.0 ~~5.0~~ **INTEREST PAYMENTS AND OTHER PROCEEDS**

~~5.1 Pursuant to Paragraph 9.2.1 of the Circular, the Bank credits payments of interest on the Pledged Securities to the Pledgor until the Bank receives (i) a written certification from the Pledgee or its authorized representative that the Pledgor is in default under any underlying pledge or security agreement between the Pledgor and the Pledgee, and (ii) written instructions directing the Bank to hold the interest payments. The Bank holds the interest payments in a non-interest-bearing account until collected in accordance with Paragraph 6 of this Appendix.~~

~~5.2 The~~

6.1. Unless and until the Custodial Reserve Bank receives the written certification referenced in section 7.1 of this appendix, it credits payments of principal and interest (including upon any call for redemption in part) in

accordance with section 10.2.2 of this operating circular except as otherwise provided in this section 6.0.

6.2. In accordance with section 10.2.1 of this operating circular, the Custodial Reserve Bank may hold the principal amount of Pledged Securities (other than Pledged Securities that are Amortizing Pledged Securities or that are callable for redemption in part) that mature or are called for redemption in full in a non-interest-bearing account, ~~as permitted by Paragraph 9.3.1 of the Circular,~~ until the earliest of the following:

- ~~(a)~~ (a) Book-Entry Securities are deposited in substitution for the principal substituted, in accordance with Paragraph 4.3 section 5.2 of this Appendix appendix, for the principal;
- ~~(b)~~ (b) the principal is released in accordance with the authorization of the Government Pledgee; and
- ~~(c)~~ (c) the principal is collected by the Pledgee in accordance with Paragraph 6 section 7.0 of this Appendix appendix.

6.3. **5.3** On the day a Pledged Security that is an Amortizing Book-Entry Security or a Book-Entry Security that is callable for redemption in part is to be paid off or called for redemption in full, the Custodial Reserve Bank shall debit the Pledgor's Master Account or its Correspondent's Master Account for the amount of the proceeds to be paid to the Pledgor before the opening of the Fedwire Securities Service for the amount of principal to be paid to the Pledgor and hold that amount in a non-interest-bearing account until the earliest of the following:

- (a) Book-Entry Securities are deposited in substitution substituted, in accordance with Paragraph 4.3 section 5.2 of this Appendix appendix, for the Pledged Security that was paid off or called for redemption in full;
- (b) that amount is the proceeds are released in accordance with the authorization of the Government Pledgee; and
- (c) that amount is collected by the Pledgee in accordance with Paragraph 6 of this Appendix. The Bank credits the principal of a Pledged Security that is to be paid off to the Pledgor's Master Account in accordance with Paragraph 9.3.1 of the Circular. If that credit is not made by 4:30 p.m. ET on the day the Pledged Security is to be paid off, the Bank shall debit from the non-interest-bearing account the amount previously debited from the Pledgor's Master Account under this paragraph and recredit that amount to the Pledgor's Master Account that same day. the proceeds

are collected in accordance with section 7.0 of this appendix.

~~6.0~~

7.0 COLLECTION OF PLEDGED SECURITIES AND PROCEEDS

7.1. ~~6.1~~ ~~If~~ Upon receiving a written certification from the Government Pledgee ~~or its authorized representative certifies in writing to the Bank that~~ (i) the Pledgor is in default under any underlying bond, pledge or security, or other agreement between the Pledgor and the Government Pledgee; and ~~certifies that~~ (ii) the Government Pledgee has satisfied any notice or other requirement to which ~~the Pledgee~~ it is subject, the Custodial Reserve Bank shall comply with instructions from only the Government Pledgee may instruct the Bank in writing to transfer specific amounts and issues in respect of the Restricted Securities Account without further consent by the Pledgor, including any written instruction to make a Transfer of Pledged Securities and, if applicable, specific amounts of or interest payments or other proceeds of Pledged Securities not previously credited to the Pledgor or otherwise released, to designated accounts on the books of ~~this~~ the Custodial Reserve Bank or another Reserve Bank.

~~6.2~~ — Promptly after receiving such certifications and instructions, the Bank will make the transfer instructed by the Pledgee.

~~6.3~~ —

7.2. The Custodial Reserve Bank ~~is not required to obtain the consent of the Pledgor for any such transfer and~~ assumes no responsibility ~~for determining to investigate or determine~~ the validity of ~~a Pledgee's declaration of the Pledgor's default~~ (i) the written certification described in section 7.1 of this appendix or of (ii) the underlying bond, pledge or security, or other agreement between the Pledgor and the Government Pledgee. The Custodial Reserve Bank may conclusively rely upon the certification described in section 7.1 and will have no liability to the Pledgor for complying with an instruction originated by the Government Pledgee following receipt by the Custodial Reserve Bank of such certification.

7.0 PROHIBITED ACTS

~~7.1~~ — Notwithstanding any other provision of this Appendix or the Circular to the contrary, the Bank is not required to perform any act directed or required by the Pledgee if the ~~Bank is prohibited from performing the act by law or by court order.~~

8.0 LIMITATIONS ON 8.0 RESERVE BANK'S LIABILITY AND DUTIES

- 8.1.** ~~8.1~~ ~~The~~ Except as otherwise specifically provided in this appendix, the Custodial Reserve Bank is liable only for the actual direct loss sustained by a Government Pledgee or a Pledgor only to the extent such loss is proximately caused by the Custodial Reserve Bank's failure to exercise ordinary care or act in good faith in performing its duties under this ~~Appendix~~ appendix. In no event ~~shall~~ is the Custodial Reserve Bank to be liable for consequential, indirect, incidental, or special damages (including lost profits), however derived, and regardless of whether ~~the Reserve Bank~~ it has been informed of the possibility ~~thereof~~. ~~Both the~~ of such ~~damages~~. ~~Except to the extent prohibited by law, the Government~~ Pledgee and the Pledgor ~~release and forever discharge the Bank from all other claims, demands, and liability of the Pledgee or the Pledgor, or both, in connection with the Bank's performance of its duties under this Appendix and~~ each shall defend, indemnify and hold the Custodial Reserve Bank for harmless from any ~~claims of other parties, claim, loss, liability, cost, or expense~~ (including ~~costs~~ but not limited to expense of litigation and ~~reasonable~~ attorneys' fees, ~~with respect~~) by any person or incurred by the Custodial Reserve Bank arising from or related to the Pledged Securities ~~held by~~ the ~~Bank's~~ services provided under this appendix, or the acts or omissions of the Government Pledgee or the Pledgor in connection with those services.
- 8.2.** Notwithstanding any other provision of this appendix or this operating circular to the contrary, neither Custodial Reserve Bank nor any other Reserve Bank is required to perform any act directed or required by the Government Pledgee if that Reserve Bank is prohibited from performing that act by law or by court order.
- 8.3.** ~~8.2~~ In particular, but not exclusively, the Custodial Reserve Bank has no duty to:
- (a) ~~(a)~~ act as escrow agent or in any other capacity not expressly provided for in this ~~Appendix~~ appendix;
 - (b) ~~(b)~~ determine the validity of the ~~pledge of securities by the Pledgor to the Pledgee~~ Government Pledgee's security interest in a Pledged Security, including whether any required bond, pledge, ~~or~~ security, or other agreement has been executed;
 - (c) ~~(c)~~ monitor the value of a Pledged Security, ~~or~~ (including any decline in the ~~declining~~ book value of a ~~pay-down~~ Pledged Security that is an Amortizing Book-Entry Security ~~subsequent to its pledge,~~) or ensure that the type, amount, or value of a Pledged Security is that which is required under state ~~or~~ local, or tribal law;

- (d) ~~(d)~~ verify ownership, validity, or legality of the Pledged ~~Securities~~Security;
- (e) ~~(e)~~ pay assessments as provided under state-~~or~~, local, or tribal law;
- (f) ~~(f)~~ give notice of maturity, call, exchange offer, or the like, affecting the Pledged ~~Securities~~Security;
- (g) ~~(g)~~ carry insurance against loss of the Pledged ~~Securities~~Security; or
- (h) ~~(h)~~ inquire into the existence or continuance of the powers or authority of ~~a public official who is~~ the Government Pledgee-~~or~~ of a person who is acting for the Government Pledgee-~~or the successors in office to~~, or ~~any of a~~ person who has been represented to the Custodial Reserve Bank as authorized to act on behalf of the Government Pledgee. ~~—However~~

8.4. Notwithstanding clause (h) of section 8.3 of this appendix, the Custodial Reserve Bank may require a certificate from the proper authority showing that the public official, ~~or any other~~ person ~~represented to the Bank as authorized to act on behalf of the Pledgee, in question~~ is and continues to be ~~so~~ authorized to act on behalf of the Government Pledgee.

8.5. In accordance with section 2.3 of this appendix, no Reserve Bank other than the Custodial Reserve Bank is liable for any loss or damage arising from or relating to this appendix, even if that Reserve Bank performs certain functions in connection with the services provided by the Custodial Reserve Bank.

9.0 ~~9.0~~-DISPUTES

In the event of notice of a conflicting third-party claim with respect to Pledged Securities, the Custodial Reserve Bank may hold the Pledged Securities, ~~including and any~~ interest and proceeds, arising from the Pledged Securities pending settlement of the dispute, either by agreement of the parties or by order of a court of competent jurisdiction.

10.0 ~~10.0~~ TERMINATION OF AGREEMENT OR PLEDGE PLEDGED SECURITIES ACCOUNT; EFFECT OF MERGERS AND OTHER TRANSACTIONS

10.1. ~~10.1~~ The Custodial Reserve Bank or the Government Pledgee may terminate this ~~Agreement~~agreement and close any Restricted Securities Account established under this ~~Appendix~~appendix by giving not less than 30 calendar days' advance written notice of termination to the other party and to the Pledgor.

~~10.2~~ The ~~Bank~~Pledgor may terminate this agreement and close any Restricted Securities Account established under this appendix by giving not less than 30 calendar days' advance written notice of termination to the Custodial Reserve Bank and Government Pledgee and subject to approval of the Government Pledgee. If a party exercises its rights to terminate this agreement in accordance with this section 10.1, all Restricted Securities Accounts with established under this appendix with respect to such party are automatically closed.

10.2. If this agreement is terminated and a Restricted Securities Account is to be closed in accordance with section 10.1 of this appendix, the Custodial Reserve Bank will release Pledged Securities held ~~by the Bank~~in that Restricted Securities Account to the Pledgor at the end of the ~~30-day~~relevant notice period. However, if, within ~~the 30-day~~that notice period, the Custodial Reserve Bank ~~(a)~~ receives (a) written instructions from the Pledgor to otherwise ~~dispose of~~transfer the Pledged Securities in the Restricted Securities Account that is to be closed and (b) the Government Pledgee's ~~separate~~ written approval ~~thereof~~of the instructions described in clause (a), the Custodial Reserve Bank will ~~dispose of~~transfer the Pledged Securities in accordance with ~~these~~those instructions, which may be prior to the end of the notice period.

~~10.3~~ ~~If, by reason of a merger or otherwise, a Pledgor's Book-Entry Securities account is transferred to another Reserve Bank, the Pledged Securities held by this Bank will be transferred to the other Reserve Bank, with 30 calendar days prior notice to affected Pledgees. If Pledged Securities are transferred to this Bank pursuant to this provision, this Bank will hold the Pledged Securities pursuant to the terms of this Appendix and the existing Pledgee Agreement with the transferor Reserve Bank but may require a new Pledgee agreement.~~

~~11.0 FEES~~

~~The Pledgor shall pay any fees for services provided under this Appendix, as announced by the Bank from time to time.~~

12.0 AMENDMENT

~~The Reserve Banks reserve the right to amend this Appendix at any time without prior notice.~~

10.3. Mergers or other corporate transactions involving a Pledgor may result in the Custodial Reserve Bank no longer being eligible under Federal Reserve policy to maintain a Restricted Securities Account for that Pledgor. In such situations, the Reserve Banks may close the Restricted Securities Account of the Pledgor at that Custodial Reserve Bank and may establish a new Restricted Securities Account for the Pledgor (or its successor in interest) at another Reserve Bank, which thereupon becomes the Custodial Reserve Bank for purposes of this appendix. The Reserve Banks may also transfer any Pledged Securities in the Restricted Securities Account being closed to the Restricted Securities Account at the new Custodial Reserve Bank, which holds such Pledged Securities pursuant to the terms of this appendix. If the Reserve Banks become aware of a merger or other corporate transaction that may result in a change in the identity of the Custodial Reserve Bank, they shall notify affected Government Pledgees with as much advance notice as practicable.

10.4. If the location of the Restricted Securities Account or the Pledgor cease to meet any geographic requirements imposed by applicable law, whether by reason of a merger of the Pledgor into another institution or otherwise, the Government Pledgee shall terminate this agreement in accordance with section 10.1 of this appendix. The Custodial Reserve Bank has no responsibility for determining whether any such geographic requirements have been or continue to be met and has no liability whatsoever if they have not been.

APPENDIX D: AUTOMATED CLAIM ADJUSTMENT PROCESS FOR MORTGAGE-BACKED BOOK-ENTRY SECURITIES: FAIL TRACKING, REPO TRACKING AND INTERIM ACCOUNTING

This ~~Appendix~~appendix sets forth the terms under which ~~at the~~ Reserve ~~Bank offers~~Banks offer a process for ~~Automated Claim Adjustment for mortgage-backed securities~~handling adjustments of principal and/or interest payments on Book-Entry Securities as ~~the result of fail tracking, repo tracking, and interim accounting services.~~

1.0 ~~1.0~~ DEFINITIONS

~~1.1~~ As used in this Appendix:

(a)

1.1. In addition to terms defined in the body of this operating circular, terms defined in this section have the following meanings when used in this appendix:

(a) **ACAP** means the automated ~~Claim Adjustment~~claim adjustment process ~~as~~ set forth in this ~~Appendix D~~appendix.

(b) ~~(b)~~ **ACAP Account** means the account that the Reserve Banks use to effect ~~transfers~~debits and credits to Participants' Master Accounts in connection with ~~Claim Adjustments~~Claims.

(c) ~~(c)~~ **Aggregate Amount** or **Aggregate Amount of Claims** means the net debit or credit amount of all Claims payable on a particular ~~banking day~~Securities Business Day with respect to a Participant's Securities Account as a Sender or Receiver for Transfers as reported by the Reserve ~~Bank~~Banks in a notification to the Participant pursuant to ~~Paragraphs 2.3, sections 3.4, and 4.3 hereof~~5.0 of this appendix.

(d) ~~(d)~~ **Beneficiary Date** means the date on which the interest ~~accrual~~ period for a Book-Entry Security ends.

~~(e) Book-Entry Security or Security means, for the purposes of this Appendix, a book-entry security as defined in OC7 for which the Reserve Banks offer Fail Tracking, Repo Tracking, or Interim Accounting services.~~

(f)

(e) **Claim** means the amount that is to be debited ~~to~~from one Participant's or its Correspondent's Master Account and credited

to another Participant's or its Correspondent's Master Account as the result of Fail Tracking, Repo Tracking, or Interim Accounting services.

~~(g) **Claim Adjustment** means the process in which the Reserve Bank credits or debits a Participant's Master Account or the Master Account of its correspondent to settle Claims arising from Transfer Messages that invoke Fail Tracking, Repo Tracking, or Interim Accounting services.~~

~~(h) **Contra** means the counter party on a Transfer Message that includes a Repo Tracking indicator, i.e. the Sender is the Contra of the Receiver and vice versa.~~

~~(i)~~

(f) **Contra** means, with respect to a given Participant, the other Participant affected by Repo Tracking.

(g) **Contract Date** means the date specified by the Sender in a Transfer Message as the date agreed upon for settlement of the Transfer.

(h) ~~(j)~~ **Fail Tracking** means the process in by which the Reserve Bank ~~identifies~~ Banks determine whether a Transfer ~~with~~ is a Settlement Date after the specified Contract Date as specified in the associated Transfer Message. Fail Transaction and, if so, by which they identify, calculate, and settle any Claims.

(i) **Fail Transaction** means a Transfer with a Settlement Date after the Contract Date specified by the Sender in the associated Transfer Message.

(j) ~~(k)~~ **Interim Accounting** means the process in by which the Reserve Bank ~~identifies~~ Banks determine whether a Transfer ~~Message with a Settlement Date after the~~ is an Interim Accounting Transaction and, if so, by which they identify, calculate, and settle any Claims.

(k) **Interim Accounting Transaction** means a Transfer of a Book-Entry Security whose Record Date and on or before the differs from its Beneficiary Date ~~and processes Claim Adjustments on that basis.~~

(l) ~~(l)~~ **Payment Date** means the date established by the Issuer on which payments of principal and/or interest are to be made with respect to a Book-Entry Security.

(m) ~~(m)~~ **Record Date** means the date established by the ~~issuer of a Book-Entry Security Issuer~~ on which ~~the holder of record is~~ Participants are identified ~~for the payment of~~ as being entitled to be paid principal and/or interest with respect to a Book-Entry Security.

~~(n)~~ **Repo**

(n) **Repo Balance** means a Repo-In Balance or Repo-Out Balance.

(o) **Repo-In Balance** means the record created by the Fedwire Securities Service for a Participant that reflects the ~~securities~~ par amount of Book-Entry Securities subject to Repo Tracking received by ~~that~~ Participant ~~and~~ from a Sender but not yet ~~transferred back~~ returned to that Sender.

(p) ~~(o)~~ **Repo -Out Balance** means the record created by the Fedwire Securities Service for a Participant that reflects the ~~securities~~ par amount of Book-Entry Securities subject to Repo Tracking sent by ~~that~~ Participant ~~and~~ to a Receiver but not yet ~~received back~~ returned by that Receiver.

(q) ~~(p)~~ **Repo Tracking** means the process in by which the Reserve ~~Bank records~~ Banks record and ~~maintains balances that reflect the securities transferred using a Repo Tracking Indicator that are held in a Participant's Securities Account, as well as the calculation and processing of Claim Adjustments~~ maintain Repo Balances and identify, calculate, and settle Claims based on those ~~balances~~ Repo Balances.

(r) ~~(q)~~ **Repo Tracking Indicator** means the field- tag contained in a Transfer Message that identifies that ~~message~~ Transfer as ~~eligible for~~ subject to Repo Tracking ~~services~~ and instructs the Reserve ~~Bank~~ Banks to ~~augment~~ increase or ~~reduce~~ decrease the ~~Repo-In and Repo-Out~~ Balances of the Sender and Receiver.

(s) **Repo Transaction** means a Transfer that results from a repurchase agreement transaction that causes a Sender to transfer a Book-Entry Security to a Receiver in exchange for payment subject to an agreement under which the Book-Entry Security will be transferred back to the original Sender on a later date at an agreed upon price.

(t) ~~(r)~~ **Settlement Date** means the date on which the Reserve ~~Bank processes~~ Banks settle a Transfer-~~Message (also known as the clearance date)~~.

~~1.2 Defined terms used in this Appendix that are not defined in section 1.1 hereof have the meanings set forth in Operating Circular 7.~~

~~2.0~~

2.0 FAIL TRACKING

2.1. ~~2.1~~ 2.1 ~~AVAILABILITY,~~ INITIATION, AND AUTHORIZATION OF SERVICE

2.1.1 ~~Fail Tracking is available to Participants when a Sender has failed to transfer a Book-Entry Security to another Participant on the Contract Date.~~

2.1.2 ~~2.1.1~~ A Sender ~~invokes~~ of a Transfer may initiate Fail Tracking ~~services~~ to cause the Reserve Banks to transfer principal and/or interest to the Receiver of the Transfer. The Sender initiates Fail Tracking with respect to a Book-Entry Security by sending a Transfer Message that includes a Contract Date in accordance with the format prescribed by the Reserve Banks. ~~The Fail Tracking service is not available for a Transfer Message indicating that the Transfer is to be identified as a repurchase agreement.~~

2.1.3 ~~2.1.2~~ By including a Contract Date in the prescribed format in a Transfer Message, the Sender authorizes and instructs the Reserve ~~Bank~~ Banks to perform Fail Tracking ~~services~~ with respect to ~~the~~ that Transfer. By receiving a Transfer Message containing a Contract Date, the Receiver authorizes and instructs the Reserve Banks to perform Fail Tracking with respect to that Transfer. The Fail Tracking services so authorized by the Sender and Receiver include (i) determining whether the Transfer is a Fail Transaction in accordance with section 2.2.1 of this appendix, (ii) identifying a Claim and calculating Claims, if any, in accordance with Paragraph section 2.2 hereof of this appendix, and (iii) settling the Aggregate Amount of Claims, if any, in accordance with Paragraph 5.0 section 6.0 of this Appendix.

~~2.1.3~~ If the appendix. A Sender uses a correspondent pursuant to Paragraph 5.3 of Operating Circular 7, the Sender warrants that it has instructed and authorized its correspondent to accept any debit or credit Aggregate Amounts in accordance with Paragraph 5.0 hereof's initiation of Fail Tracking is not determinative of whether the Transfer is a Fail Transaction or if it is a Fail Transaction, whether a Claim will result.

2.1.4 If a Transfer Message includes a Repo Tracking Indicator, Fail Tracking will not occur.

2.2. ~~2.2 FAIL TRACKING~~ CLAIM IDENTIFICATION AND DETERMINATION OF AGGREGATE AMOUNT OF CLAIMS

2.2.1 ~~2.2.1~~ For each Transfer Message that ~~invokes~~ initiates Fail Tracking in accordance with section 2.1.3 of this appendix (subject to section 2.1.4 of this appendix), the Reserve ~~Bank~~ Banks shall determine whether the ~~Settlement Date is later than the Contract Date specified in the~~ Transfer Message is a Fail Transaction. ~~When~~ If the ~~Settlement Date is later than the specified Contract Date~~ Transfer is a Fail Transaction, the Reserve ~~Bank~~ shall deem the Transfer to be a fail transaction.

2.2.2 ~~The Reserve Bank~~ Banks shall identify ~~for adjustment and calculate~~ a Claim ~~in a fail transaction~~ for each Beneficiary Date ~~falling on or, if any, that falls~~ after the Contract Date but on or before the Settlement Date. ~~A~~ No Claim ~~shall not~~ will be identified, however, for a Beneficiary Date with an associated Payment Date that is more than six months before the Settlement Date.

2.2.2 ~~2.2.3~~ For ~~a~~ each Beneficiary Date with an associated Payment Date ~~prior to that falls on or before~~ the Settlement Date (i.e., principal and/or interest on the Book-Entry Security was already paid to the Sender), the Reserve Bank shall ~~process~~ settle a Claim ~~Adjustment~~ on the next ~~banking day~~ Securities Business Day after the Settlement Date. For ~~a~~ each Beneficiary Date with an associated Payment Date ~~subsequent to that falls after~~ the Settlement Date (i.e., principal and/or interest has not yet been paid on the Book-Entry Security), the Reserve Bank shall ~~process~~ asettle the Claim ~~Adjustment~~ on that Payment Date.

~~2.2.4~~ The amount of a Claim shall be

2.2.3 The Receiver of a Transfer can reverse the effect of a Claim with respect to a Fail Transaction only by sending a separate Transfer of the same Book-Entry Security to the original Sender with (i) the same Contract Date in the Transfer Message as the original Transfer Message and (ii) a Settlement Date in the Transfer Message that is on or after the Settlement Date in the original Transfer Message and before the next Beneficiary Date for the Book-Entry Security.

2.2.4 Each Claim equals the amount of principal and/or interest on the Book-Entry Security paid or payable ~~on the Beneficiary Date with respect to the transferred Book-Entry Securities~~ in accordance with section 2.2.1. The amount of the Claim will not include any penalty or fees associated with the failed transaction agreed to in any

underlying agreement between the Participants or their customers.

~~2.2.5~~ ~~2.2.5~~ The Reserve ~~Bank~~Banks shall aggregate the amount of the Claims to be debited with respect to a Participant's Securities Account as Sender with the amount of the Claims to be credited with respect to the same Participant's Securities Account as Receiver to determine the Aggregate Amount of Claims with respect to that Participant's Securities Account for that ~~banking~~day.

2.3 NOTIFICATION OF CLAIMS

~~2.3.1~~ The Reserve Bank shall provide notice of a Claim pursuant to this Paragraph 2.3 to each Participant affected by that Claim.

~~2.3.2~~ The notice shall include: the date of the Claim Adjustment; the amount of each Claim, identifying the Transfer Message to which it pertains; and the Aggregate Amount of Claims, whether debit or credit, for that Participant's Securities AccountBusiness Day.

~~2.3.3~~ The Reserve Bank shall provide notice hereunder to a Participant using the same medium by which it notifies the Participant of immediate principal and interest.

3.0

3.0 REPO TRACKING

3.1. ~~3.1~~AVAILABILITY, INITIATION, AND AUTHORIZATION OF SERVICE

3.1.1 Repo Tracking is available to Participants that desire the Reserve Banks to record and maintain Repo Balances.

3.1.2 ~~3.1.1~~ A Sender ~~invokes~~of a Transfer may initiate Repo Tracking ~~services~~to cause the Reserve Banks to transfer to it principal and/or interest credited to another Participant. A Sender initiates Repo Tracking by sending a Transfer Message that includes a Repo Tracking Indicator, in accordance with the format prescribed by the Reserve Banks.

~~3.1.2~~ The

3.1.3 By including a Repo Tracking Indicator in the prescribed format in a Transfer Message, the Sender authorizes and instructs the Reserve ~~Bank to record and maintain Repo In and Repo Out~~Banks to perform Repo Tracking with respect to the Transfer. By receiving a Transfer Message containing a Repo Tracking Indicator and not sending either a Transfer Message reversing

that Transfer or a nonvalue Message unwinding the associated Repo Balances, the Receiver authorizes and instructs the Reserve Banks to perform Repo Tracking with respect to that Transfer. The Repo Tracking services so authorized by the Sender and Receiver include (i) identifying the Transfer as a Repo Transaction, (ii) recording and maintaining Repo Balances for the Sender and Receiver, and to initiate the corresponding Claim Adjustment process.

~~3.1.3 If the Sender uses a correspondent pursuant to Paragraph 5.3 of Operating Circular 7, the Sender warrants that it has instructed and authorized its correspondent to accept any debit or credit Aggregate Amounts in accordance with Paragraph 5.0 hereof.~~

3.2- in accordance with section 3.2 of this appendix, (iii) identifying and calculating Claims in accordance with section 3.3 of this appendix, and (iv) settling the Aggregate Amount of Claims in accordance with section 6.0 of this appendix.

3.2. REPO BALANCE RECORD-KEEPING

3.2.1 3.2.1 The Participants may use the following Repo Tracking Indicator used Indicators in a Transfer Message instructs Messages, in accordance with the format prescribed by the Reserve Bank Banks, to augment or reduce the Repo balances for a Sender and Receiver as follows authorize and instruct the Reserve Banks to increase or decrease Repo Balances:

3.2.1.1. 3.2.1.1 The A Participant uses the Repo Start field- tag [22F:RPST] indicates that a particular in a Transfer Message to indicate that a Transfer is part of a Repo transaction Transaction. Use of the Repo Start field- tag causes the Sender's Repo _Out Balance to increase and the Receiver's Repo _In Balance to increase, in each case by the par amount of the Transfer.

3.2.1.2. 3.2.1.2 The A Participant uses the Repo Start Reversal field- tag [22F:RPRV] reverses a previous Transfer Message containing in a Transfer Message to reverse a Transfer whose associated Transfer Message contained a Repo Start fieldtag field tag. Use of the Repo Start Reversal field- tag causes the Sender's Repo _In Balance of the Sender of the Transfer Message containing the Repo Start Reversal field tag to decrease and the Receiver's Repo _Out Balance of the Receiver of that Transfer Message to decrease, in each case by the par amount of the reversing Transfer.

3.2.1.3. ~~3.2.1.3 The~~ A Participant uses the **Repo Close** field- tag [22F:CLRP] ~~indicates that the~~ in a Transfer Message is part to transfer a Book-Entry Security back to the original Sender of a Repo transaction Transaction. Use of the Repo Close field- tag causes the ~~Sender's~~-Repo -In Balance of the Sender of the Transfer Message containing the Repo Close field tag to decrease and the ~~Receiver's~~-Repo -Out Balance of the Receiver of that Transfer Message to decrease, in each case by the par amount of the Transfer.

3.2.1.4. ~~3.2.1.4 The~~ A Participant uses the **Repo Close Reversal** field- tag [22F:CLRV] ~~reverses in a previous~~-Transfer Message containing to reverse a Transfer whose associated Transfer Message contained a Repo Close field tag field tag. Use of the Repo Close Reversal field- tag causes the ~~Sender's~~-Repo -Out Balance of the Sender of the Transfer Message containing the Repo Close Reversal field tag to increase and the ~~Receiver's~~ Repo -In Balance of the Receiver of that Transfer Message to increase, in each case by the par amount of the reversing Transfer.

3.2.1.5 The

3.2.2 A Participant, whether the original Sender or Receiver in a Repo Transaction, may also use a nonvalue Message to adjust Repo Balances without transferring a Book-Entry Security. A nonvalue Message containing a Repo Tracking Indicator is subject to the limit on Transfers set forth in section 11.2.1 of this operating circular even though it is not a Transfer Message. Participants may use the following Repo Tracking Indicators, in accordance with the format prescribed by the Reserve Banks, in nonvalue Messages to authorize and instruct the Reserve Banks to increase or decrease Repo Balances:

3.2.2.1. A Participant uses the **Repo Balance Only Adjustment** field- tag [22F:ADRP] ~~indicates that a previous Transfer Message should have contained a Repo Start field tag.~~ Use of the ~~Repo Balance Only Adjustment field tag~~ causes in a Nonvalue Message to cause the Sender's Repo -Out Balance to increase and the Receiver's Repo -In Balance to increase. ~~The Repo Balance Only Adjustment field tag is subject to,~~ in each case by the current par transfer limit (\$50,000,000) amount indicated

in the Nonvalue Message, but no Book-Entry Securities are transferred.

3.2.1.6 The Repo Balance Only Adjustment field tag might be used to indicate that an already completed Transfer was a Repo Transaction and that the associated Transfer Message should have contained a Repo Start field tag.

3.2.2.2. A Participant uses the Repo Balance Only Adjustment Reversal field- tag [22F:ADRV] reverses a previous Transfer Message containing a Repo Balance Only Adjustment field tag. Use of the Repo Balance Only Adjustment Reversal field-tag causes in a Nonvalue Message to cause the Sender's Repo In Balance to decrease and the Receiver's Repo Out Balance to decrease, in each case by the par amount indicated in the Nonvalue Message, but no Book-Entry Securities are transferred. The Repo Balance Only Adjustment Reversal field- tag is subject to the current par transfer limit (\$50,000,000).

~~3.2.2~~ The Fedwire® Securities Service Securities System will not process any might be used to reverse the effect of a previous nonvalue Message containing a Repo Balance Only Adjustment field tag or to indicate that a previous Transfer Message should have contained a Repo Close field tag.

3.2.3 Any Message with a Repo Tracking instruction Indicator that has the effect of creating a negative Repo balance Balance for any Participant will be rejected by the Fedwire Securities Service.

3.3. 3.3 CLAIM IDENTIFICATION AND DETERMINATION OF AGGREGATE AMOUNT OF CLAIMS

3.3.1 ~~3.3.1~~ On each Record Date, the Reserve Bank processes Banks shall identify and calculate a Claim Adjustment for on behalf of each Participant with a positive Repo Balance.

~~3.3.2~~ A Claim Adjustment results in a debit to the Securities Account of a Participant with a net amount due as a result of a positive Repo In Balance and a credit to the Securities Account of the Participant with a net amount due as a result of a positive Repo Out Balance.

~~3.3.3~~ The amount of Out Balance for a particular Book-Entry Security with respect to each Contra of the Participant.

3.3.2 Each Claim shall be equals the amount of principal and/or interest due or on a Book-Entry Security owed according to by the Participant's with a positive Repo-In Balance for that Book-Entry Security to its Contra with a positive Repo-Out Balance for that

Book-Entry Security based on the Participants' Repo balances Balances on the Record Date.

~~3.3.4~~ ~~The Reserve Bank aggregates~~

3.3.3 The Reserve Banks shall settle each Claim with respect to Repo Tracking on the Payment Date for the Book-Entry Security by debit to the Master Account of the Participant with a positive Repo-In Balance with respect to a Book-Entry Security and credit to the Master Account of the Participant's Contra that has a positive Repo-Out Balance for that Book-Entry Security.

3.3.4 The Reserve Banks shall aggregate the amount of the Claims to be debited with respect to a Participant's Repo In Balance with the amount of the Claims to be credited with respect to the same Participant's Repo Out Balance to determine the Aggregate Amount of Claims with respect to that Participant's Securities Master Account (or its Correspondent's Master Account with respect to such Participant) for that ~~banking day~~ Securities Business Day.

3.4 NOTIFICATION OF CLAIMS

~~3.4.1~~

3.4. REPO-BALANCE STATEMENTS

3.4.1 Every evening of a Securities Business Day, the Reserve ~~Bank~~ provides Banks provide each Participant that has a Repo Balance with a ~~repo balance~~ report detailing stating that Participant's Repo ~~In Balances and Repo Out~~ Balances.

~~3.4.2~~ ~~The Reserve Bank provides the repo balance report to each Participant using the same medium by which it notifies the Participant of holdings statements.~~

~~3.4.3~~ ~~In addition, on the evening prior to the date of adjustment, the Reserve Bank provides each Participant with an adjustment notification report indicating the net adjustment amounts to be processed for that Participant and the supporting details of the adjustments to be made to that Participant's Securities Account. for each Book-Entry Security with respect to each Contra, broken down by Securities Accounts.~~

3.4.2 ~~3.4.4~~ ~~The Reserve Bank provides~~ Banks provide the ~~adjustment notification report to each Participant~~ described in section 3.4.1 of this appendix using the same medium by which it ~~notifies the Participant of immediate principal and interest~~ provides Book-Entry Securities holdings statements to that Participant. If a Participant elects to receive its Book-Entry Securities holdings statements on

a weekly or monthly basis rather than daily, such election will apply to delivery of the report described in section 3.4.1 of this appendix.

4.0 ~~4.0~~ INTERIM ACCOUNTING

4.1. ~~4.1~~ INITIATION AND AUTHORIZATION OF SERVICE

4.1.1 ~~4.1.1~~ ~~A Sender invokes~~ The Reserve Banks initiate Interim Accounting ~~services by sending~~ automatically when a Sender sends a Transfer Message ~~for a~~ to transfer a Book-Entry Security that has a Beneficiary Date that ~~is different~~ differs from the Record Date ~~for that Book-Entry Security~~. The ~~Interim Accounting service is not available for~~ Sender need not include any field tag in a Transfer Message identified as a repurchase agreement to initiate Interim Accounting in connection with that Transfer.

4.1.2 ~~4.1.2~~ ~~By sending a Transfer Message for a Security that has a Beneficiary Date that is different from the Record Date, the Sender authorizes and instructs~~ The Participants authorize the Reserve ~~Bank~~ Banks to perform Interim Accounting ~~services~~ with respect to ~~the every~~ Transfer Message of a Book-Entry Security with a Beneficiary Date that differs from the Record Date. The Interim Accounting services so authorized by the Participants include (i) determining whether the Transfer is an Interim Accounting Transaction in accordance with section 4.2 of this appendix, (ii) identifying a Claim and calculating Claims in accordance with ~~Paragraph~~ section 4.2 hereof of this appendix, and (iii) settling the Aggregate Amount of Claims in accordance with Paragraph 5.0 hereof section 6.0 of this appendix.

~~4.1.3 If the Sender uses a correspondent pursuant to Paragraph 5.3 of Operating Circular 7, the Sender warrants that it has instructed and authorized its correspondent to accept any debit or credit Aggregate Amounts in accordance with Paragraph 5.0 hereof.~~

4.2 INTERIM ACCOUNTING

4.1.3 If a Transfer Message includes a Repo Tracking Indicator, Interim Accounting will not occur.

4.2. CLAIM IDENTIFICATION AND DETERMINATION OF AGGREGATE AMOUNT OF CLAIMS

4.2.1 ~~4.2.1~~ ~~For each Transfer Message that invokes Interim Accounting services, the Reserve Bank~~ Banks shall determine whether the ~~Settlement Date falls after the Record Date and on or before the Beneficiary Date. When the Settlement Date falls after the Record Date and on or before the Beneficiary Date, the Reserve Bank will~~

~~deem the~~ Transfer ~~to be~~ is an Interim Accounting ~~transaction~~ Transaction.

4.2.2 ~~4.2.2~~ ~~The~~ For each Interim Accounting Transaction (subject to section 4.1.3 of this appendix), the Reserve ~~Bank~~ Banks shall identify ~~for adjustment and calculate~~ a Claim ~~in an Interim Accounting transaction~~ if the Settlement Date falls after the Record Date and before the Beneficiary Date.

4.2.3 ~~4.2.3~~ ~~The amount of the~~ Each Claim ~~shall be~~ equals the amount of principal and/or interest on the Book-Entry Security payable ~~on~~ as of the Beneficiary Date with respect to the ~~transferred Book-Entry Securities~~ Interim Accounting Transaction.

4.2.4 ~~4.2.4~~ The Reserve ~~Bank~~ Banks shall aggregate the amount of the Claims to be debited with respect to a Participant's Securities Account as Sender with the amount of the Claims to be credited with respect to the same Participant's Securities Account as Receiver to determine the Aggregate Amount of Claims with respect to that Participant's Securities Account.

4.3 NOTIFICATION OF CLAIMS

~~4.3.1~~ ~~The~~

5.0 NOTIFICATIONS

- 5.1. Every evening on a day before a Securities Business Day on which a debit or credit is to be settled in a Participant's Master Account (or its Correspondent's Master Account) in connection with a Claim relating to a Fail Transaction, Repo Transaction, or Interim Accounting Transaction, the Reserve BankBanks shall provide a notice of each Claim pursuant to this Paragraph 4.3 to each Participant affected by that Claim in an adjustment notification report.
- ~~4.3.2~~ The notice ~~shall~~will include: for each Claim the date ~~of~~ the Claim Adjustment will be settled; the amount of each Claim, identifying the Transfer Message to which it pertains debit or credit; information about the Book-Entry Security to which the Claim relates; the identity of the other Participant involved in the Claim; and the Aggregate Amount of Claims, whether debit or credit, for that Participant's SecuritiesMaster Account (or its Correspondent's Master Account). For Fail Transactions and Interim Accounting Transactions, the notice will also identify the Contract Date and Settlement Date, as well as the Transfer Message to which each Claim pertains.
- 5.2. ~~4.3.3~~ The Reserve ~~Bank shall~~Banks provide ~~notice hereunder~~all notices related to a ParticipantClaims using the same medium by which ~~it notifies the~~they notify that Participant of immediate principal and/or interest payments on Book-Entry Securities that are to be made the next Securities Business Day.

6.0 ~~5.0~~ EFFECTING AGGREGATE AMOUNTS OF CLAIMS

6.1. MASTER ACCOUNT

- 6.1.1 Each Participant authorizes the Reserve Banks, at the time the Reserve Banks process a Claim, to debit or credit the Claim to the account the Participant designates in this section for settlement of such Claims. This account is the Participant's Master Account, unless the Participant has designated a Correspondent for the payment of principal and/or interest on Book-Entry Securities (whether in general or with respect to a particular Securities Account), in which case, it is the Correspondent's Master Account.
- 6.1.2 If a Sender has designated a Correspondent for the settlement of Claims in accordance with section 6.1.1 of this appendix, the Sender warrants that it has instructed and authorized its

Correspondent to accept any debit or credit of Aggregate Amounts in accordance with this appendix.

6.2. 5.1-REJECTING A CLAIM OR AGGREGATE AMOUNT

6.2.1 ~~5.1.1~~ The Reserve Bank processing Claims may elect not to ~~make Claim Adjustments~~ process Claims for a Participant and the Reserve Bank holding the Participant's Master Account may reject a Participant's debit Aggregate Amount if: (i) the Participant has failed, been suspended, been closed, or the like; or, (ii) in the opinion of the Reserve Bank holding the Participant's Master Account, the Participant does not or will not at the end of the day have in its Master Account a balance of actually and finally collected funds sufficient to cover its debit Aggregate Amount.

6.2.2 ~~5.1.2~~ The Reserve Bank processing Claims may elect not to ~~make Claim Adjustments~~ process Claims for a Participant through a ~~correspondent~~ Correspondent and the Reserve Bank holding the ~~correspondent~~ Correspondent's Master Account may reject a Participant's debit Aggregate Amount if: (i) the ~~correspondent~~ Correspondent has failed, been suspended, been closed, or the like; or, (ii) in the opinion of the Reserve Bank holding the ~~correspondent~~ Correspondent's Master Account, the ~~correspondent~~ Correspondent does not or will not at the end of the day have in its Master Account a balance of actually and finally collected funds sufficient to cover its debit Aggregate Amount.

6.3. 5.2-POSTING DEBITS

6.3.1 ~~5.2.1~~ ~~By 4:30 p.m. E.T. each banking day~~ Each Securities Business Day by the time set forth on the Securities Schedule, the Reserve ~~Bank~~ Banks shall attempt to process each debit Aggregate Amount to the Participant's or ~~correspondent~~ Correspondent's Master Account ~~prior to~~ before processing any credit Aggregate Amounts. If a debit passes all edits and is not rejected, the Reserve Banks shall debit the Participant's or ~~correspondent~~ Correspondent's Master Account ~~shall be debited~~ the full amount of the debit Aggregate Amount and ~~the Reserve Bank~~ shall immediately credit the ACAP Account the same amount. A debit made to a Master Account and a credit made to the ACAP Account under this ~~paragraph shall~~ section 6.3.1 are each ~~be~~ final and irrevocable at the time ~~it is~~ they are made, subject only to the Reserve Bank's right to debit or credit the ACAP Account or Master Account (without further authorization or instruction) to correct any payment errors. If a debit Aggregate Amount is rejected, it ~~shall~~ is to be handled in accordance with ~~Paragraph 5.3~~ section 6.4, but the Reserve

~~Bank~~Banks shall continue to process other debit Aggregate Amounts in the original group of Aggregate Amounts.

6.4. **5.3-REJECTED DEBIT AGGREGATE AMOUNT**

6.4.1 **5.3.1** If a debit Aggregate Amount is rejected, the Reserve Bank processing Claims shall promptly notify the Participant or ~~the correspondent~~its Correspondent that the debit has been rejected. The Participant or ~~correspondent~~Correspondent may arrange to deposit additional funds to its Master Account. ~~By 5:00 p.m. E.T.~~The Reserve Bank will again attempt to process the debit Aggregate Amount. If at that time the debit Aggregate Amount passes all edits and is not rejected, the ~~Master Account of Reserve Banks shall debit~~ the Participant's or ~~correspondent~~Participant ~~shall be debited~~Correspondent's Master Account the amount of the debit Aggregate Amount and ~~the Reserve Bank~~ shall immediately credit the ACAP Account the same amount. A debit made to a Master Account and a credit made to the ACAP Account under this ~~paragraph shall~~section 6.4.1 are each ~~be~~ final and irrevocable at the time ~~it is~~they are made, subject only to the Reserve Bank's right to debit or credit the ACAP Account or Master Account (without further authorization or instruction) to correct any payment errors.

6.4.2 **5.3.2** If a debit Aggregate Amount for one or more Participants or ~~correspondents~~Correspondents is ~~again~~ rejected, ~~however once more when reattempted in accordance with section 6.4.1 of this appendix,~~ the Reserve Bank shall cancel processing of the original group of Aggregate Amounts. The Reserve Bank shall debit the ACAP Account the amount of each debit Aggregate Amount that had resulted in a credit to the ACAP Account, and credit the same amount to the Master Account ~~of the Participant or correspondent with the original debit Aggregate Amount from~~ which it had been debited. A debit made to the ACAP Account and a credit made to a Master Account under this ~~paragraph shall~~section 6.4.2 are each ~~be~~ final and irrevocable at the time ~~it is~~they are made, subject only to the Reserve Bank's right to debit or credit the ACAP Account or Master Account (without further authorization or instruction) to correct any payment errors.

6.4.3 **5.3.3** If the Reserve Bank cancels processing, the Reserve Bank shall remove all of the Claims (both debits and credits) included in the Aggregate Amounts rejected on the second attempt and ~~redetermines~~shall recalculate the Aggregate Amounts excluding the Claims (both Debits and credits) rejected on the second attempt for the remaining Participants and ~~correspondents~~Correspondents. The Reserve Bank shall notify the remaining Participants that the Aggregate Amounts have been

recalculated and provide updated information in accordance with ~~Paragraphs 2.3,~~sections 3.4, and ~~4.35.0~~ of this appendix.

6.4.4 ~~5.3.4~~ The Reserve Bank shall then restart the process of effecting the recalculated Aggregate Amounts ~~of Claims~~. If this process ~~again~~ does not result in full funding of the ACAP Account in accordance with ~~Paragraph 5.4~~section 6.5 of this appendix, the Reserve Bank may, ~~in its sole discretion,~~ (i) elect to again delete the Claims in the Aggregate Amounts that were rejected, recalculate Aggregate Amounts, and start the process again, or (ii) cancel the process of effecting Aggregate Amounts for the day.

6.4.5 ~~5.3.5~~ If the Reserve Bank cancels the process of effecting Aggregate Amounts for a ~~banking day~~Securities Business Day in accordance with section 6.4.4 of this appendix, the Reserve Bank shall notify all Participants of the cancellation. A Participant whose Claims were not adjusted on the scheduled ~~banking day~~Securities Business Day, either because its Claims were removed under ~~Paragraph 5.3.3~~section 6.4.3 of this appendix or because processing was cancelled for the day, shall make or seek payment of the Claims directly to or from the other Participant without using ACAP; the Reserve Banks will have no further obligation to try to process or settle such Claims.

6.5. ~~5.4~~ POSTING CREDIT AGGREGATE AMOUNTS

6.5.1 ~~5.4.1~~ The ACAP Account is fully funded once the balance in the ACAP Account is equal to the sum of all debit Aggregate Amounts. Once the ACAP Account has been fully funded, the Reserve ~~Bank~~Banks shall debit the ACAP Account the amount of each credit Aggregate Amount, and shall immediately credit the Participant's or ~~correspondent~~Correspondent's Master Account ~~shall be immediately credited in~~ the same amount. ~~Each such~~A debit made to the ACAP Account and a credit made to a Master Account ~~shall be~~under this section 6.5.1 are each final and irrevocable at the time ~~it is~~they are made, subject only to the Reserve Bank's right to debit or credit the ACAP Account or Master Account (without further authorization or instruction) to correct any payment errors.

7.0 ~~6.0~~ LIMITATIONS ON RESERVE BANK'S LIABILITY AND DUTIES; INDEMNIFICATION

7.1. ~~6.1~~ LIMITATIONS ON ~~DUTIES AND~~ LIABILITY AND DUTIES OF RESERVE BANKS

7.1.1 ~~6.1.1~~ The ~~Federal~~ Reserve Banks make no representations or ~~guarantees~~warranties about the validity of any ~~payment~~

instructions ~~they~~ the Reserve Banks receive from Participants in connection with the services they offer under this appendix or with respect to any underlying agreement between the Participants or their customers that may or may not result in a Claim. Notations and entries concerning Book-Entry Securities (other than Transfers) made in connection with Fail Tracking, Repo Tracking, and Interim Accounting ~~services are for informational purposes only, and~~ do not affect or reflect any interest of a Participant or its customers in Book-Entry Securities ~~held~~ maintained in a ~~Participant's~~ any Securities Account.

7.1.2 ~~6.1.2~~ The Reserve Banks are not liable for the insolvency, neglect, misconduct, mistake, or default of any other ~~entity or~~ person, including a Participant or a Participant's correspondent bank. Except as otherwise specifically provided herein in this appendix, only the ~~account-holding~~ Reserve ~~Bank is liable only for the actual direct loss sustained by the immediate Participants or correspondents using Claim Adjustment services~~ Banks maintaining the Securities Accounts of Participants that sustained actual direct losses are liable for such losses and even then only to the extent such losses were proximately caused by the Reserve Banks' failure to exercise ordinary care or to act in good faith: ~~with respect to this liability, only the Reserve Bank holding the Sender's account is liable to the Sender and only the Reserve Bank holding the Receiver's account is liable to the Receiver~~. The amount of a Reserve Bank's liability to a Participant ~~or correspondent~~ is limited to no more than the dollar amount of a Claim ~~Adjustment~~ plus ~~reasonable~~ interest and incidental expenses, unless the Participant's ~~or correspondent's~~ claim is based on delay in the settlement of a Claim ~~Adjustment~~, in which case the amount of a Reserve Bank's liability is limited to ~~reasonable~~ interest and incidental expenses. In no event shall a Reserve Bank be liable for consequential, indirect, incidental (other than those specifically identified in this section), or special damages (including lost profits), however derived, and regardless of whether ~~the~~ any Reserve Bank has been informed of the possibility ~~thereof~~ of such damages.

~~6.1.3~~ In the event

7.1.3 As a result of an emergency or failure described in section 14.2.1 of a ~~Reserve Bank's computer or operations facilities~~, Claim Adjustments may be delayed until the emergency or failure is resolved. During extended disruptions, the Reserve Bank's Fedwire® Securities Service operations may be relocated to a back-up site. Participants and correspondents should refer to the Reserve Bank's contingency guidelines regarding Participant requirements and responsibilities during contingency operations the operating circular, the Reserve Banks may

determine they are unable to settle Aggregate Amounts for the impacted Securities Business Day and may inform Participants that they are responsible for making adjustments of principal and/or interest payments in connection with any unsettled Claims without using ACAP; the Reserve Banks will have no further obligation to try to process or settle such Claims.

6.2

7.2. INDEMNIFICATION

7.2.1 ~~6.2.1~~ A Participant using Fail Tracking, Repo Tracking, or Interim Accounting ~~services~~ shall defend, indemnify and hold the Reserve Banks harmless from any claim, loss, liability, cost or expense, made against them by any person, including but not limited to the Participant's correspondent bank or agent, or incurred by ~~them~~the Reserve Banks, including but not limited to attorneys' fees and expenses of litigation, ~~resulting~~arising from ~~the Participant's use of these or related to the other~~ services provided under this ~~Appendix~~appendix, or the acts or omissions of ~~the~~a Participant or ~~its agents, including but not limited to~~ the Participant's correspondent, bank or agent in connection with those services, in all cases excluding only: (i) any claim, loss, liability, cost, or expense arising solely out of from a Reserve Bank's failure to act in good faith or to exercise ordinary care; and (ii) a direct loss to the Reserve Bank holding ~~the~~a Participant's or ~~correspondent~~Correspondent's Master Account ~~resulting that~~ results from an overdraft in that ~~account~~Master Account caused by a final and irrevocable debit under this ~~Appendix~~.

7.0 FEES

~~7.1 The fees for the services provided under this Appendix are listed in the Reserve Bank's fee schedule as amended from time to time and shall be debited as provided in Paragraph 14 of Operating Circular 7.~~

8.0 AMENDMENT

~~8.1 The Reserve Banks reserve the right to amend this Appendix at any time without prior notice~~appendix.

APPENDIX E: ~~FEDPAYMENTS® MANAGER FOR THE FEDWIRE®~~ ~~SECURITIES SERVICE~~ FedPayments® Manager for the Fedwire Securities Service

This appendix sets forth the terms under which a Reserve Bank provides the FedPayments® Manager service. A Participant that uses the FedPayments Manager service ~~agrees to be~~ is bound by this appendix.

~~1.0 GENERAL~~

~~1.1~~

1.0 DEFINITIONS

1.1. In addition to terms defined in this operating circular, terms defined in this section have the following meanings when used in this appendix:

- (a) **FedLine Direct Customer** means an FPM Customer that has established an Electronic Connection with a Reserve Bank using the FedLine Direct® access solution.
- (b) **“FPM Customer”** means a Participant that uses FedPayments Manager, regardless of whether it uses FedPayments Manager to create, send, or receive Messages or to enable certain processing or e-mail notification options, or both.
- (c) **“Message”** means a Message as defined in section 3.1(t) of Operating Circular 7 and any message created in FedPayments Manager by an FPM Customer but not yet released to the Fedwire Securities Service.
- (d) **Service Unit** means a feature in FedPayments Manager that an FPM Customer may use to segregate Messages and to segregate subscribers who can perform certain functions in FedPayments Manager.

2.0 PURPOSE AND SCOPE

2.1. FedPayments Manager is an application owned and operated by the Reserve Banks and running on Reserve Bank servers that a Participant may use as described in this appendix. An FPM Customer has only those rights to use FedPayments Manager expressly provided in this appendix.

2.2. An FPM Customer that accesses the Fedwire Securities Service through the Reserve Bank’s FedLine Advantage® access solution may use

FedPayments Manager to create, send, ~~and/or~~ receive Messages and to enable certain processing and e-mail notification options. ~~The Reserve Banks own and operate FedPayments Manager. A Participant has only these rights to~~

2.2.1 A Sender may use FedPayments Manager expressly provided into format Messages to be submitted to the Fedwire Securities Service, to receive Messages, and to enable certain processing and e-mail notification options. A Sender that uses FedPayments Manager for any of these purposes is bound by this appendix.

2.2.2 A Receiver may use FedPayments Manger to receive Messages sent to it over the Fedwire Securities Service. A Receiver that uses FedPayments Manager to receive Messages is bound by this appendix.

2.3. Each FPM Customer shall assign a sufficient number of staff with the appropriate access roles to perform FedPayments Manager's various functions. Each FPM Customer shall have such staff available during FedPayments Manager's operating hours. The Reserve Banks are not liable if an FPM Customer cannot release a Message to the Fedwire Securities Service because it does not have such staff available.

2.4. ~~1.2~~ In no event shall ~~a Participant~~ an FPM Customer or its officers, employees, agents, or contractors:

2.4.1 ~~1.2.1~~ modify, add to, translate, reverse assemble, reverse compile, decompile, or otherwise attempt to derive the ~~source~~ code for FedPayments Manager;

2.4.2 ~~1.2.2~~ introduce ~~malicious~~ code or other information, including malicious code or other information (e.g., virus, Trojan horse, worm) that could adversely impact the performance of ~~the~~ FedPayments Manager; or

2.4.3 ~~1.2.3~~ attempt to interfere with the normal operation of ~~a~~ Reserve Bank ~~server~~ systems or ~~of~~ the network over which FedPayments Manager is provided.

~~1.3~~ ~~A Participant accessing~~

2.5. FedPayments Manager is not part of the Fedwire Securities Service through the FedLine Advantage[®] access solution uses FedPayments Manager when sending or receiving Messages.

~~1.4~~ ~~A Participant may use FedPayments Manager to format Transfer Messages to be submitted to the Fedwire Securities Service and to receive notices of receipt of Transfer Messages it sends or receives over~~

~~the Fedwire Securities Service. A Participant that uses FedPayments Manager to initiate a Transfer Message or to receive notices of receipt of Transfer Messages agrees to the terms and conditions in this appendix.~~

~~1.5~~ ~~FedPayments Manager is not a securities transfer system~~, and this appendix is ~~not~~neither a clearing corporation rule under section 8-111 of Article 8 of the Uniform Commercial Code nor an agreement governing a securities account within the meaning of the Convention on the Law Applicable to Certain Rights in Respect of Securities Held with an Intermediary.

~~1.6~~ ~~Each Participant shall assign a sufficient number of staff with the appropriate access roles to perform FedPayments Manager's various functions. Each Participant shall have such staff available during FedPayments Manager's operating hours. The Reserve Banks are not liable if a Participant cannot release a Message to the Fedwire Securities Service because it does not have such staff available.~~

2.0 DEFINITIONS

~~2.1~~ ~~Unless otherwise stated in this appendix, a term defined in Operating Circular 7 has the same meaning in this appendix.~~

~~2.2~~ ~~For purposes of this appendix, "Message" means a Transfer Message, a message relating to principal or interest payments, or a nonvalue message.~~

3.0 MESSAGE STATUS

3.1. ~~3.1~~ A Message entered into FedPayments Manager may be canceled by the ~~Participant~~FPM Customer at any time ~~prior to~~before the release of the Message to the Fedwire Securities Service.

3.2. Messages entered into FedPayments Manager before the opening of the Fedwire Securities Service are released by FedPayments Manager to the Fedwire Securities Service for processing beginning at the times shown in the Securities Schedule. Notwithstanding the times shown in the Securities Schedule, an extension of the Fedwire Securities Service operating hours may affect the times that Messages are released by FedPayments Manager to the Fedwire Securities Service.

3.3. ~~3.2~~ A Message entered into FedPayments Manager does not give rise to any obligation on the part of a Reserve Bank to act with respect to the Message unless and until the Message is received by the Fedwire Securities Service.

~~3.3~~ 3.4. A Message is received by the Fedwire Securities Service when the Fedwire Securities Service time- stamps the Message. Once received by the Fedwire Securities Service, ~~Operating Circular 7~~ this operating circular governs the acceptance and processing of the Message by the Reserve Banks. The Fedwire Securities Service time- stamp determines whether a particular ~~cut-off hour~~ Cutoff Time for the Fedwire Securities Service has been met.

~~3.4~~ — A Message entered into FedPayments Manager that shows a status of “awaiting service availability” is released by the FedPayments Manager to the Fedwire Securities Service when the Fedwire Securities Service opens.

~~3.5~~ —

3.5. A Message that has been released by FedPayments Manager to the Fedwire Securities Service will not necessarily be accepted and processed by the Fedwire Securities Service.

4.0 DELIVERY OF MESSAGES AND NOTICES

~~4.1~~ — A Participant

4.1. By using FedPayments Manager, an FPM Customer that is not a FedLine Direct Customer designates FedPayments Manager as the proper location place for ~~sending Messages and notices. A notice of a debit to a Securities Account is reflected in~~ the Fedwire Securities Service to deliver Messages An FPM Customer that is a FedLine Direct Customer may designate FedPayments Manager as ~~an outgoing Message the status of which is “completed.” A Transfer Message listed in an incoming message folder in FedPayments Manager serves as notice of a credit to a Securities Account.~~

~~4.2~~ — A Participant is ~~deemed to have received~~ the proper place for the Fedwire Securities Service to deliver Messages by instructing the FedLine Direct Customer’s Appropriate Reserve Bank in writing. Any such designation by a FedLine Direct Customer is effective only after the Appropriate Reserve Bank has processed the request.

4.2. If an FPM Customer designates FedPayments Manager as the proper place for the Fedwire Securities Service to deliver Messages, the FPM Customer receives a Message ~~or notice~~ sent by a Reserve Bank as follows: (i) if FedPayments Manager is available, at the time that the Message ~~or notice~~ is made available to the Participant FPM Customer in FedPayments Manager ~~if FedPayments Manager is open;~~ or, (ii) if FedPayments Manager is not open available, at the time that FedPayments Manager reopens with the posted Message ~~or notice. It is the responsibility of a Participant to,~~

4.3. An FPM Customer shall monitor FedPayments Manager for incoming Messages and notices and ~~to~~shall manage its communications connection (including its browser) to permit ~~the Participant~~it to access FedPayments Manager throughout a ~~Fedwire securities transfer business day~~Securities Business Day.

~~4.3~~ — A Participant may provide the Reserve Banks with e-mail addresses in FedPayments Manager for notifications about certain Messages that have been processed by ~~the Fedwire Securities Service~~. If a Participant does so, the Reserve Banks will make best efforts, but are under no obligation, to send to those addresses an e-mail notification. ~~FedPayments Manager~~ allows Participants to provide one to five e-mail addresses for each type of notification.

~~5.0~~ —

5.0 SERVICE UNITS

5.1. ~~5.1~~ A Participant An FPM Customer may establish one or more ~~service units~~Service Units in FedPayments Manager to accommodate the ~~Participant~~FPM Customer's specific informational needs. The use of multiple ~~service units~~Service Units is for the convenience of the ~~Participant~~FPM Customer only ~~and~~. Except as described in sections 6.0 and 7.0 of this appendix with respect to the available processing and e-mail notifications options, use of multiple Service Units does not create any special obligations on the part of a Reserve Bank with respect to Messages released by the ~~Participant~~FPM Customer using the various ~~service units~~Service Units.

5.2 An FPM Customer may assign one or more subscribers to a Service Unit to perform the functions permissible within the Service Unit.

5.3 Any name used by ~~a Participant~~An FPM Customer or a Reserve Bank to identify a ~~service unit~~Service Unit is for convenience only and does not in any way alter or affect the Reserve ~~Bank's~~Banks' right to treat the ~~Participant~~FPM Customer as exclusively entitled to ~~exercise~~instruct the ~~rights~~Reserve Banks and ~~powers~~to identify agents that may instruct the Reserve Banks, on the FPM Customer's behalf, with respect to the ~~Book-Entry Securities in the Participant~~FPM Customer's Securities Accounts or Master Accounts.

6.0 ~~6.0~~ PROCESSING OPTIONS

- 6.1. ~~6.1~~ FedPayments Manager offers each ~~Participant~~FPM Customer a variety of processing options to help it manage how it creates, updates, and verifies Messages in FedPayments Manager. An FPM Customer may enable and modify these processing options within one or more Service Units, and if enabled, each will apply to Messages created, modified, or verified through the Service Unit within which the processing option is enabled.
- 6.2. Each ~~Participant~~FPM Customer is solely responsible for choosing the options that are best suited, in its judgment, to its securities-~~transfer~~related business and risk tolerance. For certain processing options, the Reserve Banks may establish default settings. Each ~~Participant~~FPM Customer shall review and determine whether ~~these~~the default settings are appropriate and shall modify them if they are not. The Reserve Banks may require an FPM Customer to perform testing before making certain options available.
- 6.3. ~~6.2~~ Use of certain processing options may preclude ~~a Participant~~an FPM Customer's ability to release Messages from FedPayments Manager to the Fedwire Securities Service. The Reserve Banks have no liability if ~~a Participant~~an FPM Customer is unable to release a Message to the Fedwire Securities Service for processing because of the processing option settings in FedPayments Manager, whether selected by the ~~Participant~~FPM Customer or left unchanged from the default settings established by the Reserve Banks.
- 6.4. ~~6.3~~ Participants Subject to certain restrictions (such as when the Reserve Banks impose testing requirements before certain options become available or such as the restrictions described in section 10.0 of this appendix), FPM Customers may change their processing options at any time during~~when~~ FedPayments Manager's operating hours— is available. Changes to processing options take effect immediately.
- 6.5. Consistent with section ~~4.6~~1.5 of this appendix, each ~~Participant~~FPM Customer must have staff with the appropriate access roles available ~~during FedPayments Manager's operating hours~~ to ~~select~~enable or modify ~~its~~the FPM Customer's processing options. The Reserve Banks are not liable if ~~a Participant~~an FPM Customer cannot ~~select~~enable or modify its processing options because the ~~Participant~~FPM Customer does not have such staff available. ~~Changes to processing options take effect immediately.~~
- 6.6. ~~6.4~~ The Reserve Banks anticipate that ~~a Participant~~each FPM Customer will need to change its processing options from time to time based on its securities-~~transfer~~related business and risk tolerance. The Reserve Banks assume no responsibility for monitoring how ~~a Participant~~an FPM

Customer uses (or fails to use) the processing options that are available to it in FedPayments Manager or for monitoring how ~~the Participant~~ an FPM Customer modifies its processing options.

~~6.5~~ — ~~A Participant may provide the Reserve Banks with one to five e-mail addresses in FedPayments Manager for notifications about changes to the settings, verification, or e-mail notification processing options in FedPayments Manager. If a Participant does so, the Reserve Banks will make best efforts, but are under no obligation, to send to those addresses an e-mail notifying the Participant that a change has been made to those processing options.~~

6.7. ~~6.6~~ The Reserve Banks may provide warnings in FedPayments Manager if ~~a Participant~~ an FPM Customer has not enabled certain processing options. These warnings are provided solely as a convenience for ~~Participants~~ FPM Customers. The Reserve Banks are not liable for the absence of warnings for other processing options.

7.0 E-MAIL NOTIFICATION OPTIONS

7.1. FedPayments Manager offers each FPM Customer e-mail notification options designed to generate e-mail notices about certain Messages released to the Fedwire Securities Service using FedPayments Manager and about changes to certain processing and e-mail notification options. An FPM Customer may enable and modify these e-mail notification options within one or more Service Units, and if enabled, each e-mail notification will apply to (i) Messages released through the Service Unit in which the e-mail notification option is enabled and (ii) the options enabled or modified in the Service Unit in which the e-mail notification options is enabled.

7.2. The e-mail notices described in this section 7.0 may relate to Messages successfully processed by the Fedwire Securities Service or those rejected by the Fedwire Securities Service because the Messages violated a processing option enabled by the FPM Customer. Such e-mail notices are not Messages, and an FPM Customer may not rely on e-mail notices generated by FedPayments Manager to determine whether a Reserve Bank accepted a Messages released to the Fedwire Securities Service.

7.3. FedPayments Manager allows FPM Customers to provide up to five e-mail addresses for each e-mail notification option. If an FPM Customer enables an e-mail notification option, the Reserve Banks will make best efforts, but are under no obligation, to send to those addresses an e-mail notification.

8.0 ~~7.0~~ TREATMENT OF INFORMATION

- 8.1.** ~~7.1~~ Information created or received in FedPayments Manager is treated as confidential information of the ~~Participant~~FPM Customer and will be used by the Reserve Banks only as provided in section ~~7.28.2~~ of this appendix.
- 8.2.** ~~7.2~~ The Reserve Banks may access and use information in FedPayments Manager:
- 8.2.1** ~~7.2.1~~ To respond to a request of the ~~Participant~~FPM Customer that entered the information into FedPayments Manager;
- 8.2.2** ~~7.2.2~~ To perform routine backup and maintenance of FedPayments Manager;
- 8.2.3** ~~7.2.3~~ For reconciliation or troubleshooting purposes ~~during~~ relating to the Fedwire Securities Service or FedPayments Manager ~~contingency~~;
- 8.2.4** ~~7.2.4~~ To resolve the status of a Message that has been released to the Fedwire Securities Service but, after a reasonable period, has not been accepted or rejected by the Fedwire Securities Service;
- 8.2.5** ~~7.2.5~~ To analyze how ~~Participants~~FPM Customers are using various features of FedPayments Manager (such information not including the content of Messages in FedPayments Manager);
- 8.2.6** ~~7.2.6~~ As required by law; ~~or~~ and
- 8.2.7** ~~7.2.7~~ As permitted by law if such use is also consistent with the Reserve Banks' information access policy.
- 8.3.** ~~7.3~~ ~~A Participant~~An FPM Customer may view in FedPayments Manager and print a Message ~~or notice~~ created or received by the ~~Participant~~FPM Customer in FedPayments Manager only during the current cycle date and the preceding 15 months. Certain audit trail information is also available for viewing and printing in FedPayments Manager for this period. Except as provided in section ~~7.68.6 of this appendix~~, all information in FedPayments Manager is deleted if it is more than 15 months old.
- 8.4.** ~~7.4~~ FedPayments Manager offers ~~Participants~~FPM Customers the ability to export certain Messages. Not all Messages can be exported.
- 8.5.** ~~7.5~~ Any information in FedPayments Manager that is backed up by the Reserve Banks is also subject to the limitations in section ~~7.28.2~~ of this appendix.

8.6. ~~7.6~~ Messages that have been created in FedPayments Manager but have not yet been released to the Fedwire Securities Service are stored indefinitely in FedPayments Manager. The Reserve Banks reserve the right to delete such Messages from time to time. In general, they will exercise that right when they are implementing changes to the FedPayments Manager application.

9.0 ~~8.0~~ HOURS OF OPERATION

9.1. The Reserve Banks publish on the FRBservices.org® website the hours during which FedPayments Manager is available. The Reserve Banks may make FedPayments Manager available outside the hours of the Securities Business Day during which time FedPayments Manager may have limited functionality. The Reserve Banks may amend the hours of availability for FedPayments Manager from time to time.

9.2. ~~8.1 FedPayments Manager is available from 8:00 p.m. ET each day that precedes a Fedwire securities-transfer business day until 7:00 p.m. ET the next day.~~ The Reserve Banks may ~~decide, in their sole discretion, to~~ open or close FedPayments Manager ~~at an earlier time or later than the~~ times stated in the hours of availability for FedPayments Manager published on the FRBservices.org website to facilitate special market needs.

9.3. ~~8.2~~ If there is an extension of the Fedwire Securities Service operating hours, the hours of availability for FedPayments Manager may also be extended. The reopening of FedPayments Manager may also be affected if there is an extension of the Fedwire Securities Service's operating hours.

~~8.3~~—The

10.0 TERMINATION AND ACCESS RESTRICTIONS

10.1. A Reserve Bank may terminate or restrict Participant access to FedPayments Manager by an FPM Customer or its Service Provider at any time they have without notice if the Reserve Bank has reason to believe that such access does not comply with any agreement with a Reserve Bank, including this appendix, or that such access otherwise poses a risk to a Reserve Bank, any other FPM Customer, or the security or proper functioning of FedPayments Manager or the Fedwire Securities Service.

10.2. Actions by a Reserve Bank to restrict access to FedPayments Manager may include, among others, restricting access to send or receive Messages using the service, restricting access by one or more individuals authorized to use the service on an FPM Customer's behalf, and

imposing, modifying, or restricting modifications to one or more of the processing options described in this appendix.

10.3. A Reserve Bank may otherwise terminate or restrict access to FedPayments Manager at any time upon notice to an FPM Customer or its Service Provider. A Reserve Bank taking an action under this section 10.3 is not obliged to but will endeavor to give such a notice five days in advance of terminating or restricting the FPM Customer's or a Service Provider's access to the service.

11.0 ~~9.0~~ LIABILITY

11.1. ~~9.1~~ The Reserve Banks are not liable for loss or damage resulting from a problem beyond their reasonable control. This includes, but is not limited to, loss or damage resulting from any delay, error, or omission in the transmission of any information between the ~~Participant~~ FPM Customer and FedPayments Manager and loss or damage resulting from the acts or omissions of internet service providers. The Reserve Banks are also not liable for loss or damage resulting from acts of war, riots, civil unrest, strikes, labor disputes, acts of terrorism, acts of God, or acts of nature.

~~9.2~~ ~~In addition to the exclusions of their liability elsewhere in this appendix, the Reserve Banks are not liable for any loss or damage resulting from FedPayments Manager being unavailable.~~

~~9.3~~

11.2. Nothing in this appendix relieves a Reserve Bank from responsibility for its own failure to exercise ordinary care or to act in good faith in operating ~~the~~ FedPayments Manager ~~service~~. A Reserve Bank's liability under this appendix is strictly limited to damages proximately suffered by a ~~Participant~~ an FPM Customer and does not extend to lost profits, claims by third parties, or consequential or incidental damages ~~even if the,~~ regardless of whether any Reserve Bank had been informed of the possibility of such damages.

11.3. In addition to the exclusions of their liability elsewhere in this appendix, the Reserve Banks are not liable for any loss or damage resulting from FedPayments Manager being unavailable.

"FedPayments," "Fedwire," ~~and~~ "FedLine Direct," "FedLine Advantage," ~~and~~ "FRBservices.org" are registered service marks of the Federal Reserve Banks. A ~~complete~~ list of marks owned by the Federal Reserve Banks is available at FRBservices.org.