

## Exhibit 5

**Bold, Underlined** text indicates additions.

**~~Bold, Strikethrough~~** text indicates deletions.

### **The Depository Trust Company**

#### **Settlement Service Guide**

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## About Settlement

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### End-of-Day Settlement Process

#### Overview

DTC's ~~End-of-Day~~ Settlement **Processing Operations group** controls and coordinates the settling of Participant accounts and Settling Bank accounts on DTC's systems. A Settling Bank is a bank Participant that settles for itself and may settle for other Participants **for which it is the designated Settling Bank**, including other bank Participants. A Settling Bank can be located in any Federal Reserve district, but it must have access to the Settlement User Interface and online access to the National Settlement Service ("NSS") **operated provided** by the Federal Reserve Banks **(individually and collectively, the "Fed" unless indicated otherwise)** and ~~the~~ Fedwire ~~system~~<sup>®</sup>.

Note ~~You, a~~ Participant, must make formal arrangements with DTC and a Settling Bank for that Settling Bank to **be designated as the Settling Bank to** settle with DTC on the Participant's behalf. Each Settling Bank must sign an agreement with DTC prior to the bank performing as a Settling Bank. The actual settlement process occurs through ~~the NSS system~~ and is initiated when DTC posts final figures for Participants and Settling Banks.

Although the actual settlement process begins with the posting of ~~the~~ final settlement figures at approximately 3:45 p.m. eastern time each day, DTC operates a settlement system that provides Participants and Settling Banks with online reports throughout the processing day. These reports reflect **intraday** gross debits, gross credits, and the net debit or credit for each Participant, as well as a net-net figure for each ~~settling bank~~ **Settling Bank**.

The end-of-day net-net **figure settlement balance for each Settling Bank that settles on behalf of more than one Participant** is the net of ~~all Participants' the~~ net **debit and net credit** balances **of all Participants for which that Settling Bank settles**, after cross-endorsement with the National Securities Clearing Corporation (NSCC) ~~for which a Settling Bank settles~~, **including the Settling Bank's own settlement obligations as a Participant if it settles for itself**.

**A Settling Bank may refuse to settle on behalf of another Participant for which it is the designated Settling Bank, in accordance with the processing schedule and other provisions set forth below. It is the primary obligation of each Participant to ensure that its net settlement balance, if any, is settled timely. If a Settling Bank does not settle on behalf of a Participant, as a result of a refusal to settle or otherwise, the Participant must make alternative arrangements to make payment to DTC via Fedwire<sup>®</sup> as set forth below. A Participant that acts as its own Settling**

**Bank, whether or not it settles for others, may not refuse to settle for itself; if it does not fund its settlement obligation, it will be in default under the DTC Rules and Procedures.**

Note—Any Settling Bank that settles for both Participants of DTC and ~~participants~~ **members** of NSCC will have its net-net credit or debit balances at DTC and NSCC aggregated and netted to one consolidated debit amount or credit amount, as applicable.

**Settlement Example of the Calculation of a DTC Settling Bank's Net-Net Settlement Balance:**

The following details illustrate an example of how the settlement process works **for DTC**:

- Settling Bank ABC settles for ~~participants~~ **Participants** 1, 2, and 3.
- Participant 1 has a gross debit of \$2 million and a gross credit of \$1 million, giving it a net debit of \$1 million.
- Participant 2 has a gross debit of \$3 million and a gross credit of \$2 million, giving it a net debit of \$1 million.
- Participant 3 has a gross debit of \$2 million and a gross credit of \$3 million, giving it a net credit of \$1 million.
- Settling Bank ABC's net-net **figure settlement balance** would be a debit for \$1 million, which is the sum of the net ~~figures debits and credits~~ of ~~participants~~ **Participants** 1, 2, and 3.

As illustrated in the example, net-net settlement ~~increases the likelihood of timely settlement and~~ reduces the number and the dollar amount of payments due to DTC. In the example, DTC would instruct the Fed to charge the Settling Bank's American Banking Association (ABA) routing number for \$1 million via NSS.

Note—Although each Settling Bank settles with DTC on one net-net amount, the Settling Bank is responsible for collecting final net debits from, and paying final net credits to, the Participants it represents.

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## Settling Bank Processing Schedule

The following table shows the processing schedule for Settling Banks. All times are eastern time.

### At this time

3:45 p.m. (approximately)

### This process takes place<sup>1</sup>

All settlement balances become final and the settlement period begins:

- DTC posts the final net debit or net credit for each Participant and the final net-net debit or net-net credit for each Settling Bank.
- Verification that final net cutoff has taken place; the message 'Final Figures' and the time they became final will appear in the Settlement User Interface. Settling Banks can view their respective final net-net settlement balances via the Settling Bank Account Statement made available via the Settlement User Interface.
- Settling Banks ~~(if required)~~ **should that settle for other Participants must** acknowledge their net-net settlement balances at this time (the system will not allow this until final figures are posted). **However, a Settling Bank that settles only for itself (only its own Participant account) is not required to acknowledge its settlement balance.**
- Once final figures are posted, DTC sends periodic reminder messages **to each Settling Bank** until the ~~settling bank~~ **Settling Bank complies by acknowledgement or refusal either affirmatively acknowledges its balance or notifies DTC of its refusal.** **(Note that reminder messages may still be generated after the Settling Bank has been deemed to have acknowledged its settlement balance in accordance with the "Acknowledgment and Refusal Procedures" set forth below. Notwithstanding delivery of reminders, once a Settling Bank is deemed to have acknowledged its balance it may not notify DTC of a refusal to settle for a Participant for which it is the designated Settling Bank).**
- A Settling Bank with a final ~~figure of a~~ net-net debit must ensure that funds are available in its Fed account for payment via the NSS. (See Settlement Payment for Net-Net Debit Balances below for more information.)

The later of:

4:15 p.m. ~~or~~ **and the time that is** 30 minutes after net-net settlement balances are first made available

Cutoff for each Settling Banks to acknowledge ~~their~~ **its** net-net settlement balance or **notify DTC that it refuses to settle for** ~~a specific Participant;~~ **one or more Participants for which it is the designated Settling Bank (the "Acknowledgment Cutoff Time").**

**5:00 p.m. Approximately 4:30 p.m. (subject to settlement extensions)**

DTC processes an NSS file ("NSS File") with the Federal Reserve Bank of New York ("FRBNY") to debit or credit each Settling Bank's NSS account, as

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<sup>1</sup> DTC interfaces with Settling Banks via the Settlement User Interface.

## At this time

5:00 p.m.

## This process takes place<sup>1</sup>

applicable. Note: If instructed by DTC, in the event that NSS is unavailable, Settling Banks in a net-net debit balance must remit payments to DTC via Fedwire<sup>®</sup> by the later of 5:00 pm or 1 hour after net settlement balances are first made available, **except that all such payments must be remitted prior to the close of the Fedwire<sup>®</sup>. DTC applies failure to settle procedures to settling banks with net-net debit final figures that have not paid DTC.**

Cutoff for Participants to enter valued DOs and pledges to their Settling Banks and the **settling bank's Settling Bank's** authorization of those transactions:

- Eligible Participants can process valued DOs and pledges to a Participant or to pledgee accounts of their Settling Bank (for example, to a participant or pledgee account specified in advance by the Settling Bank, not just any Participant or pledgee within the Settling Bank).
- These transactions can be processed after final figures and before 5:00 p.m. because they only affect a Participant's net figures, not those of the Settling Bank.

Note—DTC programmatically subjects these transactions to the Settling Bank's authorization via the Receiver Authorized Delivery (RAD) process. Also, to become eligible to process these transactions, Participants must sign an agreement with their Settling Bank and notify DTC about it.

## Acknowledgment and Refusal Procedures

**Each Settling bank's Bank that is the designated Settling Bank for another Participant or for other Participants must use the Settling Bank Acknowledgment function to perform acknowledgment activities promptly after final figures have been posted and by the Acknowledgment Cutoff Time.** Once the message 'Final Figures' appears on the **SETB SDFS Menu Selection Settlement** screen, each Settling Bank **that settles for other Participants** should access the Settling Bank Acknowledgment function **to do and take** one of the following **actions**:

1. Acknowledge its entire net-net **settlement** balance, or
2. Refuse to settle for **a Participant one** or **multiple more other** Participants **for which it is the designated Settling Bank.**

**Subject to Item 7 and Item 9 below, if a Settling Bank that settles for other Participants does not, by the Acknowledgment Cutoff Time (i) affirmatively acknowledge its net-net settlement balance or, alternatively (ii) notify DTC that it refuses to settle for one or more Participants for which it is the designated Settling Bank, then, at the Acknowledgment Cutoff Time, the Settling Bank is deemed to have acknowledged its net-net settlement balance. If the net-net settlement balance is a debit, then the Settling Bank's Fed account will be charged; if the net-net settlement balance is a credit, then the Settling account will be credited.**

The following **additional rules procedures also** apply to the acknowledgment and refusal process:

1. A Settling Bank that settles for ~~accounts of~~ other Participants ~~than its own~~ must ~~always~~ acknowledge its ~~own~~ net-net settlement balance or refuse to settle ~~any Participant account(s) other than its own for one or more other Participants for which it is the designated Settling Bank by the Acknowledgment Cutoff Time, but cannot refuse to settle for itself.~~
2. A Participant that is a Settling Bank only for itself (and not for any other Participant) need not acknowledge its balance and cannot notify DTC that it refuses to settle ~~its own Participant account(s).~~
- ~~3. A Settling Bank that settles solely for its own accounts may elect to opt out of acknowledging its DTC balance\*. (Contact your relationship manager for the form required to activate this option.)~~
- ~~4.3.~~A notification to DTC by a Settling Bank of the Settling Bank's refusal to settle for a Participant for which it is the designated Settling Bank is a refusal to settle all accounts settlement obligations of that Participant (~~meaning all accounts that constitute that including the~~ Participant's ~~legal entity~~). ~~A Settling Bank cannot refuse to settle only some of the accounts of a multiple account participant main account and all subaccounts thereunder).~~
54. After refusing a Settling Bank notifies DTC of its refusal to settle for ~~a Participant, one or more Participants for which it is the designated Settling Bank, DTC extracts from~~ the net-net settlement balance of that ~~Participant is removed from the~~ Settling Bank's net- Bank the net balance ~~(s), and of the Participant or Participants for which~~ the Settling Bank must immediately acknowledge its new net-net balance (debit or credit). 6. ~~If a Settling Bank's net-net balance changes after initial acknowledgment, has refused to settle, and provides~~ the Settling Bank ~~can only refuse to settle for the Participant(s) whose balance changed with an adjusted settlement statement reflecting the Settling Bank's adjusted net-net settlement balance (the "Post-Refusal Adjusted Balance"). The Settling Bank's response to provide an acknowledgement of the Post-Refusal Adjusted Balance is immediately required.~~
5. Subject to Item 7 and Item 9 below, if a Settling Bank that has been provided with a Post-Refusal Adjusted Balance does not immediately affirmatively acknowledge its Post-Refusal Adjusted Balance, then, the Settling Bank is deemed to have acknowledged its Post-Refusal Adjusted Balance. If the Post-Refusal Adjusted Balance is a debit, the Settling Bank's Fed account will be charged; if the Post-Refusal Adjusted Balance is a credit, the Settling Bank's Fed account will be credited.
6. If, after the initial release of final settlement figures, a Settling Bank's net-net settlement balance is adjusted by DTC for any reason other than as a result of a Settling Bank's refusal to settle on behalf of a Participant for which it is the designated Settling Bank, then the Acknowledgment Cutoff Time for that Settling Bank would change to become 30 minutes after DTC advises the Settling Bank of the adjusted net-net settlement balance.
7. If a a Settling Bank ~~that cannot (i) by the Acknowledgment Cutoff Time, send an acknowledgment or refusal instruction, or (ii), if applicable, cannot~~ send an immediate acknowledgment or refusal of the Post-Refusal Adjusted Balance, to DTC ~~because of a connectivity issue with DTC, then it must immediately~~ contact ~~the~~ DTC Settlement Operations group using the hotline Settlement Hotline at (212) 855-5800 ~~to notify them of the issue. If a Settling Bank complies with this Item 7, then it will not be deemed to have acknowledged its balance. If the problem is due to a connectivity issue with DTC, DTC Settlement Operations may then direct the Settling Bank to submit its acknowledgement/refusal instruction via e-mail to settlementstaff@dtcc.com, or as otherwise specified by DTC at that time.~~
- ~~8. DTC begins failure to settle procedures and imposes fines on Settling Banks that have not sent refusal or acknowledgment messages (if required) to DTC by 4:15 p.m. eastern time. See Failure to Settle Fees.~~

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\* ~~A Settling Bank which is a member of both DTC and NSCC may not elect to opt out of acknowledging its balances unless it settles solely for its own accounts at both DTC and NSCC, in which case that election will apply to both the DTC and NSCC settlement balance.~~

**8. In order to facilitate timely processing of the NSS File, DTC maintains its discretion to exclude a Settling Bank's balance from the NSS File, and proceed with NSS settlement, if the Settling Bank does not acknowledge its net-net settlement balance by the Acknowledgment Cutoff Time, or if the Settling Bank has provided a refusal, does not immediately acknowledge its Post-Refusal Adjusted Balance, as applicable. If a Settling Bank's debit balance is excluded from the NSS File, then, the Settling Bank must pay it via Fedwire® in accordance with the instructions provided below.**

~~9. DTC begins failure to settle procedures and imposes fines on Settling Banks that are in net-net debits that have sent refusal and/or acknowledgement messages, but the funds owed have not been paid by 5:00 p.m. eastern time or one hour from final figures, whichever is later. See Failure to Settle Fees.~~

**9. For a Settling Bank that is the designated Settling Bank for other Participants, DTC will attempt to contact the Settling Bank if (i) no acknowledgment or notice of a refusal to settle on behalf of one or more Participants for which it is designated as the Settling Bank is received by the Acknowledgment Cutoff Time, (ii) if applicable, the Settling Bank has failed to respond to DTC to acknowledge its Post-Refusal Adjusted Balance, or (iii) the Settling Bank has not contacted DTC in accordance with Item 7 above. If (x) DTC is able to contact the Settling Bank, and (y) the Settling Bank notifies DTC that it cannot, at that time, acknowledge or refuse its net-net settlement balance or acknowledge their Post-Refusal Adjusted Balance, as applicable, then the Settling Bank will not be deemed to have acknowledged its net-net settlement balance or Post-Refusal Adjusted Balance, as applicable. If the Settling Bank cannot be reached, the Settling Bank will be deemed to have acknowledged its net-net settlement balance or Post-Refusal Adjusted Balance, as applicable.**

**DTC uses the most recent contact information provided by the Settling Bank to DTC. Each Settling Bank must ensure that it maintains up-to-date and accurate contact details with DTC to facilitate DTC's ability to contact a Settling Bank regarding settlement issues. A Settling Bank must promptly provide its DTC Relationship Manager with up-to-date and accurate contact details for this purpose on an ongoing basis when previously provided contact details are no longer accurate.**

## Settlement Payment for Net-Net Debit Balances

**4. In the event that a Settling Bank has insufficient funds when the NSS file is run, or if Settling Banks must use Fedwire® because NSS is not available, A a Settling Bank with a net-net debit settlement balance must fulfill its payment obligation to DTC by the later of 5:00 p.m. eastern time and the time that is one hour from after the time that final figures, whichever is later are provided by DTC, except that all such payments must be remitted prior to the close of the Fedwire. DTC's receipt of funds after the deadline will result in a late fee charged to the Settling Bank. (See Untimely Funds Settlement / Failure to Settle Acknowledge Fees.)**

1. A ~~settling bank~~ **Settling Bank** must settle its net-net debit **settlement** balance via NSS **unless it has notified DTC of a connectivity issue with DTC or other good faith reason it cannot do so.**

~~After receiving an acknowledgement (if applicable) from the Settling Bank, NSS will allow DTC to instruct the FRB Fed to debit the settling bank's Settling Bank's account at the FRB Fed for its net-net debit balance. If the Settling Bank's account has sufficient funds, it will be debited. Upon confirmation from the FRB Fed, the Settling Bank's DTC account will be credited to reflect payment of its net-net debit. If the settling bank's Settling Bank's account has insufficient funds, DTC will receive notification from the FRB Fed that the account was not debited. If this occurs, DTC will notify settling banks the Settling Bank of their deficiencies its deficiency. The settling banks Settling Bank must then wire transfer the required funds to DTC according to the guidelines noted in the section below by Fedwire®.~~

2. Any Settling Bank that settles for both Participants of DTC and ~~for participants members~~ of NSCC will have its net-net credit or debit balances at each ~~corporation of DTC and NSCC~~ aggregated and netted to one consolidated ~~sum amount~~ (See attached Addendum A). At the end of each ~~settlement~~ day, after ~~receiving the applicable acknowledgements from the Settling Bank acknowledgment process is complete~~, DTC will ~~then~~ instruct the ~~FRB Fed~~ to debit the ~~FRB Fed~~ account of each such Settling Bank which has a Consolidated Settlement Debit Amount by the amount determined in accordance with Addendum A.
  
3. If ~~the a~~ Settling Bank settles only for NSCC participants, ~~then~~ DTC will instruct the ~~FRB Fed~~ to debit such bank's ~~FRB Fed~~ account by the amount of its net-net debit owed to NSCC. If the Settling Bank's account at the ~~FRB Fed~~ has sufficient funds, it will be debited. ~~Upon confirmation from the FRB, the Settling Bank's NSCC account will be credited to reflect payment of its NSCC net net debit amount.~~ If the Settling Bank's account has insufficient funds, DTC will receive notification from the ~~FRB Fed~~ that the account was not debited. If this occurs, DTC will notify ~~the~~ Settling ~~Banks Bank~~ of the ~~deficiencies deficiency~~. Any Settling Bank with a deficiency must then ~~wire transfer~~ the funds to DTC ~~according to the below guidelines by Fedwire®.~~

Note- ~~Each~~ Settling ~~Banks Bank~~ must monitor ~~their its~~ Settling Bank Account Statement through the Settling Bank Statement function in the Settlement User Interface to ensure that funds have been credited to their account and that no ~~debit~~ balance exists. The Settling Bank must be prepared to ~~wire payment transfer funds~~ to DTC ~~by Fedwire®~~ if ~~funds are not available (i) there is a deficiency in its Fed account, (ii) the NSS File has been processed excluding the Settling Bank's debit balance, as applicable, in accordance with the Acknowledgment and Refusal Procedures above, or (iii) if the~~ NSS is unavailable or inoperable. DTC requires that a bank representative authorized to ~~wire transfer~~ funds be available at the Settling Bank until settlement is complete. If a Settling Bank is ~~experiencing unable to access NSS due to~~ extenuating circumstances and ~~as a result, needs to opt out of NSS for one business day and will~~ send its wire directly to DTC's FRBNY account for its debit balance, that Settling Bank must notify the ~~DTC Settlement department group~~ prior to ~~acknowledging its settlement balance the Acknowledgment Cutoff Time.~~

If funds need to be ~~wired transferred~~ to DTC's account at the FRBNY, use the following guidelines for sending settlement ~~wires payments~~:

- Enter 026002066 (DTC's ABA number) in the Receiving Bank ABA Number field.
- Enter DTC SDFS (DTC's telegraphic name) in the Receiving Bank Name field.
- Enter 1600 in the Type Code field.
- Note-Type Code 1600 is the Fedwire® code for settlement wires. Wires sent with this code can be processed after the Interdistrict Fedwire® cutoff, whereas Type Code 1000 wires cannot. In the event that system problems delay outgoing wires, Type Code 1600 prevents ~~your~~ wires to DTC from being rejected by the Fed after the Interdistrict cutoff.
- Enter OBI = SET (indicating SET as the purpose of the wire) in the Originator to Beneficiary Information (OBI) field.
- Note-The SET purpose must be indicated in the wire. If another field is used to indicate SET as the purpose of the wire, OBI and SET must be separated by a space. For example, BBI = OBI SET, where BBI is the field used instead of the Originator to Beneficiary Information (OBI) field.
- Enter values in other fields in Fedwire® format according to ~~you're the Settling Bank's~~ own standard procedures.
- Submit the instruction. DTC posts the payment as a credit to ~~your the~~ Settling Bank's Account Statement when payment for ~~your the~~ net-net debit is received.
- Review ~~your the Settling Bank's~~ net-net balance via the Settling Bank Statement function to ensure that DTC receives the funds.
- Note-The instruction format described above conforms to Fedwire® standards for funds transfers. Settling Banks should note that the Originator to Beneficiary Information (OBI) field is required for DTC processing and must be included in all SET wires processed through the ~~Federal Reserve's~~ Fedwire® system.

## Untimely Funds Settlement/Failure to Settle Acknowledge Fees

- 1. Settling banks are charged failure to settle fees if their settlement obligation is not timely satisfied or their acknowledgment is not on time. If DTC makes a borrowing as a result of the failure of a Settling Bank or Participant to complete timely settlement the Settling Bank or Participant will be charged interest on that borrowing as follows:**

### Fee Interest Rates for Borrowings Made Due to Untimely Payment of Funds

<b>Net Debit of Settling Bank or Participant</b>	<b>Rate (percent)</b>
First \$5 million	2.0
Next \$20 million	1.5
Next \$50 million	1.0
More than \$75 million	0.5

**Note: A Settling Bank will not be charged interest under this provision with respect to the settlement balance of a Participant or Participants for which the Settling Bank settles where the Settling Bank timely notified DTC of its refusal to settle on behalf of such Participant or Participants.**

Example:

Interest is calculated overnight on a 360 day/year basis. For a net debit of \$100 million, the **fee** interest calculation is:

$$[(\$5 \text{ mm} \times 2\%) + (\$20 \text{ mm} \times 1.5\%) + (\$50 \text{ mm} \times 1\%) + (\$25 \text{ mm} \times 0.5\%)] / 360$$

which equals \$2,847.

### **Flat Fees**

- 2. a. Settling Banks and Participants are charged flat fees in accordance with the table below if their net settlement obligations are not timely satisfied. This fee is in addition to any interest charged pursuant to Item 1 above.**
- b. In addition to Item 2a. above, a Settling Bank that settles on behalf of other Participants shall also be charged flat fees in accordance with the table below if it does not, by the Acknowledgment Cutoff Time, (i) affirmatively acknowledge its net-net settlement balance or (ii) notify DTC that it refuses to settle for one or more Participants for which it is the designated Settling Bank. The Settling Bank will not be charged a fee for failure-to-acknowledge or notify DTC of its refusal if it notifies DTC in accordance with Item 7 or Item 9 of the Acknowledgment and Refusal Procedures above that it cannot acknowledge or refuse its net-net settlement balance. This fee is in addition to any fee(s) for failure to timely satisfy a net settlement obligation charged pursuant to Items 1 and 2.a. above.**

**Flat Fees—Untimely Satisfaction of Settlement Balance /Settling Bank Failure-to-Acknowledge its Net Debit or Credit Settlement Balance**

<b>Net Balance of Settling Bank or Participant</b>	<b>First Occasion</b>	<b>Second Occasion</b>	<b>Third Occasion</b>	<b>Fourth Occasion</b>
<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
0 to 100,000	100	200	500	1,000
Between 100,000 and 900,000	300	600	1,500	3,000
Between 900,00 and 1,700,000	600	1,200	3,000	6,000
Between 1,700,00 and 2,500,000	900	1,800	4,500	9,000
More than 2,500,000	1,000	2,000	5,000	10,000

*Example:*

For a first occasion \$100 million net debit, total fees equal \$2,847 (fee interest) + \$1,000 (flat fee) = \$3,847.

*Note*—~~a. If you failed to settle, you are charged a fee interest in addition to the interest charged for the cost of borrowing to complete settlement.~~

~~ba.~~ The number of occasions will be determined as a cumulative sum of the number of occasions incurred by a Settling Bank pursuant to Items 2.a. and 2.b. above over a rolling three-month period. ~~If you exceed~~ If a Settling Bank or Participant, as applicable, exceeds four ~~failure to settle~~ occasions in a three-month period, ~~you it~~ will be subject to further fees and/or other actions at DTC's discretion ~~after consultation with DTC.~~

~~eb.~~ If DTC determines that it greatly affected your ability to settle (because of a DTC system delay, for example); DTC may waive failure to settle fees the fee in appropriate circumstances (e.g. such as a DTC system delay).

c. A Settling Bank will not be charged a flat fee under this provision with respect to the settlement balance amount of a Participant or Participants for which the Settling Bank settles where the Settling Bank timely notified DTC of its refusal to settle on behalf of such Participant or Participants.

**Settlement for Credit Balances**

~~The following process takes place for settling banks with net net credit balances:~~

- ~~• DTC instructs the FED to credit funds to all settling banks with net net credit balances at approximately 5:00 p.m. eastern time.~~

- ~~DTC reports funds transfer debits on DTC Settling Bank Account Statements of the SETB function.~~

### ~~Associated PTS Functions~~

- ~~The SETB function is used in association with the End of Day Settlement Process product to:~~

- ~~View current net-net balances~~
- ~~Acknowledge your net-net debit or credit~~
- ~~Refuse to settle for a specific DTC participant~~

~~Verify that DTC has received your funds for a net-net debit balance, or that DTC has credited your account for a net-net credit balance.~~

### Settlement Contact Number

*For more information about Settlement processing, call DTC's Settlement Hotline at 212-855-5800.*

## Settlement Processing Schedule<sup>2</sup>

The following table describes the DTC Settlement processing schedule. All times are eastern time.

<b>Cutoff Time ET</b>	<b>This Occurs</b>
1:15 p.m.	DTC's cutoff for syndicate closings.
1:30 p.m.	DTC releases all pending delivery account (PDA) positions and reverts to default recycle processing.
2:00 p.m.	Cutoff for: <ul style="list-style-type: none"> <li data-bbox="1036 646 1338 678">• Valued MMI issuances</li> </ul>
2:45 p.m.	Cutoff for: <ul style="list-style-type: none"> <li data-bbox="1036 730 1409 814">• RAD approval of MMI valued issuance deliver order transactions</li> </ul>
2:55 p.m.	Cutoff for entering release requests designating position as eligible for CNS.
3:00 p.m.	Cutoff for: <ul style="list-style-type: none"> <li data-bbox="1036 972 1435 1119">• An Issuer's Paying Agent notifying DTC of the default of an MMI issue that would require the reversal of transactions in DTC's system.</li> </ul>
3:00 p.m.	Forced Receiver Authorized Delivery (RAD) period begins. <del>Note—</del> <b>Your Participants</b> can continue to enter valued and free transactions. However, all valued transactions, are forced into RAD and require the receiving Participant's approval.
3:05 p.m.	Largest Provisional Net Credit (LPNC) control ends. DTC begins using <b>your Participants'</b> actual collateral monitor and net settlement balances (instead of simulated collateral monitors and net settlement balances) in determining whether Risk Management Control recycles can complete.
3:10 p.m.	<ul style="list-style-type: none"> <li data-bbox="1036 1686 1435 1801">• Cutoff for pledgees to approve pledge release requests designating position as CNS-eligible.</li> <li data-bbox="1036 1801 1435 1822">• Valued recycle cutoff. All</li> </ul>

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<sup>2</sup> **To be read in conjunction with the Settling Bank Processing Schedule above.**

**Cutoff Time** ET

**This Occurs**

	<p>valued and CNS transactions that cannot be completed because of insufficient position, collateral, or net debit cap are dropped from the system.</p> <ul style="list-style-type: none"> <li>• CNS input cutoff.</li> </ul> <p><i>Note</i>–All valued transactions input or approved by Participants after this time will not recycle; they will either complete or drop.</p>
3:15 p.m.	<p>Optional “Push” profile that allows Participants to establish a standing withdrawal request for SPP returns and P&amp;I withdrawals. Cutoff for government deposits and withdrawals.</p>
3:20 p.m.	<p>Cutoff for Settlement payment withdrawals and principal and income withdrawals.</p>
3:20 p.m.	<p>Note–These are manual withdrawals as opposed to the “Push” profile described above. Forced RAD Delivery Period ends. Cutoff for entering:</p> <ul style="list-style-type: none"> <li>• Valued original DOs including unmatched reclaims</li> <li>• Original POs</li> <li>• Valued pledges</li> <li>• Valued pledge release requests.</li> </ul> <p><i>Note</i>–If <b><u>you a Participant have has</u></b> made prior arrangements with DTC and <b><u>your its</u></b> Settling Bank, <b><u>you the Participant</u></b> can continue to submit valued transactions to <b><u>your its settling bank Settling Bank</u></b>.</p>
3:30 p.m.	<p>Cutoff for:</p> <ul style="list-style-type: none"> <li>• Pledges to approve valued pledge release requests and enter valued release returns</li> <li>• RAD approval or cancellation for valued transactions (except MMI valued issuance DOs).</li> </ul>
3:45 p.m.	<p>DTC calculates <b><u>your</u></b> DTC and NSCC cross-endorsement balances <b><u>and applies them to your account</u></b>.</p>
3:45 p.m.	<p>DTC finalizes settlement balances for <b><u>you Participants</u></b> and <b><u>your</u></b> Settling Banks.</p>

**Cutoff Time** ET

~~4:15 p.m.~~

5:00 p.m.

~~5:15 p.m.~~

6:15 p.m.

**This Occurs**

~~Cutoff for Settling Banks to acknowledge their net-net settlement balance, where applicable, or refuse to settle for a specific Participant. Note If the 3:45 p.m. deadline for final figures is extended, banks have 30 minutes from that cutoff to either acknowledge or refuse to settle.~~

Cutoff for:

- Entering free Fed pledges to ~~Federal Reserve Bank~~ the Fed with extensions upon request to the Fed.
- Pledgors' requests for release of positions pledged to ~~the Federal Reserve banks.~~ the Federal Reserve banks.
- ~~Federal Reserve banks~~ to input pledge release returns.
- Entering valued DOs and pledges to ~~your a~~ Settling Bank
- ~~Settling Banks to settle DTC payments for net-net debits (unless extended), and instructs NSS to credit payments to Settling Banks with net-net credit balances (unless extended).~~
- Settling Banks to authorize valued DO and pledge transactions.
- MMI issuing agents to enter free original issuances (new CUSIP).
- DTC to lift Risk Management Controls.
- Free non-MMI DOs input after 5:00 p.m. to RAD if that option is activated by the receiving Participant.

~~DTC instructs the Fed to credit payments to settling banks with net-net credit balances.~~

Cutoff for:

- Entering free additional MMI issuances (existing CUSIP) and free deliveries.
- Pledgors to enter free pledges and free release requests.
- MMI issuing and paying agents to withdraw MMI securities.

## Cutoff Time ET

## This Occurs

Cutoff Time ET	This Occurs
6:30 p.m.	<ul style="list-style-type: none"><li>• IPA deadline to set the MMI MP Pend or Issuer Priority Control (IPC) profile that will be effective for next processing day.</li><li>• OCC member's release of deposit request and authorization to release positions pledged to the OCC.</li></ul>
6:30 p.m.	Cutoff for: <ul style="list-style-type: none"><li>• Approving or cancelling free MMI issuances through RAD.</li><li>• Inputting day and night position transfer instructions (MA-to-NA transfers).</li><li>• Pledges to enter free pledge release returns.</li><li>• Pledges to approve free pledge release requests.</li></ul>
6:30 p.m.	Cutoff for the Authorization and Exemption function.
6:35 p.m.	<ul style="list-style-type: none"><li>• Recycle cutoff for all free transactions.</li></ul>
6:45 p.m.	Cutoff for inputting segregation <del>and memo segregation</del> instructions.
7:30 p.m.	Cutoff for ANE.
8:00 p.m.	NDO cutoff.

## Extension Requests

DTC cannot grant **any** Participant an extension of the foregoing deadlines unless a substantial volume of transactions is involved. **Please A Participant should** notify DTC as early in the processing day as possible if ~~you think you~~ **it thinks it** may need to request an input extension. This will allow DTC to discuss alternative methods.

To request an extension call DTC's Settlement Hotline at 212-855-5800.

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## Settling Bank Failure To Settle Procedures

~~The Depository Trust Company ("DTC") will follow the procedures described below when a settling bank is deemed to have failed to settle with DTC. Unless these procedures indicate otherwise, each paragraph of these procedures applies whether a settling bank's settlement balance is a net net credit or a net net debit (or a net credit or net debit if the settling bank settles only for itself). A reference in these procedures to the Participants that settle through a settling bank is also a reference to the settling bank itself as a Participant. As modified by these procedures, all DTC agreements, rules and procedures relating to settling banks and Participants remain in effect.~~

~~1. Subject to Section 3 below, a settling bank must acknowledge its settlement balance each day by the later of (a) 30 minutes after its settlement balance is first made available to it or (b) 4:30 P.M. (eastern time). The time when the settlement balance is first made available is indicated on the settling bank's settlement statement. The time specified in this paragraph by which a settling bank must acknowledge its settlement balance is referred to in these procedures as the "Acknowledgment Time."~~

~~2. A settling bank may give DTC a refusal to settle notice by the Acknowledgment Time with respect to one or more Participants for which the settling bank performs settlement services. By the Acknowledgment Time, the settling bank must acknowledge its settlement balance as adjusted to reflect the refusal to settle notice.~~

~~3. A settling bank will be deemed to have failed to settle with DTC if the settling bank does not acknowledge its settlement balance by the Acknowledgment Time. A settling bank that settles only for itself has properly elected to no longer acknowledge its settlement balance, will be deemed to have acknowledged its settlement balance by the Acknowledgment Time. A settling bank with a net net debit balance (or a net debit balance, if the settling bank settles only for itself) will not be deemed to have failed to settle if, without acknowledging its settlement balance, the settling bank pays the full amount of the settlement balance shown on its settlement statement by the Acknowledgment Time. DTC's flat fee for a Participant failure to settle will be charged to a settling bank for each instance in which the settling bank has a net net credit balance and does not acknowledge its settlement balance by the Acknowledgment Time even though the settling bank acknowledges its settlement balance at a later time. Solely for purposes of calculating that flat fee, the settling bank's net net credit balance will be treated as a net debit balance.~~

~~4. A settling bank with a net net debit balance (or a net debit balance, if the settling bank settles only for itself) will be deemed to have failed to settle if, after acknowledging its settlement balance, the settling bank does not pay its settlement balance to DTC within 30 minutes after the Acknowledgment Time. DTC's flat fee for a Participant failure to settle will be charged to a settling bank for each instance in which the settling bank has a net net debit balance (or a net debit balance) and neither acknowledges nor pays its settlement balance by the Acknowledgment Time even though the settling bank pays its settlement balance within 30 minutes after the Acknowledgment Time. Solely for purposes of calculating that flat fee, the settling bank's net net debit balance will be treated as a net debit balance.~~

~~5. If a settling bank is deemed to have failed to settle with DTC, DTC will give notice of the failure to all of the Participants that settle through the settling bank. Each of those Participants will be deemed to have failed to settle with DTC on that day. Each of those Participants may~~

~~need to arrange for another settling bank to pay or receive funds for the Participant on that day or on the next business day.~~

~~5. If a settling bank is deemed to have failed to settle with DTC, DTC may retain collateral on that day from all of the Participants that settle through the settling bank and have net debit balances. The amount of collateral retained from each Participant will be at least equal in collateral value to the Participant's net debit balance. In its discretion, DTC may decide not to make payments on that day to some or all of the Participants that settle through the settling bank and have net credit balances. DTC will make such payments through the settling bank on the next business day if the settling bank completes settlement with DTC on that day. If the settling bank does not complete settlement on the next business day, DTC may make such payments only when DTC settles with all of the Participants that settle through the settling bank and had net debit balances on the day of the settling bank's failure to settle.~~

~~6. If a settling bank with a net net debit balance (or a net debit balance if the settling bank settles only for itself) is deemed to have failed to settle with DTC, DTC will attempt to obtain funds in an amount equal to the net net debit balance (or the net debit balance) in order to complete settlement with all other settling banks. To secure any borrowings made for that purpose, DTC will use the collateral retained from Participants that settle through the settling bank and have net debit balances. If the settling bank's net net debit balance exceeds DTC's liquidity resources, DTC may borrow funds on a secured basis from Participants with net credit balances by not paying the full amounts of the net credit balances on that day. DTC will not borrow funds from any Participants that settle through the settling bank which failed to settle. DTC will also not borrow funds from any Participants whose settling bank has, or would have after such borrowing, a net net debit balance (or a net debit balance) on that day.~~

~~7. If a settling bank is deemed to have failed to settle with DTC, it must complete settlement by no later than 10:00 A.M. (eastern time) on the next business day by paying or receiving its settlement balance from the day of its failure to settle. If the settling bank completes settlement with DTC, DTC will repay any borrowings made on the day of the settling bank's failure to settle and will return collateral to Participants. DTC will charge the settling bank for any interest charges and other costs associated with such borrowings. Once DTC has completed settlement with the settling bank, each Participant that settles through the settling bank will be deemed to have settled with DTC for the day of the settling bank's failure to settle, and DTC will not be responsible for any obligations of the settling bank to such Participants.~~

~~8. If a settling bank which is deemed to have failed to settle with DTC does not complete settlement by 10:00 A.M. (eastern time) on the next business day, DTC will contact each Participant that settles through the settling bank and will request that the Participant pay or receive its settlement balance from the day of the failure to settle through another settling bank. (DTC will not contact any Participant that paid or received its settlement balance through another settling bank on the day of the failure to settle.) Each Participant that had a net debit balance on the day of the settling bank's failure to settle must pay the net debit balance to DTC by 12:00 noon (eastern time) on the day of the request from DTC. If a Participant does not pay its net debit balance from the day of the settling bank's failure to settle by that time, DTC may apply any of its Participant failure to settle procedures to the Participant. After settlement with all Participants that settled through the settling bank (including any application of the Participant failure to settle procedures), DTC will repay any borrowings made as a result of the settling bank's failure to settle and will return collateral to Participants. Any interest charges and other costs associated with such borrowings will be charged to the settling bank to the extent of its Participants Fund deposit and other collateral available to DTC, and any remaining amount of such charges and costs will be charged to the Participants that settled through the settling bank and had net debit balances on the day of the settling bank's failure to settle. Such Participants will be charged in proportion to their net debit balances on the day of the settling bank's failure to settle. In addition to those costs and charges, DTC may charge any applicable Participant failure to settle fees.~~

## Special Procedures Relating to Settling Bank Processing on Behalf of Participants

In addition to the above, the following procedures apply when a Settling Bank does not timely satisfy its settlement balance. Unless these procedures indicate otherwise, each paragraph of these procedures applies whether a Settling Bank's settlement balance is a net-net credit or a net-net debit (or a net credit or net debit if the Settling Bank settles only for itself). A reference in these procedures to the Participants that settle through a Settling Bank is also a reference to the Settling Bank itself as a Participant. As supplemented by these procedures, all DTC agreements, rules and procedures relating to Settling Banks and Participants remain in effect.

1. If a Settling Bank that is the designated Settling Bank for other Participants ("Subject Settling Bank") does not timely settle with DTC on a given settlement date ("Due Date") in accordance with the timeframes provided in the DTC Settlement Service Guide, DTC will notify each Participant that settles through the Subject Settling Bank. Each Participant must be prepared in advance to arrange for another bank to pay or receive funds via Fedwire® on the Participant's behalf upon the instruction of DTC.

2. In its discretion, DTC may decide not to make payments on the Due Date to some or all of the Participants that settle through the Subject Settling Bank and have net credit balances. DTC will make such payments through the Subject Settling Bank on the next business day following the Due Date ("Next Business Day") if, by 10 a.m. on the Next Business Day (the "SB Cure Time"), the Subject Settling Bank completes settlement with DTC and/or all Participants with net debit balances that would otherwise have settled through the Subject Settling Bank have wired payment to DTC in accordance with the preceding paragraph. If the Subject Settling Bank does not complete settlement by the SB Cure Time, DTC may make such payments to Participants only when DTC settles with all of the Participants that otherwise would have settled through the Subject Settling Bank and had net debit balances on the Due Date.

3. If the Subject Settling Bank and defaulting Participants complete settlement with DTC by the SB Cure Time, DTC will charge the Subject Settling Bank for any interest charges and other costs associated with liquidity costs of completing settlement. Once DTC has completed settlement with the Subject Settling Bank, each Participant that settles through the Subject Settling Bank will be deemed to have settled with DTC for purposes of its net settlement balance on the Due Date and, if any of these Participants also paid its settlement obligation to DTC directly by Fedwire®, those Participants must resolve their obligations with the Settling Bank and, to the extent, if any, that DTC has been overpaid, it will refund the amount directly to the affected Participant unless instructed otherwise by the affected Participant. DTC will not be responsible for any obligations of the Subject Settling Bank to or from such Participants.

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