

Exhibit 5

Bold, Underlined text indicates additions.

~~Bold, Strikethrough~~ text indicates deletions.

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About Settlement

Overview

This chapter describes DTC's Settlement products. Each section includes a description of the product and how it works, as well as ~~a list of associated Participant Terminal System (PTS) and Participant Browser Services (PBS) functions~~ corresponding functions you can use to access the product.

Note- Although DTC makes every effort to provide you with timely information, you are primarily responsible for obtaining such information without reliance on DTC. We recommend that you reconcile your records with DTC's records before any critical dates or cutoff times.

About DTC's Settlement Department

DTC's Settlement Department is responsible for overseeing the process of the settlement of your transactions. Specifically, the Settlement Department:

- Ensures the collection/disbursement of your net settlement obligations and credits through the Fedwire system
- Ensures that major components of DTC's Settlement Service are updating/processing in a timely manner
- Helps resolve problems affecting the settlement process
- Grants input extensions when processing problems arise
- Provides **PTS** backup to the extent possible when your systems go down
- Answers your questions regarding all aspects of settlement processing
- Processes deposits and withdrawals of Federal book-entry eligible securities.

About Settlement

~~DTC's Settlement Service oversees the settlement process of your transactions. This service includes:~~

- ~~• Collecting and disbursing your net settlement obligations and credits through the Fedwire system~~
- ~~• Helping to resolve problems affecting the settlement process~~
- ~~• Granting input extensions when processing problems arise~~
- ~~• Backing up PTS to the extent possible when your systems go down~~
- ~~• Answering your questions regarding all aspects of settlement processing~~
- ~~• Processing deposits and withdrawals of Federal book entry eligible securities.~~

Settlement Transactions

There are three main types of transactions processed through the Settlement system.

1. **Deliveries:** DTC's delivery program allows you to settle securities transactions by making **computerized book-entry** deliveries to another ~~participant's~~ **Participant's** account. The securities are immobilized in DTC's custody, eliminating the need for physical movement of certificates. DTC reduces the seller's position and increases the buyer's position without the need to move physical certificates. Deliveries can be made with or without the condition of money payment, depending on your delivery instructions.
2. **Payment Orders (POs):** The payment order service provides you with a convenient method for settling amounts of money related to securities transactions that are effected separately through DTC earlier on the same day or on a previous day. You can use payment

orders to collect option contract premiums and mark-to-market open contracts such as stock loans.

3. **Collateral loans:** The collateral loan service allows you (the pledgor) to pledge securities as collateral for a loan or for other purposes and also request the release of pledged securities. This service allows such pledges and pledge releases to be made free, meaning that the money component of the transaction is settled outside of the depository, or valued, meaning that the money component of the transaction is settled through DTC as a debit/credit to the pledgor's and pledgee's DTC money settlement account. When pledging securities to a pledgee, the pledgor's position is moved from the pledgor's general free account to the pledgee's account which prevents the pledged position from being used to complete other transactions. Likewise, the release of a pledged position would move the pledged position back to the pledgor's general free account where it would then be available to complete other transactions.

Important Terms

The following terms are important to understanding the Settlement Service:

This term	Refers to
Aggregate Affiliated Family Net Debit Cap	A limit to the settlement debit an Affiliated Family can incur at any point during the processing day.
chill	A systemic way DTC can prohibit you from processing certain activities (for example, valued delivery chill will prevent you from making valued deliveries from your account).
Collateral Monitor (CM)	DTC's process for measuring the sufficiency of the collateral in your account to cover your net settlement obligation.
collateral value	The market value of a security less the applicable DTC haircut.
Computer-to-Computer Facility (CCF/CCF II)	A batch transmission system for input/output based on various protocols between your mainframe and DTC's mainframe.
Continuous Net Settlement (CNS)	The system employed by NSCC to settle NYSE, AMEX, NASDAQ, and over-the-counter trades.
deliver order (DO)	The term used to define a book-entry movement of shares of a particular security between two DTC participants Participants .
drop	A transaction that does not complete because of insufficient position, Risk Management Controls, and so forth.
haircut	The percentage decrease of a security's market value in determining the collateral value of the security.
initial distribution	The delivery of shares of a new issue from the lead manager and syndicate members to their customers. Shares are considered initial distribution shares until they are sold on the secondary market.
Largest Provisional Net Credit (LPNC)	A control that ensures that reversing a failed MMI issue transaction does not cause your Risk Management Controls to be overridden.
long allocations	Deliveries from NSCC's Omnibus Account 888 to your DTC account as a result of Continuous Net Settlement processing.

This term	Refers to
market value	The prior day's closing price of a security for security valuation purposes.
memo segregation	An inventory control mechanism that allows you to protect fully-paid-for securities in your general free or IPO control account.
Message Queuing (MQ)	A system for messaging across multiple platforms. Developed as part of IBM's WebSphere family, it is also referred to as "WebSphere MQ" or "MQ Series."
Minimum Amount (MA)	DTC's classification for securities in your account that are not considered collateral.
Money Market Instrument (MMI)	Debt securities such as commercial paper or medium-term notes that are eligible for DTC's MMI Program.
Net Additions (NA)	DTC's classification for securities in your account that are considered collateral.
net debit cap	A limit to the settlement net debit you can incur at any point during the processing day.
night deliver order (NDO)	A DO input on the day prior to settlement. A reduced rate is charged for NDO transactions.
Participant Terminal System (PTS)	The terminal-based system that allows for input/inquiry into DTC.
payment order (PO)	A transaction in which a participant Participant charges another participant Participant for changes in value for outstanding stock loans or option contract premiums.
receive versus payment NA (RVP NA)	A sub-counter of your NA position that indicates how much of your NA position was received versus payment during the current day.
Receiver Authorized Delivery (RAD)	A control mechanism that allows you to review transactions prior to completion of processing. It limits your exposure from misdirected or erroneously entered DOs, POs, institutional delivery transactions, MMI transactions, reclaims, pledges and releases of pledged securities.¶
reclamation or reclaim	The return of a DO, PO, institutional delivery transaction or MMI transaction received by a participant Participant . All reclaims are considered original transactions for purposes of DTC processing and are subject to DTC's risk management controls and RAD.
Risk Management Controls	The controls, primarily net debit cap and CM, that are used to provide protection to all DTC participants Participants against the inability of one or more participants Participants to settle net settlement obligations.
settlement progress payments (SPP)	An intraday funds transfer sent via Fedwire to your DTC participant account.
Settlement User Interface	<u>Any system or combination of systems that allows for input/inquiry into the DTC Settlement System.</u>
short covers	Deliveries to NSCC's Omnibus Account 888 as a result of CNS.
syndicate	A group of broker-dealers that agree to purchase a new

This term	Refers to
	issue of securities from the issuer for resale to the investment public.
unvalued additions	<p>Unvalued additions to your security account that do not carry a related payment obligation with the receipt of securities. They include:</p> <ul style="list-style-type: none"> • Deposits • Free release of pledged securities • Receipt of a free DO • Releases of segregated securities

Preparing to Use the Products

In order to use the products associated with this service, you must have access to one of the following:

- ~~The Participant Terminal System (PTS)~~
- ~~Participant Browser Services (PBS)~~
- DTC's Settlement User Interface
- Computer-to-Computer Facility (CCF or CCF II) or Message Queuing (MQ).

Contact your Relationship Manager for more information.

~~Note DTC also provides various hard copy reports.~~

Settlement Contact Numbers

For general questions about DTC's Settlement Service, call one of the following numbers:

- For general inquiries: the Customer Support Center at (888) 382-2721
- For input extensions: the Settlement Hotline at (212) 855-5800.

Service Topics

Activation / Account Coding

DTC's Activation/Account Coding product describes the various account options available to your ~~participant~~ **Participant** account.

Requirements

To use DTC services, you must:

- Become a DTC ~~participant~~ **Participant**
- Make your mandatory deposit to DTC's Participants Fund
- Engage the services of a settling bank to settle daily on your behalf, and submit a formal settling bank agreement to DTC.

Account Options

When you open your account and any time thereafter, you can:

1. Instruct DTC to group multiple accounts into different collateral families and allocate specific percentages of your start-of-day collateral and net debit cap to each family. If we do not receive this instruction, all your accounts will be grouped into one collateral family. See Grouping Accounts Into Collateral Families for more information.
2. Instruct DTC to classify all of your start-of-day positions as collateral. At the opening of business each day, all security positions in the minimum amount (MA) account that are not memo-segregated will be moved into your net additions (NA) account, giving you collateral value credit for those securities. Absent your instructions, DTC will code the MA account for start-of-day positions.
3. Instruct DTC to classify all unvalued additions as non-collateral (such as deposits, free deliver orders (DOs), release of segregated securities). Absent your instructions, DTC will code the NA account.

Warning! You are advised to consider the implications of classifying your securities as collateral. Collateral can be used to support your net debit and therefore can be liquidated by DTC in the event you are unable to pay your settlement obligation.

4. Elect to have the ability to make late, valued transactions to your ~~settling bank's~~ **Settling Bank's** participant account, with the consent of the settling bank.
5. Elect to have the ability to withdraw SPP Return /P&I Withdrawal allocations intraday. See Principal and Income Withdrawals and Settlement Progress Payments for more information.
6. Elect to have the ability to chill (block) your account from transactions involving securities eligible for Federal book-entry.
7. Choose between two recycle options. See Recycle Processing for more information.
8. Choose from various memo-segregation options. See Memo Segregation.
9. Elect to have Initial Public Offering (IPO) positions released automatically upon the input of a DO, if you act as a prime broker. See the IPO Broker Manual or call your Relationship Manager for more information.
- ~~10. Elect to have all valued pledges subjected to Receiver Authorized Delivery (RAD) approval before they are processed by DTC, if you act as a pledgee. See Receiver Authorized Delivery (RAD) for more information.~~

~~11. 10.~~ Elect to have all free DOs entered after 5:00 p.m. eastern time subjected to RAD approval before they are processed by DTC.

Activation/Account Coding Contact Number

For more information about Activation/Account Coding, contact DTC's Customer Support Center at (888) 382-2721.

Settlement Web-User Interface

About the Product

The Settlement Web User Interface is a user interface ~~offered in conjunction with the current options of PTS and PBS. The Settlement Web homepage that~~ features a Navigation Bar and Dashboard. The Navigation Bar allows Participants access to improved inquiry and update capabilities for their settlement transactions. The Dashboard consists of individual windows, each of which offers a view into different settlement related activity.

How the Product Works

Navigation Bar

~~All PTS and PBS functionality will eventually be available via the settlement Web. In the meantime, DTC has provided seamless navigation between the Settlement Web and PBS interfaces. The Navigation Bar includes a link for all settlement activity available through PBS. When a Participant selects a function that has not yet been included in the new Settlement Web, they will be brought to the PBS equivalent. When a Participant accesses a PBS function through the new Settlement Web, a link back to the new Settlement Web will be provided.~~

Dashboard

~~Current offerings include separate windows for Events, On-Demand reporting, an Information Center and optionally selected Alerts. The Events window displays key settlement milestones, the time they are expected to occur and the time they actually complete. The On-Demand reporting window allows Participants to save and view commonly executed searches. The Information Center window provides a convenient place for Participants to view settlement related information like user guides and settlement important notices. The alerts window provides Participants with the option of being notified, either via the alert window of the Dashboard or through email, to certain settlement related information through subscription.~~

Collateral Loan Program

About the Product

The Collateral Loan Program allows you to pledge securities from your general free account as collateral for a loan or for other purposes (such as Letters of Credit) to a pledgee participating in the program. You can also request the pledgee to release pledge securities back to your general free account. These pledges and releases can be free (when money proceeds are handled outside DTC) or valued (when money proceeds are applied as debits and credits to the pledgee's and pledgor's money settlement accounts). A Pledgee may, but need not be, a Participant. Only a Pledgee which is a **participant Participant** may receive valued pledges.

How the Product Works

The guidelines for using the Collateral Loan Program are as follows:

1. You can use the ~~PTS function COLL, the PBS~~ Collateral Loan Services ~~menu function~~, the Computer-to-Computer Facility (CCF), or Message Queuing (MQ) to submit collateral loan pledges and release requests to DTC. Release returns are also available through CCF and MQ. However, release approval is available only through ~~PTS and PBS the~~ **Settlement User Interface**.
2. You must ensure that the securities you are pledging are available in your general free account.
3. When a stock distribution requiring due bills is declared on securities pledged as collateral, the distribution automatically becomes additional collateral.
4. In the instance of a substantial cash distribution, for which an exchange or similar securities organization would require due bills to accompany stock certificates, for the amount of cash accruing on pledged shares, the Pledgee may direct DTC to pay such funds directly to it as partial repayment of the loan. Otherwise, such funds will be paid by DTC to the Participant.
5. At any time, the pledgee can direct DTC to deliver pledged securities (demand of collateral).
6. Voting rights are assigned to you for pledged securities.

Demand of Collateral

A demand of collateral takes securities that you pledged to a pledgee and places them in the general free account of a DTC ~~participant Participant~~ designated by the pledgee. Pledgees can enter demand of collateral instructions by using the ~~PTS function DCL~~ **Demand of Collateral function** or by making special arrangements with DTC's Settlement Department. A pledgee that is a DTC ~~participant Participant~~ can move securities to its DTC participant account.

Pledges to Federal Reserve Banks

If you are a depository institution maintaining a deposit account at a Federal Reserve Bank (FRB), you can make free pledges and release requests to the FRB. You must use the COLL function to pledge and release pledges to FRBs. FRBs have special requirements and procedural modifications to which DTC has agreed. DTC or an FRB may change these operating procedures no later than one day following receipt of written consent from the other. DTC or the FRB will notify DTC ~~participants~~ **Participants** in writing at least 10 business days before such changes become effective. However, if DTC consents to the FRB's request that such changes become effective immediately (according to DTC's Rules and applicable law), ~~participants Participants~~ will receive immediate notification in writing from the FRB of changes taking effect immediately.

Note- Pledges to FRBs are free of value.

FRB Pledge Eligibility

Pledgor Eligibility: All DTC bank ~~participants Participants~~ that are members of the Federal Reserve are automatically eligible to pledge securities to FRBs that are DTC pledgee banks using the ~~participant Participant~~ /non-participant pledge facility.

Non-Participant Eligibility: DTC allows non-participants to pledge collateral to FRBs through DTC bank participants. Bank ~~participants Participants~~ and non-participants must provide their American Banking Association (ABA) number and the purpose of the loan.

Pledging Purposes

Any securities you pledge to the FRB through the Collateral Loan Program are deemed pledged to the FRB (as fiscal agents of the United States for its principal, the Treasury Department) when pledged for:

- Treasury Tax and Loan: Collateral for Treasury Tax and Loan account balances under 31 C. F. R. Part 203 (Treasury Circular No. 92)
- Public Purposes: Collateral for deposits of public money under 31 C. F. R. Part 202 (Treasury Circular No. 176).

Any securities you pledge to the FRB through the Collateral Loan Program are deemed pledged to the FRB as principal, as Collateral when pledged for:

- (i) discount window advances under 12 C. F. R. Part 201 (Regulation A of the Board of Governors of the Federal Reserve System) ("Discount") or
- (ii) daylight (funds) overdrafts on the books of the FRB ("Daylight Overdraft")

Collateral pledged for either purpose may be credited to a single Pledgee Account of the FRB.

Note- An indication that a security is pledged for Discount, or Daylight Overdrafts is made when collateral is initially or primarily used for either purposes. However, in accordance with FRB agreements and operating circulars, such collateral so designated, regardless of such designation, shall serve as security for any obligation of the pledgor to the FRB.

Categories of Securities to be Pledged

DTC-eligible securities are generally good for all services provided by DTC. However, the FRB must approve securities pledged to FRBs under the subheading Pledging Purposes. You should contact the appropriate FRB to determine whether the securities pledged are accepted and to inquire about particular instructions for indicating the purpose of the pledge.

Issues Not Acceptable to FRBs

The FRB may not permit the pledging of certain securities that might be DTC-eligible. If a pledge is made in an issue not accepted by the FRB, the FRB will initiate the release of the pledge after receiving pledge notification.

Inquiries

~~Pledgors can order daily Pledgor Position Statements containing participant/non-participant pledge information. The participant/non-participant's ABA number and a numerical code indicating the purpose of the loan are included on the Pledgee Daily Activity Statement, the Pledgee Monthly Position Statement, and the Pledgor Position Statement.~~

Pledgors can monitor all pledges, and releases (~~participant Participant~~ and non-participant) and **current collateral loan inquiries** intraday using the **ART Activity Inquiry** functions. ~~All current collateral loan inquiries available through the PART function are also available.~~

Pledges to the Options Clearing Corporation

A ~~participant Participant~~ writing an option on any options exchange may fully collateralize that option by pledging the underlying securities by book-entry through DTC to the Options Clearing

Corporation (OCC). If the option is called (exercised), the securities may be released and delivered to the holder of the call. If the option contract is not exercised, OCC validates a release of the pledged securities, which are then returned to the ~~participant's~~ Participant's general free account.

Rollover of Collateral

After an option contract has expired, the option writer may rollover or continue to use the original collateral for subsequent contracts. By following an OCC procedure, you may rollover the collateral without preparing a Release of Collateral form and a new Options Depository Receipt form. Contact OCC for information about this procedure.

Deposits With Options Clearing Corporation

You can deposit securities at DTC between 8:30 a.m. and 1:00 p.m. eastern time for same-day deposit credit. You can then pledge your free position by book-entry to the OCC as follows:

- Segregate underlying securities supporting put and call options
- Pledge U. S. government securities to satisfy OCC put and call margin requirements
- Pledge U. S. government securities to meet clearing fund obligations
- Pledge U. S. government securities of sufficient value to cover the exercise price of put and call option contracts.

Release of Deposits with Options Clearing Corporation on Expired Options

OCC automatically releases securities deposited with it to cover margin requirements on an option contract when the option contract expires. The securities are then allocated to your general free account. Notification of the released securities is received via **PTS the Collateral Loan Services functionality in the Settlement User Interface or automated output.**

Note- OCC will begin releasing expired options at the close of business on the Friday following the expiration weekend. On the following Monday, OCC will release the deposits on expired options to DTC.

Deposits to the Options Clearing Corporation Clearing Fund

You can deposit U. S. government securities at DTC to be pledged by book-entry to OCC to meet clearing fund requirements.

The term "U. S. government securities" refers to securities issued or guaranteed by the United States government and having a maturity of 5 years or less from the date of issuance.

- Short-term government securities: Securities maturing less than one year from the date of deposit.
- Long-term government securities: Securities maturing one to five years from the date of deposit.

U. S. government securities are valued for clearing fund purposes as follows:

- Short-term government securities: Securities valued at the lesser of par value or 100 percent of their current market value.
- Long-term government securities: Securities valued at the lesser of par value or 95 percent of their current market value.

OCC determines the current market value of U. S. government securities at any given time on the basis of the quoted ask price supplied by the Federal Reserve Bank of New York (FRBNY) on the last day of the preceding month, or such later date as its Margin Committee designates.

Associated PTS Functions

~~You can use the following PTS functions to carry out Collateral Loan Program activities.~~

Use	To
COLL	Release requests.
DCL	Demand collateral from a pledgor.
HBDD	Liquidate securities.
HBCN	Liquidate securities through the NSCC's Continuous Net Settlement (CNS) account.
PART	View your pledge history.
PSOP	View pledges made to an FRB.

Option Exercise & Assignment Loan Program

About the Product

Under this program, a ~~participant~~ **Participant** may use securities pledged at The Depository Trust Company (DTC) to meet the Options Clearing Corporation (OCC) margin requirement on these positions as collateral for a loan from an approved lender. The cash proceeds of this loan will then be credited to the ~~participant's~~ **Participant's** settlement account at the National Securities Clearing Corporation (NSCC).

OCC, DTC, and NSCC have jointly created the loan program to minimize the collateral and financing requirements of common OCC and NSCC member firms by synchronizing the release of OCC's guarantee obligation with satisfaction of the member's obligation to NSCC.

How the Product Works

The Options Clearing Corporation Disbursement (OCCD) function has been developed by DTC and OCC to allow ~~participants~~ **Participants** to negotiate loans with pledgor ~~participants~~ **Participants** using securities pledged to OCC for margin purposes as collateral. The OCCD function allows ~~participants~~ **Participants** to submit collateralization requests that require approval from the pledgor and OCC. The OCCD function allows pledgor ~~participants~~ **Participants** to review ~~participants'~~ **Participants'** collateralization requests and either approve or reject them. Only pledgor-approved collateralization requests appear on OCC's approval screen in the OCCD function. Pledgor approved collateralization requests can then be approved or rejected by OCC. Only collateralization requests approved by both the pledgor and OCC are processed by DTC.

An OCC approved collateralization request generates a Demand of Collateral (DCL) transaction (activity code 58) that moves the securities from the requesting ~~participant's~~ **Participant's** pledge account (014) to an OCC control account. Once the DCL transaction completes, a valued pledge (activity code 54) will be processed from the OCC control account to the pledgor designated by the ~~participant~~ **Participant** in the collateralization request. The valued pledge credit received into the OCC control account is then applied to the ~~participant's~~ **Participant's** NSCC balance. Participants will see these credits as activity code 35 (OCC Collateral Money) in NSCC's settlement system.

Note: Although ~~participants~~ **Participants** will see the DCL transaction from their pledge account to the OCC control account in DTC's Activity ~~Research Tool (ART) Inquiry~~ function, they will not be able to view the valued pledge from the OCC control account to their pledgee in **ART the Activity Inquiry function**. However, ~~participants~~ **Participants** can determine if the valued pledge portion of the collateralization request has been completed in DTC's system by viewing the status of the collateralization request in the Browse option of OCCD. An "Made" status indicates that the valued pledge has completed in DTC's system. In addition, ~~participants~~ **Participants** will see the credits from the valued pledges in their NSCC balances after 2:30 p.m. eastern time.

Once DTC settlement is final (all net-net debits have been received) and DTC releases its risk management controls, the securities are moved from the OCC control account's pledge position to the ~~participant's~~ **Participant's** pledge position (14 account). The ~~participant~~ **Participant** and the pledgee will see this movement as a ~~participant~~ **Participant** Swing (activity code 7) in the **ART Activity Inquiry** function.

DTC will charge the same fee for processed OCC collateralization requests as it does for valued pledges.

Demand of Collateral Reversals

In the event that a valued pledge from an OCC control account recycles to the pledgee and does not complete (drops) by DTC's valued recycle cutoff at approximately 3:10 p.m. eastern time, DTC will reverse the associated demand of collateral transaction. The demand of collateral reversal will, in effect, "repledge" the ~~participant's~~ **Participant's** securities back to OCC. The demand of collateral reversal will appear as an adjustment in the **ART Activity Inquiry** function.

Pledge Returns

Pledgees should be aware that pledge returns of valued pledges from OCC control accounts will not be permitted systemically. Requests for pledge returns to OCC control accounts should be directed to DTC's Settlement Department. However, pledgees will be permitted to process pledge returns using the normal pledge return process once the securities are swung from the OCC control account to the ~~participant~~ **Participant** after DTC releases its risk management controls at approximately 5:00 p.m. eastern time.

Eligibility

Participants wishing to utilize the OCC Collateralization procedures must first contact a representative from OCC's Risk Management Department, ~~(312) 322-6274~~. In addition to contacting OCC, interested ~~participants~~ **Participants** must contact their DTC Relationship Manager and request access to the OCCD function and the OCCA sub-function. Pledgees planning to accept OCC collateralization requests must also contact their Relationship Managers and request access to the OCCD function and the OCCP sub-function.

Participants and pledgees interested in participating in OCC's Collateralization service should request eligibility for their respective OCCD functions and sub-functions with their Relationship Managers at least two days prior to the actual day they anticipate using the service.

Note: All collateralization requests by participants **Participants** must be approved by OCC. Therefore, OCC must be contacted before a request is submitted through the OCCD function.

Cutoffs

Eligible ~~participants~~ **Participants** are permitted to submit OCC collateralization requests until 11:00 a.m. eastern time. Eligible pledgees are permitted to approve or reject OCC collateralization requests until 1:00 p.m. eastern time, and OCC will be permitted to approve or reject pledgee-

approved OCC collateralization requests until 2:00 p.m. eastern time. Participants and pledgees should refer to the OCCD function for detailed instructions on how to use this function.

Tickets

~~Participants wishing to receive OCC collateralization tickets should contact their Relationship Manager and request activation of the "OCCTICKT" INFO indicator.~~

Repo Accounts

About the Product

Repo accounts enable ~~participants~~ **Participants** to distinguish repurchase transactions or other types of financing transactions processed through the mechanism of the Collateral Loan Program from pledges of collateral. A ~~participant~~ **Participant** engaging in a repurchase transaction or other type of financing transaction is able to transfer securities to a Repo account of the receiving party instead of a pledgee account of the receiving party. Whenever a ~~participant~~ **Participant** instructs DTC to transfer securities to a Repo account, the ~~participant~~ **Participant** will be deemed to instruct DTC to transfer to the receiving party the entire interest in the securities, not a security interest or other limited interest.

Background

Previously, procedures in the Collateral Loan Program did not permit ~~participants~~ **Participants** to differentiate between a pledge of securities, which involves the transfer of a security interest or other limited interest in the securities, and a sale, which involves the transfer of the entire interest in the securities.

Effective September 2, 1997, DTC implemented procedures to specifically provide ~~participants~~ **Participants** with the capability to process repurchase transactions or other types of financing transactions through the mechanism of DTC's Collateral Loan Program.

Repo accounts and pledge accounts are individually identified in DTC's Reference Directory. Organizations interested in establishing a repo account should contact their Relationship Manager.

Procedures for DTC Repo Accounts

The repo account procedures listed below should be used in conjunction with DTC's existing Collateral Loan Program procedures.

The procedures listed below are an addition to DTC's Procedures for Pledgees.

1. Any organization (a 'Receiver') that is eligible to establish a pledgee account at DTC may establish a repo account at DTC. A repo account is available to effect repurchase transactions or other types of financing transactions through use of the procedures in DTC's Collateral Loan Program where the parties wish to distinguish transactions from pledges of collateral. A repo account is identified with a separate account number from any pledgee account of the Receiver, and the repo accounts of Receivers are separately identified in all listings of accounts made available by DTC. Except as modified by these Procedures, all DTC procedures applicable to pledgee accounts are applicable to repo accounts.
2. Whenever a ~~participant~~ **Participant** instructs DTC to deliver securities from the account of the ~~participant~~ **Participant** to a repo account of a Receiver, the ~~participant~~ **Participant**

will be deemed to instruct DTC to transfer to the Receiver the entire interest in the securities which are the subject of the instruction, not a security interest or other limited interest in such securities. The terms of the transaction between the **participant Participant** and the Receiver (which may be a repurchase transaction or other type of financing transaction) are determined by agreement of the parties to the transaction.

3. The operation of a repo account at DTC is identical to the operation of a pledgee account. As with a pledgee account, voting rights on securities credited to a repo account are assigned to the **participant Participant** which delivered the securities to the repo account. Cash dividend and interest payments and other cash distributions on such securities are credited to the account of the **participant Participant**. Distributions of securities for which the ex-distribution date is on or prior to the payable date, or in which the distribution is payable in a different security, are also credited to the account of the **participant Participant**. Any stock splits or other distributions of the same securities for which the ex-distribution date is after the payable date are credited to the repo account of the Receiver.
4. The instructions for a delivery of securities to a repo account at DTC use the same data fields as the instructions for a pledge to a pledgee account. Those data fields include a mandatory hypothecation code field. A **participant Participant** delivering securities to a repo account must enter the number 7, 8 or 9 in the hypothecation code field. The entry of the number 7, 8, or 9 in the hypothecation code field of instructions for a delivery to a repo account does not constitute a notice or representation as to any matter by the delivering **participant Participant**. The entry of the number 7, 8 or 9 in the hypothecation code field of such instructions is merely an action needed to effect the delivery through DTC's facilities. A Participant pledging securities to a pledgee account must continue to enter the number 1, 2 or 3, whichever is applicable, in the hypothecation code field. Participants are responsible for entering the appropriate number in the hypothecation code field for all transactions.
5. The DTC reports and statements to the **participant Participant** and the Receiver for a transaction involving a repo account are the same as the reports and statements for a transaction involving a pledgee account. If the account number indicated in a DTC report or statement is the account number of a repo account, the information in the report or statement does not represent a pledge of, or other transfer of a limited interest in, the securities credited to the repo account but instead represents a transfer by the **participant Participant** to the Receiver of the entire interest in such securities.
6. DTC will accept instructions solely from the Receiver with respect to the disposition of securities credited to the Receiver's repo account. The Receiver may redeliver the securities to the **participant Participant** which delivered them to the Receiver's repo account. The Receiver may instruct DTC to deliver securities credited to the Receiver's repo account to the Receiver's DTC **participant Participant** account, if the Receiver is also a **participant Participant**, or to any other DTC participant account. DTC has no duty to inquire whether any instruction to DTC from the Receiver is permitted by any agreement among the parties to the transaction. If a Receiver is unable to submit instructions to DTC by automated means, the Receiver may submit instructions by contacting DTC's **Compliance Settlement Department at (212) 855-3320**. Any Receiver that instructs DTC to deliver securities credited to the Receiver's repo account to the Receiver or to a DTC **participant Participant** designated by it shall:
 - a. be deemed to represent and warrant to DTC that (i) the Receiver has the right to have the securities specified in such instruction delivered to the Receiver or to a DTC **participant Participant** designated by it and (ii) DTC's compliance with such instruction will not violate any notice of levy, seizure or similar notice, or order or judgment, issued or directed by a government agency or court, or officer thereof, and
 - b. indemnify, hold harmless and agree, on demand, to reimburse DTC, its stockholders, officers, directors and employees from and against and for any and

all claims, liabilities, obligations damages, actions, penalties, losses, costs, expenses and disbursements, including, without limitation, attorneys' fees and disbursements ("Claims"), which they may sustain by reason of DTC's compliance with such instruction except for any Claims which result from the gross negligence or willful misconduct of the person asserting a right to indemnification.

Shared Control Accounts

About the Product

Shared control accounts are available as an alternative to "agreement to pledge" arrangements.

Background

~~Revision of New York State's Uniform Commercial Code Article gives priority in certain situations to a pledgee that has control over pledged securities (or other financial assets). A pledgee has control over securities when it can sell or transfer the securities without further consent by the pledgor. However, the control of the pledgee need not be exclusive. The pledgor can retain the right to redeliver or make substitutions for the pledged securities.~~

When a **participant Participant** pledges securities to the pledgee account of a pledge at DTC (sometimes called a "hard pledge"), the securities are under the sole control of the pledgee. Only the pledgee can redeliver or release the securities. Pledgee accounts continue to be available at DTC.

Shared control accounts are available at DTC as an alternative to agreement to pledge (sometimes called "agreement to deliver") arrangements. A pledgee has control over securities delivered by a **participant Participant** to the **participant's Participant's** shared control account at DTC since the pledgee has the ability to redeliver the securities without further consent by the **participant Participant**. Until the pledgee redelivers the securities, the **participant Participant** has the flexibility to redeliver or make substitutions for the securities without obtaining the pledgee's release of the securities.

Shared controls are separately identified in DTC's Reference Directory. Participants interested in establishing a shared control account should contact ~~DTC's Compliance department at (212) 855-4948~~ **their Relationship Manager**.

Procedures for DTC Shared Control Accounts

The following procedures are an addition to DTC's Procedures for Pledges.

1. Any **participant Participant** may establish a -shared control account at DTC and may designate any DTC pledgee to be the pledgee for that shared control account. A **participant Participant** may deliver securities (or other financial assets) by a free pledge from any of its DTC accounts (the "original account") to its shared control account in order to grant a security interest or other interest in the securities to the pledgee. The shared control account is an account of the **participant Participant** and is identified with a separate account number from any other account of the **participant Participant**. A **participant Participant** may establish multiple shared control accounts, but only one pledge can be designated for each shared control account.
2. Except as modified by these procedures, the operation of a shared control account is identical to the operation of a DTC pledge account and all DTC procedures applicable to pledge accounts are applicable to shared control accounts. No deliveries vs. payment, pledges vs. payment, or physical deposits can be made to a shared control account and no

deliveries vs. payment, pledges vs. payment, or physical withdrawals can be made from a shared control account. A **participant Participant** should not deliver securities to another **participant's Participant's** shared control account. In the instructions for a delivery of securities to a shared control account, the mandatory hypothecation code field should be completed in the same manner as it is for a delivery to a pledge account. The DTC fees and charges for a transaction involving a shared control account are the same as the fees and charges for a transaction involving a pledge account. The DTC monthly account usage charges applicable to a shared control account are charged to the **participant Participant**. The DTC reports and statements to the **participant Participant** and the pledge for a transaction involving a shared control account are the same as the reports and statements for a transaction involving a pledge account.

3. As with a pledge account, voting rights on the securities credited to a shared control account are assigned to the **participant Participant**. Cash dividend and interest payments and other cash distributions on such securities are credited to the original account. Distribution of securities for which the ex-distribution date is on or prior to the payable date or in which the distribution is payable in a different security are also credited to the original account. Any stock splits or other distributions of the same securities for which the ex-distribution date is after the payable date are credited to the shared control account.
4. The securities credited to a shared control account cannot be designated as or included in the collateral for any obligation of the **participant Participant** or the pledgee to DTC. DTC has no lien or other interest in any securities credited to a shared control account.

Collateral Loan Program Contact Number

For more information about Collateral Loan Programs, call DTC's Customer Support Center at (888) 382-2721.

Continuous Net Settlement (CNS)

About the Product

Continuous Net Settlement (CNS) is the primary clearing mechanism for the New York Stock Exchange (NYSE), American Stock Exchange (AMEX), National Association of Securities Dealers (NASD), and other marketplaces. The National Securities Clearing Corporation (NSCC) operates CNS, which is the securities industry's largest trade clearance and settlement system.

How the Product Works

For each security, CNS nets down to one net buy and/or sell on all trades expected to settle on the next settlement day, including trades unable to settle on the previous settlement day. After the trades are netted, free book-entry movements at DTC to or from Omnibus Account 888 allow NSCC participants to deliver short covers to NSCC and receive long allocations.

After the trades are netted, free book-entry movements at DTC to or from Omnibus account 888 allow NSCC participants to:

- Deliver short covers to NSCC (for those participants obligated to deliver securities)
- Receive long allocations from NSCC (for those participants entitled to receive securities).

To process transactions smoothly between DTC's system and the CNS system, DTC and NSCC have put in place certain collateralization arrangements and financial guarantees to ensure that:

- Debits created in DTC's system continue to be collateralized when the securities serving as collateral are delivered as CNS short covers, and

- Long allocations, or approximate values of long allocations, are made available to NSCC to cover certain exposures.

Short Covers

When short covers are delivered from your DTC account, NSCC guarantees that:

- The value of securities received versus payment that are used for CNS short covers will be equal to the prior day's closing price, and
- The value of securities not received versus payment that are used for CNS short covers will be equal to the prior day's closing price less an applicable haircut.

In either case, your Collateral Monitor is increased by the amount guaranteed by NSCC. Without these guarantees, deliveries to CNS may not be permitted under DTC's collateralization rules because DTC would have neither the securities nor the collateral in the event of a failure to settle.

Note- The NSCC settlement credit generated from short covers cannot be used to offset your DTC settlement balance intraday. DTC and NSCC legal entity balances will be cross-endorsed before final net settlement figures are published. The short cover guaranty does not apply to ACATS transactions because there are no funds settlement obligations related to ACATS transfers.

Long Allocations

DTC guarantees to NSCC replacement collateral for any long allocations which may be redelivered in the DTC system intraday. Therefore, DTC will only process the redelivery if the Participant has substitute collateral available. The purpose is that collateral will be available if the Participant fails to settle at NSCC.

The collateral treatment of long allocations received into a Participant account is as follows:

1. The Participant does not receive credit for the delivery in its Collateral Monitor; and
2. The securities are classified as collateral (net additions).

CNS Look-Ahead Processing

DTC recognizes that the net effect of a receive and a turnaround delivery might permit the completion of those transactions, whereas in some cases attempting to complete the receive by itself would not allow the transactions to complete because of collateral constraints. Because the CNS account (888) has no Net Debit Cap or Collateral Monitor constraints, DTC's system can perform look-ahead processing to determine whether the net effect of your receive-versus-payment (RVP) transaction (which is recycling for insufficient collateral), and the turnaround CNS transaction (for example, short cover), allows you to remain collateralized. If so, DTC will complete both transactions.

Look-ahead processing helps maximize the smoothness of transactions and limits infusions of collateral by ~~participants~~ **Participants**. Although this situation is rarely encountered in transactions daily, DTC provides automated look-ahead processing so that each receive pending for insufficient collateral that has a corresponding turnaround to CNS is checked by this process (unless you place the CNS transaction on hold).

~~Associated PTS Functions~~

~~The following PTS functions are used in association with CNS Processing.~~

<i>Use this function</i>	<i>To</i>
ART	View and inquire on CNS transactions.
CNSE	Place exemptions on CNS short cover obligations.
CNSP	Place priorities on CNS long allocations.
CNSR	Place priorities on CNS long allocations undergoing voluntary reorganizations.
DO	Override a level 1 or level 2 exemption.
PEND	View pending CNS transactions.
PEXB	Browse the system for buy in orders.
PEXM	Input a CNS or NSCC buy in order.
PEXR	Reply to a buy in order.

CNS Processing Contact Number

For more information on CNS Processing, call ~~DTC's~~ the Customer Support Center at (888) 382-2721.

NSCC ACATS Settlement Accounting Operation - Processing at DTC

NSCC's Rules & Procedures establish the NSCC ACATS Settlement Accounting Operation which interfaces with DTC's system to move securities from the account of one Participant to another. NSCC maintains an account at DTC with respect to the associated securities movements.

When securities that are the subject of an ACATS transfer are credited to a receiving Participant's Account at DTC, those securities will automatically be designated as Minimum Amount (MA), as defined in the DTC rules. Accordingly, when such securities are credited to the receiving Participant's account, DTC will not have any security interest, lien or other claim on those securities and those securities will not constitute Collateral or be counted in the Collateral Monitor of the receiving Participant.

End-of-Day Settlement Process

Overview

DTC's End-of-Day Settlement Processing controls and coordinates the settling of ~~participant Participant~~ accounts and ~~settling-bank Settling Bank~~ accounts on DTC's systems. A ~~settling bank Settling Bank~~ is a bank ~~participant Participant~~ that settles for itself and may settle for other ~~participants Participants~~, including other bank ~~participants Participants~~. A ~~settling bank Settling Bank~~ can be located in any Federal Reserve district, but it must have access to ~~PTS the Settlement User Interface~~ and online access to the ~~Federal Reserve's National Settlement Service ("NSS") operated by the Federal Reserve Banks and the~~ Fedwire system.

Note-You, a Participant, must make formal arrangements with DTC and a ~~settling-bank Settling Bank~~ for that ~~bank Settling Bank~~ to settle with DTC on ~~you're the Participant's~~ behalf. Each ~~settling-bank Settling Bank~~ must sign an agreement with DTC prior to the bank performing as a ~~settling-bank Settling Bank~~. The actual settlement process occurs through the ~~Fedwire NSS~~

system and is initiated when DTC posts final figures for **participants Participants** and **settling banks 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 Participants** and **settling banks Settling Banks** with online reports throughout the processing day. These reports reflect gross debits, gross credits, and the net debit or credit for each **participant Participant**, as well as a net-net figure for each settling bank.

The end-of-day net-net figure is the net of all **participant's Participants'** net balances after cross-endorsement with the National Securities Clearing Corporation (NSCC) for which a **settling bank Settling Bank** settles, including its own accounts.

Note-Any **settling bank Settling Bank** that settles for both **participants Participants** of DTC and participants 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:

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

- Settling **bank Bank** ABC settles for 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 Bank** ABC's net-net figure would be a debit for \$1 million, which is the sum of the net figures of 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,⁷ DTC would instruct the Fed to charge the **bank's Settling Bank's** American Banking Association (ABA) routing number for \$1 million via ~~the FRB's National Settlement Service (NSS)~~.

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

About the Netting Process

As part of the net-net process, DTC employs a netting procedure with NSCC called cross-endorsement. Under cross-endorsement, each **participant's Participant's** net debit at one organization is netted against the amount of its net credit, if any, at the other organization. ~~[This process further increases the netting process and reduces the dollar amount and the number of wires necessary to complete settlement.]~~

Looking back at the previous example, if **participant Participant** 1 had a net credit of \$1 million at NSCC, it would be applied to its DTC net debit of \$1 million, making its DTC net balance zero. This would make **settling bank Settling Bank** ABC's net-net balance zero and eliminate the need to settle a debit with DTC. (Participant 1's net balance would be zero after the cross-endorsement process; participant 2's net balance would still be a debit of \$1 million, but this debit would be offset by participant 3's net credit of \$1 million.) While the cross-endorsement process impacts the net-net figures of **settling banks Settling Banks** by affecting the net balances of the **participants Participants** for which they settle, the process is transparent to settling banks and is simply a component of each **participant's Participant's** net balance.

Establishing Your Net Debit Cap

A ~~settling bank~~ **Settling Bank** can limit the net debit cap assigned to each ~~participant~~ **Participant** it represents. However, the maximum amount set by a ~~settling bank~~ **Settling Bank** cannot exceed your system-calculated net debit cap established by DTC.

To establish or change the net debit cap for a ~~participant~~ **Participant** for which it settles, the ~~settling bank~~ **Settling Bank** must submit a letter of instruction to DTC requesting the amount of the net debit cap for the ~~participant~~ **Participant**. This letter should be sent via e-mail to DTCTProductRisk@dtcc.com using the ~~settling bank's~~ **Settling Bank's** e-mail domain, or via mail or overnight delivery addressed to:

The Depository Trust Company
~~Director of Compliance~~ Vice President, Enterprise Risk Management
55 Water Street
New York, NY 10041

DTC will process an instruction received by 2:30 p.m. eastern time, in time to be effective as of the opening of the next business day.

Settling Bank Processing Schedule

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

At this time

3:45 p.m. (approximately)

This process takes place¹

All settlement balances become final and the settlement period begins:

- DTC posts the final net debit or net credit for each ~~participant~~ **Participant** and the final net-net debit or net-net credit for each ~~settling bank~~ **Settling Bank**.
- Verification that final net cutoff has taken place ~~via the PTS function SETB~~; the message 'Final Figures' and the time they became final will appear ~~on in~~ the ~~Menu Selection screen~~ **Settlement User Interface Screen**. Settling ~~banks~~ **Banks** can view their final net-net balance via the Settling Bank Account Statement ~~option made available via the Settlement User Interface~~.
- Settling Banks (if required) should acknowledge their net-net balances at this time (the system ~~won't~~ **will not** allow this until final figures are posted).
- Once final figures are posted, DTC sends reminder messages ~~via PTS~~ every ten minutes until the settling bank complies by acknowledgment or refusal.
- A ~~settling bank~~ **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 ~~FRB's National Settlement Service (NSS)~~. See Settlement Payment for Net-Net Debit Balances for more information.

The later of:

4:15 p.m. or 30 minutes after net-net settlement balances are first made available

Cutoff for ~~settling banks~~ **Settling Banks** to acknowledge their net-net settlement balance or refuse to settle for a specific ~~participant~~ **Participant**:

- DTC applies failure-to-settle procedures to settling banks that have not sent refusal or acknowledgment messages (if required).

~~The later of:~~

~~Prior to 5:00 p.m. (if no settlement extensions) or 1 hour after net-net settlement balances are first made available~~

~~Cutoff for DTC to receive payments from settling banks with net-net debit final figures: DTC processes an NSS file with the Federal Reserve Bank of New York to debit or credit each Settling Bank's NSS account, as 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 by the later of 5:00 pm or 1 hour after net net settlement balances are first made available.~~ DTC applies failure-to-settle procedures to settling banks with net-net debit final figures that have not paid DTC.

¹ **DTC's interfaces with Settling Banks via the Settlement User Interface.**

At this time

5:00 p.m.

This process takes place¹

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

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

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

~~5:15 p.m.~~

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

Acknowledgment and Refusal

Settling banks can use the ~~SETB~~ **Settling Bank Acknowledgement** function to perform acknowledgment activities after final figures have been posted. Once the message 'Final Figures' appears on the SETB SDFS Menu Selection screen, each ~~settling-bank~~ **Settling Bank** should access the Settling Bank ~~acknowledgment~~ **Acknowledgment option function to** do one of the following:

- Acknowledge its entire net-net balance, or
- Refuse to settle for a ~~participant~~ **Participant** or multiple ~~participants~~ **Participants**.

Acknowledgment and Refusal Rules

The following rules apply to the acknowledgment and refusal process:

1. A ~~settling-bank~~ **Settling Bank** that settles for accounts **of** other **Participants** than its own must always acknowledge its own net-net balance or refuse to settle any ~~participant~~ **Participant** account(s) other than its own.
2. A ~~settling-bank~~ **Settling Bank** cannot refuse to settle its own ~~participant~~ **Participant** account(s).
3. A ~~settling-bank~~ **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.)

* 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.

4. A refusal to settle for a **participant Participant** is a refusal to settle all accounts of that **participant Participant** (meaning all accounts that constitute that **participant's Participant's** legal entity). A **settling-bank Settling Bank** cannot refuse to settle only some of the accounts of a multiple-account participant.
5. After refusing to settle for a **participant Participant**, the net balance of that **participant Participant** is removed from the **settling-bank's Settling Bank's** net-net balance, and the **settling-bank Settling Bank** must immediately acknowledge its new net-net balance (debit or credit).
6. If a **settling-bank's Settling Bank's** net-net balance changes after initial acknowledgment, the **settling-bank Settling Bank** can only refuse to settle for the **participant(s) Participant(s)** whose balance changed.
7. A **settling-bank Settling Bank** that cannot send an acknowledgment or refusal to DTC because of ~~an inoperative PTS unit may telephone and/or fax acknowledgment or refusal instructions to the telephone number specified in this service guide and in DTC's Reference Directory~~ **a connectivity issue with DTC should contact the DTC Settlement Operations group using the hotline at (212) 855-5800 to notify them of the issue.**
8. DTC begins failure-to-settle procedures and imposes fines on **settling-banks 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.
9. DTC begins failure-to-settle procedures and imposes fines on **settling-banks 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.

Settlement Payment for Net-Net Debit Balances

1. A **settling-bank Settling Bank** with a net-net debit balance must fulfill its obligation to DTC by 5:00 p.m. eastern time or one hour from final figures, whichever is later. DTC's receipt of funds after the deadline will result in a late fee charged to the **settling-bank Settling Bank**. See Failure to Settle Fees. A settling bank must settle its net-net debit balance via ~~the FRB's National Settlement Service (NSS).~~

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

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

~~settling bank~~ **Settling Bank** with a deficiency must then wire the funds to DTC according to the below guidelines:

Note—Settling ~~banks~~ **Banks** must monitor their Settling Bank Account Statement ~~(through the SETB function)~~ **through the Settling Bank Statement function in the Settlement User Interface** to ensure that funds have been credited to their account and that no balance exists. The ~~settling bank~~ **Settling Bank** must be prepared to wire payment to DTC if funds are not available or if the NSS is unavailable or inoperable. DTC requires that a bank representative authorized to wire funds be available at the ~~settling bank~~ **Settling Bank** until settlement is complete. If a ~~settling bank~~ **Settling Bank** is experiencing extenuating circumstances and, as a result, needs to opt out of NSS for one business day and send its wire directly to DTC's FRBNY account for its debit balance, that ~~settling bank~~ **Settling Bank** must notify the Settlement department prior to acknowledging its settlement balance.

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

- 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 your own standard procedures.
- Submit the instruction. DTC posts the payment as a credit to your Settling Bank Account Statement when payment for your net-net debit is received.
- Review your net-net balance via the ~~SETB function~~ **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~~ **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.

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

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

~~CCF = Computer to Computer Facility, MQ = Messaging Queue, PTS = Participant Terminal System, PBS = Participant Browser Services.~~

Cutoff Time	EST	ET	Input Mode For These Systems	This Occurs
1:15 p.m.			Not applicable	DTC's cutoff for syndicate closings.
1:30 p.m.			Not applicable	DTC releases all pending delivery account (PDA) positions and reverts to default recycle processing.
2:00 p.m.			PTS, PBS	Cutoff for: <ul style="list-style-type: none"> • Valued MMI issuances
2:45 p.m.			Web, MQ	Cutoff for: <ul style="list-style-type: none"> • RAD approval of MMI valued issuance deliver order transactions
2:55 p.m.			PTS, PBS, MQ*	Cutoff for entering release requests designating position as eligible for CNS.
3:00 p.m.			PTS, PBS	Cutoff for: <ul style="list-style-type: none"> • 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.
3:00 p.m.			PTS, PBS, MQ, CCF, CCF-II	Forced Receiver Authorized Delivery (RAD) period begins. <i>Note</i> —You can continue to enter valued and free transactions. However, all valued transactions, except matched reclaims , are forced into RAD and require the receiving participant's Participant's approval.
3:05 p.m.			Not applicable	Largest Provisional Net Credit (LPNC) control ends. DTC begins using your actual collateral

Cutoff Time EST <u>ET</u>	Input Mode For These Systems	This Occurs
3:10 p.m.	PTS, PBS, MQ*	<p>monitor and net settlement balances (instead of simulated collateral monitors and net settlement balances) in determining whether Risk Management Control recycles can complete.</p> <ul style="list-style-type: none"> • Cutoff for pledgees to approve pledge release requests designating position as CNS-eligible. • Valued recycle cutoff. All valued and CNS transactions that cannot be completed because of insufficient position, collateral, or net debit cap are dropped from the system. • Valued and free recycle cutoff for transactions in EuroCCP's US program. All valued and free transactions that cannot be completed because of insufficient position, collateral, or net debit cap are dropped from the system. • CNS input cutoff. <i>Note</i>—All valued transactions input or approved by participants <u>Participants</u> after this time will not recycle; they will either complete or drop.
3:15 p.m.	PBS	<p>Optional "Push" profile that allows participants <u>Participants</u> to establish a standing withdrawal request for SPP returns and P&I withdrawals.</p>
3:20 p.m.	PBS	<p>Cutoff for government deposits and withdrawals. Cutoff for Settlement payment withdrawals and principal and income withdrawals. <i>Note</i>—These are manual withdrawals as opposed to the "Push" profile described above.</p>
3:20 p.m.	PTS, PBS, MQ*	<p>Forced RAD Delivery Period ends. Cutoff for entering:</p> <ul style="list-style-type: none"> • Valued original DOs including unmatched reclaims • Original POs • Valued pledges • Valued pledge release requests. <p><i>Note</i>—If you have made prior arrangements with DTC and your settling bank <u>Settling Bank</u>,</p>

Cutoff Time <u>EST ET</u>	Input Mode For These Systems	This Occurs
3:30 p.m.	PTS, PBS, MQ, Web	<p>you can continue to submit valued transactions to your settling bank <u>Settling Bank</u>.</p> <p>Cutoff for:</p> <ul style="list-style-type: none"> • Inputting valued matched reclaims (except MMI) • Pledges to approve valued pledge release requests and enter valued release returns • RAD approval or cancellation for valued transactions (except MMI valued issuance DOs). • RAD approval or cancellation for valued and free transactions in EuroCCP's US program.
3:45 p.m.	Not applicable	<p>DTC calculates your DTC and NSCC cross-endorsement balances and applies them to your account.</p>
3:45 p.m.	Not applicable	<p>DTC finalizes settlement balances for you and your <u>settling bank Settling Bank</u>.</p>
4:15 p.m.	PTS, PBS	<p>Cutoff for settling banks <u>Settling Banks</u> to acknowledge their net-net settlement balance, where applicable, or refuse to settle for a specific <u>participant Participant</u>.</p> <p><i>Note</i>—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.</p>
5:00 p.m.	PTS, PBS, MQ*	<p>Cutoff for:</p> <ul style="list-style-type: none"> • Entering free Fed pledges to Federal Reserve Bank with extensions upon request to the Fed. • Pledgors' requests for release of positions pledged to Federal Reserve banks. • Federal Reserve banks to input pledge release returns. • Entering valued DOs and pledges to your <u>settling bank Settling Bank</u> • Settling banks Banks <u>Banks Banks</u> to settle DTC payments for net-net debits • Settling banks Banks <u>Banks Banks</u> to authorize valued DO and pledge transactions

Cutoff Time EST <u>ET</u>	Input Mode For These Systems	This Occurs
5:15 p.m.	Not applicable	<ul style="list-style-type: none"> • 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 Participant. <p>DTC instructs the Fed to credit payments to settling banks with net-net credit balances.</p>
6:15 p.m.	PTS, PBS, MQ*	<p>Cutoff for:</p> <ul style="list-style-type: none"> • 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. • IPA deadline to set the MMI MP Pend or Issuer Priority Control (IPC) profile that will be effective for next processing day. • OCC member's release of deposit request and authorization to release positions pledged to the OCC.
6:30 p.m.	PTS, PBS, MQ, Web	<p>Cutoff for:</p> <ul style="list-style-type: none"> • Approving or cancelling free MMI issuances through RAD, other than transactions in EuroCCP's US program which are subject to the earlier cutoffs noted above. • Inputting day and night position transfer instructions (MA-to-NA transfers). • Pledgors to enter free pledge release returns. • Pledgors to approve free pledge release requests.
6:30 p.m.	MQ, CCF, CCF II	<p>Cutoff for the Authorized Exceptions Authorization and Exemption (ANE) function.</p>
6:35 p.m.	PTS, PBS	<ul style="list-style-type: none"> • Recycle cutoff for all free transactions, other than transactions in EuroCCP's

Cutoff Time EST <u>ET</u>	Input Mode For These Systems	This Occurs
		US program, which are subject to earlier cutoffs noted above.
6:45 p.m.	PTS, PBS, MQ*	Cutoff for inputting segregation and memo segregation instructions.
7:30 p.m.	PTS, PBS	Cutoff for ANE.
8:00 p.m.	PTS, PBS, MQ CCF, CCF II	NDO cutoff.

~~*For these processes, CCF and CCF II cutoff times are 15 minutes earlier than MQ, PBS, and PTS.~~

Extension Requests

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

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

Associated ~~PTS~~ Functions

~~The SPOS function is used in association with the Settlement Processing Schedule and allows you to view the detail short position penalty charges.~~

ADDENDUM A

DTC/NSCC Settling Bank Netting Arrangements

Any ~~settling bank~~ **Settling Bank** that settles for both participants of DTC and 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.

DTC shall provide NSCC with services with respect to NSCC's money settlement operations as described in, and in accordance with, the following procedures²:

² DTC will act as "Settlement Agent" (as that term is used in the Federal Reserve Board's Operating Circular 12 and in NSCC's Rule & Procedures) for NSCC and NSCC's Settling Banks, for purposes of (i) receiving and paying, as NSCC's settling bank and for the account of NSCC, end-of-day money settlement payments from or to, as applicable, NSCC Settling Banks and participants, (ii) with respect to the FED's National Settlement Service, as the means of effecting such money settlement for NSCC, and (iii) netting the amounts of those Settling Banks that act as such for both DTC and

1. For purposes of this procedure, the following terms have the meanings specified:
 - (a) "Common Settling Bank" means any entity that has qualified and acts as a Settling Bank for both DTC and NSCC in accordance with their respective rules and procedures.
 - (b) "-DTC Credit Amount" or "NSCC Credit Amount" means, as applicable, any net-net credit settlement payment due from the relevant clearing agency to a Common Settling Bank, as determined in accordance with the Rules and Procedures of the relevant clearing agency.
 - (c) "DTC Debit Amount" or "NSCC Debit Amount" means, as applicable, any net-net debit settlement payment due to the relevant clearing agency from a Common Settling Bank, as determined in accordance with the respective Rules and Procedures of the relevant clearing agency.
 - (d) "Consolidated Settlement Debit Amount" means on any settlement day the net sum, if a negative number (i.e. debits being deemed negative numbers, and credits being deemed positive numbers) of a Common Settling Bank's applicable DTC Debit or Credit Amount, plus its applicable NSCC Debit or Credit Amount.
2. For each Common Settling Bank on each settlement day, DTC, as Settlement Agent, shall aggregate and net the DTC Credit and/or Debit Amount of the Common Settling Bank with the applicable NSCC Credit or Debit Amount of such Common Settling Bank and:
 - (a) If the Common Settling Bank has both a DTC Debit Amount and an NSCC Debit Amount, then following the acknowledgement of those respective balances by such bank in accordance with DTC and NSCC's procedures, DTC shall instruct the FED to debit the FED account of such Common Settling Bank by the aggregate sum of such- debit balances. DTC, upon receipt of such monies, shall credit NSCC with the amount of the NSCC Debit Amount, and credit DTC with the amount of the DTC Debit Amount, from such Common Settling Bank.
 - (b) If the Common Settling Bank has both a DTC Credit Amount and an NSCC Credit Amount, then at the time established in DTC and NSCC's procedures, DTC shall instruct the FED to credit payment to the FED account of the Common Settling Bank with the aggregate sum of such credit balances, and shall debit NSCC with the amount of the NSCC Credit Amount, and debit DTC with the amount of the DTC Credit Amount, for such Common Settling Bank.
 - (c) If the Common Settling Bank has a Debit Amount at one clearing agency and a Credit Amount at the other, then:
 - if the sum of such DTC Credit Amount and NSCC Debit Amount (or DTC Debit Amount and NSCC Credit Amount, as the case may be) is a positive number, that excess amount (i.e. equal to the positive number) shall be owed by the clearing agency with the Credit Amount to the Common Settling Bank, shall be paid to the Common Settling Bank in the manner provided in clause 3(b) above, and the clearing agency with the Credit Amount shall pay the other clearing agency an amount equal to the Common Settling Bank's Debit Amount owed to the other clearing agency, in full satisfaction of the settlement obligation of the Common Settling Bank to the other clearing agency.
 - if the sum of such DTC Credit Amount and NSCC Debit Amount (or DTC Debit Amount and NSCC Credit Amount, as the case may be) is a negative number,

NSCC, and crediting the account of either NSCC, or DTC, as the appropriate clearing agency, with the settlement amounts determined in accordance with this procedure.

Settler Agreements provided by the Settling Bank to DTC for delivery to the FRB are hereby deemed to include the Settling Bank's NSCC settlement obligations as well as their DTC settlement obligations.

then the absolute value of that amount shall be owed by the Common Settling Bank to the clearing agency to which the Common Settling Bank has a Debit Amount, such amount shall be paid by the Common Settling Bank via NSS in the manner provided in clause 3(a) above in full satisfaction of the settlement obligation of the Common Settling Bank to such clearing agency, and the clearing agency with the Credit Amount shall pay the other clearing agency an amount equal to the Common Settling Bank's Credit Amount, in full satisfaction of the settlement obligation of the clearing agency from whom such Credit Amount was owed to the Common Settling Bank.

--~~if~~ **If** the sum of -such amounts equals zero (i.e. the Credit Amount due from one clearing agency equals the Debit Amount owed to the other clearing agency), then the clearing agency that owes the Credit Amount to the Common Settling Bank shall pay the amount of such Credit Amount to the other clearing agency in full satisfaction of both the settlement obligation of the Common Settling Bank to the clearing agency owed the Debit Amount and the settlement obligation of the clearing agency that owes the Credit Amount to such Common Settling Bank. In that instance, no payment shall be due to or from such Common Settling Bank to or from either DTC or NSCC.

3. Notwithstanding the foregoing, if any Common Settling Bank fails to pay its Consolidated Settlement Debit Amount by the time specified in DTC and NSCC's procedures, -then (i) if that bank has an NSCC Debit Amount, NSCC shall implement its failure to settle procedures, and (ii) if that bank has a DTC Debit Amount DTC shall implement its failure to settle procedures.

4. Under FRB Operating Circular No. 12, DTC, as Settlement Agent, has certain responsibilities in allocating an indemnity claim made by a FRB as a result of NSS. In making such an allocation, NSCC and DTC will first apportion any such liability between them (and their respective participants) in proportion to the amount of the net-net debit due to each clearing agency by the Settling Bank to which the indemnity claim relates. If that Settling Bank owed a debit to one and had a credit due from the other clearing agency, then the entire indemnity amount will be allocated to the clearing agency to which the Settling Bank owed the debit amount (and for which, via NSS, its FRB account was debited) relating to the indemnity claim. NSCC and DTC will then further allocate the FRB claim among their participants for whom the Settling Bank was then acting. If for any reason such allocation is not sufficient to fully satisfy the FRB indemnity claim, then the remaining loss will be allocated pro rata among all the applicable clearing agency's participants in the same manner as provided in NSCC's and DTC's Rules with respect to a general (i.e., non-system related) loss.

Honest Broker

About the Product

Honest Broker is a procedure to facilitate the liquidation of security positions that have been pledged by book entry in DTC. It is exercised only in extraordinary circumstances, for example, when a pledgee is unwilling to release securities to a pledgor (typically, a broker under financial stress).

How the Product Works

Following is an outline of the Honest Broker procedure.

1. DTC will activate its Honest Broker procedure only upon a pledgor's request when pledgees are unwilling to return pledged securities directly to a pledgor and only after it consults with the concerned parties to determine that taking this action is appropriate. DTC may also activate the procedures in case of a pledgor's extended operational outage. DTC will notify pledgees and DTC ~~participants~~ **Participants** when the Honest Broker procedures are activated. DTC will advise ~~participants~~ **Participants** of the possibility that deliveries in settlement of their transactions with the pledgor, if any, may be received from the DTC Honest Broker Participant Account (DTC HB Account).

Note- In performing the role of honest broker, DTC will undertake no risk other than that arising from its own gross negligence.

2. DTC will establish a DTC HB Account for the receipt and redelivery of the pledged securities.
3. In operating the DTC HB Account, DTC will act exclusively as agent for the pledgees delivering securities to the DTC HB Account.
4. Each pledgee must notify DTC of its intent to use the Honest Broker procedure and will use DTC's Demand of Collateral procedure (see Collateral Loan Program for more information) for pledged positions that the pledgee intends to deliver to the DTC HB Account. Pledgees can enter demand of collateral instructions by using the ~~Participant Terminal System (PTS)~~ **Demand for Collateral** function (**DCL**).

Note- Using DTC's Demand of Collateral procedure a pledgee can move securities from its DTC pledge account to the general account of any DTC ~~participant~~ **Participant** (other than the pledgor), including its own ~~participant~~ **Participant** account or the DTC HB account.

5. In accordance with the function cutoff times, the pledgor will provide the following information via the ~~PTS functions HBDO and HBCN~~ **Honest Broker function** to each affected pledgee, and to DTC:
 - The identity of each issue for which the pledgee is requested to deliver shares to the DTC HB Account.
 - For each issue, information on the pledgor's transactions proposed to be settled that day by redelivery of the pledged positions). This information will be in standard deliver order (DO) format for each delivery and will include quantity, price, and settlement amount.
 - The DTC HB Account number to which each redelivery is to be made.

Note- Pledges will be able to view this information using the ~~PTS function HBDO~~ **Honest Broker functionality.**

6. On settlement date, DTC will provide to the pledgees
 - Pricing information on short positions in National Securities Clearing Corporation's (NSCC's) Continuous Net Settlement (CNS) system; and
 - The aggregate delivery price for each issue (assuming that all of the shares are delivered).
7. The pledgee can decide whether to deliver pledged positions to the DTC HB Account using the ~~HBDO~~ **Honest Broker** function.
8. The pledgor will advise the DTC ~~participants~~ **Participants** that their expected deliveries will be made from the HB account rather than from the pledgor's own account. Provided that no bankruptcy ruling or court-imposed stay has occurred, shares will then be delivered from the DTC HB Account with deliveries made in descending price-per-share order (other than deliveries to settle open NSCC CNS short positions, which will be affected first).

Note- DTC will not process free deliveries. All settlement credits will be made to the DTC HB Accounts. DTC will make special arrangements with NSCC for related money credits for CNS short positions.

9. For each issue, DTC will allocate on a pro rata basis to any pledgee that had delivered pledged securities to the DTC HB Account
 - Proceeds received from the redeliveries and
 - Securities remaining in the account (including deliveries that were reclaimed or otherwise not completed).

Requesting that DTC Perform the Role of Honest Broker

A pledgor may request that DTC perform as an honest broker for the pledgor's pledged securities, ~~by calling DTC's Director of Compliance. DTC must receive this request before 8:00 a.m. eastern time on settlement date. Requests sent by hand delivery or mail should to be sent to~~

~~Director of Compliance The Depository Trust Company 55 Water Street 22nd floor New York, NY 10041~~

~~Requests may also be made by facsimile transmission to DTC's Director of Compliance at (212) 855-3214.~~

~~The pledgor must call DTC's Director of Compliance before 9:00 a.m. eastern time on the day DTC is scheduled to receive the pledgor's notice to confirm DTC's receipt of the notice.~~

DTC's Honest Broker procedure will be activated when requested by a pledgor when pledgees are unwilling to return pledged securities directly to a pledgor, but only at DTC's option after consultations with concerned parties indicate that such action is appropriate.

If the Honest Broker procedure is activated, DTC will notify pledgees and ~~participants~~ **Participants** of its activation and will advise them of the possibility that deliveries in settlement of their transactions with the pledgor may be received from the DTC HB Account rather than from the pledgor's DTC ~~participant~~ **Participant** account. In performing the role of honest broker, DTC will act as agent for the pledgee and will undertake no risk other than that arising from its own gross negligence.

Responsibilities of the Pledgor

As the pledgor, DTC's Director of Compliance will notify you that the Honest Broker procedure will be made available. After you are notified, you must

- Identify the affected pledgees to DTC and
- Notify the affected pledgees of your intent to use the Honest Broker procedure.

DTC will grant you access to the **PTS Honest Broker** functions ~~HBDO and HBCN~~, which consists of various options that allow you to execute and cancel deliver order (DO) transactions and to maintain the Pledgee-CUSIP Assignment List. ~~HBCN allows you to, and~~ enter CNS deliver orders.

~~Note—Cutoff times for each option vary. Refer to HBDO for more information.~~

Pledgee-CUSIP Assignment List

Via the ~~PTS function HBDO~~ **Honest Broker function**, you must specify which CUSIP numbers affect each pledgee participating in the Honest Broker procedure. For each CUSIP number for which you have initiated a DO, you must type the corresponding pledgee participant number.

~~Note- To reduce the amount of typing required, the~~ **The** pledgee-CUSIP assignments specified using this option will remain in effect from one day to the next, unless you cancel them.

DTC will provide you with output ~~reports at the end of the day,~~ **via the Settlement User Interface** detailing complete and incomplete honest broker DOs, as well as honest broker DOs that identify the pledgees whose shares were used to complete the DOs.

Collection of DO Liquidation Data

Via the ~~PTS function HBDO~~ **Honest Broker function**, you can enter DO instructions for trades that you want to complete using securities pledged to the pledgees.

~~Note-~~ DTC will not allow any repurchase (repo) transactions (reason code 81) or due bill deliveries in the **Honest Broker** ~~HBDO~~ function.

You can also use ~~HBDO~~ **the Honest Broker function** to

- Browse previously input DO transactions in the Honest Broker Control Account for transactions input on the same day.
- Cancel transactions in the queue. Canceling a transaction requires a reason for the cancel, and the item must be canceled on the same day that it was entered.

Responsibilities of the Pledgee

Once the Honest Broker procedure has been made available to the pledgor, as the pledgee, you must

- Receive notification from the pledgor that the Honest Broker procedure will be used.
- Confirm this understanding with DTC by calling ~~DTC's Director of Compliance at DTC~~ or DTC's Settlement Hotline at 212-855-5800.

Notice of Participation

If you elect to participate in the Honest Broker processing, you must notify DTC of your intent to do so.

~~Such notice must be received by DTC before 10:00 a.m. eastern time on settlement date. Notifications sent by hand delivery or mail should be sent to~~

~~Director of Compliance The Depository Trust Company 55 Water Street 22nd floor New York, New York 10041~~

~~Notifications may also be made by facsimile transmission to DTC's Director of Compliance at (212) 855-3214.~~

~~You must call DTC's Director of Compliance before 11:00 a.m. eastern time on settlement date to confirm DTC's receipt of the notice.~~

Participating pledgees must identify the corresponding pledgee participant number (for pledgees with multiple participant account numbers) that they will use to deliver positions to the DTC HB Account.

Note- If you are not a **participant Participant**, you must request that DTC establish a participant account number to use in Honest Broker processing.

How a Pledgee is Activated for the Honest Broker Process

DTC's Director of Compliance will notify you that the Honest Broker procedure will be made available. DTC will provide access to ~~HBDO~~ **the Honest Broker function** using your designated **participant Participant** account. Access to this function allows you to

- Browse the Honest Broker DOs input by the pledgor and
- Deliver previously demanded pledged securities to the HB Account for use in completing the Honest Broker DOs.

On settlement date, you will be able to review the details of the Honest Broker DOs via ~~HBDO~~ **the Honest Broker function**.

Securing Pledged Positions or Surrendering Positions to the DTC Honest Broker Account

You can remove securities from the pledgor's account by using the ~~PTS function~~ Demand of Collateral **function** (DCL)-. Via DCL you can move the pledged securities from the pledged account of the pledgor to your unpledged (free) account or any other participant account you designate, including the DTC HB Account.

~~HBDO~~ **Honest Broker Pledgee Free DO Deliveries Update**

If you have previously demanded securities, you **are** able to move, via the ~~PTS function~~ ~~HBDO~~ **the Honest Broker function**, the demanded securities to the DTC HB Account for redelivery. You will be required to enter the CUSIP number and quantity of shares for each previously pledged security you want to surrender to the Honest Broker facility for redelivery.

Settlement of Completed Honest Broker Deliveries

At the end of the processing day, if you have delivered pledged securities (which DTC will operate, acting exclusively as agent for the pledgee delivery securities to the account) to the DTC HB Account, you will receive from DTC your pro rata share of

- Proceeds received by DTC for redeliveries made in such issue and
- Securities that had not been redelivered.

Your pro rata share of settlement proceeds will be credited to your participant settlement account.

Note- For pledgees with multiple participant accounts, this credit will be applied to the account previously designated.

The crediting of these proceeds, which will be applied as code 78 adjustments, will occur just before DTC's final settlement figures are produced.

Transactions in Honest Broker processing will be included on the your regular daily activity and settlement reports. The Settlement Department can also provide individual reports upon request.

Associated PTS Functions

~~The following PTS functions are used in conjunction with Honest Broker for Redelivery of Pledged Securities:~~

<i>Use</i>	<i>To</i>
ART	View transactions by collateral group.
COLL	Pledge securities as collateral to a DTC pledgee or to a nonparticipant.
DCL	Demand collateral pledged to pledgees.
DO	Enter a deliver order.
FFSP or SETP	View settlement information by collateral group.
HBCN	Liquidate securities through the National Securities Clearing Corporation's Continuous Net Settlement account. Note—DTC must authorize access to this function and has the option of approving or denying authorization.
HBDO	Liquidate securities through the use of options similar to those of DOs. Note—DTC must authorize access to this functions and has the option of approving or denying authorization.

Honest Broker Contact Number

For more information on Honest Broker for Redelivery of Pledged Securities, call DTC's Customer Support Center at (888) 382-2721.

ID Net Service

Benefits

ID Net is a service that ultimately benefits all parties involved in institutional trading:

- Reduces the aggregate value of settlements system wide through netting efficiencies
- Presents cost savings for banks and brokers through reduced fees and/or deliveries
- Increases the certainty of settlement for matched institutional trades
- Encourages early affirmation

Overview

Unlike exchange trades and most prime broker trades, most institutional delivery transactions do not currently flow through NSCC's Continuous Net Settlement system ("CNS"). Rather these institutional transactions settle at DTC. The ID Net Service will allow subscribers to the service to net all eligible affirmed ID transactions against their CNS transactions, if any.

The ID Net Service will accept eligible affirmed institutional transactions from Omgeo LLC or other Affirming Agency that is eligible for the ID Net Service and offset the ID Net Firm side of each transaction with the participating ID Net Firm's other CNS obligations, if any.

Eligibility for the ID Net Service will require that a participating entity be a Member of NSCC and a Participant of DTC ("ID Net Firm"), and that a participating bank be a Participant of DTC ("ID Net Bank") (collectively, "ID Net Subscribers"). In addition, eligibility for ID Net processing will be based on the underlying security being processed, the type of transaction submitted for processing and the timing of affirmation/matching. Participation in the ID Net Service will be voluntary and will be governed by the rules and procedures applicable to the ID Net Service as described in this Notice. All ID Net Subscribers will be required to enter into separate ID Net Subscriber agreements with NSCC and/or DTC, as applicable that govern their use of the ID Net Service.

To facilitate the processing of ID Net transactions, two new securities accounts will be established by NSCC at DTC on behalf of all ID Net Firms that have elected to use the ID Net Service: the "ID Netting Subscriber Deliver Account" and the "ID Netting Subscriber Receive Account" (collectively referred to as the "ID Netting Subscriber Accounts"). NSCC will be the owner of both accounts and will act as agent for the ID Net Firms. NSCC will process ID Net transactions through these accounts on behalf of participating ID Net Firms. While NSCC will direct transactions through these accounts on behalf of ID Net Firms, the ID Net Firms, not NSCC, will be responsible for satisfying applicable DTC risk management controls and Participant Fund requirements for their respective activity through the ID Netting Subscriber Accounts.

The ID Net service offers netting efficiency and reduced security movements for ID Net Subscribers who are NSCC Members. NSCC Members, however, may need to make system changes to reflect how institutional deliveries will now be processed through their system. For Bank ID Net Subscribers the ID Net service was specifically designed to minimize development and to make ID Net processing as transparent as possible.

For more information, contact your Relationship Manager.

Eligibility

A. Participant Eligibility

ID Net is available to members of DTCC subsidiaries. NSCC Members participating in the ID Net service must be eligible for CNS processing as well as Participants in DTC ("ID Net Firms"). Banks must be DTC Participants ("ID Net Banks") (ID Net Firms and ID Net Banks participating in the ID Net Service are referred to collectively as "ID Net Subscribers"). All agent ID numbers associated with a given ID Net Bank will be included for processing. In order to subscribe, firms will follow these steps:

- A subscriber to the ID Net Service will need to submit an ID Net subscriber form to both DTC and NSCC.
 - Upon receipt of the form, DTC's Account Administration will review it for all required information and authorization.

- If acceptable, the appropriate master file update will take place that evening at approximately 8 p.m.
- Once the update has occurred, affirmed trades from that evening between two eligible ID Net Subscribers will be routed into the ID Net process. Thus, the first eligible ID Net trade that could be processed is on the following night.
- When ~~participants~~ **Participants** subscribe to ID Net, the transactions eligible for ID Netting will initially be limited to CUSIPs that begin with a "5" to support a phased-in implementation.

Note: A ~~participant~~ **Participant** should contact its Relationship Manager about testing with DTC and NSCC prior to signing up for ID Net.

B. ID Net Security Eligibility

Most equity securities that are eligible for CNS are eligible for ID Net processing.

ID Net Processing Eligibility

In addition to participant and security eligibility requirements, for a transaction to be eligible for ID Net:

- The trade must be affirmed/matched by: (i) a Registered Clearing Agency as defined in the Securities Exchange Act of 1934, (ii) a clearing agency that has received exemption from registration by the SEC, or (iii) a "qualified vendor" for trade confirmation/affirmation services as defined by the rules of a self-regulatory organization (collectively defined herein as, "Affirming Agencies").
- The trade must be affirmed before 9:00 p.m. **eastern time** on (T+1).
- The trade must be regular-way; i.e., T+3 settlement.
- The transaction must be between an ID Net Firm and an ID Net Bank, on behalf of an institutional customer.

Affirmation Processing

The service will be initially rolled out in conjunction with Omgeo. Accordingly, when an Omgeo TradeSuite institutional trade is affirmed/matched, Omgeo will:

- Ensure that both the "ID Net Firm" and "ID Net Bank" are participating in ID Netting, and
- Complete security and trade level eligibility checks and ensure affirmation is effected before the 9 p.m. cut-off on T+1.

Once Omgeo has determined that the trade and parties are eligible for ID Net:

- Omgeo will set the settlement option value field of the affirmed confirm (position 615) equal to "6". Note that "6" is a new value for an existing field. Today, the values used in this field are "2" for regular ID processing and "4" for NSCC prime broker processing.
- For bank deliveries/institutional sells, Omgeo will put the ID Netting Subscriber Deliver Account (# 719) in the depository third-party field of the ID affirmed confirm and leave the original clearing firm in the receiver field.
- For bank receives/institutional buys, Omgeo will put the ID Netting Subscriber Receive Account (# 919) in the depository third-party field of the ID affirmed confirm and leave the original clearing firm in the deliverer field.

It should be noted that the depository third party field of the ID affirmed confirm is not populated today. Therefore, although not required to read the field, machine-readable users should be prepared to receive the depository third-party field's potential new values and ensure that the population of this field will not adversely affect existing processing within their system.

Alternatively, ID Net Subscribers may optionally program to read the depository third party field's to ascertain ID Netting Subscriber Account information and related ID Net processing.

Inventory Management System (IMS) Processing

Authorization, Exemption and Cancel Processing for ID Net Banks

Today, when a TradeSuite delivery from a bank is affirmed, the delivery is sent to DTC's Inventory Management System (IMS). ID Net was developed to minimize systemic changes required by ID Net Banks. ~~Except as noted in bold below, ID Net changes are primarily to PTS/PBS screens.~~

If a trade is flagged as ID Net eligible, DTC will automatically "flip" the original clearing firm from the receiver field into the third-party field of the ID trade and will put the ID Netting Subscriber Deliver Account (# 719) in the receiver field. **ID Net Banks will only be notified of this change if they elect to receive new messages that will be produced by DTC specifically for ID Net, otherwise, systemically, this process will be transparent to ID Net Banks.**

- ID Net Banks may continue to exempt, authorize or cancel ID deliveries before the night cycle as they do today. However for the day cycle, it is recommended that ID Net Banks authorize their individual ID deliveries **and discontinue the practice of sending Deliver Orders (DO) for these trades.** Otherwise, the contra Participant may reclaim, subject to DTC's risk management controls and applicable RAD limits, the DOs since these trades are set up for settlement in ID Net. Authorization of individual ID deliveries versus sending DOs is more cost effective for banks.
- If an ID Net Bank cancels an ID trade today, it can no longer be acted upon. If a trade is in the ID Net process and is cancelled the trade can no longer be acted upon and the trade will be immediately exited from ID Net processing.
- Transactions exempted by an ID Net Bank will remain in ID Netting until 11:30 a.m. on settlement date. At 11:30 a.m., if still exempted, the delivery will be removed from the ID Net Service. IMS will return the original clearing firm's Participant number back to the receiver field and populate the third-party field of the delivery with the ID Netting Subscriber Deliver Account (#719). **This will be transparent to ID Net Banks.** If a transaction is subsequently authorized by the bank, it will be delivered to the original clearing Participant on a trade-for-trade basis just as ID trades are processed today with all applicable comment information remaining intact.

The ID Net processing cut-off time of 11:30 a.m. eastern time will allow ID Net to give the obligations back to the original parties with sufficient time to allow them to complete the delivery from their account or borrow the security to complete the transaction.

Authorization, Exemption and Cancel Processing for ID Net Firms

ID Net Firms may exempt a receive before the night of T+2 from a bank that is in the ID Net Service via a new IMS capability. This receive exemption will only be permitted on a trade-for-trade basis ~~over PTS/PBS or the Settlement Web.~~ This exemption will exit the transaction from ID Net by returning the original clearing firm number back into the receiver field and making the appropriate CNS adjustment entries. The transaction will then be available for trade-for-trade settlement.

ID Net Firms should continue to authorize/exempt/cancel their deliveries from their account as they do today.

- Authorization of ID Net Firm deliveries by the ID Net Firm is not necessary.
- ID Net Firms may exempt their deliveries in the ID Net process either through a new Inventory Management System (IMS) function option or systematically on a trade-for-trade basis by submitting the Omgeo control number as they do now.

- Global exemptions of ID Net deliveries will only be available via ~~PTS/PBS or the~~ Settlement **Web User Interface**. If an ID Net Firm sends in a global exemption systematically for its account, it will not apply to its ID Net deliveries.
- If an ID Net Firm's delivery is exempted or pend cancelled by the ID Net Firm, the transaction will be exited from ID Net. For exempted transactions, the ID Net Firm can no longer act upon that delivery, i.e., authorize it at a later time.
- If an ID Net Firm's trade is exited from the ID Net process, it will not revert back to an original ID trade from the ID Net Firm's account. The ID Net Firm will need to submit the delivery itself or use the re-introduced drop feature described below.

Settlement and Risk Management Processing

Changes to Risk Management Control Updates for ID Net Firms

ID Net will process an ID Net Firm's DTC debits and credits for its eligible ID trades through the NSCC ID Netting Subscriber accounts. These ID trades will have offsetting debits and credits in the CNS system. As a result, NSCC may owe DTC on any given day for the net of all the ID Net trades processed for all ID Net Firms. In order to protect DTC from having a failure exported from NSCC for liquidity purposes, updates to ~~participants'~~ **Participants** net debit caps and collateral monitors will be necessary as described below:

A new ID Net collateral monitor and net debit cap balance will be recorded in the processing system. The ID Net collateral monitor will record the net balance of collateral generated for all ID transactions processed through the ID Net service. If the balance of collateral generated by all ID Net receives and delivers is positive, the ID Net Firm's collateral monitor will not be increased by that amount. However, if an ID Net transaction requires collateral, the system will use the ID Net collateral surplus for that ID Net Firm before attempting to use other collateral from that ID Net Firm. If there is insufficient ID Net collateral for that ID Net Firm, the system will look to the ID Net Firm's excess collateral in its account.

Similar to collateral, the system will create a new ID Net settlement balance. When this balance is a net credit from deliveries on the ID Net Firm's behalf through the #919 account, it will only be used to offset incoming ID Net receives to the #719 account. If there is an insufficient ID Net credit to absorb the debit of the ID Net delivery to 719 for that ID Net Firm, the system will create an ID Net debit that will effectively treat the ID Net debit as a reduction of the ID Net Firm's net debit cap and will be displayed ~~on via~~ the Risk Management Control Inquiry **function (RMCI) in the Settlement Web**. The ID Net debit will only be used for net debit cap calculation purposes and will not represent a ~~participant's~~ **Participant's** actual settlement balance.

- If the ID Net Firm has insufficient collateral or net debit cap, the transaction will pend until 11:30 a.m. **eastern time** on settlement date.

Risk Controls for the ID Netting Subscriber Deliver Account:

- Authorized bank deliveries will be checked for position and collateral as today. The original clearing firm, who is now identified in the third party field, is responsible for collateralizing the ID Net securities being processed into the ID Netting Subscriber Deliver Account #719.
- Receives into the ID Netting Subscriber Deliver Account #719 for the ID Net Firm will be available for immediate delivery to CNS. The original clearing firm's memo seg, if any, will not be applicable.

Risk Controls for ID Netting Subscriber Receive Account:

- Receives from CNS into the ID Netting Subscriber Receive Account #919 for the original clearing firm will be available for immediate delivery to ID Net Banks. The original clearing ID Net Firm's memo seg, if any, will not be applicable.
- An ID Net Firm can also cancel a pending ID Net delivery (referred to as a pend cancel) from the ID Netting Subscriber Receive Account #919 account through ~~PTS/PBS or~~ the Settlement

~~Web user interface~~ User Interface or through the new “ID Net Tran Auth Updates” option in the IMS function.

Deliveries from the CNS account to the ID Netting Subscriber Receive Account # 919 will be on a higher priority basis except for buy-in receives, corporate actions and other delivery types as determined periodically by the clearing corporation. By placing the ID Netting Subscriber Receive Account #919 on a higher priority for long allocations, the number and value of ID Net fails will be reduced.

Processing of ID Net Firm Trades Exited from ID Net

A previously eligible ID Net trade can be exited from the ID Net process for a number of reasons. If an ID Net trade is exited from the ID Net Service, it will revert back to an original ID trade from the ID Net Firm's account, despite the fact that the ID Net Firm or IMS may have already performed the authorization or exemption process for ID trades from its account. Trades that are exited from ID Net before settlement processing begins on the night of T+2 will be placed back into an unprocessed state in IMS and the ID Net Firm will have to authorize these trades if it intends to deliver them. Applicable output messages will be available for all exited ID Net trades.

If an ID Net trade is exempted or pend cancelled, the transaction will be exited from ID Net. For exempted transactions, the ID Net Firm can no longer act upon that delivery, i.e., authorize it at a later time.

Some of the reasons that a trade may be exited from ID Net are as follows:

Change of Eligibility

After a trade has been affirmed and deemed eligible for ID Net, the ID Net process will continue to check the transaction's eligibility up until 8 p.m. on the night of T+2. If a trade becomes ineligible, for example, a Reorganization is announced, the trade will be removed from the ID Net process regardless of whether it is in an authorized or an exempt state. The trade will be staged for trade-for-trade settlement between the ID Net Firm and the ID Net Bank and will maintain its current state, i.e., authorized trades will remain authorized and exempted trades will remain exempted.

Attempts to Cancel

After an ID trade is affirmed, ID Net Firms, on occasion, generate an attempt to cancel via Omgeo and exempt the ID trade since the trade may no longer be valid. If the trade is in the ID Net process and is being staged for delivery from the ID Net Subscriber Receive Account #919, ID Net Firms should continue to exempt transactions when an “attempt to cancel” message is generated by Omgeo the same as they do today. Automated exemptions on a trade-for-trade basis via the Omgeo control number will still be accepted for ID Net trades from the ID Net Subscriber Receive Account #919. ~~PTS/PBS or Settlement Web users will use the new ID Net screen in IMS described below in the “IMS Update Screens” below.~~

Cut-off of 11:30 a.m. on Settlement Date

Trades that are eligible for ID Net but are still in an exempt or unprocessed state or are pending for position or risk management controls at 11:30 a.m. on settlement date will automatically revert to trade-for-trade settlement versus the original clearing firm. They will be exited from the ID Net process at NSCC through a new Miscellaneous adjustment to their CNS position. Any exits from ID Net after the start of the night cycle that create a short or increases an existing short in CNS, will be subjected to the one-day settling trade exemption indicator (the default for this indicator is level 1, i.e., the position will be exempted). The exit processing for ID Net Banks and ID Net Firms will differ as follows:

ID Net Bank Deliveries

ID Net Bank deliveries that remain exempt at 11:30 a.m. eastern time on settlement date will be exited from ID Net as follows:

- ID Net will move the original clearing firm back into the receiver field and the ID Net Subscriber Deliver Account #719 will be placed into the third-party field by the ID Net Service. Thus, if a bank authorizes the delivery after the 11:30 a.m. (eastern time) ID Net cutoff, the ID delivery will go directly to the original clearing firm. ~~Currently, the authorization of an ID delivery is permitted until 2:30 p.m. on a trade for trade basis via PTS or MQ. In order to synchronize the ability to authorize an ID delivery with DO cutoffs, the 2:30 p.m. cutoff will be extended to 3:15 p.m. on settlement date for MQ and PTS and 3:05 p.m. for CCF/CF2.~~
- Authorized ID Net Bank deliveries that are pending for position or the deliverer's or receiver's risk management controls will also be exited from ID Net and will continue to recycle in the system to the ID Net Firm. The ID Net Bank delivery will be systematically updated so that the original clearing firm will be moved back from the third party field to the receiver field and the ID Net Subscriber Deliver Account #719 will be placed into the third-party field. The transaction will continue to recycle with the same Relative Block Number (RBN – the unique transaction number applied by the processing system); however, if it re-pends or completes, it will be assigned a new RBN # that will point to the original RBN.

ID Net Firm Deliveries

- ID Net Firm deliveries from the ID Netting Subscriber Receive Account #919 that are pending for position or because of risk management controls will drop at 11:30 a.m. eastern time on settlement date
- **Re-introduction of ID Net Deliveries for ID Net Firms**

Deliveries that do not complete for position or controls will be available for immediate re-introduction from the original clearing firm's account through an an new optional IMS function at 11:30 a.m. eastern time.

The ID Net reintroduced drop will appear and will be charged as a regular ID trade (MITS transaction type in IMS). The reintroduced drop can be viewed by the ID Net Firm in the "Transaction Authorization Inquiry" option in IMS. An ID Net reintroduced drop will remain in an Unprocessed state (will not be processed) unless the ID Net Firm authorizes the delivery in IMS. ID Net Firms can elect to have their ID Net reintroduced drops automatically authorized by setting their "ID Net Drop Authorization Profile" to passive. ID Net Firms should use the new "ID Net Drop Auth Profile Update" option in the IMS function to switch their ID Net drop profile from Active (the default) to Passive. ID Net Firms can view their ID Net drop authorization profile in the IMS function by selecting the "ID Net Drop Auth Profile Inquiry" option.

Reclaims

ID Net same-day reclaims are only applicable to deliveries from the ID Netting Subscriber Receive Account #919. These reclaims will be directed to the original clearing firm rather than the omnibus account #919 and are subject to DTC's risk management controls and applicable RAD limits.

DTC strongly recommends that ID Net reclaims of receives from the ID Netting Subscriber Receive Account #919 include the Relative Block Number (RBN) and Original Date. **Reclaims processed without the RBN and Original Date will be treated as original transactions and will not be matched or linked.**

ID Net reclaims processed as next day reclaims should be processed directly to the ID Net Firm's account and may go to RAD depending on the ID Net Firm's RAD limits (DTC will change the receiver number to the ID Net Firm in the third party field for same day matched reclaims and linked reclaims when the receiver is account #919).

~~Participants will be able to view reclaims of ID Net deliveries via a new SMART/Search report "IMS ID Net Reclaim Report".~~

Pend Holds

ID Net Banks will be permitted to place holds on their ID Net deliveries that are pending for insufficient position in the ~~PEND~~ Pending Transaction function.

ID Net Firms will not be permitted to place pend holds on their ID Net deliveries that are being processed from the ID Netting Subscriber Receive Account #919.

NSCC Clearing Fund Offset and Mark-to-Market

ID Net transactions will be used to offset the balance of any other CNS transactions, and the "net" of those transactions will be used for purposes of determining Clearing Fund obligations pursuant to NSCC's current procedures, subject to a revised mark-to-market calculation applicable to ID Net Firms.

ID Net transactions will receive their own separate mark-to-market (MTM) calculation. This ID Net MTM total will be added to each member's daily clearing fund requirement.

DTC Participants Fund

DTC's ~~participant's fund~~ Participants Fund calculation is based upon a ~~participant's~~ Participant's legal entity net debit peaks. DTC will continue to include the debits and credits associated with ID Net deliveries that are processed on behalf of an ID Net Firm in its fund calculation.

Omgeo

For more information on how ID Net will affect other Omgeo processing, please refer to the Omgeo Product Bulletin in the TradeSuite section of the Omgeo website.

Terminating the ID Net Service

If an ID Net Subscriber wanted to terminate their participation in ID Net, the following procedure would apply:

- A subscriber to the ID Net service will need to submit an ID Net exit notification to DTC's Account Administration area.
- Upon receipt of the form, it will be reviewed for all required information and authorization.
- If acceptable, the appropriate masterfile update will take place that evening at approximately 7 p.m. **eastern time.**
- Once the update has occurred, affirmed trades would no longer be routed to ID Net after the masterfile update. If an ID Net Subscriber wanted to exit all the trades it had in ID Net, it could do so.
- ID Net Firms and ID Net Banks can cancel or exempt their future ID Net transactions where they are the delivering party.
- ID Net Firms can cancel or exclude their future ID Net transactions where they are the receiving party.
- An ID Net Firm's or ID Net Bank's ID Net receives can also be exited by the Settlement department at DTC by notifying the Settlement Operations department. This request will be processed on a best efforts basis.

Initial Public Offering (IPO) Tracking System

About the Product

The Initial Public Offering (IPO) Tracking System tracks the movement of IPO shares for a specific time period and reports activity to the IPO's Lead Underwriter and Syndicate Members. The goals of the system are to provide:

- Automated tracking of IPOs with no disruption to the normal book-entry process
- Accurate, comprehensive and timely reports to the Lead Underwriter and Syndicate Members
- The greatest possible economic efficiency by allowing IPOs to be distributed and tracked in a book-entry environment.

Note- For a more detailed explanation of the IPO Tracking System, refer to the IPO Tracking System User's Manual.

Associated PTS Functions

~~The following PTS functions are used in association with the IPO Tracking System.~~

<i>Use this function</i>	<i>To</i>
DO	Enter deliver orders for IPOs.

Use this function	To
IPOU	<p>Perform various IPO-related activities, such as:</p> <ul style="list-style-type: none"> • Entering customer details for a tracked issue • Moving shares from your IPO control account to your general free account • Transferring shares to another participant • Adjusting your customer information • Moving shares from your general free account to your IPO control account to deliver oversubscription shares (Lead Underwriters only) • Cancelling recycling transactions • Performing IPO stock loan transactions.
IPOI	View information about tracked IPO issues.
NDOM	Enter night deliver orders (NDOs) for IPOs.

IPO Tracking System Contact Number

For more information about the IPO Tracking System, call DTC's Customer Support Center at (888) 382-2721.

Investment Identification

About the Product

At your request, DTC will segregate securities for the account of a firm, partner, officer, stockholder, or for an omnibus account. ~~If this segregation is for Internal Revenue Service purposes, please refer to Revenue Ruling 64-160 (also published as Technical Information Release 591), modified by Revenue Ruling 76-489.~~

Securities are segregated by the serial number appearing on the Investment Identification Instruction form. The serial number appears on the Participant Daily Activity Statement on the date of activity and is reported on the end-of-month statement until you no longer have a position in the issue or you have instructed DTC to release the securities from segregation.

~~**Note**—You must use the PTS function INID to segregate securities and the RNID function to release securities.~~

Dividends and interest due are allocated as follows:

1. Cash dividends and interest due are allocated to the Investment Identification positions and other positions. Allocations appear on your Dividend/Reorganization Cash Settlement List.
2. Stock dividends are calculated on the Investment Identification positions and other positions, and are credited to your general free account on the payable date.
3. Stock splits are calculated on the general free and pledged positions as well as the Investment Identification account. The dividend is added to each respective account on settlement date.

4. DTC allocates cash merger and mandatory put payments as well as municipal and corporate redemption payments for positions segregated on DTC's books.

Investment Identification activity is recorded on your Participant Daily Activity Statement. Check your statement to be sure your transactions were properly processed and recorded.

Warning! Under DTC's Rules and Procedures you are responsible for verifying the accuracy of your Participant Daily Activity Statement. You must report discrepancies to DTC's Reconciliation division at ~~(212) 855-4904~~ as soon as possible after you receive the statement.

~~Associated PTS Functions~~

~~The following PTS functions are used in association with Investment Identification.~~

<i>Use this function</i>	<i>To</i>
INID	Segregate securities.
POSM	View your position increase.
RNID	Release securities.

Investment Identification Contact Number

For more information on Investment Identification, call DTC's Customer Support Center at (888) 382-2721.

Look-Ahead Processing

DTC's Look-Ahead process runs on fifteen minute intervals and selects pairs of transactions that when processed simultaneously will not violate the involved Participants net debit cap, collateral or other Risk Management system controls.

The Look-Ahead process reduces transaction blockage for securities by identifying a receive transaction pending due to a net debit cap insufficiency and determines whether an offsetting delivery transaction pending because of a quantity deficiency in the same security would permit both transactions to be completed in compliance with DTC's Risk Management system controls. DTC's processing system, Account Transaction Processor (ATP) calculates the net effect to the collateral and net debit cap controls for all three Participants involved and if the net effect will not result in a deficit in the collateral or net debit cap for any of the three Participants, ATP processes the transactions simultaneously.

DTC's Look-Ahead process also allows Money Market Issuance Deliveries pending for a Custodian's or Dealer's net debit cap to complete against Maturity Presentments pending for an Issuing/Paying Agent's net debit cap. The processing system calculates the net effect of the dollar amount of offsetting transactions in the accounts of the two Participants involved. If the net of the transactions results in positive risk management controls in those two accounts, the transactions will be completed.

OCC Market Loan Program

In order to reduce the possibility of mis-matched stock loans, look-ahead matches on number of shares and dollar amount in addition to CUSIP on stock loan transactions in the OCC account.

Memo Segregation

About the Product

~~Memo Segregation allows you to~~ **Participants can** protect fully-paid-for customer securities using the **Memo Segregation** function **MSEG**. **Memo Segregation MSEG** is similar to the **SEG Segregation** function, which allows you to protect fully-paid-for customer securities by moving them from a free position to a protected (segregated) position. However, whereas **SEG Segregation** allows you to move only existing positions, **MSEG Memo Segregation** allows you to create memo-segregated positions within your free positions, thus allowing you to protect anticipated, fully-paid-for customer securities.

How the Product Works

You can have your Memo Segregation counter automatically increased upon receipt of certain transactions. You can also allow positions resulting from certain transactions to be available for redelivery (turnaround) regardless of Memo Segregation constraints. DTC gives you two options for creating Memo Segregation positions:

1. Provide DTC with specific Memo Segregation transactions using the **MSEG Memo Segregation** function, instructing DTC to establish or adjust Memo Segregation positions.
2. Provide DTC with standing instructions to have certain types of transactions automatically increase Memo Segregation positions, and ignore Memo Segregation positions in order to allow redeliveries (turnarounds) to complete.

To provide DTC with standing instructions, submit a Memo Segregation Request form. To get a copy of this form contact your Relationship Manager.

Non-Optional Memo Segregation Transactions

Independently of the preceding options, the following transactions always reduce your Memo Segregation position:

- Withdrawals-by-transfer (WTs) Certificates-on-demand (CODs)
- Free deliver orders (DO), except those processed with reason codes 10 - 29, 98, 100, 220, 260 - 268, 270-278, 280 - 288, 290 - 291, 600-619, 704-708, and CNS short covers
- Deliveries processed with reason codes 95, 97, 630, 640 and reclaim codes 197, 631, and 641 (free and valued).

When one of these transaction types is processed against your account with a Memo Segregation position, the system checks the free account. If sufficient shares exist, both the free position and the Memo Segregation position are reduced by the amount of the transaction.

Note- If the free position is greater than the Memo Segregation position, and the transaction is for the entire free amount, the Memo Segregation position is reduced to zero; it does not become a negative value.

Optional Memo Segregation Indicators

You can activate any of five Memo Segregation indicators by providing DTC with a standing Memo Segregation instruction. When you activate a Memo Segregation indicator, your free position and

Memo Segregation position are automatically updated according to the indicators that you have elected.

Activate Indicator	To
1	Automatically increase your Memo Segregation counter upon the receipt of: <ul style="list-style-type: none"> • Free and valued DOs with reason codes 40, 99, 330, & 340 • WT reversals • Positions resulting from voluntary and mandatory reorganizations.
2	Automatically increase your Memo Segregation counter upon receipt of transactions with reason codes -41-48, 331-338, 341-348.
3	Automatically increase your Memo Segregation counter upon the receipt of CNS receives from the Fully-Paid-For Securities or "E" account.
4	Turnaround securities positions, regardless of Memo Segregation constraints, for positions received from DOs with reason codes 10-,_30, and 600, except those with reason codes 10, 20, 260, 270, 280, or 290.
5	Turnaround securities positions, regardless of Memo Segregation constraints, for positions received from: All DOs, except those with reason codes 20-29, 40--48, 99, 261-268, 270-278, 290, 291, 330-338, 340-348, 390, 610-619, 705-707 and CNS receives from the "C" and "E" accounts except if the turnaround is a reason code 10, 20, 260, 270, 280, or 290.
6	A Participant may elect to increase automatically its Memo Segregation counter by the units of securities credited to the Participant's account in any ACATS transfer to that account.

Memo Segregation indicators 4 and 5 control the capability that allows certain positions to be used for turnarounds up to the amount of the received position, regardless of Memo Segregation constraints.

Even if you have no pending deliveries at the time a position is received from a DO with reason code 10 or 30, DTC retains, throughout that day's processing cycle, a notation of the number of shares received from such deliveries. DTC also processes any deliveries regardless of when they are submitted that day, up to that number, regardless of your Memo Segregation position.

Associated Functions

~~The Memo Segregation product is used in association with the MSEG function, which allows you to create or adjust Memo Segregation positions for specific transactions. Use PQSM to view your Memo Segregation position on a CUSIP level.~~

~~**Note—Memo Segregation is also available using Message Queuing (MQ) or Computer to Computer Facility (CCF).**~~

Memo Segregation Contact Number

For more information about Memo Segregation, call DTC's Customer Support Center at (888) 382-2721.

Money Market Instrument (MMI) Issuer Failure Process

About the Product

The Money Market Instrument (MMI) Issuer Failure process is designed to protect DTC and its ~~participants~~ **Participants** from incurring financial losses when an MMI issue defaults. Using the MMRP function, issuing paying agents (IPAs) can notify DTC that they refuse to pay maturity or periodic interest payment proceeds, or both, for an MMI issue. An IPA must inform DTC of its refusal to pay by 3:00 p.m. eastern time. After DTC verifies the default it begins MMI Issuer Failure procedures.

How the Product Works

Upon notification of a default, DTC:

- Freezes the issue, preventing further issuance and maturity activity
- Globally locks all CUSIP numbers associated with the failed issue to prevent any activity
- Devalues all of the Issuer's MMIs for Same-Day Funds Settlement (SDFS) collateralization
- Reverses all of the Issuer's issuances, maturities, and income presentments processed that day
- Notifies ~~participants~~ **Participants** of the default via the FFSP function
- Reverses all deliveries of newly issued paper.

Notifying DTC of Temporary Refusal to Pay

A Temporary Refusal to Pay Income Presentments occurs when a paying agent indicates an issuer's inability to fund income presentments (IPs). This is considered a temporary situation that will be resolved the next business day. Paying agents enter these notifications via the MMRP function. When DTC receives a notification, it:

- Temporarily devalues to zero all of the Issuer's MMIs for collateralization. (The value will be reinstated the following business day.)
- Temporarily reverses all of the issuer's issuances and income presentments processed that day. These transactions will be automatically processed the next business day.
- Notifies ~~participants~~ **Participants** of the temporary default.
- Blocks from DTC's systems all further issuances and maturities by that Issuer for the rest of the business day.

Note- You can use Temporary Refusal to Pay Income Presentments only if the issuer's only obligations that day are IPs.

Notifying DTC of Issuer Failure

Because Refusal to Pay and Temporary Refusal to Pay notifications are critical, paying agents should call DTC's Settlement Hotline at 212-855-5800 to confirm that DTC received the notification.

Associated PTS Functions

~~The following PTS functions are used in association with the MMI Issuer Failure process.~~

Use this function	To
FFSP	View reversed transactions.
ART	View reversed transactions.
MMRP	Submit payment refusals.

MMI Issuer Failure Contact Number

For more information about MMI Issuer Failure, call DTC's ~~Customer Support Center at (888) 382-2721~~ Settlement Operations Hotline at 212-855-5800.

MMI IPA MP Pend

Overview

The MMI IPA MP Pend function or "MP Pend" will allow an issuing/paying agent (IPA) bank the ability to control its exposure to high risk issuers that have known or anticipated funding or credit issues.

By enhancing money market instrument (MMI) processing, the MP Pend function will assist in mitigating the collective risk for DTCC and its ~~participants~~ Participants.

Benefits

- Gives IPAs the ability to anticipate and react to potential funding and credit issues associated with maturity presentments.
- Expected to reduce the number of late-day reversals.

Background

Maturity payment procedures were designed to limit credit, liquidity, and operational risk for DTC and ~~participants~~ Participants in the MMI program. Maximizing efficiency at the lowest level of risk is the primary goal. To expedite the process, early on the day the MMI matures—approximately 2:00 a.m. ~~Eastern~~ eastern Time (ET)—DTC automatically sweeps maturing MMI positions from accounts of investors' custodians with positions in the maturing issues and initiates maturity presentments (MPs) to the accounts of the designated IPAs.

MPs are effectively provisional book-entry deliveries-versus-payment submitted for inclusion in that day's settlement balance. DTC debits the IPA's account in the amount of the maturity proceeds for settlement that day and credits the same amount of the maturity proceeds to the investor's custodian account for payment that day to the investor.

Because MPs are processed automatically and randomly against the IPAs' DTC account, IPAs are provided the ability to refuse to pay for a specific issuer's MP in the event that the issuer defaults on its obligation to the IPA. These MPs are subject to reversal later in the day if an IPA refuses to pay

(RTP) by 3:00 p.m. ~~ET~~ **eastern time**. The objective of the MP Pend function is to reduce the need for late-day reversals.

Replacement of MPCS Function

~~MP Pend will replace the existing PTS Maturity Presentment Contingency System (MPCS) function that is used by DTC Operations and IPAs in extraordinary circumstances to pend and release MMI MPs on a global basis.~~

Legal Disclaimer

In order to confirm that IPAs have the authority to pend MPs and understand the submission rules, they are required to review and accept a legal disclaimer each time they create or change an MP Pend profile.

Before submitting an MP Pend profile, the IPAs click to acknowledge that they have read and accept the terms and conditions.

Legal Disclaimer that the IPA Agrees To

The Issuing Paying Agent for issuer, hereby represents and warrants that it has the authority to submit the request appearing on the next screen(s) and that it will either release the items held in "pend" prior to 3:00 pm ~~Eastern~~ **eastern Time time** (ET) on the date of maturity or by such time communicate to DTC that it will refuse to pay. The Issuing Paying Agent for issuer, acknowledges, understands and agrees that all MPs will be released for normal processing if it does not communicate its intention to DTC that it wishes to refuse to pay by 3:00 pm ET.

How MMI MP Pend Works

MP Pend allows IPAs to review and approve MPs prior to having them processed into their IPA settlement account. IPAs will be able to pend an MMI maturity presentment and release transactions daily prior to the 3:00 p.m. ET settlement cutoff.

The four pend levels that MP Pend provides give the IPA greater control over which portion of an MP should pend and which portion should be processed. Using MP Pend, the IPA can pend one of four levels. The highest or broadest level is the acronym level. The lowest or most specific level is the base CUSIP.

The pend levels below are listed from the highest (acronym) to the lowest (base number) level. If you set up a profile for a base CUSIP number, you must first select the Acronym, Product, and Program that contain the base CUSIP you wish to pend.

MMI MP Pend Levels

1. Acronym (highest level)
2. Product
3. Program
4. Base Number

Workflow in MMI MP Pend

The following is a typical workflow for IPAs in MMI MP Pend.

1. Set up an MP Pend profile for the designated issuer's MPs
2. View all the transactions that are pending or that have been released
3. Release all transactions for processing or submit a refusal to pay to DTC by 3:00 p.m. ET.
4. Leave the MP Pend profile active for subsequent days; deactivate the profile for re-use later; or delete the profile.

Business Rules

The following are cutoff times for MMI MP Pend and related functions. All actions are processed real-time and take effect immediately.

Action	Cutoff Time	Action is Effective	Applies To . . .
Pend Maturity Presentments (MPs)	Night prior to the maturity presentment (MP) sweep or intraday for MPs with variable rate. If the IPA profile request is submitted after the MPs are processed, then they will not be pending but will be processed as pending items the following business day.	Immediately. Note: the MP Pend profile remains in effect until you deactivate or delete it.	MPs that are Activity Code 28 or intraday MPs for the same issuer acronym. Note: Includes RPs (reorganization presentments.)
Release Maturity Presentment (MP) Transactions	All pending items must be released the same day that the MP matures by 3:00 p.m. eastern time. If the IPA takes no action by 3:00 p.m. eastern time, then these items will be released by DTC Operations for normal processing.	Immediately.	MPs that are Activity Code 28 or intraday MPs for the same acronym. Note: Includes RPs (reorganization presentments.)
Add Rate for MMIs with Unknown Rates	The IPA must add the rate in PAMM or PORS before pending MPs can be released.	Immediately.	MPs that are Activity Code 28 or intraday MPs of the same acronym.
Refusal to Pay (RTP) Maturity Presentments (MPs)	All refusals to pay must be submitted by 3:00 p.m. eastern time in via the <u>PTS/PBS MMRP Money Market Refusal to Pay function (MMRP)</u>	Immediately.	All MPs that are Activity Code 28 or intraday MPs for the same acronym.

	<p>function.</p> <p>If the IPA takes no action by 3:00 p.m. eastern time, then all pending items will be released by DTC Operations for normal processing.</p>		<p>Note: Includes RPs (reorganization presentments.)</p>
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Important Terms

MMI MP PEND Actions and Statuses

MP Pend gives the IPA the ability to set up their Pend profiles in order to indicate which issuer MPs will be pended and at what level. For example, as long as an MP Pend profile is active, all MPs that match that profile will be automatically pended. An MP Pend profile may be created, deactivated, reactivated, or deleted.

Create

Creates the IPA's MP Pend profile in an Active status. Any MPs that correspond to the profile are pended effective immediately.

Deactivate

Deactivates an MP Pend profile thereby disabling the profile without deleting it. If you deactivate the profile, it is in Inactive status. Deactivating turns off the profile, but you can reuse it by activating it.

Note: Deactivating a profile does not affect the transactions that are pended. The IPA still needs to release each MP that is pending. The deactivation would take effect for any MPs that are submitted after the profile is deactivated.

Activate

Reactivates an MP Pend profile that has previously been deactivated. If you activate the profile, it is in Active status, and MPs that correspond to this profile are pended immediately.

Delete

Deletes an MP Pend profile. Delete a profile if you no longer intend to use it; deactivate a profile that you wish to turn off now but may want to reuse.

Note: Deleting a profile does not affect the transactions that are pending. The IPA still needs to release each MP that is pending.

Maturity Presentment

In MMI MP Pend, maturity presentment is defined as the following:

- MPs and Reorganization Presentments (RPs) that are activity code 28 processed the night prior to the maturity date and/or intraday for MPs of the same acronym.
- For MMIs that pay interest and principal, the last interest and principal payment that is combined into a single maturity payment (activity code 28-0) to the holder on maturity date.
- For MMIs that make periodic principal payments (both fixed and variable rate, the last periodic principal payment (PPP) made for these MMIs, if made on maturity date.
Note: For MMIs that make periodic principal payments on an accelerated basis prior to the scheduled maturity date, a reorganization presentment (RP) (activity code 28-1) is generated.

MMI MP Pend Levels

Users can create a Pend profile for an MP based on acronym, product, program, and base CUSIP number:

Acronym

The four character DTC identifier for the issuer of the MMI.

Product Type

The type of money market instruments (MMI). There are 14 different MMIs which include:

- Corporate Commercial Paper
- Municipal Commercial Paper-Tax-Exempt
- Municipal Commercial Paper-Taxable
- Bankers' Acceptance
- Discount Note
- Bank Note-Short-Term
- Medium-Term Note
- Bank Note-Medium-Term
- Deposit Note-Medium Term
- Institutional Certificate of Deposit
- Preferred Stock (in commercial paper-like mode)
- Corporate Variable Rate Demand Obligation (VRDO) for Commercial Paper (CP)
- Municipal Commercial Paper-Tax-Exempt (VRDO/CP) and
- Municipal Commercial Paper-Taxable (VRDO/CP).

Program

The section of the Securities Act of 1933 for which an MMI is exempt. Examples include SEC 3(a) 2; 4(2); 144A; and Reg S. Unless selected the default is none.

Base Number

The first 6 digits of the CUSIP issuance also referred to as the issuer or CUSIP base number.

MMI MP Pend Menu

MMI MP Profile Maintenance page

Used to pend MPs by adding a Pend profile. You can later deactivate, re-activate or delete a profile.

MMI MP Profile Inquiry page

Used to see the MP Pend profiles you have added to MP Pend. You can see whether the Pend profile for a given MP is currently in effect (Active status) or not (Deactivated status).

MMI MP Transaction Inquiry page

Used to see the MP transactions processed within the last 21 business days. You can see statuses for MPs that are released, held, or failed. You can look up transactions at the various levels such as acronym, product, program, base CUSIP number.

MMI MP Transaction Releases page

Used to release the MP transactions that are pended.

MMI MP Pend Inquiry in PTS, PBS and Settlement Web

IPAs can view their MP Pend transactions within the last 21 business days on the MMI MP Transaction Inquiry page of the Settlement User Interface. Transactions are archived and maintained by DTC for 7 years.

~~IPAs and Participants can also view MP items that are pending using the functions listed below:~~

PTS	PBS	Settlement Web
	MMI MP Pend Service	
		Risk Management Control Inquiry *
PEND	Pending Activity	
IMS	Inventory Management System	
MMIT IPA Summary and Time Slice		

~~* MPs that are pended are released prior to the LPNC (largest provisional net credit) 3:05 p.m. ET cutoff.~~

PBS Inquiry Functions

~~In the PBS browser applications listed above and described below, the inquiry screens have been revised to include items that are pending due to an IPA MP hold request. Select IPA Held as a selection option for your inquiry and click Search. To see details for MPs, click the underlined data (such as the control number) within the search results.~~

SETTLEMENT WEB RISK MANAGEMENT CONTROL INQUIRY FUNCTION

The Risk Management Controls screen displays additional details about a collateral group's current balances. The screen includes amounts for money market instrument (MMI) maturities that are "held" in a pending status in IMS by the issuing and paying agent (IPA) ~~and are shown under IPA Held MMI MP. If you select IPA Held MMI MP you can obtain pending activity details as applicable.~~

PENDING ACTIVITY INQUIRY FUNCTION

Participants can view pending items on the Pending Activity Inquiry screen ~~which allows you to enter your inquiry selection criteria. The inquiry screen has been revised to include items that are pending due to an IPA MP hold request. The MPs that are held by the IPA will be designated as IPA HLD in PTS (or IPA Held in PBS and Settlement Web) on the main~~

~~**Pending Activity Inquiry screen. For example, a participant that is anticipating an MMI delivery can enter an X to select IPA HLD (IPA Held MMI MPs) to view these items on the Pending Activity Inquiry screen.**~~

Participants Fund and Preferred Stock Investment

Purpose

The Participants Fund and the Participants Preferred Stock Investment provided in DTC Rule 4 create liquidity and collateral resources to support the business of DTC and to cover losses and liabilities incident to that business. For this purpose, every Participant has a Required Participants Fund Deposit and a Required Preferred Stock Investment; the amount of each is based on the Participant's activity at DTC as further explained in this Service Guide. Additionally, a Participant may make a Voluntary Participants Fund Deposit, to further support its activities. The Required and Voluntary Participants Fund Deposits must be in cash, which, if a Participant fails to settle for any reason, are available to DTC as immediate liquidity to complete settlement and collateral to support any borrowing against DTC lines of credit.

Amounts

Each Participant must make a minimum deposit of \$7,500 to the Participants Fund. Many Participants are required to deposit additional amounts based upon a 60 business day rolling average of the Participant's six highest intraday net debit peaks. A Participant's portion of the Participants Fund is in direct relation to the liquidity requirements generated by the Participant and its Affiliated Family, if any, as more fully described below.

The Required Preferred Stock Investment of a Participant must be in a minimum amount of a par value of \$2,500. A Participant's actual Required Preferred Stock Investment is calculated on a substantially similar basis to the calculation of the Required Participants Fund Deposit.

How the Required Deposit to the Participants Fund and the Required Preferred Stock Investment are Calculated for a Participant

DTC monitors the levels of each Participant's net settlement debits during each Business Day and records the highest net debit. This measure of liquidity is referred to as the Participant's intraday net debit peak.

Required Participants Fund Deposit Calculation

The aggregate amount of all Participants' Required Participants Fund Deposits is \$1.15 billion. Each Participant's Required Participants Fund Deposit for the first \$450,000,000 of the aggregate Participants Fund (for all Participants) is calculated taking account of the following:

1. The minimum deposit is \$7,500 per Participant which, across all Participants (the number of which may vary from time to time) adds up to an aggregate threshold amount of cash in the Participants Fund. The difference, if any, between that aggregate threshold amount and \$450,000,000 (the "PF Differential") is then allocated ratably among all Participants based on each Participant's average (the "PF Average") of its six largest intraday net debit peaks over a rolling 60 business day period.
2. Based on the PF Average for each Participant, the calculation incrementally allocates the PF Differential to calculate the required cash deposit of each Participant. Participants with the highest PF Averages will, accordingly, be required to make the largest required deposits and Participants with the lowest PF Averages will be required to make smaller deposits or even, potentially, no amount above the \$7,500 minimum.

The remaining \$700,000,000 aggregate amount of Required Participants Fund Deposits (the "Remaining Amount") is allocated proportionately among the Affiliated Families whose aggregate Net Debit Caps exceed \$2.15 billion, up to a maximum Aggregate Affiliated Family Net Debit Cap of \$2.85 billion. The calculation to determine a Participant's portion of the Remaining Amount is a two-step process, using algorithms described below, to: (i) calculate an Affiliated Family's portion of the Remaining Amount, and (ii) determine each Participant's portion of their Affiliated Family's allocation.

Step One:

Algorithm used to calculate the Affiliated Family's portion of the \$700,000,000.

1. Only those Affiliated Families whose Aggregate Affiliated Family Net Debit Cap exceeds \$2,150,000,000 will be allocated a portion of the Remaining Amount.
 - a. The greater the Aggregate Affiliated Family Net Debit Cap, the larger allocation the Affiliated Family will receive. The first step of the calculation is to determine the amount by which the Aggregate Affiliated Family Net Debit Cap exceeds \$2,150,000,000. This is called the "Overage".
 - b. To calculate the allocation percentage for an Affiliated Family of Participants, the program will perform the following:

$$\frac{\text{Overage of the Affiliated Family}}{\text{Sum of ALL Affiliated Family Overages}} = X\%$$

- c. X% of \$700,000,000 is the amount of the Affiliated Family allocation.
 - d. The sum of the Affiliated Family allocations equals \$700,000,000.

Step Two:

An algorithm is used to determine the Participant's portion of its "Affiliated Family allocation"

2. Calculation will be based on the Participant's Net Debit Cap (NDC) in relation to its total Aggregated Affiliated Family NDC.

$$\frac{\text{Participant NDC}}{\text{Affiliated Family NDC}} = Y\%$$

- a. Y% of the Affiliated Family allocation is the Participant's portion of the "Affiliated Family allocation".
 - b. This calculation will be done for all Participants within each Affiliated Family that has an Overage.

Required Preferred Stock Investment Calculation

The following are the steps taken to calculate the Required Preferred Stock Investment Calculation:

1. The minimum investment is \$2,500 per Participant which, across all Participants (the number of which may vary from time to time) adds up to an aggregate threshold amount. The difference, if any, between that aggregate threshold amount and \$150,000,000 (the "PS Differential") is then allocated ratably among all Participants based on each Participant's average (the "PS Average") of its six largest intraday net debit peaks over a rolling 60 business day period as of the last day of each quarter year.

2. The calculation and reallocation among Participants of the Required Preferred Stock Investments are performed as of the last business day of each quarter. Based on the PS Average as of the last business day of the quarter for each Participant, the calculation incrementally allocates the PS Differential to calculate the Required Preferred Stock Investment for each Participant. Participants having the highest PS Averages will, accordingly, be required to make the largest investment and Participants with the lowest PS Averages will be required to make smaller investments or even, potentially, no amount above the \$2,500 minimum.

Settlement of Participants Fund Deposits

The Required Participants Fund Deposit for each Participant is recalculated daily. If, in the daily calculation, the amount of the difference between the prior day's Required Participants Fund Deposit and the newly calculated Required Participants Fund Deposit is equal to or exceeds \$500,000 and the difference represents 25 percent or more of the newly calculated required fund deposit, the affected Participant must (to the extent any excess amount of the Participant's Actual Participants Fund Deposit does not already satisfy the new requirement) deposit the difference in the Participants Fund on the same Business Day that the difference was calculated and a report or other notification of the change is made available to the Participant.

In addition, after settlement on the last business day of each month, DTC calculates each Participant's requirement. Each participant will be notified of their new requirement on the first Business Day of the month. If a Participant's requirement has increased beyond the value it currently has on deposit at DTC, a debit transaction will process in its settlement account and this deficit will be collected with their DTC settlement that day.

If the Participant is required to increase its deposit, the Participant will be notified, and the amount will be systematically charged to the settlement account of the affected Participant as a Participants Fund contribution (Activity Code 70-01).

If the deposit requirement of a Participant decreases, the Participant will be notified at least quarterly, but the Participant can inquire and withdraw excess deposits monthly. This allows a Participant to leave excess cash in the Participants Fund and reduce the level of administration that would otherwise be necessary. DTC will also accept voluntary excess deposits to the Participants Fund for this purpose.

This section shall apply only to the calculation and collection of DTC Participants Fund Deposits as described above and does not supersede or limit any provisions of the DTC Rules or any rights of DTC in accordance with applicable law and DTC's Rule and Procedures, including but not limited to with respect to transactions in securities and money payments.

Reallocation of Preferred Stock

On the first settlement cycle of each quarter, the aggregate of the Required Preferred Stock Investment of all Participants will be reallocated among all Participants, based up the recalculation of each Participant's Required Preferred Stock Investments as described above. A Participant may be credited a settlement amount if it is selling Preferred Stock or debited as settlement amount if it is purchasing additional Preferred Stock, as appropriate.

Submitting an Initial Participants Fund Deposit or a Voluntary Deposit

For initial deposits by new Participants and voluntary deposits by existing Participants, wire the funds to DTC, formatting the instruction to conform to Fedwire standards for Fed fund transfers.

In this field	Enter
Receiving Bank	DTC's ABA Number: 026002066.

In this field	Enter
ABA Number	
Receiving Bank Name	DTC's telegraphic name: DTC SDFS.
Originator (ORG)	The name of the Participant whose account is to be credited.
Originator to Beneficiary (OBI)	<p>Settlement Fund Deposit (SFD), followed by a slash and the Participant's account number. For example:</p> <p>OBI = SFD/123.</p> <p><i>Note-</i> The data in the Originator to Beneficiary Information (OBI) field is required for processing by DTC. For banks that use another field name, include OBI in your entry. For example: BBI = OBI SFD/123.</p>

Payment Orders

About the Product

DTC's Payment Order service allows you to settle money payments for transactions that were processed separately.

How the Product Works

A **participant Participant** wanting to collect money (the payee **participant Participant**) from another **participant Participant** (the payor **participant Participant**) first contacts the payor **participant Participant** to reach agreement on the amount payable. The payee **participant Participant** then submits to DTC a premium payment order (PPO) or a securities payment order (SPO). The PPO is used to collect a net option contract premium for an opening writing or closing purchase transaction. The SPO is used to collect a mark-to-market payment based on the difference between the current and previous market value of an open securities contract. Either type of payment order authorizes DTC to credit the payee **participant's Participant's** settlement account with the specified amount and to debit the payor **participant's Participant's** settlement account for the same amount.

The following are typical situations in which you would use the Payment Order service.

- A bank's customer writes an opening call option. Through DTC the bank deposits underlying securities with the Options Clearing Corporation (OCC). The bank (the payee **participant Participant**) submits to DTC a PPO crediting its settlement account for the amount of the net option contract premium and debiting the account of the broker (the payor **participant Participant**) for the same amount.
- A bank's customer purchases a closing call option. OCC releases underlying securities previously deposited with it through DTC. The broker (the payee **participant Participant**) submits to DTC a PPO crediting its settlement account for the amount of the net option premium and debiting the account of the bank (the payor **participant Participant**) for the same amount.
- A **participant Participant** delivers securities to another **participant Participant** through DTC in a stock loan transaction. Thereafter, the market value of the securities increases significantly. The lender (the payee **participant Participant**) submits an SPO to DTC crediting its settlement account for the amount of the difference between the original and

new market values and debiting the account of the borrower (the payor **participant Participant**) for the same amount.

Receiver Authorized Delivery for Payment Orders

All Payment Orders are subject to matching via RAD prior to delivery of the payment.

Note- You can use **FFSP Participant Settlement Statements** to get a list of Settlement activity codes and their descriptions.

Receiver Authorized Delivery (RAD)

About the Product

RAD allows Participants to review and either approve or reject incoming deliveries before they are processed. All valued DOs, POs, institutional deliveries, MMI transactions, reclaims, pledges and releases of pledged securities are subject to RAD controls.

Participants are allowed to set their own RAD limits on a global or bilateral level. Global limits apply to all contra-participants and bilateral limits allow Participants to set individual limits against a specific contra-participant.

Stock Loans

Participants may establish bilateral and global RAD profile limits specifically for their stock loan and stock loan return activity. Applicable stock lending transactions will be checked against the receiver's stock lending profile limits for passive approval or will otherwise await the receiver's active approval based on the parameters of the profile. Absent a Participant establishing a Stock Loan RAD limit profile, a Participant's transactions will be subject to the RAD functionality applicable to ordinary DOs, including the established DTC limits as well as Participant established bilateral and global limits.

Approving or Cancelling Deliveries

You can approve or cancel transactions received via DTC's Settlement **Web-interface User Interface** or an automated RAD messaging process.

Turning RAD Limits On and Off

You can turn off RAD limits via DTC's Settlement **Web- User Interface** and allow DTC to process all your incoming deliveries. You may want to turn off your RAD limits, for example, when you are unable to modify the bilateral limits of your contra-participants because of time constraints. Your bilateral RAD limits will not be in effect until you turn them back on via the Settlement **Web User Interface**.

Transactions that are automatically routed to RAD are not affected by your decision to turn off RAD processing; they always require your approval before processing.

Pledgee Accounts

~~You can opt, via a RAD profile, to process your valued pledges, regardless of value, only after your RAD approval. This allows you to review and approve securities being pledged by another participant as collateral before your settlement account is debited (and the pledgor's account is credited) for the transaction.~~

~~If you do not use this option, your valued pledges are subject to normal RAD rules. This means that pledges with a settlement value less than your RAD limit for that participant are automatically processed to your account.~~

Free Transactions

Participants can force free receives (DOs) to their RAD if input after 5:00 p.m. eastern time. Forcing them will effectively block free receives from being booked into a ~~participant's~~ **Participant's** account between 5:00 p.m. and the free delivery cutoff of 6:15 p.m.

Unless designated otherwise by a profile, all MMI free receives are sent to RAD, at all times. Participants who elect to turn on RAD at 5:00 p.m. will have all their free receive activity routed to RAD for approval or cancellation. This will aid ~~participants~~ **Participants** who choose not to monitor their account for free delivery activity after 5:00 p.m., and are not aware of these free receives until the next day. Participants can update their accounts to turn on RAD at 5:00 p.m. for all free receives via a profile in the Settlement **Web User Interface**.

~~**Note** This process does not apply to same day matched reclaims input after 5:00 p.m. eastern time.~~

Indexed Principal Transactions

You can view and act on MMI transactions in RAD for issues that contain an indexed principal feature. Deliver Order (DO) transactions are directed to RAD whenever:

- An issuing/paying agent (IPA) initiates a DO in an MMI program that allows for indexed principal as a possible feature of any issue under the program, or
- A dealer/sales agent initiates a turnaround DO in an MMI program that allows for indexed principal of any issue under the program, or
- A ~~participant~~ **Participant** other than an IPA initiates a DO in an issue already designated as having an indexed principal feature.

Wind-Down Participant

DTC may, in its discretion, apply RAD to all DOs and POs initiated by a Wind-Down Participant, regardless of value. Receiving Participants may raise their RAD limits to manage such transactions.

RAD Contact Number

For more information on RAD, call DTC's Customer Support Center at (888) 382-2721.

OCC Market Loan Program

All reclaims to the OCC account will recycle until the OCC submits a redelivery back to the lender or until the reclaim drops at the recycle cutoff. If the OCC does not submit a delivery to the lender, then the borrower's reclaim to the OCC will drop at the recycle cutoff, i.e., the borrower will retain the securities and the debit for the stock loan delivery it received from the OCC.

~~Procedures for EuroCCP's US program~~

~~All reclaims to the EuroCCP account will recycle until the reclaim can settle without violating EuroCCP's risk management controls or until the reclaim drops at the recycle cutoff. If the reclaim drops at the recycle cutoff then the receiving Participant will retain the securities and the debit for the delivery it received from EuroCCP.~~

Recycle Processing

About the Product

When DTC receives instructions to effect a transaction, it may first be processed through one of several DTC systems before any DTC accounts are updated. For example, a transaction involving a delivery of securities may first be processed through one or more of the following:

- The IPO Tracking System
- The Receiver Authorized Delivery (RAD) system
- The Money Market Instrument (MMI) system.

After the transaction is processed, it is entered into DTC's Account Transaction Processor (ATP) system, where it is checked for various criteria (see Reasons for Recycling) before it is completed.

One critical function of ATP is Recycle Processing, also referred to as Pend Processing. DTC's recycle processor holds your transactions that cannot immediately complete. All transaction types recycle if they cannot immediately complete, except:

- Minimum amount (MA) to net additions (NA) moves (using **Collateral Moves the DYMA and DYNA PTS** functions)
- Releases of collateral
- Memo segregations (using the **Memo Segregation MSEG and RSEG PTS** functions)
- Segregations (using the **SEGPTS Account Segregation Releases** function)
- Transactions input with the "prevent pend" option (see below).

Note- These transactions will be dropped if they cannot complete when ATP performs its initial check.

Reasons for Recycling

Transactions can recycle because of Risk Management Controls or insufficient position. A transaction may recycle under any of the following circumstances:

1. The deliverer has insufficient position to complete the transaction.
2. Completing the transaction would make the deliverer's collateral monitor negative, that is, the total remaining collateral in your account is less than the resulting net settlement obligation. This could happen if the collateral value of the securities you are delivering exceeds the settlement value that would be credited to your account, or if the delivery is free and your collateral monitor is not sufficient to absorb the decrease.
3. Completing the transaction would cause the total value in the receiver's account, including the securities involved in the transaction, to be less than the resulting net settlement obligation, that is, your collateral monitor would be made negative. This could happen if the amount that would be charged against your account exceeds the collateral value of the securities you are receiving and your collateral monitor is not sufficient to absorb the decrease.
4. Completing the transaction would cause the receiver's net settlement obligation to exceed its net debit cap.
5. For MMI securities, the deliverer has insufficient other NA because the securities are deemed received versus payment position (RVP) NA and are being redelivered free or undervalued by more than 10 percent of the market value.

Note- This applies only to MMI transactions. MMI securities received versus payment are not allowed to be freely moved (free pledges, free deliver orders [DOs], withdrawals, segregations, etc.) until the LPNC control is released at approximately 3:00 p.m. eastern time.

How Recycling Works

The recycling system operates within a single processing day. A transaction that remains incomplete at the end of the processing day is dropped from the recycle processor. Dropped transactions must be reentered on a subsequent day.

Transactions will automatically recycle unless you expressly tell DTC not to recycle it when the transaction is input. This option, referred to as "prevent pend," is available for most types of deliveries. When instructed, DTC drops the transaction if it cannot complete immediately.

Note- The recycle processor also allows you, as a deliverer, to cancel ("kill") a recycling transaction using the **PEND or ART Pending Transactions or Activity Inquiry** functions. To activate these functions, contact your **Relationship Manager Settlement Access Coordinator**.

How DTC prioritizes risk management recycles differs from how it prioritizes insufficient position recycles. The following topics explain how these transactions are prioritized.

Risk Management Recycles

DTC automatically gives priority to transactions that are recycling as a result of risk management controls as follows:

- Specific types of transactions are given priority over others. See the Prioritization Schedule for the priority order.
- Within the transaction types, transactions are given priority on the basis of:
 1. Settlement value (for valued transactions), or
 2. Market value (for free transactions, such as free deliveries or withdrawals).

Note- This prioritization schedule defines only the *order* in which DTC *attempts* to complete recycling transactions. DTC completes any transaction it can. If the first transaction on the recycling queue cannot be completed, DTC will move to the next transaction and attempt to complete it.

Warning! If you have multiple participant accounts, you must be aware of how your account structure affects your recycling transactions. If you have grouped your accounts into a family structure (see Grouping Accounts into Collateral Families) , *all* your accounts within that family share the same collateral monitor and net debit caps. This also means that *all* transactions within a family share the same risk management recycling queues.

For example, suppose you have accounts A and B in a collateral family and have two RVP deliveries recycling against your net debit cap, one for account A and one for account B. The larger of these deliveries is placed first on the recycling queue. Hence, when settlement credits are applied against either account A or account B, the larger delivery is attempted first.

Insufficient Position Recycles

If you enter a transaction to deliver or pledge securities, (such as a transaction to remove securities from your account) and you do not have enough position to complete the *entire* transaction, DTC will pend the transaction until you have enough position to cover the entire delivery.

Note- An exception to this rule: DTC *does* allow for partial **NSCC** Continuous Net Settlement (CNS) **and ACATS** deliveries. ~~See Continuous Net Settlement (CNS) for more information.~~

DTC offers you two options for recycling your insufficient position transactions:

- Option 1- Automatic Prioritization
- Option 2- First In, First Out (FIFO) with Blockage.

To select a recycle option, you must complete a Recycle Option Instruction form, which you can obtain by calling the Compliance Department at (212) 855-4931.

Option 1: Automatic Prioritization

If you select option 1, DTC will recycle your transactions using the same criteria used for Risk Management Control recycles. See the Prioritization Schedule for the priority order.

Note- If DTC cannot complete the first transaction on the queue due to Risk Management Controls, the position is immediately made available to complete other transactions. Therefore, once the Risk Management Control requirements have been met, position may no longer be available for the transaction and the transaction will then recycle because of insufficient position.

If you wish to control the order in which your transactions recycle, option 1 may not suit your needs.

Option 2: First In, First Out with Blockage

The difference between option 2 and option 1 is that with option 2 the recycle processor maintains the order in which transactions are entered into the Account Transaction Processor (ATP), meaning FIFO ordering. Except for CNS deliveries, which are always given the highest priority, transactions are not prioritized by transaction type or size.

Note- If the first transaction in the recycling queue cannot complete, DTC does *not* attempt to complete any other transactions in the recycling queue, even if there is sufficient position available, until it has completed the first transaction in the queue. This feature is known as "blockage."

To further allow you to control the order in which your transactions complete, once a transaction for a specific security recycling exists, DTC automatically recycles all subsequent transactions for that security. This ensures that after sufficient position exists for the first transaction, it will complete.

Note- Segregations do not recycle, so DTC uses the existing position to complete those transactions regardless of what transactions are recycling.

Pending Delivery Account

DTC helps ensure the integrity of the FIFO queue by temporarily holding your position for transactions recycling due to risk management controls. This account is called the Pending Delivery Account (PDA). After your position is moved to the PDA, it is not available for other transactions that are recycling for insufficient position.

You can use the POSM function to move your PDA position back to your general free account to complete other items on the recycle queue. You can do this regardless of the deliveries that created the PDA position. For example:

Suppose a single delivery of 100 shares creates a 100-share PDA position in your account. The POSM function's PDA release feature allows you to move any quantity up to 100 shares from your PDA account back to your general free account. Assuming you release 75 shares from the PDA, when the 100-share delivery clears Risk Management Controls, the system looks for 100 shares in the PDA. With only 25 shares remaining in the PDA, the system looks for the additional 75 shares in your general free account to complete the 100-share delivery. If the shares are there, the delivery completes; if not, the delivery is placed at the end of your recycle queue, and the 25 shares in the PDA are released back to your general free account.

At the cutoff for syndicate closings (approximately 1:15 p.m. eastern time), DTC releases all PDA positions back to your general free account. At that time DTC also disables the "blockage" feature of option 2, allowing transactions for which there is sufficient position to complete while attempting to complete transactions you entered in FIFO order.

Warning! DTC cannot ensure FIFO ordering of transactions requiring RAD approval.

Pend Hold

Pend Hold allows you to hold and release ("unhold") transactions. DTC will not process held transactions until the holding **participant Participant** releases the hold. Participants will be permitted to hold pending deliverer orders and pledge transactions, including reclaims of deliveries, deliveries of Initial Public Offering (IPO) positions, and pending deliveries to Continuous Net Settlement (CNS short covers). Only the initiator (deliverer or pledgor) of a transaction will be permitted to hold or release a pending transaction. Moreover, only transactions that pend for insufficient position may be held.

To give you additional flexibility DTC offers two hold options: hold with blockage and hold without blockage.

- ~~• Hold with blockage. With this option you can hold all transactions that follow in the position recycle queue, by typing B next to the pending transaction on the PEND screen. When the transaction is held, the transaction status displayed on the PEND screen will change to "HELD W/B." When you view transactions held with blockage in ART, the status will change to "PNDB."~~
- ~~• Hold without blockage. With this option you can hold only a specific transaction, by typing H next to the pending transaction on the PEND screen. When the transaction is held, the transaction status displayed on the PEND screen will change to "HELD." When you view transactions held without blockage in ART, the status will change to "PNDH."~~

DTC maintains separate logical recycle queues for transactions pending for insufficient position and for transactions pending for insufficient IPO position. Therefore, placing a hold with blockage on a transaction pending for IPO position will block only that type of transaction. Similarly, a transaction pending for insufficient non-IPO position will block only that type of transaction.

Newly introduced transactions (including CNS exemption overrides) for securities that have transactions held with blockage will be processed using DTC's current recycle logic. That is, a new transaction that you introduce using option 1 will be processed when the transaction is received. A transaction can either complete or not complete. A transaction that cannot complete because the initiating **participant Participant** has insufficient position will be moved to the position recycle queue. There it will be mixed (in order of transaction type or settlement value) with other transactions already in the recycle queue.

New transactions that you introduce using option 2 will not be processed on receipt. Instead, they will be forwarded directly to the position recycle queue of the initiating **participant Participant**. Option 2 procedures keep transactions pending for position in FIFO order; therefore, newly introduced transactions will be placed at the bottom of the position recycle queue.

Regardless of the recycle option elected, newly introduced transactions that are placed below a transaction that is held with blockage are subject to the blockage feature. Newly introduced transactions that are placed above a transaction held with blockage are not subject to the blockage feature. DTC's hold procedures will not alter the current process of placing at the top of the position recycle queue deliver orders with reason codes 540, 560, and 570 and deliveries to CNS.

Viewing Pend Hold Transactions

~~To view a held transaction, you can type either the CUSIP number of the held transaction or HOLD in the CUSIP field on the PEND screen. When you type a CUSIP number on the PEND screen, all transactions (whether held or not) pending for position will be displayed with a transaction status indicating the reason why the transactions were pended. When you type HOLD on the PEND screen, a list of all the securities with held transactions will be displayed. The list of securities with held transactions will show you the type of hold applied to them (hold with blockage or hold without blockage). You can also get a list of securities with held transactions by pressing PF12 from the main PEND inquiry screen.~~

~~To release a held transaction, on the PEND screen type A next to the held transaction. Only the participant that initiated the hold instruction will be allowed to release it. Once the held transaction is released, DTC will immediately reattempt to process it. A transaction that would violate DTC's controls if completed will continue to pend. As mentioned earlier, DTC processes hold and release instructions in the order in which they are maintained in the position recycle queue. Therefore, in order to release a hold with blockage and hold subsequent transactions, you should ensure that all hold instructions are processed before release instructions are processed. DTC will drop a held transaction not released by the recycle cutoff time (3:10 p.m. for value transaction and 6:35 p.m. for free transactions) and report it as "dropped for insufficient position" on all DTC drop reports. DTC will not automatically release any held transactions.~~

~~Under option 2, held transactions will not be reordered along with the pending transactions in the position recycle queue at the DTC cutoff time for option 2 (approximately 1:15 p.m.). Transactions held after the option 2 cutoff time will remain in the position recycle queue in FIFO order until released by you or dropped by DTC. All transactions submitted to DTC after the option 2 cutoff time, and all non-blocked transactions in the position recycle queue of an option 2 participant, will be ordered by transaction type and settlement value.~~

~~Both holds and releases will be displayed as new transactions on the ART screens. In addition, transaction tickets will be sent to both the deliverer/pledgor and the receiver/pledgee for each hold and release transaction processed. The hold or release tickets will be sent to the same printer destination that your pend cancel tickets are sent. DTC will not include hold and release transactions in any automated transaction output files.~~

Pending Transaction Account

You can reserve position for pending transactions in DTC's Pending Transaction Account (PTA) using the PTA indicator available in ~~the Deliver Order functions~~ **PTS functions DO, NDOM, and COLL**. If you want specific transactions to be subject to the PTA procedures (to have the position reserved), set the PTA indicator to Y. Transactions with the PTA indicator left blank are not subject to the PTA procedures.

How PTA Processing Works

PTA transactions input into DTC's system are subject to DTC's normal editing and processing requirements (including DTC's Risk Management Controls)-. PTA transactions that meet all of DTC's editing and processing requirements complete in DTC's system and no position is reserved in the PTA account. Likewise, transactions that recycle for an insufficient position will not affect your PTA account. Only PTA transactions that recycle as a result of risk management controls (which means that the delivering or pledging **participant Participant** has sufficient position to complete the transaction) will cause position to be reserved in the PTA account. Non-PTA transactions that recycle as a result of risk management controls do not affect your PTA account. After position is reserved in your PTA account, it is no longer available for any other transactions you may initiate. The transactions associated with positions in the PTA account recycle normally (the PTA indicator does not affect recycle algorithms), and the position remains in the PTA account until any of the following occurs:

- Your Risk Management Controls change to allow completion of the transaction. The position is automatically released from your PTA account at the PDA cutoff (approximately 1:30 p.m. eastern time).

Note- This condition applies to *valued* PTA transactions only; positions reserved for *free* PTA transactions are not automatically released at the PDA cutoff, and positions for *valued* PTA transactions entered after the PDA cutoff will not be reserved in the PTA.

- The intended receiver cancels the PTA transaction.
- DTC releases its risk management controls at approximately 5:00 p.m. eastern time.

Note- Initial Public Offering (IPO) transactions are not subject to PTA procedures. A PTA indicator entered during an IPO transaction will be ignored by DTC's system.

PTA Transactions Subject to a Hold with Blockage

PTA procedures allow delivering ~~participants~~ **Participants and pledgors** to place holds, and holds with blockage, on a PTA transaction that is recycling for insufficient position only. You cannot place holds and holds with blockage on PTA transactions that are recycling for insufficient other NA.

Delivering ~~participants~~ **Participants and pledgers** are permitted to place holds and holds with blockage on non-PTA transactions (a transaction with the PTA indicator set to N) that are recycling for insufficient position or insufficient other net additions (NA). Additionally, free PTA transactions recycling for insufficient other NA that are subject to a hold with blockage (because a non-PTA transaction above the PTA transaction in the position recycle queue has a hold with blockage placed on it) are automatically released from the hold status when DTC releases its risk management controls.

Viewing PTA Position

~~You can view your PTA positions using the POSM function. For option 1 users, the amount in the PDA field on the Security Position Inquiry: Free POS screen represents your total PTA position. For option 2 users, the amount in the PDA field is the total of both PTA and PDA positions.~~

~~Note—Option 2 users that are eligible for the Pending Delivery Account Release (PDAR) subfunction of POSM can view their PDA and PTA positions separately.~~

~~The Security Position Inquiry screen displays your Current Total PDA position (both PTA and PDA positions), the Current PTA the (portion of the total that is reserved in PTA) and the Releasable PDA (the portion of the total that is reserved in PDA).~~

~~If you require PDAR eligibility, contact your Relationship Manager.~~

Viewing PTA Transactions

~~You can view the status of your recycling transactions through various PTS functions. To identify which transactions are subject to PTA processing, a new PTA indicator was added to the Activity Details screen of the ART function. The letter Y in the PTA field indicates a PTA transaction. PTA transactions that recycle for Risk Management Controls display 'Position Reserved' for the Recycle Reason field on the Activity Details screen.~~

~~To view all of your PTA transactions (receives and deliveries) recycling for Risk Management Controls (position was reserved in PTA) enter PTA in the CUSIP field on the ATP Pending Activity Inquiry screen in the PEND function.~~

~~Transactions that are subject to Receiver Authorized Delivery (RAD) that have been entered as PTA transactions contain the new PTA indicator on the detail screens of the PTS functions DRAD, IRAD, and NRAD. Once approved in RAD, transactions will either complete immediately or recycle for position or Risk Management Controls.~~

~~Note—PTA transactions that have been cancelled display "Cancelled" in the Reason field of the ATP Pending Activity Inquiry screen and the position is no longer reserved in PTA. Valued PTA transactions automatically released at the PDA cutoff display "Released" and valued PTA transactions entered after the PDA cutoff also display "Released" (even though the position was never reserved). Pending valued PTA transactions drop at the recycle cutoff and display "Dropped."~~

Cancellation of PTA Transactions

Only receiving participants ~~and pledgees~~ **Participants and pledgers** of PTA transactions that recycle for Risk Management Controls cannot cancel them. The position associated with cancelled PTA transactions is automatically released from the PTA account and made available to the delivering or pledging ~~participant~~ **Participant** for other PTA or non-PTA transactions.

~~Note—You can cancel pending PTA transactions using the ART and PEND functions.~~

~~Receiving pledgees can cancel only free PTA pledges (not valued PTA pledges) by selecting the Pledgee Activity option from the ART menu. Pledgees cannot use the PEND function to view free pledges.~~

Receiving ~~participants~~ **Participants** ~~or pledgees~~ can cancel only PTA transactions that recycle for Risk Management Controls (including PTA transactions that recycle for insufficient other NA). Only delivering ~~participants~~ **Participants** can cancel non-PTA recycling deliveries and PTA deliveries recycling for insufficient position. ~~Pledgors and pledgees cannot cancel non-PTA pledge transactions.~~

PTS Output

~~Tickets that are produced for PTA transactions that recycle for Risk Management Controls contain the message "Position Reserved."~~

~~Note PTA transactions that recycle for insufficient other net additions (NA) display 'Dlvr Insufficient Position Reserved.' PTA transactions recycling for insufficient position display 'Dlvr Insufficient Position' only.~~

~~Both the delivering participant/pledgor and the receiving participant/pledgee of a PTA transaction that has been cancelled receive a cancellation ticket. The ticket indicates the original transaction number of the PTA transaction and the new transaction number of the cancellation.~~

~~Note Tickets refer only to the original transaction number. They do not indicate that the original transaction was a PTA transaction that recycled for Risk Management Controls and, therefore, had position reserved and subsequently released when the transaction was cancelled.~~

Prioritization Schedule

The following table shows the order in which DTC places transactions for Risk Management Controls and option 1 recycling.

Note- These criteria do not apply to CNS deliveries, which recycle for position only.

Order	Transaction	Criteria (Market or Settlement Value)
1	MMI Interest/Principal Presentments	Settlement Value
2	MMI Maturity and Reorganization Presentments	Settlement Value
3	Voluntary Reorganization Instructions (RRG account) <i>Note-</i> Instructions processed with contra-CUSIPs, such as tender offers and put bonds, are included with Free Deliver Order/Free Pledge Releases below.	Market Value
4	Valued Pledges and Releases	Settlement Value
5	Free Pledges	Market Value
6	Valued Deliver Orders	Settlement Value
7	Free Deliver Orders/Free Pledge Releases	Market Value

Order	Transaction	Criteria (Market or Settlement Value)
8	Payment Orders	Settlement Value
9	SPP Return/P &I Withdrawal Requests	Settlement Value
10	Rush Withdrawals/CODs	Market Value
11	Withdrawals By Transfer	Market Value
12	Position Transfers Between MA and NA	Market Value

Principal and Income Withdrawals

About the Product

Principal & Income (P&I) withdrawals allow you to withdraw intraday principal and income payments for non-Money Market Instrument issues that DTC has received from paying agents and allocated to your settlement accounts down to a zero balance. You may not make a P&I withdrawal if it will put you into a debit balance. These payments include dividends, interest and other periodic payments, as well as reorganization and redemption payments. You can request that these payments be wired to your DTC Settlement Bank intraday, before the settlement period.

How to Withdraw

You can submit P&I withdrawal requests via **PBS-Settlement User Interface** only using the SPP Return/P&I Withdrawal Request option. If **if** you have activated this option. The SPP Return/ P&I Withdrawal Request screen shows the bank account eligible to receive wires of P&I funds from DTC on your behalf. To request a withdrawal, enter the amount of funds to be sent to the chosen bank account destination. You can enter P&I withdrawal requests on business days until 3:20 p.m. eastern time.

Note- The total amount you withdraw cannot put you into a debit balance. You may withdraw your available P&I funds, (that is, the sum of all your P&I payments allocated to this account, less any previous P&I withdrawals) down to a zero balance. The minimum amount you can withdraw is \$100,000.

The SPP Return/P&I Withdrawal Request option in **PBS the Settlement User Interface** also allows you to view the status of your P&I withdrawal requests. You can view the following:

- Total P&I payments allocated to your account
- Total amount of funds requested
- Amount available for withdrawal (total P&I payments less previous withdrawals submitted)
- Total amount of funds that have been wired to your bank
- Total amount of withdrawal requests cancelled by DTC, if any.

P&I withdrawals are subject to Risk Management Controls and will not be permitted if your account will be put into a debit balance. Dropped items are recorded on your Drop report.

P&I Withdrawals that have successfully completed are reflected on your settlement statements as "funds transfer debit transactions" (Activity Code 95-3). DTC will provide you with a recap of your funds transfer activity.

The Settlement Progress Payment (SPP)/ Principal & Interest (P&I) Push Profile:

In order to simplify the SPP/P&I withdrawal process and to allow ~~participants~~ **Participants** to maximize the return of available liquidity, DTC offers the SPP/P&I "Push Profile" which allows ~~participants~~ **Participants** to establish a standing withdrawal request. Rather than requiring ~~participants~~ **Participants** to manually request the return of their SPP/P&I credits, DTC will "push" available SPP/P&I credits to Participants that have established an SPP/P&I profile via **PBS only** ~~(participants will need the eligibility bit APSU to update the profile via the SPP/P&I Withdrawal Profile Update screen in the settlement statement section of PBS)~~ **the Settlement User Interface**. The push of funds will occur after the valued recycle cutoff and the funds will be sent to the Participant's Settling Bank for the account specified in the SPP/P&I Push Profile.

Participants will be able to set a minimum balance they want remaining in their account based upon their settlement balance at the time of the "push".

Associated ~~PTS~~ Functions

~~The following PTS functions are used in association with P&I Withdrawals.~~

<i>Use this function</i>	<i>To</i>
ART	View withdrawal requests.

P&I Withdrawals Contact Number

For more information about P&I Withdrawals, call DTC's Customer Support Center at (888) 382-2721.

P&I withdrawals are subject to Risk Management Controls and will not be permitted if your account will be put into a debit balance. Dropped items are recorded on your Drop report.

P&I Withdrawals that have successfully completed are reflected on your settlement statements as "funds transfer debit transactions" (Activity Code 95-3). DTC will provide you with a recap of your funds transfer activity.

Settlement Progress Payments

About the Product

If you approach or reach your net debit cap or have insufficient collateral, you can continue to receive deliveries (and avoid having transactions recycle) by wiring Fed fund payments to your DTC account. This procedure is called Settlement Progress Payments (SPP).

Note- SPPs must be received by 3:10 p.m. eastern time in order to prevent valued transactions from dropping at the 3:10 p.m. valued recycle cutoff.

Submitting an SPP

Your SPP instructions should conform to the Fedwire formatting standards for Fed fund transfers. Include the following information:

<i>For this Fedwire field:</i>	<i>Enter:</i>
Receiving Bank ABA Number	DTC's ABA Number: 026002066.
Receiving Bank Name	DTC's telegraphic name: DTC SDFS.
Originator (ORG)	Your participant name (or the participant name on the account you want to credit).
Originator to Beneficiary (OBI) (6000)	The purpose of the wire, followed by a slash and your DTC participant number. For example: SPP/2199 or DSP/2199.

Returning an SPP

Using the ~~PBS option~~ SPP Returns/P&I Withdrawal Request, you can request that DTC return all or a portion of an SPP you submitted earlier in the day down to a zero balance. You can request that these payments be wired to your DTC Settlement Bank intraday, before the settlement period. Contact your Relationship Manager to obtain access to this update capability. DTC must receive your request no later than 3:20 p.m. eastern time. When DTC receives your reversal request, it:

- Debits the amount from your settlement account providing you have sufficient collateral and a credit balance.
- Returns the funds via Fedwire to your Settling Bank as indicated on your standing wire instructions with DTC.

Note- DTC will not return the funds if doing so would put your account into a debit balance.

Wire Instructions

Before using the SPP Return/P&I Withdrawal Request function, you must activate your account for this option and supply DTC with specific wire instructions for your DTC Settling Bank as outlined in Important Notice # 4582-09. This information will be stored in DTC's wire instruction database and may be accessed when you submit SPP returns or P&I withdrawal requests. Each instruction must include:

- Your participant number
- The American Banking Association (ABA) routing number of the receiving bank which must be your Settling Bank
- Your Settling Bank's Telegraphic ID

- Your account number at the receiving bank.
- Beneficiary Name
- Beneficiary Account Number
- Beneficiary Address including the Street, City, State, Zip and Country

Note- You can add information to the wire instructions, such as a department name, if desired.

DTC will maintain up to five wire instruction formats in its wire instructions database. Complete the Wire Instructions form for Settlement Progress Payment Returns and Principal and Income (P&I) Payment Withdrawals attached to Important Notice # 4582-09 and send it to:

DTCC's Membership Onboarding/Account Administration group at least two weeks prior to the desired effective date. The executed form(s) should be sent via e-mail (PDF) to DTCAA@dtcc.com **(preferred). Alternatively, a fax can be sent to 212-855-4933 (ATTN: Mary Peake, Account Administration).**

~~Warning! Use stringent security controls, including periodic reviews of individuals authorized to supply DTC with wire instruction formats for SPP return instructions. DTC strongly recommends that you distribute these responsibilities among your authorized personnel.~~

The Settlement Progress Payment (SPP)/ Principal & Interest (P&I) Push Profile:

In order to simplify the SPP/P&I withdrawal process and to allow ~~participants~~ **Participants** to maximize the return of available liquidity, DTC offers the SPP/P&I "Push Profile" which allows ~~participants~~ **Participants** to establish a standing withdrawal request. Rather than requiring ~~participants~~ **Participants** to manually request the return of their SPP/P&I credits, DTC will "push" available SPP/P&I credits to Participants that have established an SPP/P&I profile via **PBS the Settlement User Interface** only ~~(participants will need the eligibility bit APSU to update the profile via the SPP/P&I Withdrawal Profile Update screen in the settlement statement section of PBS).~~ The push of funds will occur after the valued recycle cutoff and the funds will be sent to the Participant's Settling Bank for the account specified in the SPP/P&I Push Profile.

Participants will be able to set a minimum balance they want remaining in their account based upon their settlement balance at the time of the "push".

Risk Management Controls

About the Product

Risk Management Controls protect you from the inability of one or more ~~participants~~ **Participants** to pay their settlement obligations. Risk Management Controls are based on guidelines established by the Federal Reserve Bank (FRB). DTC currently employs four primary Risk Management Controls for processing securities:

- Collateralization
- Net Debit Caps
- Largest Provisional Net Credit (LPNC) for Money Market Instruments (MMIs)
- Issuer/Participant Number (IPN) Collateral Control.

Collateralization

Collateralization ensures that your account has sufficient collateral for DTC to liquidate if you fail to pay your settlement obligation and become insolvent. DTC's collateralization procedures prevent the completion of transactions that would cause your net debit to exceed the total available collateral in your account.

DTC operates on a fully collateralized basis. You are required to have sufficient collateral in your account to support net settlement debits you incur. Transactions that would cause your net debit to exceed the total value of collateral in your account are held in a recycle (pend) queue until sufficient collateral is available.

Your primary sources of collateral are:

- Cash deposited to the Participants Fund
- Proprietary or firm positions (such as dealer, investment, or margin positions) that you designate as collateral
- Securities received (and not paid for) versus payment
- Securities added to your account and not received versus payment (such as deposits, free deliveries, free pledge releases, release of segregated securities) that you designate as collateral.

Collateral Valuation of Securities

The value of securities designated as collateral is based on the prior business day's closing market price, less a haircut. Haircuts are used to protect DTC and its **participants Participants** from price fluctuations if DTC is required to liquidate collateral of an insolvent **participant Participant**. Furthermore, because DTC may have to finance a **participant's Participant's** failure overnight, DTC's haircut structure takes into consideration haircuts imposed by our line-of-credit banks. The full market value of securities is not normally obtainable from a bank that accepts securities as collateral to support a loan; banks generally consider the relative price volatility of the collateral and impose a haircut on the market value of securities. Securities that are not acceptable to DTC's line-of-credit banks do not receive collateral value in our system; therefore, a 100 percent haircut is applied to these securities.

DTC employs haircuts ranging from 2 to 100 percent. Because the collateral value of securities is based on their prior day's closing market prices, these haircuts may not be sufficient in cases where prices fall dramatically intraday. DTC can reprice and modify haircuts of selected issues intraday and can systemically revalue the collateral of **participants Participants** holding these securities.

Using the Collateral Monitor to Measure Available Collateral

DTC tracks collateral in your account by a control position called the Collateral Monitor (CM). At the opening of each business day, your CM is credited with your Participants Fund deposit. At all times, the CM reflects the amount by which the collateral in your account exceeds the net debit in your settlement account. In other words, the CM equals the sum of the value of your collateral and net settlement obligation.

For example, if you have collateral securities with a market value of \$10,000 and a 10 percent haircut, the value of your collateral is \$9,000. If you also incurred a debit of \$8,000, your CM is \$1,000 $\{(10,000 - [0.1 \times 10,000]) + (-\$8,000)\}$.

Conceptually, every transaction translates into a collateral flow and a cash flow, one a credit and the other a debit. The net value of these two flows is used to update the CM. Since the value of securities as collateral is subject to a haircut on the market value, the cash component (for settlement value) of each transaction is generally greater in value than its securities component. Thus, the completion of a delivery versus payment generally results in an increase in the deliverer's CM and a decrease in the receiver's CM, based on the difference between the collateral value of the securities and the settlement value of the transaction. Transactions that do not have a cash component, such as deposits and "free" deliveries, are considered to have a zero cash component.

When processing a transaction, DTC verifies that the deliverer's and receiver's CMs will not become negative when the transaction completes. If the transaction would cause either party to have a negative CM and thereby be undercollateralized, the transaction will recycle until the deficient account has sufficient collateral to complete (see Recycle Processing) .

Controlling Collateral

Securities received versus payment are automatically designated as net additions (NA) because the receiver has not yet paid for these securities. Your CM is credited the collateral value (market value minus the applicable haircut) of all positions designated NA. Conversely, your CM is not affected by positions designated as minimum amount (MA). You can manage your collateral in the following ways:

- **Opening (start-of-day) securities positions as collateral:** You can give DTC standing instructions to designate as collateral all securities in your account at the opening of each day. All start-of-day positions are then designated NA, and your CM is credited the collateral value of the start-of-day positions. Contact your Relationship Manager to change your standing instructions.
- **Unvalued additional securities:** You can give DTC standing instructions to designate all unvalued additions of securities to your account (such as deposits and free DOs received) as either NA or MA. Contact your Relationship Manager to change your standing instructions.

Warning! Consider the implications of classifying your securities as collateral. Collateral can be used to support your debt and therefore can be liquidated by DTC if you are unable to pay your settlement obligation.

- **Intraday reclassification of securities:** You can submit instructions to DTC using the ~~PTS function~~ ~~DYMA~~ **Collateral Moves (MA/NA) function** to reclassify as collateral **or non-collateral a specific quantity of an issue previously classified as non-collateral. This results in a CM credit equal to the collateral value of the reclassified securities. Conversely, you can use the PTS function DYNA to reclassify collateral securities as non-collateral.**

Note- ~~A DYNA instruction~~ **A Collateral Moves instruction** will not execute if the removal of the collateral from your account would cause your CM or simulated CM to become negative.

- **Settlement Progress Payments (SPPs):** You can increase your CM by wiring Settlement Progress Payments (SPPs) to DTC's account at the Federal Reserve Bank of New York (FRBNY). Your CM and your settlement account will be credited for the amount of the SPP; thus, SPPs also reduce your actual net debit. See Wire Instructions for more information.)

To view your CM balance, use the **PTS Risk Management Controls Inquiry** function **RMCI**.

Net Debit Caps

Net Debit Caps help ensure that DTC can complete settlement, even if a Participant fails to settle. They are based on your net debit history at DTC and automatically rise or fall relative to the average of your highest intraday net debit peaks in accordance with the calculation described below (in "Calculating Your Net Debit Cap"). A Net Debit Cap, recalculated daily, is applied to your account to limit the settlement net debit you could incur at any point during a processing day.

Your Net Debit Cap is limited by DTC's established maximum Net Debit Cap, the value of which is always set lower than DTC's total available liquidity. Currently, the maximum Net Debit Cap you can have is \$1.8 billion.

Before completing a transaction in which you are the receiver, DTC calculates the resulting effect the transaction would have on your account, and determines whether your resulting Net Debit Balance would exceed your Net Debit Cap. Any transaction that would cause your net settlement debit to exceed your Net Debit Cap is placed on a pending (recycling) queue until another transaction creates credits in your account (see Recycle Processing for more information). Most credits are generated when you deliver securities versus payment; pledge securities for value; receive principal, dividend or interest allocations; or wire funds (SPPs) to DTC's account at the FRBNY.

Calculating Your Net Debit Cap

Net Debit Caps are calculated daily as follows:

1. The system records your collateral group's three highest intraday net debit peaks over a rolling 70-business-day period, using simulated net debit peaks instead of actual net debit peaks. If you have elected to group your accounts into separate families (see Grouping Accounts into Collateral Families) , the system first calculates the average simulated net debit peak of each family, and adds together the average net debit peaks of all your families to obtain your overall average simulated net debit peak.
2. The system multiplies your average simulated net debit peak by a factor to determine your Net Debit Cap, which cannot exceed DTC's established maximum of \$1.8 billion. (Factors are based on a sliding scale, between 1 and 2, where smaller average peaks are multiplied by larger factors and larger average peaks are multiplied by smaller factors.-)

The established minimum Net Debit Cap is equal to twice the sum of *all* Participants' minimum deposits to the Fund.

Note- Your settling bank can set your maximum Net Debit Cap. However, the maximum amount set by a settling bank cannot exceed the Net Debit Cap calculated by DTC's system. DTC may also limit your Net Debit Cap to any amount regardless of your intraday net debit peaks.

Although most transactions are subject to Risk Management Controls, the following activities override collateralization and Net Debit Cap controls:

- Mutual funds purchases through DTC's Fund/SERV system
- DTC-generated activity (such as monthly billing charges)
- Deposit or settlement adjustments
- Short position charges
- Principal and income charges
- Participants Fund charges.

To view your Net Debit Cap and net settlement balance, use the ~~PTS function RMCI~~ **Risk Management Controls Inquiry function**.

As an added measure DTC has also established limits on the maximum settlement obligation that a financial family of affiliated DTC Participants can incur. An Affiliated Family means each Participant that controls or is controlled by another Participant and each Participant that is under the common control of any Person. For purposes of this definition, "control" means the direct or indirect ownership of more than 50% of the voting securities or other voting interests of any Person. The maximum "Aggregate Affiliated Family Net Debit Cap" for the Participants comprising an Affiliated Family is currently set at \$2.85 billion.

So that DTC will be able to complete settlement each day in the event of a Participant's inability to settle, DTC currently maintains liquidity resources of \$3.05 billion, including \$1.15 billion cash in the Participants Fund and a committed line of credit in the amount of \$1.9 billion with a consortium of banks.

Grouping Accounts into Collateral Families

If you have multiple DTC accounts, you can group them into families and instruct DTC to allocate a specified portion of your collateral and Net Debit Cap to each family. You must submit instructions in writing to DTC to group your accounts into separate families. Otherwise, all of your accounts will be grouped into one family.

The accounts you designate as a family share a single CM and Net Debit Cap. Securities and cash credited to one of these accounts increase the shared CM and the family's settlement balance, and could therefore serve to benefit transactions of other accounts in the family.

Sharing collateral and Net Debit Caps has advantages and disadvantages. Sharing can be an efficient account structure because it allows accounts to use the available collateral and settlement credits of other accounts in the family. However, you will not be able to designate which account should benefit from specific credits incurred by a member of the family. For example:

Suppose you maintain two accounts, A and B, which are grouped into one collateral family. Assume that both accounts have recycling transactions because of insufficient Net Debit Cap. If account A sends an SPP to DTC, its settlement account is credited. However, because the accounts are set up so that either account can use the available credits, if account B's transactions have a higher priority on the recycle queue, they will complete as a result of the funds that account A sent to DTC.

Conversely, assigning a separate collateral group for every account allows you to segregate your accounts and to allow the accounts to use only a specific portion of your collateral and Net Debit Cap. However, segregating can decrease processing efficiency and increase your intraday financing requirements because excess collateral in one family is not automatically available to an account belonging to another family. You should carefully evaluate your internal procedures and determine which method is most efficient for your operations.

Note- If you group your accounts into families and do not provide DTC with instructions on the specific percentage of collateral and Net Debit Cap to be allocated to each family, DTC allocates collateral and Net Debit Cap to each family based on your intraday net debit peaks relative to your other families.

You can maintain separate families of accounts to allocate your cap among your families at your own discretion. However, DTC will apply a forced-allocation formula to major issuing paying agents, which are defined as IPAs with average daily maturity presentments measured over the most recent month equal to or greater than 5 percent of DTC's total MMI maturity presentments. A major IPA must allocate up to 40 percent of its total Net Debit Cap to its IPA family.

Largest Provisional Net Credit Procedures

DTC established the largest provisional net credit (LPNC) as defined in the DTC Rules as an additional risk management control to protect against the occurrence, on the same business day, of an issuer insolvency or issuing and paying agent's Refusal to Pay and a **participant's Participant's** failure to settle.

If, by 3:00 p.m. eastern time, DTC learns that an MMI issuing and paying agent refuses to pay for the maturity presentments and or periodic interest and principal payments of an MMI issuer, or that an MMI issuer is insolvent, it initiates the Issuer Failure process. This process reverses maturity presentments, valued issuances, and valued deliveries and pledges originating from new issuances of the affected issuer and periodic interest and principal payments on MMI securities issued by that issuer and held in **participant Participant** accounts at DTC. These reversals are allowed to override collateral monitor and net debit cap controls so additional protection is required. LPNC procedures instead withhold credits due to valued deliveries or pledges of the MMI securities of the affected issuer so that the reversed transactions do not cause the net debit cap balance of a **participant Participant** to exceed its net debit cap or the collateral monitor control.

DTC tracks MMI activity in each ~~participant's~~ **Participant's** account intraday and, as MMI transactions (including but not limited to, P&I payments credited to the account, and deliveries to and maturity presentments from the account) satisfy positions and risk management controls (other than LPNC), the settlement account of the ~~participant~~ **Participant** reflects in real time the net debit balance or net credit balance for each Acronym, as defined in the DTC Rules. DTC continuously monitors the applicable MMI Acronyms in which each ~~participant~~ **Participant** has the two largest net credits to determine the LPNC in accordance with the DTC Rules.

By way of example only, on a business day, prior to settlement, if an account has an MMI maturity presentment for which a credit of \$50 million is due, but it is also purchasing an MMI issuance in the same Acronym for \$25 million, and both the maturity presentment and issuance deliveries have satisfied position controls, net debit cap and collateral monitor controls, the system will reflect, with respect to this Acronym, a net credit due to the settlement account of \$25 million. A similar calculation would be completed with respect to each Acronym for which a net credit to the settlement account is anticipated to determine the two largest pending net credits for any Acronym, the sum of which equals the LPNC at that time.

The amount of the LPNC will not be credited to the settlement account until after the time for reversals has passed, at which time the amount is credited to the settlement account, offsetting any net debit balance to reduce the settlement obligation, if any, of the ~~participant~~ **Participant**. (It may be that the credit of the amount of the LPNC to the settlement account of the ~~participant~~ **Participant** creates a net credit balance, so that the ~~participant~~ **Participant** has no settlement obligation and is due a net payment in settlement.)

LPNC will not apply to any MMI Acronym for which the value of issuances exceeds the value of maturity presentments for that business day, as further provided in Rule 9(C), Section 1 of the DTC Rules.

Note- LPNC procedures remain in effect only until the later of 3:05 p.m. eastern time or any time to which the period for MMI reversals may be extended by DTC in accordance with the Rules and Procedures (including this Settlement Service Guide). To view the LPNC for an account, use the ~~Settlement Web "Cash and Balances" navigation bar~~ **Risk Management Controls Inquiry function.**

LPNC Procedures Applied to Net Debit Caps

To accommodate LPNC procedures, DTC established a simulated net balance, which is calculated by computing your actual net settlement balance and reducing it by your LPNC, if any. If the simulated balance results in a net debit, DTC will not allow the simulated net debit to exceed your net debit cap. This helps protect you and DTC so that even if DTC reverses transactions in the MMI Acronyms as to which the credits have been withheld, your net debit after the reversals will not exceed your net debit cap. If you incur only net debits in the MMI programs in which you have activity, your LPNC value will be zero. To determine your LPNC intraday, use the Risk Management Controls Inquiry ~~on~~ in the Settlement **Web User Interface.**

Note- Intraday, until approximately 3:05 p.m. eastern time, your simulated net debit, *not* your actual net debit, is used for calculating net debit cap controls.

LPNC Procedures Applied to Collateralization

DTC established a simulated Collateral Monitor (CM) to show your excess collateral after LPNC procedures are applied to your account. DTC calculates your simulated CM by subtracting your LPNC from your actual CM. Until approximately 3:05 p.m. eastern time, transactions that would make your simulated CM negative are not completed; they are held in your recycle queue until you receive sufficient collateral in your account to complete them.

LPNC procedures help protect you and DTC so that a failing ~~participant's~~ **Participant's** net debit balance remains collateralized even if DTC reverses transactions in the MMI Acronyms as to which credits have been withheld.

Issuer/Participant Number Collateral Control

Collateral in a ~~participant's~~ **Participant's** account associated with the ~~participant~~ **Participant** (such as the ~~participant's~~ **Participant's** own commercial paper) increases risk to DTC if that ~~participant~~ **Participant** failed to pay DTC and its obligation is supported partly or fully by the failing ~~participant's~~ **Participant's** associated securities. To eliminate this risk, DTC's system monitors collateral received in a ~~participant's~~ **Participant's** account related to that ~~participant~~ **Participant**.

IPN will link to a ~~participant's~~ **Participant's** account securities related to it and withhold from the ~~participant~~ **Participant** any collateral value associated with the security. In effect, transactions processed to a ~~participant~~ **Participant** account will remain essentially the same, except that no increase will be applied to the Participant's collateral monitor for the collateral value of securities received that are associated with the Participant. IPN is based on a ~~participant's~~ **Participant's** legal entity; therefore, this control will apply to every account of a ~~participant~~ **Participant**. For example:

When a ~~participant~~ **Participant** has an IPA account that issues MMI securities on its own behalf and has a custody account in the same or a separate collateral group, and the IPA account processes an MMI issuance delivery to its own custody account in its own MMI securities, the custody account will receive no collateral increase for the collateral value of that issuance.

IPN control will not affect a ~~participant's~~ **Participant's** net debit or its LPNC calculations. Because IPN control affects the collateral value of an associated account, IPAs may wish to monitor their accounts more closely intraday for insufficient collateral, especially if they have net maturity presentments versus issuances in their own MMI securities on a particular day.

Associated ~~PTS~~ Functions

~~The following PTS functions are used in association with Risk Management Controls:~~

<i>Use this function</i>	<i>To</i>
DYMA	Reclassify non-collateral securities as collateral.
DYNA	Reclassify collateral securities as non-collateral.
PEND	View transactions that are recycling for Risk Management Controls.

Risk Management Controls Contact Number

For more information on Risk Management Controls, call DTC's Customer Support Center at (888) 382-2721.

Extension Requests

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

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

Associated **PTS** Functions

The **SPOS Short Position Inquiry** function is used in association with the Settlement Processing Schedule and allows you to view the detail short position penalty charges.

Security Holder Tracking Service

About the Product

The Security Holder Tracking Service allows a third party administrator to track the number of beneficial holders of an issue.

Background

The Security Holder Tracking Service or the SH Tracking Service will allow issuers, either themselves or through an issuer-designated administrator, to track and limit the number of beneficial owners for an individual CUSIP.

In order to support the settlement and asset servicing of certain securities, DTC was asked to build a mechanism which would allow issuers to track and limit the number of beneficial owners of its securities.

For more information, contact DTCC Relationship Management at (800) 422-0582.

Process Overview

To support the tracking of holders in a designated security, DTC will provide access to its Inventory Management System (IMS) to those administrators assigned by the issuer. Once the issue is established on the DTC master file as one that requires tracking, all transactions will be held in IMS awaiting administrator approval to proceed to settlement.

In order to use the service, DTC must be notified during the underwriting eligibility process that the issue requires third-party tracking. Upon receipt of all required documentation, DTC will activate the tracking indicator on its security master file and provide IMS access to the assigned administrator, but only to allow for inquiry and approval/disapproval of transactions assigned to the respective administrator.

During the Underwriting closing process, the position will move from a DTC internal account to a designated sub-account of the lead underwriter. The move from the DTC internal account to the lead underwriter is subject to the approval of the administrator. Once the shares are moved into the designated sub-account, all share movement from that point on will require the approval of the designated administrator through IMS.

Once transaction approval has been received, and all other settlement risk controls have been met, the shares will move from the delivering **participant's Participant's** sub-account to the receiving **participant's Participant's** sub-account, either free or versus payment. These Security Holder Tracking transactions will use a new Account Transaction Processor (ATP) activity code in DTC (42). Normally, deliver orders move position from one **participant's Participant's** general free account to another **participant's Participant's** general free account, either free or versus payment.

For risk management purposes, these issues will be designated as having zero collateral within DTC's settlement system.

Eligibility

The eligibility process for a tracked security to be made and remain DTC-eligible will generally remain the same. In addition to the traditional process, DTC must be instructed in writing to set up a specific CUSIP for tracking. At the same time, the issuer must instruct DTC as to whom will perform the function of the administrator for the CUSIP within the SH Tracking Service.

Upon receipt of all of the aforementioned documentation, DTC will make the CUSIP DTC-eligible and will activate the tracking indicator on its security master file. Additionally, once it is made eligible, DTC will perform asset servicing for the issue. The administrator appointed by the issuer will control movements of the particular CUSIP for which it has been appointed. Once the tracking indicator has been activated on the master file and the administrator has been appointed, no transfer of the securities shall take place in the tracked security without the approval of the administrator through the Inventory Management System (IMS). The administrator, based on requirements of the issuer, shall be solely responsible for determining whether a transaction should be effected in DTC. Once approved by the administrator, DTC may perform centralized book-entry settlement.

IMS will only allow an administrator access to view and approve transactions for CUSIPs for which they have been appointed administrator as reflected in DTC's records.³

The tracked securities will not be held as part of a Participant's general free account nor will they be considered eligible collateral in DTC's settlement system.

Although the SH Tracking Service was developed to address the specific concerns of closely held Rule 144A issues, in practice it could be used for other types of securities for which the number or character of the beneficial owners requires some level of control by a third-party administrator.

Trade Submission

- Regardless of where executed, trades will be submitted to the Tracking Service either via Omgeo's TradeSuite/ID system (Affirmed Confirms) or a DTC Deliver Order (DO).

Directly Submitted DOs

- DTC developed a new DO option through which to submit both valued and free Security Holder Tracking deliveries. These items can be submitted via **PBS the Settlement User Interface** and machine-readable media.
- ~~DTC's new DO 24x6 Service, Deliver Order Input (DOI), is being enhanced to support Security Holder Tracking delivery input via ICM/MQ and ICM/CF2~~
- ~~Participants should refer to the following link to receive DO ISO and DOI CCF message layouts: <http://www.dtcc.com/products/documentation/cs/cs.php> (under the CCF Settlement category).~~
- ~~Administrators also have the option of receiving confirmations from Omgeo's TradeSuite/ID system as an "Interested Party."~~

Security Holder Tracking Transaction Processing

- Security Holder Tracking deliveries will use a new Account Transaction Processor (ATP) activity code, 42, in DTC. This new activity code will move position from the delivering ~~participant's~~ **Participant's** designated sub-account to the receiving ~~participant's~~ **participant's**

³ As DTC is relying solely on the instructions of the administrator in order to effect settlement in tracked securities and has no knowledge of the number or character of the underlying beneficial owners, use of the SH Tracking Service by any party will constitute an agreement that DTC shall not be liable for any loss or damages related to the use of the SH Tracking System. Each user of the SH Tracking Service agrees to indemnify and hold harmless DTC and its affiliates from and against any and all losses, damages, liabilities, costs, judgments, charges, and expenses arising out of or relating to the use of the SH Tracking Service.

Participant's designated sub-account, either free or versus payment. ATP will use the same serial number (identifies sub-accounts) for both deliverer and receiver.

- All DO activity (e.g., stock loans, reclaims) will be subject to administrator's approval.
- For Security Holder Tracking transactions received from Omgeo's TradeSuite/ID system, **participants Participants** still need to authorize their deliveries in IMS as they do today for DTC to attempt settlement (in addition to the third-party administrator approval).
- Trades submitted via Omgeo will be identified as either transaction type Matched Institutional Trades (MITS) or Late Matched Institutional Trades (LMIT) in IMS.
- Security Holder Tracking deliver orders follow regular Receiver Authorized Delivery (RAD) rules.
- DTC ATP Activity Code 42 deliveries will appear on the DTC Participant Account Statement under one of the following current Settlement Activity Codes (as applicable): 19 (ID), 26-0 (DO SDFS), 26-5 (Stock Loan DO), 26-6 (Stock Loan Return DO).
- Stock loan reason codes will be permitted for Security Holder Tracking DOs, and will update the stock loan tracking memo accounts as with normal stock loan tracked DOs.
- Participants will be able to identify those transactions awaiting administrator approval in IMS by means of **PBS the Settlement User Interface** Security Holder Tracking inquiry functionality.

IMS Profiles for Security Holder Tracking Processing

- Recycle, Submission, Activity Code, Asset Class, and Security Code profiles will not apply to activity code 42.
- Security Holder Tracking transactions will be able to be reintroduced, so activity code 42 is being added to the Reintroduced Drop profile.
- ~~Participant Entered Transactions (PETS) profiles will apply.~~

Activity Research Tool (ART) Inquiry Function

- The new ATP activity code 42 will be displayed in the **ART Activity Inquiry** summary and detail screens. The serial number is being added to the **ART Activity Inquiry** detail screen. Activity Code 42 is also being added in the activity history and intra-day activity systems.

Drops and Pends

- Security Holder Tracking dropped deliveries will appear on participant drop reports like other DOs.
- Participants will be able to view Security Holder Tracking DOs in the **PEND Pending Transactions** function like other DOs. All other DO actions (e.g., Pend Hold, Pend Cancel) will be available for Security Holder Tracking items and will be billed at existing rates.

Output

- DTC will include Security Holder Tracking deliver order transactions with the new activity code of 42 in the DTFPART Settlement Participant Activity files.
- **Participants should make necessary changes to their systems to handle the new activity code 42 in DTFPART.**
- The ATP activity code of 40 will be used in DTFPART for the initial underwriting takedown delivery from DTC's internal Underwriting account to the lead underwriter's sub-account.

Third-Party Administrator Trade Approval and State Changes

- DTC's Inventory Management System (IMS) is being made available to third-party administrators for trade approval prior to settlement.
- A new **PBS function** interface is being created for administrators to view (inquiry), approve and disapprove transactions pending settlement at DTC.

- Alternatively, administrators may approve/disapprove transactions through ISO command messages. Messaging layouts - including status codes, MT548, can be accessed via the **User Documentation section on DTCC's website following link: <http://www.dtcc.com/products/documentation/cs/cs.php> (under the CCF Settlement category).**
- If a delivery is reclaimed or dropped after it has been approved by the administrator, the administrator can be notified through receipt of transaction state change messages from DTC and/or by IMS inquiry. Administrators should only update records for "Made" transactions.

Sub-Accounting Service (Segregation of Securities)

About the Product

The Sub-Accounting Service allows you to protect securities on deposit at DTC by moving them from your general free account to your segregated account. The securities remain segregated and unavailable for any transactions until you authorize DTC to release them and return them to your general free account.

On payment day, DTC will automatically allocate cash merger and mandatory put payments as well as municipal and corporate redemption payments for securities segregated on DTC's books. In addition, DTC will allocate property and rights such as interest payments, dividend distributions and voting rights for segregated securities. Segregation transactions are subject to your collateral monitor control, and do not recycle for position or insufficient collateral.

These allocations were previously based on a position capture done the prior night. Now, DTC will perform a real time position capture immediately prior to the allocation to account for any adjustments **participants Participants** made prior to allocation. You should release on or before the payment date certain segregated positions for securities being reorganized. If you fail to release these positions, they will be automatically decremented to avoid driving your general free accounts into short (negative) positions when proceeds are allocated. You can avoid this automatic decrease of your segregated position by releasing the segregated securities on or before the payment date.

Seg-100 Account

You may deposit certain foreign-owned shares of communications, maritime, and specialized ownership issues, as specified in the Corporate Eligible Securities Book, into a special account at DTC identified as segregation account#100 (seg-100). You can move securities back and forth between your general free account and your seg-100 account, as appropriate, to reflect changes in the amount of certain foreign-owned and specialized ownership issues on deposit at DTC.

IMPORTANT: These shares must be deposited and maintained in the seg-100 account until acquired by a U. S. citizen.

Use the **SEG and RSEG Account Segregation Releases** functions to segregate and release foreign-owned or specialized ownership issues. When you enter F in the **Serial Number** field for these securities on your Participant Daily Activity Statement **and PTS Confirmation Ticket**, these securities will appear with the serial number "100.-" You can process these transactions exactly as you would any other transaction for segregated securities.

DTC will report to the transfer agents (TAs) for communications, maritime and specialized ownership issues the holdings in each **participant's Participant's** seg-100 accounts for each security, and the TAs will note their records accordingly. In the rare instance in which total alien holdings in an issue may exceed statutory limitations, and the increase in foreign-owned shares

registered in the name of Cede & Co. caused the statutory limitation to be exceeded, a TA will advise DTC of the amount by which those foreign-owned shares must be reduced.

According to the seg-100 procedures, you are required to immediately withdraw from your general free account any foreign-owned shares that cannot be credited to your seg-100 account because of foreign ownership limitations. DTC will cooperate with the issuer and its TA to facilitate the withdrawal and will disclose to the issuer your name and the number of shares to be withdrawn. You should be aware that issuers may place restrictions on such shares.

At the request of the issuer or its TA, DTC provides periodic reports that list individual **participant Participant** names and their positions that are segregated in the seg-100 account.

Warning! Under DTC's Rules and Procedures you are responsible for verifying the accuracy of the Participant Daily Activity Statement.

Associated PTS Functions

~~The following PTS functions are used in association with Sub Accounting Service.~~

<i>Use this function</i>	<i>To</i>
RSEG	Release securities.
SEG	Segregate securities.

Note- You can also perform these functions via MQ or CCF.

Segregation of Securities Contact Number

For more information about Segregation of Securities, call DTC's Customer Support Center at (888) 382-2721.

U.S. Government Securities

About the Product

DTC allows **participants Participants** to move Fed eligible securities from their accounts on the Federal Reserve's (the "Fed's") book-entry system to accounts at DTC and visa versa. To move Fed eligible securities from the Fed to DTC, **participants Participants** must transfer the securities to DTC's Fed account via the Fed's security transfer system (the Fed's system).

Securities eligible for DTC's U.S. Government Securities processing can be identified by transfer agent 400 (TA-400) or accessed through the GWIZ function.

Depositing U.S. Government Securities

You can deposit U.S. government securities in your DTC account by moving the securities through the Federal Reserve book-entry securities transfer system from your custodian account to DTC's account at the FRBNY using the following instructions:

In this field

Enter

Receiving ABA

DTC's American Banking Association (ABA) number:

026002066.

Receiving Name	DTC's telegraphic name: DTC SDFS.
Receiving Account	The account type: CUST
Receiving Bank Info	FDO/Your participant number.
Cash Value	The cash value: 0.00.
Par Amount	The quantity of securities to be transferred.

When DTC receives a security transaction into its Fed account on behalf of a DTC **participant Participant** who has elected to receive its Fed eligible securities at DTC, a deliver order will be processed from DTC's Fed inventory account (6072) to the DTC **participant Participant** designated as the receiving **participant Participant** in the account field on the Fed transaction. Incoming FDOs will appear as deliver orders from the DTC's Fed inventory account (6072) in the ART function.

The cutoff to receive incoming Fed transactions is DTC's free DO input cutoff which is normally 6:15 p.m., ET. However, **participants Participants** will only receive incoming FDOs after 3:30 p.m. if the Fed extends its securities input cutoff. Incoming FDOs are not subject to DTC's Receive Authorized Deliver (RAD) procedures.

Note—All U.S. Government securities must be delivered FREE through the Fedwire system to DTC's account at FRBNY.

Delivery and Settlement

Once your eligible U.S. government securities have been credited to your account, you can deliver them to another **participant Participant** via the **DO Deliver Order** function or pledge them via the **COLL-function Collateral Loan Service**. Internal deliveries cannot be processed through the **FDO Federal Reserve Deliver Order** option because this option is reserved for outgoing Fed deliveries in which the contra is DTC's Fed inventory account (6072).

Internal deliveries of Fed eligible securities are subject to all existing DTC risk management controls, reclaim rules, cutoffs, and RAD procedures.

Withdrawing U.S. Government Securities

In order to process deliveries to a Fed member (withdraw them from your DTC account) **participants Participants** must use the **FDO Federal Reserve Deliver Order function option (#6) on the Deliver Order (DO) menu**. This **option function** will require **participants Participants** to enter additional information (ABA number, ABA sub-account, 3rd party information) in addition to the standard deliver order fields (quantity, CUSIP, reason code, etc.) **FDOs Federal Reserve Deliver Orders** entered through this option with original or reclaim reason codes will be processed as original securities transfers (Type code 2000) in the Fed's system. **Matched-reclaims will not be permitted through the FDO option.** Outgoing **FDO's Federal Reserve Deliver Orders**, which pass DTC's edits, will appear as deliver orders to DTC's Fed inventory account (6072) in the **ART Activity Inquiry** function.

Matched-rReclaims are not permitted through the **FDO Federal Reserve Deliver Order** option. Participants must use the **ART Activity Inquiry** function or the **DO Deliver Order function** reclaim option **(#3)** in order to process **matched-Federal Reserve Deliver Order** reclaims. **Matched-Rr**reclaims will be processed as reversals (Type code 2002) in the Fed's system.

Since all outgoing **FDOs Federal Reserve Deliver Orders** will be free transactions, they will recycle until DTC's free recycle cutoff (normally 6:35 p.m., ET). To coincide with the Fed's cutoffs,

DTC will open the ~~FDO~~ **Federal Reserve Deliver Order** function at 8:30 a.m., ET and will allow input of ~~FDO~~ **Federal Reserve Deliver Order** reversals (reclaims) until 3:30 p.m., ET.

Validation of Activity

Your activities involving U.S. government securities are recorded on your Participant Daily Activity Statement. You can also verify activities via the **ART-Activity Inquiry** function.

Check your statement or the applicable screen in the **ART Activity Inquiry** function to ensure that your transactions were properly processed and recorded. Report discrepancies between your records and DTC's to the Reconciliation division via the PINS function as soon as possible.

Warning! Under DTC's Rules and Procedures, you are responsible for verifying the accuracy of your Participant Daily Activity Statement.

Associated PTS Functions

~~The following PTS functions are used in association with U.S. Government Securities.~~

Use this function	To
ART	View deposits and withdrawals.
FDO	Enter a outgoing Fed deliver order
GWIZ	View eligible CUSIP information.
POSM	View position increase.

For more information about the U.S. Government Securities book-entry system, call DTC's Settlement Hotline at 212-855-5800.