CNS SETTLEMENT AS DELIVERY VERSUS PAYMENT IN DTC (CNS for Value)

An initiative of The National Securities Clearing Corporation and The Depository Trust Company

A white paper to the industry – September 2011

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Executive Summary

The Depository Trust & Clearing Corporation (DTCC) is seeking feedback on its initiative to change the way Continuous Net Settlement (CNS) transactions are processed. CNS is a service of the National Securities Clearing Corporation (NSCC). Currently, CNS obligations of NSCC Members (short covers) and allocations to such NSCC Members (long allocations) are processed as free of payment deliveries at The Depository Trust Company (DTC) with the related funds settlement occurring at NSCC via an end-of-day net settlement process. With this initiative, DTCC will process CNS transactions as deliveries versus payment (DVP) at DTC subject to DTC's risk management controls (*CNS for Value*), with one consolidated settlement process for all these transactions.

With the implementation of *CNS for Value*, DTCC seeks to further mitigate systemic risk and promote adherence to international standards for financial market infrastructures. Specifically, *CNS for Value* will provide DTC and NSCC with more robust and transparent methodologies for managing liquidity, operational and credit risks by processing CNS obligations DVP, subjecting them to DTC's risk management controls and by moving securities and credits/debits simultaneously through the same settlement system. Additionally, processing CNS obligations DVP at DTC will obviate the need for the existing cross-guaranty between DTC and NSCC. The use of DTC's collateral monitor and net debit cap controls will ensure that NSCC, as a Central Counterparty (CCP), will not pose additional material risks to DTC as the Central Securities Depository (CSD), protecting against any potential spillover of risks between the infrastructures.

CNS for Value will provide a number of direct benefits to NSCC Members. First, *CNS for Value* will provide NSCC Members with a single, transparent, intraday settlement process to allow such Members to better monitor settlement activity and manage liquidity needs. *CNS for Value* will also continuously net NSCC Members' CNS credits and debits with DTC debits and credits (intraday cross-endorsement) which may reduce Members' intraday funding requirements. Lastly, *CNS for Value* will position DTCC to support more robust intraday settlement finality and liquidity management by supporting a multi-cycle settlement process[1].

Although referenced here in the context of *CNS for Value*, the concept of moving DTC from a single end-of-day net settlement system model to a more robust intraday multi-cycle settlement model is also being explored for other DTC activity, e.g., Institutional Delivery (ID) transactions. The multi-cycle model will require Members to settle with DTC in several defined settlement "slices" scheduled at various times during the day rather than solely in the existing end-of-day settlement process. This further mitigates risk by providing Members and the system with improved settlement finality.

Processing CNS transactions DVP at DTC means NSCC itself, like other DTC Participants[2], will be required to have sufficient collateral and net debit cap available to process each transaction. NSCC will need to meet liquidity and collateral requirements and will use a portion of its existing Clearing Fund to fund DVP activity processed through NSCC's CNS account at DTC. These NSCC funds will be deposited with and/or pledged to DTC to support DVP processing.

This paper will present more details of the *CNS for Value* initiative. Members are strongly encouraged to comment where applicable. DTCC requests all comments be submitted by October 15, 2011. DTCC recognizes the magnitude of the changes outlined in this paper, but believes the processing efficiencies and risk mitigation benefits justify them. DTCC also recognizes that the implementation of the *CNS for Value* initiative will require all Members to migrate to the new process on the same day which will require extensive industry-wide coordination and testing prior to implementation some time in 2013-14.

[1] 60% of CNS obligations are completed in the night cycle and could be settled for cash early in the morning as opposed to the end of the settlement date.

[2] All NSCC Members who use CNS must also be DTC Participants. Accordingly, throughout the rest of the Paper, the term "Member" will be used to refer to such dual NSCC Members and DTC Participants.

DTCC plans to work closely with industry representatives and will establish industry working groups in late October to refine the initiative and coordinate implementation. Details for providing feedback and participating in the working groups are provided at the end of this paper.

Background

DTCC has two subsidiaries that are responsible for the clearance and settlement of U.S. equity, corporate and municipal debt securities transactions: DTC and NSCC. DTC is the depository for security positions and runs a collateralized end-of-day net settlement system that employs net debit cap and collateral monitor risk management controls. The net debit cap control limits Members' net debits, thus assuring that DTC will have sufficient liquidity to pay all Members with net settlement credits. The collateral monitor control ensures that Members have sufficient collateral to support their end-of-day net debit, thus providing assurance that DTC will have sufficient collateral to liquidate in the event of a Member insolvency. In addition to collateral and net debit cap controls, DTC also maintains an all cash Participants Fund and a committed line of credit (LOC). The purpose of the Participants Fund is twofold, to cover losses related to market risk in the event of insolvency and, along with the LOC, to serve as a source of liquidity.

NSCC clears and settles virtually all broker-to-broker equity and corporate and municipal debt securities transactions in the United States. As a CCP, NSCC guarantees trades that result in net settlement obligations over a 3-day trading pipeline. To do this, NSCC becomes the buyer to every seller and the seller to every buyer, thus standing in the middle of all CNS obligations. As a CCP, NSCC faces market and liquidity risk and currently manages these risks through the use of a Clearing Fund and a committed LOC. Like DTC's Participants Fund, the purpose of the NSCC's Clearing Fund is twofold, to serve as a source of liquidity and to cover losses related to market risk in the event of insolvency. The Clearing Fund is comprised of mandatory cash contributions and any excess amounts of cash Members leave in the Clearing Fund. The LOC provides for additional liquidity over and above balances in the Clearing Fund.

Current Process Flow

Compared and recorded transactions in CNS-eligible securities are processed in the CNS system. To be CNS-eligible, a security must be eligible for book-entry transfer on the books of DTC and must be capable of being processed in the CNS system. Under the CNS system, all eligible compared and recorded transactions for a particular settlement date are netted by issue into one net long (buy) or net short (sell) position. As a continuous net system, those positions are further netted with positions of the same issue that remain open after their originally scheduled settlement date (usually T+3), so that trades scheduled to settle on a given day are netted with fail positions to result in a single deliver or receive obligation for each Member for each issue in which it has activity. As stated, NSCC becomes the contra-party for settlement purposes, assuming the obligations of its Members by becoming the receiver for every deliverer and the deliverer to every receiver.

CNS relies on an interface with DTC for book-entry movement of securities to settle net obligations with Members. CNS short positions are compared against a Member's DTC account to determine the availability of securities for delivery. If securities are available, they are transferred from the Member's account at DTC to NSCC's account at DTC (888) to cover the Member's short obligations to CNS. To control this otherwise automatic delivery of securities from their DTC accounts (for example, to prevent the automatic delivery of customer fully-paid securities), Members can use CNS exemption procedures. Additionally, partial settlements are permissible. Both CNS exemptions and partial settlements are explained further in the subsequent sections of this paper.

The allocation of CNS long positions to receiving Members is processed in an order determined by an algorithm built into the system. Securities are automatically allocated to Members with long positions as the securities are received by NSCC, without regard to the DTC risk management controls of the receiving Member. To support Member inventory management, Members can request that they receive priority for certain deliveries. For example, submission of buy-in notices affect the priority of a Member's long position (see the CNS Long Allocation Priorities section in this paper for further details).

Because CNS obligations are determined as the result of netting deliver and receive obligations, there is no direct relationship between the receiving party or the delivering party or the quantities of securities that each short Member must deliver to CNS or quantities of securities long Members are to receive from CNS. In the aggregate, however, the total quantity of all shorts and longs at NSCC must always be equal.

In order to optimize deliveries, CNS shorts and longs may be broken down into partial deliveries from (and receives to) multiple Members on each side; that is, one short delivery to CNS can be completed as several separate deliveries. Likewise, one long allocation from CNS can be completed as several separate deliveries. The figure below illustrates this concept.

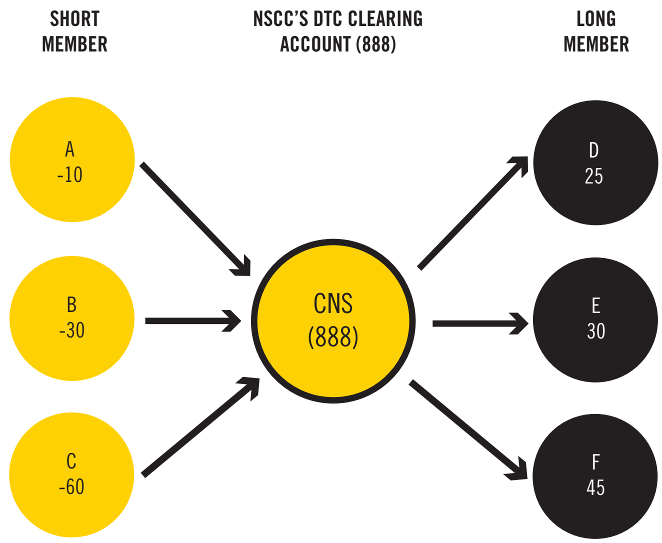


Figure 1: Multiple short Members deliver to multiple long Members

Though position movements occur at DTC, the associated credits and debits for CNS transactions are not posted to the DTC settlement accounts of the short and long Members; rather, such debits and credits are posted to their NSCC settlement accounts[3]. Daily money settlement for CNS activity is based on the value of all settled positions in DTC plus or minus mark-to-the-market amounts for all open CNS positions, and occurs through NSCC at the end of each day.

In order to allow Members to offset their CNS net credits against their DTC net debits and vice versa, NSCC and DTC net the settlement balances at the end of the day (cross-endorsement) allowing for a single net-net funds settlement.

[3] DTC and NSCC employ a Limited Cross-Guaranty Agreement in which NSCC guarantees DTC payment of short cover deliveries and DTC guarantees NSCC payment of long allocations. As such, positions received from CNS long allocations are credited to the receiving Member's securities account at DTC. However, pursuant to the second amended and restricted netting contract and Limited Cross-Guaranty Agreement between DTC and NSCC, no collateral value is given since the position is used to support the Member's debit in NSCC.

New Process Flow

In the *CNS for Value* model, both the securities positions and funds debits/credits will move through DTC as DVP deliveries and receives. In order for settlement to occur, the receiving Member must have sufficient collateral and net debit cap for the value of the CNS transaction and the delivering Member must have position. As the CCP, NSCC's DTC account (888) will still be the receiving account for short deliveries and the delivering account for long allocations, preserving the anonymity of buyers and sellers. However, DTC will leverage its look-ahead processing for NSCC's account to determine if a receiving (long) Member has sufficient collateral and net debit cap availability to receive the delivery (explained further below). If a long Member does not have sufficient collateral or debit cap to accept a delivery from CNS, NSCC will employ an algorithm to attempt deliveries to other Members with open long obligations in the same security. If all or some receiving Members are blocked by controls and NSCC is unable to redeliver some or all of the position received as a result of a processed CNS short, NSCC will complete the DVP delivery to CNS using its own net debit cap and collateral until the receiving Member(s) correct their collateral or debit cap deficiency and the deliveries from CNS can be processed within the receiving Member's DTC risk management controls.

Accordingly, delivering (short) Members will still be assured that their deliveries to CNS will be processed as long as their securities are available. DTC and NSCC seek to employ strict controls to minimize NSCC's intraday positions caused by Members being at their collateral or debit caps limits by (a) modeling the impact to Members prior to implementation, (b) reviewing the size of net debit caps and giving consideration to increasing caps where prudent and appropriate, (c) instituting a form of disincentive that would deter Members from remaining at their caps, unfunded for more than one hour.

The partial process currently employed by NSCC for CNS transactions where CNS shorts and longs may be broken down into partial deliveries to CNS or receives from CNS will remain unchanged.

With the *CNS for Value* initiative, CNS transactions will be processed DVP in DTC with the associated debits and credits posted to the Member's DTC account. As such, DTC and NSCC will no longer need to employ a cross-endorsement process to offset debits and credits associated with CNS activity.

In contrast to the current single end-of-day settlement process, the *CNS for Value* initiative will involve at least one additional settlement slice (time TBD). This settlement slice will likely occur early in the morning and will include the debits and credits associated with completed CNS transactions, mark-to-market activity and DTC activity. Both the additional settlement slice and the mark-to-market process are defined in more detail later in this paper.

DTC Risk Management Controls - Collateral Monitor & Debit Cap

Current Process

DTC applies collateral monitor and net debit cap controls to DVP transactions processed in its system. As a result, DTC will not process a delivery if its completion would cause the total value of the collateral in the receiver's DTC account, including the securities involved in the transaction, to be less than its resulting settlement obligation; i.e., the receiver's collateral monitor would be driven negative by the transaction. Likewise, DTC will not process a delivery if its completion would cause the receiver's net settlement obligation to exceed its net debit cap. By contrast, CNS transactions are currently processed free of payment (FOP) in DTC and, as such, the completion of CNS transactions never pend for DTC's collateral monitor or debit cap controls.

New Process

Under the *CNS for Value* initiative, CNS deliveries will be processed DVP in DTC and will be subjected to DTC's collateral monitor and net debit cap controls. DTC will not process a CNS long allocation if the receiver's collateral monitor will go negative or if the long allocation will cause the receiver's settlement obligation to exceed its net debit cap. As a result, Members could be required to wire funds intraday as Settlement Progress Payments (SPPs) to relieve their collateral and net debit cap insufficiencies related to CNS long allocations as they do today for other DTC activities. By contrast, credits received by Members as a result of completed deliveries to CNS may be used to offset other DTC debits, thereby, potentially reducing a Member's DTC intraday funding requirements. In either case, Members will have a truer picture of their liquidity needs intraday. In order to minimize settlement blockage in the DTC system associated with risk control issues, when Members experience collateral or debit cap deficiencies, they will be expected to fund their accounts promptly. DTC will develop tracking tools to monitor Members' funding delays and will implement disincentive fees.

Impact studies to assess potential collateral and net debit cap blockage are being performed and Members will be informed of the results as they are available later this year. Preliminary, high level studies do not indicate significant settlement blockage issues as a result of processing CNS transactions DVP.

Clearing Fund and CNS Cash Settlement Mark-to-Market

Current Process

NSCC's Clearing Fund calculation includes a daily risk mark-to-market (MTM) adjustment to account for price fluctuations between trade date and settlement date. This daily risk MTM process compares the contract price of every open CNS position to the previous day's closing price and calculates a net debit or credit mark per position. These individual position marks are netted to one net debit or credit mark for a Member's entire portfolio. Net debit portfolio marks are collected in the Clearing Fund requirement along with the other Clearing Fund components. Net credit portfolio marks are not included in a Member's Clearing Fund calculation.

In addition to the daily risk MTM requirement that is collected in the Clearing Fund, NSCC also uses a daily MTM cash adjustment to allow all Members to settle at a common price. The NSCC common price allows NSCC to continuously net failing positions with newly established positions to increase settlement efficiency. In this daily settlement MTM, CNS credits the seller and debits the buyer for the contract value and debits the seller and credits the buyer for the market value at the start of day on settlement date. This process essentially marks the difference between the contract price and the market value (settlement price) in anticipation of settlement. When the CNS delivery completes, the seller receives the market value credit and the buyer receives a market value debit. As a result, both the seller and buyer receive the contract value. If the CNS delivery does not complete, the seller and buyer are effectively marked to the market.

Figure 2 below demonstrates current settlement date accounting. In this example, if the CNS delivery does not complete, the seller is left with a $0.50 credit and the buyer with an offsetting $0.50 debit that would be collected at the end of day.

[4] In this example the price of the security dropped below the contract value. If the price moved in the opposite direction, i.e., moved above the contract value to say $4.75, the seller would be left with a debit of $0.75 and the buyer with an offsetting $0.75 credit if the delivery did not complete.

Figure 2	Seller		Buyer	
	dr	cr	dr	cr
Contract Value		$4.00	$4.00	
Market Value	$3.50			$3.50
Made Delivery		$3.50	$3.50	
CNS Balance		$4.00	$4.00	

New Process

In the *CNS for Value* model, the process of collecting risk MTM balances in the NSCC Clearing Fund will remain unchanged, i.e., individual mark-to-market amounts will be netted to one portfolio debit or credit and collected as part of the Member's Clearing Fund requirement where appropriate. Likewise, the current settlement MTM process used to convert open positions to a common price will also remain largely unchanged. However, the time that the settlement MTM debits and credits are settled will change. As described in more detail later in this paper, DTCC will establish one or more intraday settlement slices to provide Members with improved settlement finality. The settlement MTM debits and credits will be collected/paid, through the National Settlement Service (NSS), in DTCC's earliest intraday settlement slice.

DTC Receiver Authorized Delivery/Reclaims/Pend Holds/Pend Cancels

Current Process

The DTC Receiver Authorized Delivery (RAD) system allows receiving Members to set individual bilateral limits against each possible contra-Member so that the receiving Member can review transactions exceeding a specified settlement amount. Currently, CNS transactions are not subject to RAD because receivers are obligated to accept CNS receives.

DTC permits certain transactions to be reversed (reclaimed) by a receiving Member. In a reclaim, the original deliverer and receiver are reversed creating an offsetting transaction. CNS transactions cannot currently be reclaimed in DTC. Similarly, DTC permits Members to cancel pending transactions (known as Pend Cancels). Pending CNS transactions cannot currently be cancelled in DTC. However, Members can currently hold[5] pending CNS transactions (known as Pend Holds).

New Process

In the *CNS for Value* model, CNS deliveries will be DVP, but receiving Members will still be obligated to accept CNS receives. As such, the current RAD rules related to CNS transactions will remain unchanged, i.e., CNS transactions will be exempt from RAD approval.

In the *CNS for Value* model, the current rules related to reclaims, Pend Cancels and Pend Holds will also remain unchanged, i.e., CNS transactions will not be reclaimable or cancelable, but Members will be permitted to hold pending CNS transactions.

[5] Members can place a "hold" on their recycling CNS deliveries (short covers) which prevents them from being processed until the hold is released by the Member.

DTC Recycle Priorities

Current Process

Before processing delivery transactions, DTC verifies that the delivering Member has sufficient position and collateral and that the receiving Member has sufficient collateral and net debit cap. If a transaction cannot be processed immediately because of inadequate position, collateral or net debit cap availability, the transaction will “pend” and will not “complete.” Pending transactions are continuously re-attempted each time an update is made to the relevant Member’s account. DTC employs different recycle schemes for different pend reasons:

1. Transactions pending for position can be prioritized by Members. DTC allows Members to set their own priorities for position recycles through the use of DTC’s Inventory Management System (IMS). However, if the Member does not set its own position recycle priority, the priority will default to the system’s position recycle methodology which is identical to DTC’s recycle methodology for transactions recycling due to risk management controls as described below.
2. Transactions that recycle due to risk management controls (collateral monitor and net debit cap) are automatically prioritized by DTC and cannot be modified by Members. The prioritization is twofold: first, specific transaction types are given preference over others (e.g., valued pledges have preference over valued deliver orders); second, within transaction types, transactions are prioritized by descending settlement value. Even though transactions are prioritized, DTC completes any transaction it can; therefore, the prioritization scheme only defines the order in which DTC attempts to complete recycling transactions.

Since CNS transactions are currently processed free of payment, because of a cross-guaranty arrangement in place between DTC and NSCC, CNS transactions never recycle for DTC’s risk management controls. That is, obligations to deliver to CNS always complete provided the delivering Member has sufficient position available to deliver and obligations to receive from CNS always compete provided CNS has sufficient position.

New Process

The current DTC recycle scheme for CNS transactions pending for position will remain unchanged, i.e., Members will be permitted to modify the default algorithm. However, processing CNS transactions for value in DTC means obligations to receive from CNS can now pend for risk management controls of the receiving Member. CNS transactions pending in DTC for risk management controls will follow DTC’s existing risk management recycle scheme outlined in the second bullet above, except that CNS transactions will be given the highest priority over all other transaction types and may not be modified by Members.

Controlling Short Deliveries to CNS (CNS Exemptions)

Current Process

Currently Members that owe CNS can exempt[6] their deliveries to CNS via two NSCC methods. First, Members can set their NSCC master file indicator to a Level 1 or Level 2[7] exemption. Second, Members can send a file identifying the CUSIPs and amounts of their CNS obligations that they want to exempt from

[6] A CNS exemption blocks the delivery to CNS even when the short Member has sufficient position to complete the obligation.

[7] In order for a Level 1 exemption to be lifted, the Member must submit a deliver order to NSCC’s clearing account (888). Level 2 exemptions can be lifted by a deliver order to 888 or when a Member receives a delivery from a bank.

delivery. In addition to exempting CNS deliveries via NSCC, Members may also exempt their CNS deliveries through DTC by submitting CNS exemptions through IMS.

New Process

In the *CNS for Value* model, Members will continue to be able to process CNS exemptions as described above.

CNS Long Allocation Priorities

Current Process

As Members with CNS short positions complete their deliveries to CNS, NSCC allocates the received positions to Members with CNS long positions. NSCC employs a random default algorithm to determine the order in which Members with long allocations receive positions from CNS. However, NSCC also allows Members to submit priority requests that override NSCC's random default algorithm when they have special needs to receive securities owed to them (e.g., the security is undergoing a corporate action or the Member has an urgent customer delivery).

Members who fail to receive their long allocations at the end of the day may submit a buy-in intent notice to NSCC. Positions related to buy-ins are given the highest priority for allocation along with positions associated with voluntary corporate actions.

New Process

In the *CNS for Value* model, long allocations associated with buy-in and voluntary corporate actions will continue to receive the highest priority for allocation. However, since long allocations will be processed DVP in DTC, they may pend for the receiver's collateral monitor or net debit cap controls. To increase the likelihood that these high-priority long allocations will complete when CNS receives position, DTC will reserve collateral and net debit cap in the receiving Member's account for an amount sufficient to complete the high-priority long allocations. The reserved collateral and net debit cap will be used to complete the high-priority long allocations once position becomes available in CNS and will be released back to the Member if the high-priority long allocations do not complete by DTC's valued recycle cutoff.

CNS Stock Borrow

Current Process

In order to facilitate the completion of CNS long allocations, NSCC allows Members to loan excess positions to CNS. Members with available positions submit files to NSCC identifying the securities they are making available for loan. If CNS cannot complete a delivery to a long Member because a short Member has not completed its delivery to CNS, NSCC looks at the securities on the loan file and initiates deliveries from lenders to CNS if the lending Member has free excess position at DTC. In turn, CNS delivers the position to a long Member and sets up a pending receive for the lending Member. As with all CNS transactions, CNS stock borrow transactions, the delivery to CNS by the lender, the delivery to the receiving Member and the return of the position to the lender are processed free of payment. If the position is not returned to the lender by the end of the settlement day, i.e., the Member with the original obligation to deliver to CNS never delivers, the lender receives full market value for the securities via NSCC settlement. Figure 3 illustrates this process.

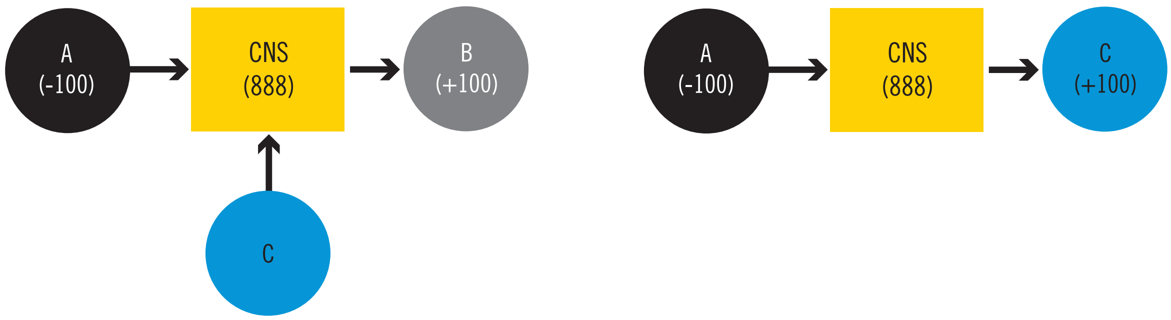
Figure 3: CNS Stock Borrow

Before:

A is short 100 shares to CNS; CNS is long to B
A does not cover its short obligation
C offers to loan and has position

After:

C loans shares to CNS; B receives position
C is set up in CNS as new long broker for 100



New Process

The CNS stock borrow process will remain essentially unchanged with the implementation of the *CNS for Value* initiative except that CNS stock borrow deliveries, like all CNS transactions, will be processed DVP in DTC subject to collateral monitor and net debit cap risk management controls. That is, the lending Member will receive a market value credit in DTC when the securities are loaned to CNS (a CNS short cover) and a market value debit in DTC when the loaned securities are returned from CNS (a CNS long allocation).

CNS Sub-Accounting for Fully-Paid-For Instructions

Current Process

NSCC Members are permitted to use customer fully-paid-for positions to satisfy institutional deliveries in DTC provided they comply with Customer Protection Rule 15c3-3 by locking the expected position in a good control location at NSCC. To accomplish this, Members instruct NSCC to move their expected long allocations into a fully-paid-for location (E account) and are then permitted to use customer fully-paid-for positions to complete institutional deliveries in DTC. Members may also move positions from their CNS Stock Borrow account to the CNS fully-paid-for account if they have a deficit after loaning the securities to CNS.

As Members instruct NSCC to move expected long allocations to the fully-paid-for location, NSCC reclassifies the relevant long allocations as a fully-paid-for long allocation and debits the Member the market value of the relevant securities in the NSCC settlement system. These long allocation reclassifications and corresponding settlement debits are posted intraday by NSCC. The funds associated with the fully-paid-for process are collected via NSCC's end-of-day settlement process and are held by NSCC and used to ensure the fully-paid-for positions can be replaced should the Member become insolvent. Upon completion of a fully-paid-for long allocation, the relevant funds are credited back to the Member via NSCC's end-of-day settlement process.

New Process

The current NSCC fully-paid-for process will remain largely unchanged with the implementation of the *CNS for Value* initiative. Members will be permitted to use customer fully-paid-for positions to complete institutional deliveries in DTC provided that they also instruct NSCC to reclassify expected long allocations to fully-paid-for long allocations. However, instead of reclassifying the expected long allocations intraday, NSCC will change pending long allocations to fully-paid-for long allocations only after DTC's recycle cutoff when it is assured that the expected long allocation will not complete in the current business day.

The process of collecting the funds related to the fully-paid-for processing will also remain largely unchanged. NSCC will continue to post settlement debits and credits related to fully-paid-for processing in NSCC's settlement system for settlement at the end of the day. Even though the funds related to fully-paid-for long allocations may have already been paid to NSCC, the related long allocations will be processed DVP in DTC and will be subject to Members' DTC debit cap and collateral monitor controls. Upon completion of a CNS fully-paid-for long allocation, the fully-paid-for funds held by NSCC will be credited to Members as part of the NSCC end-of-day settlement process and will not be credited to Members in DTC.

End-of-Day Processing/Failure/Insolvency Impact

Current Process

Today, CNS debits are posted to CNS receivers continuously throughout the day with no limit on the amount and NSCC becomes aware of an insolvency once the Member does not pay for its end-of-day debit.

New Process

One of the main drivers of the *CNS for Value* initiative is NSCC's need for enhanced liquidity management tools and the need for an earlier warning in the event of a large Member failure. The *CNS for Value* initiative will provide both since NSCC will observe if large obligations pending for receiver's collateral or debit cap are not being funded promptly. As stated, NSCC will accept receives on behalf of Members with collateral and debit cap insufficiencies during the processing day and will continually attempt to deliver to such Members until the valued recycle cutoff (approximately 3:10 p.m. EST). After the valued recycle cutoff, NSCC will post an NSCC debit to receivers that have failed to accept their CNS receives due to insufficient collateral or debit cap. If one or more Members fail to accept their CNS receives, NSCC will post the NSCC debits to the receivers based on the long allocation algorithm outlined in the CNS Long Allocations Priorities section of this paper. If such Members pay their debits during the end-of-day settlement process, NSCC will deliver the securities into the Members' DTC accounts. These deliveries will be processed in DTC free of payment since the related funds would have already been received by NSCC during settlement. If a Member fails to pay its debit during the end-of-day settlement process, NSCC will hold the related securities overnight, charge the Member financing and penalty fees and will re-net the failing transactions with the Member's next day settling activity.

Automated Customer Account Transfer Service (ACATS)

Current Process

NSCC ACATS transactions represent the transfer of customer securities and, as such, the associated positions must never be classified as collateral to support a Member's debit in DTC or NSCC. In the current

CNS process, ACATS activity and Members' buy and sell activity are netted into a single CNS obligation with the securities settling free of payment in DTC and the related funds settling in NSCC. Since the CNS obligations are processed free of payment in DTC, NSCC directs DTC to classify the securities positions related to ACATS transactions as non-collateral.

New Process

With the introduction of *CNS for Value*, all CNS transactions will be processed for value in DTC and the securities received from CNS long allocations will automatically be considered collateral and used to support the related debit in DTC. As a result, ACATS and buy/sell activity cannot continue to be netted into a single CNS obligation because the securities related to ACATS would be classified as collateral and this would compromise DTC's requirements to protect ACATS securities.

DTC and NSCC are currently reviewing various approaches to handle ACATS activity. Among the solutions being evaluated is a requirement to process ACATS transactions on a trade-for-trade basis in DTC or to adopt a process to net ACATS activity separate from the CNS activity. DTC and NSCC are currently working with various industry groups on these options and will communicate a more definitive solution when more fully analyzed and vetted. Regardless of the solution adopted, NSCC will continue to debit Members for the full-market value of their non-completed ACATS deliveries as they do today. These funds will likely be collected only in the final DTC/NSCC settlement slice.

Intraday Settlement

As mentioned earlier in this paper, one of the primary objectives of the *CNS for Value* initiative is to further mitigate systemic risk and promote intraday settlement finality. As such, both DTC and NSCC will establish at least one intraday settlement "slice." The time of the first settlement slice has not been determined, but would likely be early in the morning on settlement date between 8:00 a.m. and 10:00 a.m.

Current Process

DTC currently divides its settlement processing day into two phases. The first phase, known as the DTC night-side, begins at approximately 7:30 p.m. on settlement date -1 and runs until approximately 11:59 p.m. on settlement date -1. The second phase, known as the DTC day-side, begins at approximately 12:00 a.m. on settlement date and runs until approximately 3:30 p.m. on settlement date. Once both phases are compete, DTC produces final DTC settlement balances for its Members for activity processed in both phases.

Since CNS activity is currently processed free of payment in DTC, the funds related to CNS transactions are not reflected in Members' DTC settlement balances. Instead, DTC reports CNS settlement status to NSCC and NSCC updates Members' NSCC settlement balances. At approximately 3:10 p.m., DTC invokes its valued recycle cutoff and also stops processing CNS transactions. The CNS settlement balances are combined with other non-CNS NSCC activity (defined later in this paper) and NSCC calculates final NSCC settlement balances for its Members.

Once DTC and NSCC settlement balances are finalized, DTC and NSCC employ a process known as "cross-endorsement" where a Member's settlement credit balance in one organization is used to offset any debit balance in the other. Once cross-endorsement is complete, Members are given final net settlement balances to settle their DTC and NSCC activity at approximately 3:45 p.m. Completion of settlement, i.e., exchange of funds, usually occurs at approximately 4:30 p.m.

New Process

The vast majority of the transactions processed during DTC's night-cycle are CNS transactions and corresponding institutional and night deliver orders. Sometime after the completion of the DTC night-cycle, DTC will hold transaction processing, i.e., will continue to accept input from Members, but will pause processing, and will begin an "end-of-day-like" process that will provide Members with a reclaim period prior to calculating final settlement balances. Since CNS transactions will be processed for value in DTC, the value associated with completed CNS transactions will be contained in the DTC settlement balances. Members will, however, still have NSCC settlement balances related to other non-CNS NSCC activity. As in the current process, DTC and NSCC settlement balances will be cross-endorsed and Members will be expected to settle with DTC/NSCC, i.e., pay and receive net funds in the applicable settlement slice. (Again, the timing of this slice still needs to be determined, but will likely be between 8:00 a.m. and 10:00 a.m. on settlement date.) Upon completion of the first settlement slice, DTC will update Members' risk management controls to reflect payment and DTC will begin processing input, including transactions pending at the end of the first settlement slice, for the second settlement cycle.

Because of certain functionality contained in DTC's Money Market Instruments (MMI) program, MMI Maturity Presentments (MPs) and MMI issuances will not be processed until the beginning of DTC's second settlement cycle.

Initially, DTC and NSCC intend to add one morning settlement slice. However, more settlement slices will be added at a later date.

Other NSCC Services: Envelope Settlement Services, Mutual Funds, etc.

The processing of NSCC's non-CNS non-guaranteed services will remain unchanged, i.e., the balances associated with the non-guaranteed services will not be subject to DTC's collateral monitor and debit cap controls and may be reversed in the event of a failure to settle. With *CNS for Value*, it is anticipated that funds obligations associated with non-guaranteed NSCC services could settle in either the first or second settlement slice and will continue to be subject to cross-endorsement with DTC settlement balances.

Summary Table of Impact to Members

Process	*Impacted by CNS for Value*	*Not Impacted by CNS for Value*
CNS delivery processing in DTC	X	
DTC Risk Management Controls	X	
CNS Mark-to-Market Cash Settlement	X	
Receiver Authorized Delivery (RAD)		X
DTC Recycle Priorities (Position)		X
DTC Recycle Priorities (Collateral & Debit Cap)	X	
CNS Exemptions		X
CNS Long Allocation Priorities		X
CNS Stock Borrow	X	
CNS Sub-accounting for Fully-Paid-For	X	
DTC Pend Hold/ Pend Cancel		X
CNS Buy-In Process		X
Failure to Settle/Insolvency Process	X	
Automated Customer Account Transfer Service (ACATS)	X	
Envelope Settlement Services		X
Mutual Fund Services		X

Request for Feedback

With *CNS for Value* and a multi-cycle settlement process, DTCC is offering a solution to provide enhanced liquidity management that will create a more secure environment in which its Members operate. However, the initiatives will require a significant commitment from DTC/NSCC, their Members and other industry firms on whom DTC/NSCC Members rely, such as service bureaus or vendors. They will also require regulatory oversight and approval. As work progresses, DTCC will issue a more detailed service description. Members are advised to closely follow new service announcements and other publications on these topics and to proactively contact DTCC with any concerns or questions they may have.

While DTCC will actively solicit input through various industry working groups on an ongoing basis, given the scope of the initiatives and their impact on the industry as a whole, DTCC is interested in receiving comments, questions and feedback on the initiatives from its full membership and other interested industry members. In addition, DTCC will be organizing industry working groups to address specific issues raised in this paper. To submit comments regarding any issues addressed in this paper or to volunteer to participate in one of DTCC's *CNS for Value* industry working groups, please contact:

Julie Krill by telephone at (212) 855-5906 or via email to jkrill@dtcc.com or

John Abel by telephone at (212) 855-8434 or via email to jabel@dtcc.com.