



DTCC



REDUCING RISK AND ENHANCING INTRADAY FINALITY IN THE SETTLEMENT OF MONEY MARKET INSTRUMENTS

A White Paper to the Industry • December 2012



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Executive Summary

This whitepaper describes The Depository Trust & Clearing Corporation’s (“DTCC”) plan to implement structural changes to settlement processing at The Depository Trust Company (“DTC”) for money market instruments (“MMI”). These enhancements, which are subject to regulatory approval, are referenced in DTCC’s recently released strategic paper entitled “*A Roadmap for Promoting Intraday Settlement Finality in U.S. Markets.*” MMIs, particularly commercial paper (“CP”) in the U.S., have experienced a significant market contraction in the last five years. The anxiety about “headline risk” associated with issuers has not completely disappeared; thus, issuance activity has only slightly improved year over year. This market development is consistent with the global economic downturn during the long running low-interest rate environment, resulting in MMI inventory that is well below the boom years prior to 2008. In spite of these market dynamics, MMIs are attractive instruments to issuers and investors alike because the terms can easily be tailored to meet the specific financing and investment needs of the counterparties involved in the transaction.

The MMI settlement process at DTC has facilitated the growth of MMIs over the years by offering enormous settlement transactional efficiency. The key impediment to intraday finality in the MMI settlement process is the possibility that an Issuing and Paying Agent (“IPA”) bank may notify DTC by 3:00 PM ET of a refusal to pay (“RTP”) with respect to an issuer program. Currently, the IPA’s RTP notice triggers a reversal of transactions associated with that issuer’s MMI program (which is referred to as an “acronym”) in the DTC settlement system. These reversals are not subject to DTC’s risk management collateral and net debit cap controls and may be for billions of dollars, heightening risk in the system.¹ While DTC has controls in place to protect itself from a single issuer failure, there is a greater risk exposure caused by the potential for multiple issuer failures given the market stresses in the current global financial landscape. As the next phase of development, however, DTC will seek to improve intraday finality and reduce credit and liquidity risk as further described in this proposal.

In 2012, DTCC, in partnership with industry participants including the MMI Blue Sky Taskforce², developed a model that will eliminate intraday reversals of transactions in DTC’s MMI system. The proposed structural model supports the Committee on Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Commissions (collectively known as, “CPSS-IOSCO”) principle number eight (8) related to the timing of settlement finality. The principle prescribes that “final settlement should occur no later than the end of the settlement day. Intraday or real-time finality should be provided where necessary to reduce risks.”

The improved MMI structure at DTC will:

- Eliminate the need to withhold MMI credits as provisional via the LPNC³ risk control.
- Mitigate the credit and liquidity risks associated with intraday MMI transaction reversals.

1 The affected DTC Participants are obligated to satisfy any net debit balance outstanding that occurs as a result of an MMI refusal to pay and related reversals.

2 The Depository Trust & Clearing Corporation (DTCC) and the Securities Industry and Financial Markets Association (“SIFMA”) partnered to form the MMI Blue-Sky Task Force, which published a report in March 2011 that outlines a series of risk mitigation improvements to the MMI process.

3 The Largest Provisional Net Credit (“LPNC”) was established to ensure that DTC and its members are not exposed to additional risk in the combined event of an MMI issuer’s default and a participant’s failure to settle at DTC by withholding credit for each collateral group’s largest MMI credit until after the refusal to pay period has expired.

- Improve intraday settlement finality.
- Increase transparency of issuer funding for investors and their custodians, in addition to issuing and paying agents (IPAs).
- Preserve the ability of an IPA to notify DTC in cases of an issuer default.
- Maintain the current level of intraday and end of day liquidity requirements for participants at DTC.
- Minimize the changes necessary to participant's procedures or systems.

The proposed MMI Settlement model will require changes to DTC's "refusal to pay" procedures and to the current market practices for investors, issuers, custodians, placement agent dealers and IPAs. These changes will allow transactions to be final intraday without the risk of reversal prior to settlement. The model will depend on a determination that issuer funding has occurred before transactions are submitted for processing. This change will provide that maturity presentments are offset by funds to be received in respect of new issuances for, effectively, intraday netting on an issuer acronym⁴ basis. IPAs will retain the ability to instruct DTC of a refusal to pay in the event of an issuer default which, among other things, will prevent the issuer from future settlement activity at DTC.

⁴ The DTC MMI processes for both issuance and settlement uses a four-character designation, called an acronym, which is a unique identifier for the MMI issuer program serviced by the IPA bank.

Background

In the 1980s, U.S. money market instruments were issued and traded in physical form; this changed in 1987 when the DTC expanded its services to provide for book-entry settlement of transactions in same-day funds for certain types of securities, helping to expand and grow this market.

There are several different types of instruments eligible for MMI processing at DTC, each offering different returns and different maturities.⁵ Money market securities represent debt obligations issued by financial institutions, large corporations, or state and local governments. These instruments are deemed by the marketplace to be liquid and considered lower risk investments. Most money market securities trade in very high denominations (e.g., \$250,000 to \$50 million) and are purchased by institutional investors. The major buy-side market participants are commercial banks, governments, corporations, money market mutual funds, pension funds, broker/dealers and federal agencies such as the Federal Reserve.

Currently, MMIs including U.S. dollar denominated commercial paper are distributed and settled through DTC. MMIs represent more than 50% of DTC's total settlement value and less than 5% of the total number of transactions processed. The total outstanding MMI at DTC as of November 2012 is valued at just over \$3 trillion.⁶

In the 1990s, DTC was tasked with creating an issuance and maturity processing system that addressed the unique challenges of the MMI and in particular the commercial paper market, including the ability to issue paper on a same-day basis for next day maturity.⁷ One of the key characteristics of the commercial paper product at DTC is that most of the paper that is maturing on any given day is funded with new issuances of paper at the going interest rate, which is in part determined by the issuer's rating. These issuance amounts are processed throughout the day, as issuers determine their financing needs. The bulk of these issuances and the position movements occur through the DTC system in the early afternoon hours. Most issuers are not members of DTC and therefore require the services of an issuing and paying agent bank to process issuances and maturing paper.

5 See the Appendix for a detail description of the MMI transaction types.

6 In October 1990, in aggregate the amount outstanding for MMI was approximately \$1.86 trillion on deposit at DTC.

7 The peak levels of MMI issuances were \$281 billion in August 2006 and maturities of \$297 billion on August 2006.

An Improved MMI Settlement Model

Current Settlement Process

Under the current MMI settlement process, the IPA sends issuance instructions to DTC electronically, which results in a deposit of the applicable MMI position to the DTC account of the IPA. This position is then delivered to the receiving counterparties purchasing the issue by their accepting or approving the issuance transactions; these counterparties typically include broker/dealers or custodian banks that are DTC participants. The IPA delivery instructions may be free of value or for delivery versus payment (“DVP”). MMI transactions that are a DVP are subject to DTC’s risk management controls for money settlement, i.e., collateral monitor and net debit cap.

Maturity payment procedures were designed to limit credit, liquidity, and operational risk for DTC and its participant member firms. Maximizing efficiency at the lowest level of risk is the primary goal. To expedite the process, under DTC’s current procedures for the processing of maturity presentments (MPs), early on the maturity date (generally around 1:00 AM ET) DTC systemically initiates deliveries of the maturing paper from the accounts of participants having position in the maturing paper to the MMI account of the applicable issuer’s IPA. These MPs are processed as book-entry DVP transactions. As such, MPs may “recycle” just as any DVP would, if the net debit cap or collateral controls applicable to the IPA’s account prevent the delivery from updating.

Recycling MPs are updated when sufficient credits (e.g., from intra-day Settlement Progress Payments (“SPPs”) or new issuances) are generated in the IPA’s settlement account. An IPA may make targeted SPPs with respect to a specific issuer’s maturity presentments;⁸ otherwise, MPs are updated on a random basis. Currently there is no provision in DTC’s procedures for an IPA to allocate net debit cap for the recycling MPs of a specific issuer to that issuer’s MPs by applying settlement credits attributable to the new issuance of paper of that issuer. By the same token, because of random MP processing, the IPA is unable to prevent a portion of its net debit cap as well as any “excess” or “residual” credits⁹ from being used for another issuer.

Until 3:00 PM ET., credits and debits from completed issuances and MPs are provisional because the IPA has until this time to inform DTC of its refusal to pay with respect to an issuer or an issuer’s program. If there were an RTP, DTC would reverse all of that day’s activities of the issuer or in the issuer’s MMI program, including any new issuances that day. All of these reversals would be processed without regard to collateral and net debit cap controls, exposing the system to heightened risk.

Although the current procedures have functioned well for many years, the MMI market participants have been working with DTCC since 2009 on changes that reduce risk to all parties and provide IPAs with the means to exercise greater control of their intraday liquidity requirements and credit exposure to issuers.

⁸ See SEC Rule filing SR-DTC-2003-03.

⁹ “Excess” credits refer to credits resulting from an issuer’s new issuances that exceed that issuer’s MPs, Settlement Progress Payments (SPPs) that are not targeted to a specific issuer’s MPs, as well as any unallocated net debit cap. “Residual” credits refer to credit balances from new issuances and targeted SPPs that are not large enough to offset entirely the same issuer’s MPs.

The Improved MMI Settlement Model

In the improved model, all MMI deliveries and issuances will continue to be routed for receiver approval. A key change to the current model is that all transactions approved by receivers of MMI issuance and deliver order transactions, along with maturity presentments, will be “held” pending acknowledgement to process, which will be based on issuer funding as follows:

1. Once the settlement value of approved transactions by the receiver of issuance transactions exceed the settlement value of maturing obligations in the same program of the issuer, or
2. Once the IPA has indicated to DTC that the difference between the value of the MPs and new issuances has been funded, if necessary.¹⁰

Subject to the satisfaction of either of these conditions, DTC will attempt to process all transactions within the applicable program of the issuer subject to each participant’s collateral and net debit cap as risk controls. When evaluating a participant’s risk controls, DTC will calculate the net collateral and settlement balance impact of all the transactions within that program of that issuer. If these risk management controls for both the receiver and deliverer permit, the transactions in that program of that issuer will be processed in accordance with DTC Rules and Procedures with possibility of later reversal. If one or more of the transactions within a program of the issuer cannot be processed, none of the transactions within that program will be processed at that time, thus obviating the need for transaction reversals.

MMI Optimization

Periodically, throughout the day, transactions in an MMI program of an issuer will be staged to a new MMI optimization engine referred to as “the **MMI Optimizer**.” The optimization algorithm will be configured to maximize the settlement of these transactions by calculating the net effects of transactions across multiple programs of an issuer on positions of receiving participants and their risk controls.

Included in this proposal is the potential need to separate the collateral and net debit cap controls for non-MMI and MMI transactions. This can reduce the impact of the large dollar value MMIs transactions from interfering with thousands of smaller value non-MMI transactions.

Once the optimal combination of transactions is determined, DTC will attempt to settle the transactions. Participants will be provided with new settlement inquiry screens that display projected funding needs similar to the current Risk Management Control Inquiry screen. If the transactions pass the Participant’s risk controls then they will be processed. Participants will continue to be required to fund their accounts intraday when they have net debits that exceed their net debit caps. This proposal isn’t expected to change those funding amounts. If the transactions of a particular acronym or acronyms do not pass risk controls before end-of-day settlement, the IPA will be given the opportunity to fund the issue for the deficiency and have the transactions that can complete be processed. The IPA also can choose to have these transactions drop as in the current process.

One potential challenge with the new model is that it could compress the processing of MMI transactions into a smaller processing window because transactions will wait for risk controls to be satisfied. This transaction blockage would most likely not occur until the bulk of new issuances have been processed by the IPA and

¹⁰ The DTC market guideline is that issuers remit funding for their maturities to the paying agent by 1:00 PM ET.

authorized by the receiver. The elimination of the provisional credits and debits and the current LPNC risk control to protect against transaction reversals may reduce some of the potential transaction blockage. DTCC plans to assess the impact of the proposed changes on settlement transaction blockage via model simulations.

An additional modification is that the DTC settlement recycle transaction cutoff for MMIs may need to be moved up to 2:45 PM ET from the current 3:10 PM ET cutoff. The current cutoff is primarily driven by the need for the system to wait until after the 3:00 PM ET refusal to pay deadline so that the credits withheld from participants' accounts for the LPNC control can be released, which can be used to take in pending debits. The proposed timing change for the MMI recycle cutoff of 2:45 PM ET will ensure that firms that need to fund to accept their deliveries will do so and this will enable the IPA to recognize and deal with any transaction deliveries that are not processed.

The end-of-day net settlement process for both MMI and non-MMI transactions will not be affected by the enhanced model. In addition, the improved model is not expected to change current input or output and will provide operational tools to MMI participants with the addition of new screens and greater transparency.

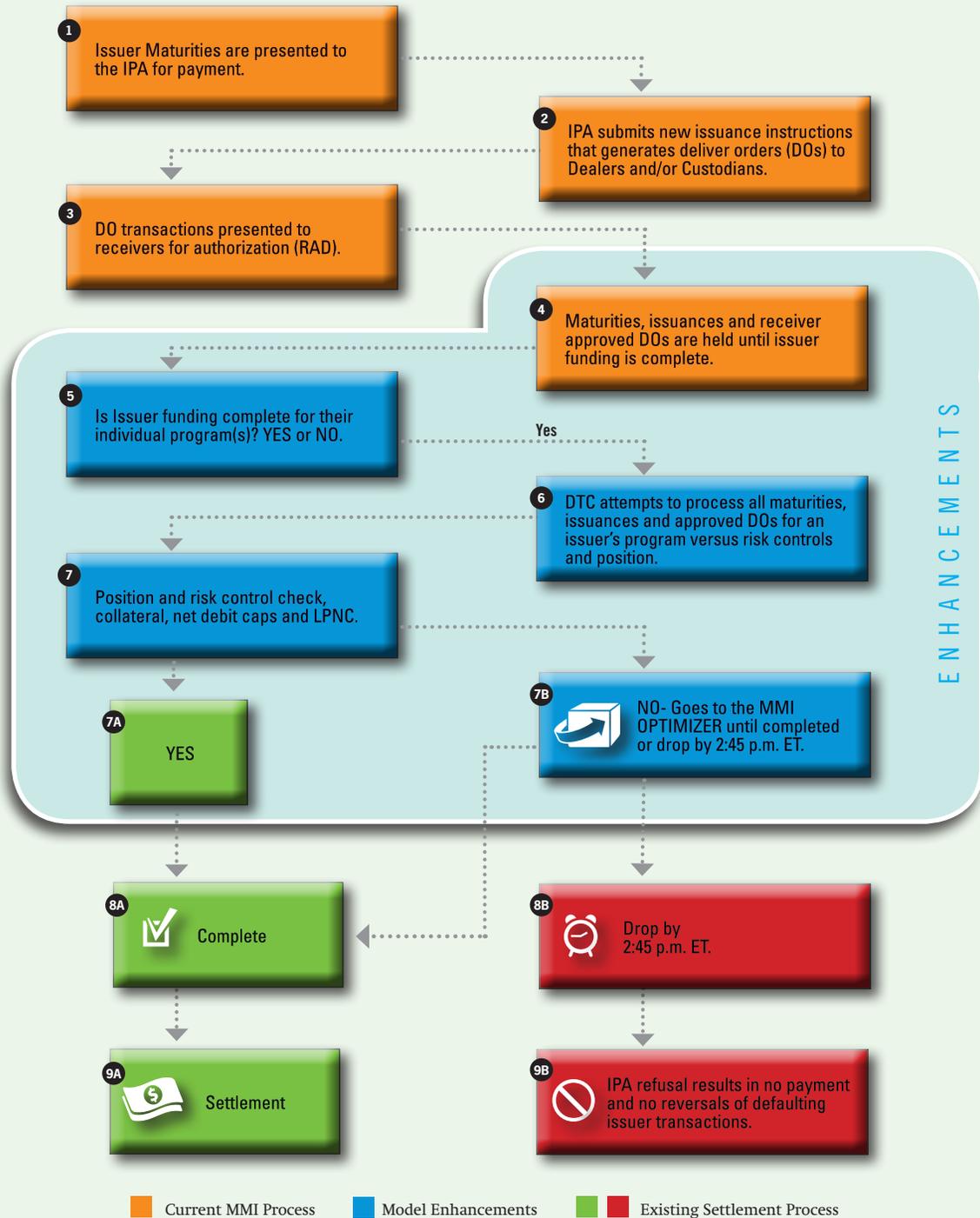
The Refusal to Pay Procedure

As previously described, IPAs may refuse to pay for an issuer's MPs with respect to a program until 3:00 PM ET on the date of maturity. The major difference in the new model is that DTC will not release for settlement both issuances and maturities until issuer funding is acknowledged by the IPA. This change will eliminate the reversal risk.

If the IPA refuses to pay, then DTC will follow procedures for issuer default and/or insolvency, which includes reducing to zero the collateral value of the issuer's MMI, notifying DTC participants, and blocking further issuances by the issuer from being deposited at DTC. If an IPA instructs DTC to reverse the refusal to pay, DTC will undo all previous actions with respect to the issuer's program.

The New Model Flow for Intraday Settlement Finality

The following diagram illustrates the current MMI settlement process flow and the enhancements associated with the proposed new MMI settlement model.



Note: The optimization algorithm is configured to optimize the settlement of these transactions by calculating the net effects of transactions across multiple programs of an issuer on the positions of receiving participants and their risk controls. If a receiver has collateral or debit cap constraints and those transactions make the difference as to whether or not an issuer is funded or not, then the IPA must decide if it will still perform a refusal or not.

The MMI structural proposal changes are intended to eliminate the credit exposure and liquidity risk associated with the intraday reversal of MMI transactions. The process scenarios with the modifications are:

- The MMI issuer has funded its maturities and there are no new issuances; the IPA will need to acknowledge receipt of funding. DTC will then release the maturing transactions for processing against the receiving participant's risk controls. The transactions are then complete and deemed final for settlement.
- The MMI issuer's maturities are funded with new issuances and/or by remitting funding to the IPA. DTC will release the maturing transactions when the "approved" issuances exceed the maturity value and have completed against the receiving participant's risk controls. The transactions are then complete and deemed final for settlement
- The MMI issuer does not completely fund its maturities with new issuances and/or by remitting funding to the IPA. The IPA must make a decision to extend credit to the issuer or has the option to notify DTC of the non-payment. The instruction of refusal to pay will result in no settlement transaction reversals.

Recent and Near Term Enhancements

In 2009, DTC and The Securities Industry and Financial Markets Association (“SIFMA”) formed the MMI Blue-Sky Taskforce (“Taskforce”) to address systemic and unique market risks associated with the MMI settlement process. The Taskforce issued a report in March 2011 that outlined a series of specific proposals to provide for greater stability and risk management in the MMI market. In addition to the long-term solutions discussed in this paper, the report also recommended short-term changes to provide increased transparency for IPA banks in advance of their 3:00 PM ET DTC refusal to pay deadline.

IPAs have noted that they do not routinely extend credit to or on behalf of issuers. Yet, through the DTC process, they may inadvertently do so without having received funds from those issuers when maturity presentments are greater than issuances. IPAs must decide if they wish to exercise refusal to pay option at DTC. The IPA may be forced to decide whether to take on the credit risk of the issuer or potentially create a reputation risk for the issuer instructing DTC of their refusal to pay.

In June 2012, DTC implemented changes to the MMI settlement processing timelines for IPAs to make better informed decisions regarding their exposure to an MMI issuer before the 3:00 PM ET refusal to pay deadline.

MMI settlement cutoff and process implemented revisions included:

- All MMI issuance and deliver order transactions, regardless of transaction value, are routed to the Receiver Authorized Delivery (“RAD”) function for approval. Such approvals of valued issuance deliveries must be completed by 2:45 PM ET.
- Elimination of MMI “matched” reclaims which could override DTC risk management controls and alter an MMI issuer funding balance.
- The MMI valued new issuance submission cut-off was moved up to 2:00 PM. from 3:20 PM ET.

IPAs acknowledge that the above changes provide them with greater clarity to potential issuer funding gap before the 3:00 PM ET refusal to pay the notification deadline

Risk management controls play a major role in DTC’s settlement system to protect DTC and its participants against the failure of the largest participant family to pay settlement obligations. DTC currently employs three primary risk management controls: collateral monitor, net debit cap, and, for MMI securities, the largest provisional net credit or LPNC control.

DTC requires that participants have sufficient collateral to cover their net debits and that their net debit balances do not exceed their respective net debit caps. LPNC was established to ensure that DTC and its members are not exposed to additional risk in the combined event of an MMI issuer’s default and a participant’s failure to settle.

LPNC procedures provisionally “withhold” from participants the use of the largest net settlement credit they would otherwise receive in any MMI program during the day.

DTC’s system tracks all of a participant’s MMI activity and continuously monitors the MMI program in which

the participant has the largest net credit. This net credit represents the participant's LPNC. The provisional net credit is not deemed a credit in the calculation of the participant's net debit balance.

Because transactions in a failing MMI issue would be reversed if the IPA informs DTC of the issuer default by 3:00 PM ET, LPNC procedures remain in effect until 3:05 PM ET, at which time the credit is applied to reduce any net debit balance or increase the participant's net credit balance.

In early 2013, DTC plans to expand the current LPNC risk management control from withholding a single largest provisional net credit to withholding the two largest provisional net credits. This enhancement will provide increased risk protection in the event of transaction reversals due to multiple issuer defaults or a single issuer default with two or more MMI programs.

In addition to enhancing the LPNC control, DTC will modify its Rules regarding the processing of an MMI issuer failure so that the LPNC control will no longer be applied to an issuer acronym with non-reversible transactions. Specifically, when completed or "made" issuances (by dollar value) exceed maturity presentments on a settlement date, because the issuer would have no funding requirement at the IPA for that MMI program, the IPA would have no reason to refuse to pay for that issuer program for that settlement day.

DTC conducted simulations of these changes and these changes together allow DTC to improve the MMI risk management control process without any incremental settlement blockage.

Conclusion

The MMI system at DTC has served the industry well with reliable and efficient processing throughout the years and during times of significant market stress. DTCC has worked closely with the industry to craft an enhanced model for the next generation of MMI processing. The advanced model offers a constructive solution to move toward improved intraday finality and reduced systemic risk associated with transaction reversals.

Next Steps

- DTCC is soliciting feedback on this whitepaper and the proposed changes; all comments can be sent to DTCC mailbox mmibluesky@dtcc.com.
- Specific system changes for participants have not been identified by DTCC at this time. DTCC will provide the detailed specifications for the MMI changes when the functional definition is completed.
- In preparation for the proposed changes, participants should become familiar with the improved flow as outlined in this paper and assess the potential impact on their current operational process. During the period of transition, DTCC anticipates that IPAs and other MMI market participants will use the time to validate issuer information, identify potential modifications to classification of MMI structures, features, and applicable changes to the MMI agreements.
- A simulation of the new model enhancements will be developed to assess the potential impact on the settlement transaction blockage flows.

Milestone Timeline

- MMI Whitepaper Distribution – Model OverviewDecember 2012
- Industry Feedback Due..... April 1, 2013
- Detailed Service Description..... Q4 2013
- Simulation of the Model Q1 2014
- Testing Available..... Q4 2014
- Implementation.....Q1 2015

Appendix

MMI Blue Sky Task Force Report: PROPOSAL MATRIX

Status	Proposal #	Pros	Cons
Implemented June 2012	1) Valued New Issuance, RAD and Matched Reclaim Deadlines	<ul style="list-style-type: none"> • Reinforces current market practices with synchronized timing • Potential to eliminate reclaims. • Provide IPAs will clarity regarding final issuer funding gaps. • Promote market transparency. • Education and published rules for market practice adoption and enforcement. 	<ul style="list-style-type: none"> • Impact on Issuers and investors outside of the East Coast. • Late trading after new cutoffs and processing free transactions. • Late day receipt of Investor instructions to Custodians.
Implemented June 2012	2) Market Rules and Enforcement	<ul style="list-style-type: none"> • Promote market transparency. • Education and published rules for market practice adoption and enforcement. 	<ul style="list-style-type: none"> • Identification of an agreed to method of enforcement.
Targeted for Q1 2013	3) Realignment of Issuances and Maturity Presentments (MPs)	<ul style="list-style-type: none"> • Does not consume IPA's net debit cap at the start day to fund MPs. 	<ul style="list-style-type: none"> • Settlement transaction inefficiency and early day blockage before issuances complete to fund pending maturities.
To be included as part Longer Term Structural Model	4) Matching Issuers' Issuances and MPs	<ul style="list-style-type: none"> • IPA clarity at issuer level providing more certainty on RTP. • More overall transparency. • Facilitates intraday finality. • Could be complementary to Option 7. 	<ul style="list-style-type: none"> • Increase in blockage because no off-setting transactions. • Risk associated with increased volume of incoming SPPs/wires. • Operational implications for IPAs and Custodians.

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Status	Proposal #	Pros	Cons
To be included as part Longer Term Structural Model	5) Create a new settlement model and multiple settlements	<ul style="list-style-type: none"> • Promotes intraday settlement finality. • Enables tiered pricing by settlement period for early timeline and enforcement. • Increase transparency to late funders. • Could be complementary to Options 1&2. • Extends an existing process and gives IPA full control. • Reduces IPA credit risk. 	<ul style="list-style-type: none"> • Potential adverse impact on settlement efficiency and increase in transaction blockage.
To be included as part Longer Term Structural Model	6) Separate non-MMI and MMI settlement	<ul style="list-style-type: none"> • Permits the MMI market to reduce risk through alternative processing methods without increasing blockage in the non MMI environment. • Increase early settlement finality for non-MMI/equities. 	<ul style="list-style-type: none"> • Loss of funding efficiency requiring more funding to cover net debit deficiencies.
No longer under consideration	7) Real Time Gross Settlement (RTGS)	<ul style="list-style-type: none"> • Releases liquidity into the market earlier. • Delinks MPS and Issuances. • Mitigates IPA credit risk. • Settlement finality. • Full transparency. 	<ul style="list-style-type: none"> • May require major structural and system changes. • Could introduce risk related to the increase in SPPS/wires. • Bank Issuers would hesitate to use Fed funds based on recent negative “headline” news. • Prohibitive for issuers to pre-fund their maturities. • Will issuers exit this market due to the lack of liquidity efficiency?

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Status	Proposal #	Pros	Cons
No longer under consideration	8) Partial Settlement	<ul style="list-style-type: none"> • Mimics “physical” process • IPAs pay out what is received. • Eliminates reversals of the entire day’s activity associated with full refusal. 	<ul style="list-style-type: none"> • Operational impediments cited including allocations and monitoring. • A pro-rata method could result in overdrafts. • Deemed an “issuer” default. • Potential “Double jeopardy” with new Issuance.
No longer under consideration	9) Next-day IPA payment reversal mechanism.	<ul style="list-style-type: none"> • Eliminates IPA credit risk 	<ul style="list-style-type: none"> • Would reduce finality of settlement. • Investors may forgo investing in assets reversed the next day.

Important Terms

The following terms are important to understanding the DTC MMI Settlement Service:

This term	Refers to
Acronym	A DTC designation for a MMI issuer which uses a four-character e.g. DTC1. The acronym is a unique identifier for the MMI issuer program serviced by the Issuing and Paying Agent (IPA) bank.
Collateral Monitor (CM)	DTC's process for measuring the sufficiency of the collateral in your account to cover your net settlement obligation.
Deliver Order (DO)	The term used to define a book-entry movement of shares of a particular security between two DTC participants, which may be free of value or versus payment.
Issuances	Transmittal of an issuance instruction by the issuing agent on behalf of the issuer to DTC. This issuance will build the trade record, make a deposit to the issuing agent's account, and transmit an issuance deliver order to the buying participants.
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.
Maturity Presentment	This is the book entry demand for the payment by the holder of record to the paying agent. It is accomplished via a movement of securities from the current holder of position's account to the Paying Agent's account versus payment of the maturity proceeds.
Money Market Instrument (MMI)	Debt securities such as commercial paper, institutional certificates of deposit or medium term notes that are eligible for DTC's MMI Program. The 14 types are listed below.
Receiver Authorized Delivery (RAD)	A control mechanism that allows you to review any of transactions their prior to completion of processing. It limits your exposure from misdirected or erroneously entered DOs, Payment Orders (POs), and Pledges.
Reclamation or Reclaim	The return of a DO or PO received by a participant.
Risk Management Controls	The controls, primarily net debit cap and CM that are used to provide protection to all DTC participants against the inability of one or more participants to settle net settlement obligations.
Settlement Progress Payments (SPP)	An intraday funds transfer sent via Fedwire to a DTC participant settlement account.

Eligible DTC Money Market Instruments

The *fourteen money market instruments* that are eligible to settle at DTC include:

- 1. Corporate Commercial paper (CP)** is unsecured short-term promissory notes issued by corporations issued for a specific amount and maturing on a specific day. It represents the largest segment of the money market. The vast majority is issued as discount instruments in bearer form; CP that makes periodic payments and interest at maturity (IAM) CP with a maximum of 270 days, since this exempts the paper from registration under the 1933 Act. The proceeds from this type of financing can only be used on current assets (inventories) and are not allowed to be used on fixed assets, such as a new plant, without SEC involvement.
- 2. Medium Term Notes** are continuously offered notes, having any or all of the features of corporate bonds and ranging in maturity from 9 months to 40 years and beyond.
- 3. Bank Deposit Notes** are FDIC-insured, negotiable time deposits. These notes are issued by banks in the form of MTNs, with maturities commonly 18 months or longer.
- 4. Certificates of deposit (or CDs for short)** are debt instruments issued by banks and other financial institutions to investors. In exchange for lending the institution money for a predetermined length of time, the investor is paid a set rate of interest. Maturities on certificates of deposit can range from only a few weeks to several years with the interest rate earned by the investor increasing in proportion to the time his capital is tied up in the investment.
- 5. Short Term Bank Notes** are unsecured promissory notes issued by a commercial bank with maturity periods of one year or less.
- 6. Long Term Bank Notes** are unsecured promissory notes issued by a commercial bank with maturity periods of greater than one year and ranging up to ten years.
- 7. Preferred Stock in CP Mode (PFD-CP)** these are equity issues that have bond-like features and maturity periods for PFD-CP may be as long as five years or more.
- 8. Municipal Commercial Paper, Tax-Exempt - CP** issued by a municipality, which includes as a benefit/feature tax preferred treatment. Maturity periods can range up to one year.
- 9. Municipal Commercial Paper, Taxable - CP** issued by a municipality and which is taxable. Maturity periods can range up to one year.
- 10. Corporate Variable Rate Demand Obligations (In CP Mode)** - Variable Rate Bonds which carry a put option and can have maturities of up to five years.
- 11. Municipal Variable Rate Demand Obligations (in CP Mode), Taxable**- Variable Rate Municipal Bonds, which are taxable and carry a put or mandatory tender option. These VRDO/CP issues can have maturities of up to five years.
- 12. Municipal Variable Rate Demand Obligations (In CP Mode), Tax-Exempt** - Variable Rate Corporate Bonds, which are tax-exempt, carry a put option and can have maturities of up to five years.
- 13. Bankers Acceptances** - Time drafts issued to finance import/export/domestic shipments or storage (fully collateralized). Maturity period range from 30 days to six months.
- 14. Discount Notes** - Notes issued at a discount to their face amount, issued primarily by banks and federal agencies and have maturity periods of up to one year.

DTCC