

An Outline of Short and Long Term Proposals to Mitigate Credit and Systemic Risk



TABLE OF CONTENTS

Executive Summary	1
Overview of the Money Market and Key Players	2
The Current Settlement Process	3
Blue Sky Taskforce Charter	3
Problem Statements	4
Proposals	4
Proposal Matrix with Highlights of Pros and Cons	11
Conclusion	12
Appendices	13

EXECUTIVE SUMMARY

oney Market Instruments (MMIs)¹ are a critical market for the financial industry and are one of the largest asset classes (in dollar value) among the outstanding instruments settled at The Depository Trust Company (DTC). In the aftermath of the financial crisis, the MMI market has undergone significant changes as a result of:

- Mounting concerns related to issuer solvency and credit worthiness,
- MMI issuers experiencing liquidity² and credit pressures associated with investors' reluctance to purchase asset-backed securities and commercial paper with longer dated maturities,
- A persistent low interest rate environment that is contributing to a market contraction of MMI outstandings,
- Heightened focus on risk reduction and the late day liquidity concentration of Fedwire funds. The Federal Reserve Bank of New York, through the Payments Risk Committee (PRC) Working Group³, suggested that the money market industry identify specific best practices such as increased real-time finality in MMI settlements and investigate the need for potential structural market reform.

As a result, The Depository Trust and Clearing Corporation (DTCC) and The Securities Industry and Financial Markets Association (SIFMA) together formed the "MMI Blue Sky Taskforce" to identify possible ideas to mitigate systemic risks in the processing of MMIs and present them for industry-wide deliberation. Market participants on the taskforce assessed the effectiveness of changes that could reduce risk and vulnerabilities, provide processing flexibility and enable enhanced intraday settlement finality. Areas being reviewed include Issuing and Paying Agent (IPA) bank credit risk associated with the timing of issuer funding and the "conditionality" of MMI transactions vs. finality via intraday settlement and MMI matching as possible alternatives to the current process.

The approaches summarized in this report include:

- Short and medium term proposals that may require changes to deadlines, pricing, market rules changes that mitigate the unintended credit risk that IPAs face today in servicing this market. These changes are aimed at reinforcing consistent operational and market behavior.
- Longer term proposals that may require major structural and system changes but may offer the potential to address the systemic risk of settlement finality and release liquidity into the market earlier in the processing cycle.

The taskforce outlined the implications of each approach and acknowledged the far-reaching impact of changing DTC procedures and the settlement structure.

The group recognizes that:

^{&#}x27;There are (14) types of MMI securities processed at DTC. They include Corporate Commercial Paper, Medium Term Notes, Certificates of Deposits, Bank Deposit Notes, Municipal Commercial Paper-Tax-Exempt/Taxable, and Corporate Variable Rate Demand Obligations (VRDO) in CP mode, Municipal VRDO-Tax-Exempt/Taxable, Discount Notes, Long & Short Term Notes and Bankers Acceptances.

The Federal Reserve Board established the Commercial Paper Funding Facility (CPFF) in October 2008- February 2010 to provide a liquidity backstop to U.S. issuers of commercial paper. The CPFF was designed to improve liquidity in short-term funding markets and thereby contribute to greater availability of credit for businesses and households.

³The Federal Reserve Bank of New York, through the Payments Risk Committee (PRC) Working Group, conducted a review of intraday liquidity demands and late day Fedwire funds flow. The PRC asked DTC to review the impact of MMI processing on these flows to determine if structural changes could materially reduce the current level of funding.

- The risk faced by IPAs⁴ and other market participants under the current environment might warrant a reassessment of the MMI business model and the IPA role in the settlement and issuance process.
- The stakes for issuers, in today's global market, are high and such changes could cause them to seek alternative means of raising short term capital in lieu of MMI.

This report summarizes the current marketplace challenges and delineates the potential solutions reviewed by the taskforce and highlights the pros and cons associated with each proposal. Long term proposals and recommendations will be reviewed with appropriate industry groups for comment and action.

Overview of the Money Market and Key Players

Money Market Instruments are typically short-term, corporate, unsecured promissory notes. They include Commercial Paper (CP), Medium Term Notes (MTNs), Certificates of Deposit (CDs), and others. The most active of these instruments, CP, settles T+0. Large corporations and financial institutions issue CP and other MMI securities to raise capital to finance their operations.

The issuers enlist banks to serve on their behalf as the issuing and paying agents of their MMIs. These banks will issue the MMI securities to brokers and dealers who have agreed to purchase the issuer's MMI securities. In turn, the brokers and dealers will turn around and sell the issuer's MMI securities to their own clients (which include money funds, commercial banks, corporate treasuries, pension funds, etc.).

The key MMI participants include:

- 1) The Issuers of the debt,: Typically financial institutions, large corporations or municipal governments that are financing their operations by issuing MMIs in exchange for investors' cash. They are the legal obligors on the issued MMI securities. Non-bank issuers are not direct participants of the DTC MMI system and therefore require the services of an Issuing and Paying Agent (IPA) bank.
- **2)** The Issuing and Paying Agents or IPAs,: Commercial banks that are enlisted by the issuer to represent them with respect to debt issuance instructions at DTC. These instructions include the payment of maturity, principal and interest to investors. An IPA does not have a legal obligation to honor maturing MMIs if they have not received funding from the issuer.
- 3) The Dealers and Brokers,: Securities firms that act as the middlemen or financial intermediaries in the distribution (the buying and selling) of MMI securities. The difference between a dealer and a broker is that a dealer acquires some of the securities it handles for its own positions and/or investment, while a broker will turn all the securities it acquires around to its clients without taking a position.
- **4) The Investors in money market instruments,:** They include money funds, banks, insurance companies, other financial institutions, federal agencies, non-financial corporations and international and foreign institutions.

⁴An issuing agent, a commercial bank, represents the issuer with respect to issuance instructions to DTC, which include delivery instructions that constitute: (a) a representation that securities are issued in accordance with applicable law; and (b) a confirmation that a Master Note Certificate evidencing such securities, if applicable, has been issued and authenticated. A paying agent is authorized by the issuer to make principal payments and interest payments to investors. In most instances, however, the issuing agent and paying agent will be one and the same, serving as an issuing/paying agent (IPA) for the money market instrument issued.

5) The Custodians,: Banks that provide services such as the safekeeping of securities purchased and held by investors. Custodians are dependent on instructions from investors in order to recognize transactions that investors have agreed upon.

The Current Settlement Process at DTC

MMIs are settled in DTC's settlement system, where risk management controls and other procedures are used to mitigate credit, liquidity and operational risk. The settlement⁵ of MMI instruments occur on a trade-for-trade basis (no netting) between the IPAs and Dealers.

Most risk management procedures, such as Collateralization, Net Debit Caps⁶, Receiver-Authorized Delivery (RAD), and Reclamation, apply to all securities. Others, such as Largest Provisional Net Credit (LPNC), apply specifically to MMIs to reflect the unique risk they present. LPNC affects only Participants with MMI activities. It ensures that sufficient collateral is available to cover credit risk exposures and that liquidity is adequate in the event of a MMI issuer failure and a Participant failure on the same day.

The majority of the MMI programs (except for the largest issuers) use dealers to place their paper. Early in the morning, the issuers determine the amount to be financed or refinanced with their MMI Dealers for the amount to be issued that day. A CUSIP number is assigned to each trade (to identify the program and the maturity) and the issuance data is transmitted to DTC by the IPA.

Issuance at DTC reflects notional movements whereby the position is credited to the IPA's DTC account and a book-entry delivery versus payment deliver order (DO) is initiated to the dealer's DTC account or to the custodian's DTC account on behalf of the investor. On maturity, the MMI maturity proceeds are debited from the IPA DTC account and then credited to the DTC account of the custodian. These debits and credits are conditional until end of day final settlement.

A flow of the current MMI process is available in APPENDIX 2.

Blue Sky Taskforce

The objective of the MMI Blue Sky Taskforce is to determine key opportunities to reduce risk in the MMI market that could be undertaken by a coordinated industry effort.

Taskforce Membership/Participation– The named individuals attended at least one meeting either in person or via phone. (APPENDIX 1)

Charter Statement:

Provide a market forum to strategize and outline possible methods to reduce MMI settlement risk (holistically from all participants' perspective) while addressing the current Issuing & Paying Agent credit risk exposures. Proposals should not be constrained by current processes and/or system limitations – so as to provide long term optimal solutions.

⁵A newly issued MMI can settle on the trade date or on a specified future date. Most new issues, particularly commercial paper, typically settle on the trade date. Others however, such as medium term notes, are more likely to settle on a specified future date.

Net Debit Caps (NDC) help ensure that DTC can complete settlement, even if a participant fails to settle. DTC applies a forced NDC allocation formula for major IPAs (at least 5% of total maturities in a given month) of up to 40% of the total family debit cap to the IPA DTC settlement account for MMI processing.

Taskforce and Related Meetings

The MMI Blue Sky Taskforce and working groups have met on an on-going basis since October 21, 2009. The outcome of the taskforce's discussions related to the opportunities for and possible structural reform in the money market process are summarized in the following problem statements and subsequent proposals.

Problem Statements

This section identifies the two major areas of concerns followed by the associated short and long term proposals for consideration.

- I. An IPA incurs credit risk when an issuer's maturities exceed their issuances on maturity date and the IPA, at the refusal to pay (RTP) time, is unsure how or if the funding gap will be satisfied.
 - a. This lack of clarity occurs when issuers⁷ do not follow the DTC guideline for funding their net debit obligations to the IPA by 1:00 PM ET. As a result, the IPA is uncertain of the net funding amount for a given issuer.
 - b. The processing schedule and the events leading to the IPA refusal to pay (RTP)⁸ 3:00 PM ET cutoff contribute to IPA risk on a daily basis. The processing cutoffs permit investors and issuers to continue processing transactions after the 3:00 PM ET RTP cutoff, further clouding the amount necessary to be funded.
 - c. The daily issuer credit risk exposure to the IPAs could exceed the acceptable business model for the service.
 - d. Since there is no rule governing body for U.S. Commercial Paper⁹ and Money Markets, the market operates based upon processing guidelines that are difficult to execute and enforce consistently across firms without industry-wide agreement.
- II. The provisional nature of MMI credits and debits until 3:00 PM ET IPA RTP deadline contributes to the lack of finality and prohibits the release of liquidity into the market earlier in the processing day.

Proposals

During its deliberations, the taskforce identified a broad range of potential changes that could further reduce IPA credit risk and contribute to earlier settlement finality. The group worked in collaboration across money market participants to encourage full participation in the development and evaluation of proposed reforms related to the key problem statements.

The options vetted as concepts by the taskforce could require significant changes to current market practices as well as systems changes for investors, issuers, custodians, placement agent

If the issuer is not funding maturities with new issuance, then the IPA must receive and process funds from issuers by 2:15 PM to make a credit decision prior to 3:00 PM ET on funding gaps. Investors' funding may be tied up in foreign or Repo transactions, further delaying their funding of maturities. Delays can result from operational and wire transfer errors. In addition, custodian processing of security receives could be held up to just before 3:00 p.m. with subsequent returns or reclaims for incorrect delivery instructions.

The only option available to an IPA if they have not received sufficient funding to cover maturities is to inform DTC of its refusal to pay, which perceived as a credit event.

⁹Commercial Paper is issued under exemptions to the Securities Act of 1933.

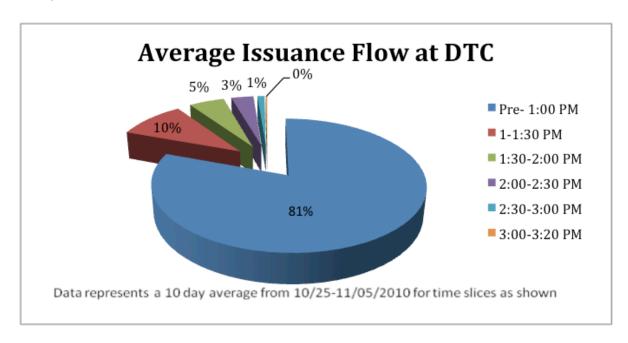
dealers, IPAs and DTC. While there is support for the short term proposals as outlined, the taskforce members have not come to a consensus on specific priorities or implementation of the longer term alternatives.

The taskforce also acknowledges that the proposals would need to be balanced against future initiatives under consideration at DTC that impact settlement processing, such as "Continuous Net Settlement (CNS) for Value," T+2, and multiple settlements cycles for non-MMI securities.

Short Term

The following proposals focus on the mitigation of risk as outlined in Problem Statement I:

- 1. Establish earlier DTC cutoffs and eliminate matched reclaims¹¹ to provide IPAs with increased transparency of an issuer funding shortfall before the refusal to pay Deadline.
 - The following revisions serve to reinforce the market adherence to critical processing times and to mitigate IPA credit risk.
 - Approximately ninety-one percent of all new issuance transactions are in the DTC process¹² by 1:30 PM eastern time. (see chart below)



• Feedback from MMI dealers and IPAs confirmed that the majority of new issuances are

¹⁰The Continuous Net Settlement (CNS) System is NSCC's core netting, allotting and fail-control engine. Within CNS, each security is netted to one position per participant, with NSCC as its central counter-party. CNS for Value addresses the potential risk that NSCC's liquidity demands exceed its available liquidity resources in a default scenario. The change would make CNS obligations that are currently delivered through DTC as "free of payment" transactions become processed in the future as "valued deliveries".

TiReclamations are instructions to reverse completed Deliver Order ("DO") and Payment Order ("PO") transactions. Reclamations that are matched to original deliveries are considered matched reclaims and are permitted to bypass the Receiver Authorized Delivery ("RAD") system and override DTC's risk management controls. In addition, matched reclamations can be processed in the exclusive reclaim period (3:20 p.m. to 3:30 p.m.) and cannot be re-reclaimed by the receiver (i.e., the original deliverer).

¹²MMI issuances can recycle or may not complete for various reasons, including Receiver Authorized Deliveries (RAD) approval, risk controls such as participant collateral, or debit cap insufficiencies. Other processing delays are attributed due to late in the day issuer allocation instructions and unforeseen operational or credit problems.

received by 1:30 PM ET.

- If this proposal is implemented, only the two cutoffs below would be revised from the current settlement timeline for MMI valued new issuances. (APPENDIX 3):
 - DTC Valued MMI Issuance¹³ cutoff.......1:30 PM from 3:20 PM
 - MMI RAD14 Valued New Issuance Approval Cutoff......2:15 PM from 3:30 PM
- All MMI including reclaims would be submitted to RAD regardless of transaction size. This change would allow for the elimination of MMI matched reclaims, which currently can override a receiver's RAD and risk controls at DTC.
- Valued new issuance items that are not approved in RAD by the new MMI RAD valued new issuance approval cutoff at 2:15 PM could not be acted upon.
- These changes would not apply to non-issuance MMI transactions, including those to CNS.
- These changes assume that changes to other IPA specific deadlines may also need to be adjusted.
- The DTC recycle cutoff for pending MMI and non-MMI items would remain in effect at 3:10 PM, including MMI items to and from CNS.
- The following concerns were voiced that the completion of issuances could potentially be delayed by:
 - Investors that have not completed their account allocations by 1:30 PM and therefore their allocation instructions are received late in the day by custodians.
 - Issuers and investors in later time zones, outside of the East Coast of the US, may be constrained by an earlier valued new issuance deadline.
 - Early deadlines may push investors to other funding options (e.g. Repo, Time Deposits, etc.).
- Additional valued new issuance transactions that occur after the cutoff could be processed free of payment (FOP) through DTC. Payments for these transactions would occur "outside of DTC."
 - Representative issuers from Commercial Paper Issuers Working Group (CPIWG)¹⁵ stated that "free" issuances after the cutoff will pose a challenge for later new issuances as both custodians and IPAs have difficulty coming to agreement on free deliveries.
 - It is recommended that IPAs, custodians and dealers establish procedures for FOP MMI transactions submitted after the 1:30 PM cutoff for valued new issuances.

¹³Valued New Issuance transactions are known in DTC as 26-4, code 82 items. These are issuances submitted are by the IPA and then delivered to the primary receiver

¹*The DTC Receiver Authorized Delivery (RAD) allows members to avoid reclamations by reviewing and either approving or canceling incoming deliveries before they are processed against their settlement accounts. To limit the number transactions subject to RAD and prevent widespread transaction blockage, the RAD limit is currently set at \$15 million for deliver orders.

¹⁵The Commercial Paper Issuers Working Group (CPIWG) is an unaffiliated open forum of firms that issue Commercial Paper (CP). The group was organized in 1996 by representatives of firms that issue commercial paper directly to institutional investors.

Longer Term

The following proposals could require longer term structural changes to address the risk associated with Problem Statement II:

2. Publish market rules and explore enforcement mechanisms for non-compliance.

• To further address the inconsistency in the enforcement of issuer funding times, the industry needs to clarify market rules to encourage uniformity across all issuers and investors and discuss methods for enforcing adherence to market rules.

3. Realign the timing of maturity presentment (MP) processing later in the day to coincide with the submission of new issuances.

- Move the MP processing to later in the day for better "alignment or matching" of an issuer's MPs and issuances.
- This approach would not consume IPAs' Net Debit Caps at the start day to fund MPs.
- Custodians and dealers voiced concern about the potential delay in the receipt of credits that can be used to fund their non-MMI transactions and the possible need to send in settlement progress payments (SPPs) to relieve blockage.

4. Create a MMI matching process that would "pair" an issuer's offsetting new issuance credits or funds received with their own maturity obligations.

- The current process uses the IPA's net debit cap and issuance credits regardless of issuer to fund all issuers' maturity obligations at the start of day and throughout the processing day.
- In 2004 DTC implemented "alignment," whereby an issuer's new paper is paired with their maturities, if any. The process is not a full matching system and can result in an issuer's credits being used for another issuer's maturities. This is done for settlement processing and liquidity efficiency so that an issuer's issuance credits can be used to offset another issuer's debits in an IPA settlement account.
- A dealer noted the adverse potential that this approach could cause gridlock or transaction blockage because DTC will not process maturity payments unless there is an offsetting issuance from the same issuer. That means debits and credits would no longer be fungible.
- The taskforce members noted that any change to the process would need to maintain the random sequence of payment at the custodian/investor level.

5. Create a new settlement model with intraday finality.

This option offers finality via intraday settlement cycles by limiting the later day refusal to pay deadline to issuers who have not "funded" by the stated cutoffs.

A. The IPA would hold Maturity Presentments (MPs) until they received non-revocable funding:

• The objective is to provide more market transparency at the issuer level.

- DTC is automated and designed for full efficiency. This proposal says that, instead of a systematic pair off (as proposed in Option 4), that the IPAs would manage this process going forward. The disadvantage is that this could increase settlement inefficiency due to transaction blockage.
- An issuer's maturities would be released if they provide cash funding of 100% against their maturity obligations.
- An issuer's maturities would be released if they have new completed issuance credits that cover 100% of their maturities. These issuances could not be reclaimed. An issuer's maturities would be released if there was a combination of issuance and cash to cover 100% of the maturity obligation of the issuer.
- The automation of this proposal could be achieved by modifying the existing IPA MMI MP Pend function so it could used on a daily basis to "hold" both MPs and issuances of a given MMI program until the IPA could release them for processing.
 - Upon the IPA release, DTC could process the allocation of credits to custodians. These transactions would be deemed "final" payment and could not be subject to a refusal to pay by the IPA
 - Issuers that do not provide full funding would be subject to refusal to pay by the IPA.

B. Enable multiple MMI settlement periods, e.g. 2:00 PM ET, 3:30 PM, etc.

- To release any excess issuance credits into the market earlier in the day, a new settlement cycle could occur at an earlier time in the day, like 2:00 PM (from the current 3:30 PM).
- This multiple cycle settlement model would include:
 - All issuer programs in which funding was completed through 100% cash, issuance credits or a combination of both.
 - IPAs could not process a request for a refusal to pay for any programs that settle in this earlier settlement cycle.
 - It was also suggested that LPNC only be applied to issuer credits that are "open" or not completed. If an issuer's maturities have been "funded," they should not be included in the LPNC calculation.
 - A final funding settlement could be created only for remaining programs in which funding had not been completed and finalized by the 2:00 PM settlement cycle as described in Option 5.
 - This option could include incentives for early settlement.

6. Separate MMI and Non-MMI DTC settlement processing.

- This option contemplates evaluating the reasonableness of separating MMI and non-MMI DTC settlement processing.
- Today, MMIs and non-MMI settlement activity is commingled. Therefore any proposals that

have the potential to reduce efficiency in the MMI market, (including mandatory alignment of issuers' maturities and issuances) could have an adverse effect on the high volume non-MMI market.

- This proposal may be required if Options 4 & 5 are executed because implementation of those options could reduce efficiency in processing. The increased blockage would adversely impact non-MMI transactions as well.
- DTC previously processed and settled security deliveries through two different settlement systems in the late 1980s. Commercial Paper and other MMI settled in the same-day funds settlement model while Equities, Corporate and Municipal debt issues settled via the next-day funds settlement process. The current DTC single settlement system offers both payment and processing efficiency, but the transaction blockage caused by the turnover of MMIs could occasionally inhibit the completion of non-MMI transactions.
- Separating the current process into two settlement services may require a realignment of net debit caps and could result in processing inefficiency (e.g. the need to send in funds to alleviate blockage) in which a firm may have a debit in one settlement system and a credit in the other.
- The separation of MMI and non-MMIs could permit the non-MMI market to have reduced transaction blockage and an earlier settlement or multiple settlements, (for example, 9 AM and 2 PM) that could further enhance finality of settlement in non-MMI asset classes.

7. Develop a MMI real time gross settlement (RTGS) model

- The taskforce discussed the other central depository models that process on a real-time gross settlement basis, like Euroclear France.
- "Gross settlement" means the transaction is settled on a one-to-one basis. Once processed, payments are final and irrevocable. The transactions are settled as soon as they are processed.
- These RTGS models require pre-funding by a central bank and/or early in the day large payments by issuers to fund their maturities.
- There was a suggestion that this model be implemented with a "hybrid" structure for the various MMI products. Medium term notes and CDs are usually funded facilities and a RTGS process may be feasible. Commercial Paper is a "roll-over" product and may present the most challenge for early day funding if issuers are waiting for cash resources from other markets or sources that process later in the settlement day.
- De-links maturity presentments and issuances.
- Issuers feel this proposal could have an adverse impact and reduce the overall market size substantially.

¹⁶In the CP market, banks and companies regularly raise cash for operations by issuing paper and when the commercial paper matures or is due for payment, then the issuer repays investors by "rolling over", or issuing more paper, effectively paying back investors with more borrowed cash.

8. Create a "MMI partial settlement" option that would permit an IPA to instruct DTC to pay maturities to the extent that the IPA has received issuer funding.

The taskforce agreed this is an interesting concept, but it poses challenges and potential legal impediments that make it difficult to implement without structural and/or market practice changes.

- The IPA risk for MMI paying issuers' maturity obligations shifted when the settlement process went from a physical to a book-entry only (BEO) form.
 - Prior to book entry, issuers' maturity obligations were only paid if there were available funds. This resulted in some investors receiving funds while others did not.
 - The current MMI book entry process provides for an "all or none" process for maturity payments from the IPA to holders.
- The proposed revision would offer an IPA option to pay maturities to the extent that they have funding and inform DTC of "insufficient funds" for any outstanding balance due but not received by the 3:00 PM refusal to pay cutoff.
- The IPA would instruct DTC to make partial "pro-rata" payment, of cash and or issuance credits collected by the IPA, to custodial agents or dealers.
- The outstanding balance shortfall would need to be paid in full no later than 11:00 AM ET the following business day or the issuer would be in default and the normal refusal to pay procedures would ensue. If applicable, that day's issuance and maturities would also need to be reversed. Penalties or surcharges may also be required for issuers that fall into this category.
- The concerns with this option are:
 - Any shortfall in payment could be deemed a "default" or "bankruptcy."
 - A partial payment could result in "unreal balances" and custodian overdraft.
 - Issuers and other market participants feel that a partial settlement sends a negative message to the market.
 - This action might create an event of default for an issuer where none should exist.
 - This option creates uncertainty for investors as to when they can expect to be paid in full.

9. Offer IPAs a next-day payment reversal mechanism.

- The IPA would send a notice to DTC to perform a payment reversal the day after maturity when funding has not been received.
- This item was removed because it would reduce finality of settlement.
- Investors won't buy paper if the money can be withdrawn the next day.

¹⁷DTCC and select taskforce member firms had several meetings to outline an allocation approach for maturities that are partially paid to holders (e.g. FIFO, LILO, and pro-ration).

PROPOSAL MATRIX with Highlights of Pros and Cons

PROPOSAL #	PROS	CONS
SHORT TERM		
1 - Valued New Issuance, RAD and Matched Reclaim Deadlines	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.	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.
LONGER TERM		
2- Market Rules and Enforcement	Promote market transparency. Education and published rules for market practice adoption and enforcement.	Identification of an agreed to method of enforcement.
3 - Realignment of Issu- ances and Maturity Presentments(MPs)	Does not consume IPA's net debit cap at the start day to fund MPs.	Settlement transaction inefficiency and early day blockage before issuances complete to fund pending maturities.
4 - Matching Issuers' Issuances and MPs	 IPA clarity at issuer level providing more certainty on RTP. More overall transparency. Facilitates intraday finality. Could be complementary to Option 7. 	Increase in blockage because no off-setting transactions. Risk associated with increase volume of incoming SPPs/wires. Operational implications for IPAs and Custodians.
5 - Create a new settlement model and multiple settlements	 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. 	Potential adverse impact on settlement efficiency and increase in transaction blockage.
6 - Separate non-MMI and MMI settlement	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.	Loss of funding efficiency requiring more funding to cover net debit deficiencies.
7 - Real Time Gross Settlement (RTGS)	 Releases liquidity into the market earlier. Delinks MPS and Issuances. Mitigates IPA credit risk. Settlement finality. Full transparency. 	 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 ala RTGS. Will issuers exit this market due to the lack of liquidity efficiency?
8 - Partial Settlement	 Mimics "physical" process IPAs pay out what is received. Eliminates reversals of the entire days activity associated with full refusal. 	 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.
9 - Next-day IPA payment reversal mechanism	Eliminates IPA credit risk	Would reduce finality of settlement. Investors may forgo investing in assets that can be reversed the next day.

CONCLUSION

oney Market Instruments (MMI) continue to provide a critical short-term funding and investment vehicle with a combined daily average of \$200+ billion in issuances and maturities. The financial crisis, however, resulted in MMI market participants experiencing increased pressure on liquidity and credit exposure. In an effort to mitigate these risks, enhance flexibility and facilitate early intraday settlement finality, the MMI Blue Sky Task Force developed a series of options for consideration by the industry. The Task Force members include representatives of Issuing and Paying Agents (IPAs) banks, broker/dealers, custodian banks and issuers, produced a broad array of ideas and recommendations, which are outlined in this report.

As a priority, the Task Force recommends implementing the short-term options to address the most immediate risks in the market, which are primarily borne by IPAs but also impact on a systemic level issuers, investors and custodians. The processing cutoff changes identified in the report would ensure consistent market behavior while minimizing industry costs. The Task Force estimates that the short-term recommendations could be implemented in the next twelve months, with monitoring ongoing for a period of time while further consideration of the long-term solutions.

The long-term options in the report include both structural and system changes that would significantly alter the current MMI settlement system and could have far-reaching impacts on the industry and market participants. In all cases, these proposals are designed to ease liquidity and mitigate systemic risk. It important to note that the Task Force does not suggest implementing all of these proposals as the enactment of one recommendation may preclude the need for another. Also, the Task Force recognizes that it is not practical or realistic for the full range of long-term proposals identified in the report to be implemented.

While the Task Force understands the urgency to make structural changes to the settlement process, we also recognize the need for a detailed analysis of the impact, benefits and consequences of these measures. The Task Force will continue to explore the long-term concepts in the coming months and will prioritize and formalize an action plan.

The Task Force is actively soliciting industry feedback on the white paper to further refine and prioritize the recommendations that have been identified. The Task Force welcomes written comments from market participants, which can be submitted at mmibluesky@dtcc.com by May 16, 2011.

APPENDIX 1

MMI Blue Sky Taskforce Participants

William A. Avery *IPA*Vice President
Deutsche Bank

Lloyd A. Baggs *IPA* Vice President

JPMorgan Chase & Co.

Craig B. Bayer *IPA* Vice President

The Bank of New York Mellon

Richard Benjamin *IPA*Global Securities Services
Bank of America Investment Bank

Brent Blake *Custody* Vice President

State Street Corporation

Jessica Brown *Dealer* Vice President Goldman, Sachs & Co.

Christopher R. Buechner IPA

Executive Director JPMorgan Chase

Nicholas F. Cancro Dealer

Vice President Goldman, Sachs & Co.

Jean E. Carroll *IPA* Vice President HSBC Bank, USA, N.A.

William C. Cavanaugh *Dealer* Director-Senior Trader Bank of America

W. Bradley Chapman Dealer

Bank of America Merrill Lynch Global Secu-

rities Solutions

Michael A. Coppola Dealer

Director
Bank of America
Patrick Crowley *IPA*Vice President
US Bank

Brian B. Davis *Custody* Vice President

Bank of America Investment Bank

Charles DeSimone Staff Advisor

Policy Analyst

Securities Industry and Financial Markets Association

Craig Dudsak *Custody* Managing Director

Citi

Christopher J. Edwards IPA

Vice President
Deutsche Bank
Jim Estill *Risk*Executive Director
JPMorgan Chase & Co.

Laura Estill *IPA*Assistant Treasurer
Bank of New York Mellon

Joel Feazell *Risk* Managing Director Bank of New York Mellon

Lily Hao Staff Advisor

Analyst

Securities Industry and Financial Markets

Association

Gregory K. Hogan Custody

Vice President

Bank of New York Mellon

John Kiechle DTCC

Vice President, Settlement Product

Management DTCC

Christine Knight *Dealer*AVP Operations Manager
Bank of America Corporation

Gary L. Lancaster *IPA*Assistant Vice President

Citibank, N.A.

Javette P. Laremont *DTCC*Director, Product Management

DTCC

Joanna Lecewicz Dealer

Vice President Barclays Capital Sean McWeeney *Dealer*

Vice President

Goldman, Sachs & Co.

Deborah Mercer-Miller Custody

Vice President

Citi

Edward J Neeck *Risk* Senior Vice President JPMorgan Chase & Co.

Juan Oloriz Dealer

Director Citi

Greg Pacelli *Dealer*Vice President
Morgan Stanley & Co.
Jeffrey Palermo *Dealer*

Senior Vice President Barclays Capital Jeffrey Snyder *Dealer* Vice President Barclays Capital Inc.

Violet Smith *Custody* Executive Director JPMorgan Chase

Robert Toomey Staff *Advisor*Managing Director and Associate

General Counsel

Securities Industry and Financial

Markets Association

Susan Tysk-Cosgrove DTCC

Managing Director, Equity Clearance

& Settlement Product Management

DTCC

Bill Velasquez *IPA* Vice President JPMorgan Chase

Janet Wong-Lee IPA

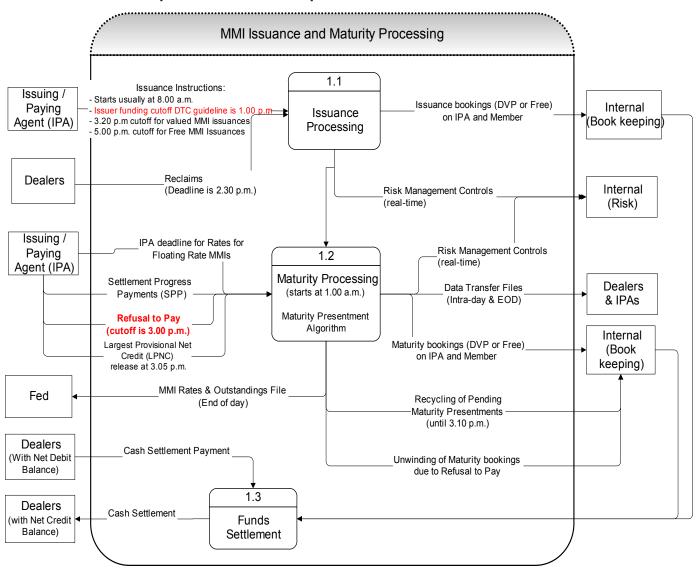
Vice President — Corporate Trust Bank of New York Mellon

Daniel Young *Dealer* Assistant General Counsel

Goldman Sachs

APPENDIX 2

The flowchart below depicts the current MMI process flow at DTC:



APPENDIX 3

DTC MMI Processing Timeline (All times Eastern Time)

At approximately 1:00 AM	Maturity presentments (MPs) are notionally presented against the IPA account at DTC
After 5:00 AM	Processing of Future Dated Issuances
1:00 PM (Market Practice)	Issuers to remit all payment/funding obligations due the IPA to the extent their maturities exceed issuances for that day.
1:30 PM (New proposal)	Valued New Issuance Input Cutoff
2:15 PM (New proposal)	MMI RAD New Issuance Approval Cutoff
2:30 PM (Proposed to remove)	DTC deadline for MMI reclaims of today's issuances. Matched Reclaims of today's issuance after 2:30 PM go to RAD and can be approved by the IPA by 3:30 PM.
3:00 PM	is invoked it reverses that day's maturities, new issuances and DOs. Note: The refusal is a clear message to the market that the IPA has no intention of paying any future maturing paper and is deemed a significant event.
3:05 PM	Largest Provisional Net Credit (LPNC) risk management procedure releases MMI credits to participants that were "provisionally held" to mitigate the impact of a potential issuer refusal to pay that day.
3:10 PM	Valued Recycle Cutoff. All valued transactions including maturities that cannot complete due to insufficient position, collateral or net debit cap are dropped from DTC's system.
3:20 PM (Proposed 1:30 PM)	Valued Issuance Input Cutoff
3:20 PM	Valued MMI DO Input Cutoff including reclaims
3:30 PM (see above)	DTC Reclaim and RAD Approval Cutoff.

3:45 PM	IPA's may instruct DTC to reverse reclaims processed after 3:00 PM if they believe the reclamations are associated with an issuer's insolvency. This procedure only applies to today's issuance; it has no impact on maturities either today or for the future.
3:45 PM (approx.)	DTC publishes final settlement figures
4:15 PM (or 30 minutes or Refusal after final figures)	Settling Bank Acknowledgement
5:00 PM	DTC cutoff for Free Deliveries and Original Issuance (settle outside of DTCC) of positions in NEW CUSIP.IPA deadline to set either the MMI MP Pend or Issuer Priority Control (IPC) profile that will be effective for next processing day.
6:15 PM	Cut off for Free Deliveries at DTC for positions in Existing CUSIPS and Additional Issuance (with \$ settlement to occur outside of DTC as arranged between the parties and to occur prior to Fed wire cut off)
6:30 PM	Reclaim Cutoff of Free Issuance Transactions



About DTCC

DTCC, through its subsidiaries, provides clearance, settlement and information services for equities, corporate and municipal bonds, government and mortgage-backed securities, money market instruments and over-the-counter derivatives. In addition, DTCC is a leading processor of mutual funds and insurance transactions, linking funds and carriers with their distribution networks. DTCC's depository provides custody and asset servicing for more than 3.6 million securities issues from the United States and 121 other countries and territories, valued at US\$36.5 trillion. In 2010, DTCC settled nearly US\$1.66 quadrillion in securities transactions. DTCC has operating facilities and data centers in multiple locations in the United States and overseas. For more information, please visit www.dtcc.com.



About SIFMA

The Securities Industry and Financial Markets Association (SIFMA) brings together the shared interests of hundreds of securities firms, banks and asset managers. SIFMA's mission is to support a strong financial industry, investor opportunity, capital formation, job creation and economic growth, while building trust and confidence in the financial markets. SIFMA, with offices in New York and Washington, D.C., is the U.S. regional member of the Global Financial Markets Association (GFMA). For more information, visit www.sifma.org.