

**United States: Publication of Financial Sector Assessment Program Documentation—
Detailed Assessment of Observance of the Depository Trust Company’s Observance of
the CPSS-IOSCO Recommendations for Securities Settlement Systems**

This Detailed Assessment of Observance of the Depository Trust Company’s Observance of the CPSS-IOSCO Recommendations for Securities Settlement Systems for the United States was prepared by a staff team of the International Monetary Fund. It is based on the information available at the time it was completed in May 7, 2010. The views expressed in this document are those of the staff team and do not necessarily reflect the views of the government of the United States or the Executive Board of the IMF.

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International Monetary Fund • Publication Services
700 19th Street, N.W. • Washington, D.C. 20431
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FINANCIAL SECTOR ASSESSMENT PROGRAM

UNITED STATES OF AMERICA

THE DEPOSITORY TRUST COMPANY'S OBSERVANCE OF THE
CPSS-IOSCO RECOMMENDATIONS FOR SECURITIES
SETTLEMENT SYSTEMS

DETAILED ASSESSMENTS OF OBSERVANCE

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Glossary

BCP	Business Continuity Plan
BEO	Book Entry Only
BITS	Banking, Infrastructure and Technology Services
CCP	Central Counterparty
CNS	Continuous Net Settlement
CPSIPS	Core Principles for Systemically Important Payment Systems
CPSS	Committee on Payment and Settlement Systems
CSD	Central Securities Depository
CUSIP	Committee on Uniform Securities Identification Procedures
DRS	Direct Registration System
DTC	The Depository Trust Company
DTCC	The Depository Trust and Clearing Corporation
DVP	Delivery-versus-Payment
EU	European Union
FDIA	Federal Deposit Insurance Act
FDICIA	Federal Deposit Insurance Corporation Improvement Act
FDIC	Federal Deposit Insurance Corporation
FOMC	Federal Open Market Operations Committee
FOP	Free of Payment
FR	Federal Reserve
FRA	Federal Reserve Act
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commission
ISO	International Organization for Standardization
MMI	Money market instruments
MSRB	Municipal Securities Rulemaking Board
NSCC	National Securities Clearing Corporation
NSS	National Settlement Service
NYSBD	New York State Banking Department
NYSE	New York Stock Exchange
OC	Operating Circular
OCC	The Office of the Comptroller of the Currency
RAD	Receiver Authorized Delivery
RCCP	Recommendation for Central Counterparties
RSSS	Recommendation for Securities Settlement Systems
SBP	Stock Borrow Program
SEC	Securities and Exchange Commission
SIFMA	Securities Industry and Financial Markets Association
SL	DTC's Stock Loan facility
SRO	Self-Regulatory Organization
SWIFT	Society for Worldwide Interbank Financial Telecommunication
TRADES	Treasury/Reserve Automated Debt Entry System
UCC	Uniform Commercial Code

Table 1. Detailed Assessment of Observance of the Depository Trust Company (DTC) of the CPSS-IOSCO Recommendations for Securities Settlement Systems

Recommendation 1.	Securities settlement systems should have a well-founded, clear and transparent legal basis in the relevant jurisdictions.
Description	<p><i>Accessibility of the regulatory framework (Q1)</i> Laws, regulations, rules, procedures and contractual provisions governing the relationship of DTC and its Participants are public and readily accessible to system participants (see Securities Exchange Act of 1934, SEC rules and regulations, Federal Reserve Act, Federal Reserve Bank Operating Circulars (OC), self regulatory organization rules and procedures and state laws, DTC's rules and procedures).</p> <p><i>Legal basis (Q2)</i></p> <ul style="list-style-type: none"> • Securities settlement activities are governed and regulated by specific laws and regulations, and the provisions in other financial legislation and regulations: Securities Exchange Act of 1934; <ul style="list-style-type: none"> • Securities and Exchange Commission rules and regulations; see particularly Sections 17A and 19 of the Securities Exchange Act and the rules thereunder; • Federal Reserve Act; • Federal Reserve Banks Operating Circulars (in particular OC 1, OC12, OC6,); • Self Regulatory Organizations Rules and Procedures; • New York State Law; • DTC's rules and procedures; • Article 8 of the Uniform Commercial Code; • Subpart B of regulation J incorporating the provisions of article 4A of the Uniform Commercial Code; • Federal Deposit Insurance Corporation Improvement act of 1991; • New York State Banking Law; and • Liquidation provisions of applicable federal and state banking laws. <p><i>Legal basis for Book-Entry Transfers and Pledges</i></p> <p><i>Enforceability of transactions</i> The legal framework provides a high degree of legal assurance that transactions are enforceable. The membership agreement (encompassing the system's rules and procedures) into which participants enter is enforceable under New York State law. In this regard, it is noted that each DTC participant is required to provide a Counsel opinion that the Participants Agreement it enters into and the rules and procedures of DTC are enforceable against it.</p> <p><i>Customers' assets protection</i> The legal framework provides a high degree of legal assurance that customers' assets are adequately protected. Any judicial proceeding concerning DTC's insolvency will be administered under the New York Banking Law or the U.S. Federal Bankruptcy Code. Besides, UCC Article 8, adopted by the State of New York, sets out rules regarding the rights and obligations of securities intermediaries (such as DTC and DTC's Participants) according to which a person that deposits securities with a securities intermediary obtains a "security entitlement." A "security entitlement" is a property right that a person obtains in the contents of a securities account with a "securities intermediary" which covers investor accounts with brokers and brokerage accounts with depository institutions.</p>

Generally under U.S. law, fully-paid for customer securities held in custody by an intermediary would not be deemed as assets of the intermediary. However, indirect holders are not entitled to claims against an issuer, but rather against the intermediary on whose records the security is reflected. For insured depository institutions, the process to distribute customer securities should the insured depository institutions become insolvent is governed by the liquidation provisions of the Federal Deposit Insurance Act (FDIA). These provisions generally provide that the beneficial owner of securities held by a failed bank normally would be entitled to the security if the customer's exclusive ownership is sufficiently documented. The failure of non-bank broker dealers would require application of other statutes: the Securities Investor Protection Act (SIPA) and the U.S. Bankruptcy Code. Other entities would be governed by the U.S. Bankruptcy Code.

Immobilization or dematerialization of securities

Article 8 of the Uniform Commercial Code sets out rules regarding the rights and obligations of entitlement holders, securities intermediaries, and other parties in both direct and indirect holding systems. The State of New York, domiciliary for DTC, has adopted revised Article 8 which sets forth the legal framework for the book-entry movements of securities at the depository. The Exchange Act also supports book-entry movement of securities. In particular, Section 17A of the Exchange Act directs the SEC to use its authority under this title to end the physical movement of securities certificates in connection with the settlement among brokers and dealers of transactions in securities consummated by means of the mails or any means or instrumentalities of interstate commerce.

Netting arrangements

U.S. law supports netting arrangements relating to securities transactions. In particular, the U.S. Federal Deposit Insurance Corporation Improvement Act of 1991, as amended (the FDICIA), supports "netting contracts" providing for the netting of payment obligations and payment entitlements between and among clearing organizations and their members. Under the FDICIA, a payment under a netting contract is not subject to disaffirmance by the receiver or trustee in a subsequent insolvency proceeding. The netting provisions of FDICIA were designed to reduce systemic risk to the financial markets. In addition, recent amendments to both FDICIA and the U.S. Bankruptcy Code contained in the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005 (the "2005 Amendments") include provisions that validate master netting agreements in respect of securities, commodities, forward, swap and repurchase transactions, and provide that the close-out and netting of transactions arising under such agreements may not be stayed or avoided in any bankruptcy proceeding brought under the Code, the Federal Deposit Insurance Act (FDIA), or the Securities Investor Protection Act (SIPA) (subject in the case of SIPA, to certain exceptions not relevant for clearing organizations).

Securities lending arrangements

Although U.S. law supports securities lending arrangements, DTC does not provide securities lending facilities to its participants but it does provide certain services that support securities lending activities by its Participants (as described below). Securities borrowing and lending facilities are provided by NSCC, through its Stock Borrow Program (SBP) (see RSSS 5 for details on the SBP).

Delivery versus Payment (DVP) and Settlement Finality

Section 8-501(b) of the Uniform Commercial Code (UCC), which has been adopted by New York State, provides that a person acquires a securities entitlement if a securities intermediary (e.g., DTC) indicates by book entry that a financial asset has been credited to the person's securities account. Furthermore, the UCC provides that a rule adopted by a

clearing corporation governing rights and obligations among the clearing corporation and its participants in the clearing corporation is effective even if the rule conflicts with the UCC or affects another party who does not consent to the rule.

As a condition to participation in DTC, each participant must agree in writing to, among other things, abide by the Rules and By-Laws of DTC and to be bound by all of the provisions thereof including the provisions prescribing the rights and remedies which DTC shall have with respect to securities held by or for the DTC in or for the participant's account and that the Rules and By-Laws are part of the terms and conditions of every contract or transaction that the participant may make or have with DTC. As noted above, Participant Agreements are enforceable under New York State law.

Under DTC Rule 9(B), when a participant (the "delivering participant") gives DTC an instruction to deliver securities versus payment the following steps are taken (provided the instruction complies with all relevant risk management controls):

1. DTC debits the account of the delivering participant and credits its own account by the amount of the number of obligations or the number shares or rights subject to the instruction (whereby DTC shall be the holder of the securities subject of the instruction);
2. DTC credits the account of the delivering participant and debits its own account by the amount of the payment specified in the instruction; and
3. The debits and credits to DTC's accounts are replicated as incomplete transactions in the accounts of the receiving participant and the collateral monitor of the receiving participant is appropriately adjusted.

For each business day, each incomplete transaction is converted to an effective transaction with finality as to the receiving participant at the earliest of:

- a) the time it is finally determined by DTC on that business day that the balance in the Settlement Account of the receiving Party for that business day is not negative;
- b) the time the receiving Party pays the amount of the negative balance in its Settlement Account, as finally determined by DTC for that business day to DTC; or
- c) the time during that business day when:
 - 1) in the case of a DVP, the receiving Party instructs DTC to effect a delivery, pledge or withdrawal of the securities;
 - 2) in the case of a pledge versus payment, the receiving Party instructs DTC to effect a delivery, release or withdrawal of securities;
 - 3) in the case of a release versus payment, the receiving Party instructs DTC to effect a delivery, pledge or withdrawal of securities; and
 - 4) in each case, the request shall pass applicable DTC relevant risk management controls.

Challenges by a Court

So far no court in the jurisdiction has failed to uphold the legal basis for DTC activities or arrangements.

Enforceability of rules and regulations in the event of a bankruptcy (Q3)

DTC rules and contracts between the participants are enforceable notwithstanding the insolvency of a participant because of: i) U.S. insolvency law, which does not include a zero hour rule; (ii) provisions of the Bankruptcy Code and FDIA, (iii) the requirement for a legal counsel opinion from each participant stating that the DTC rules are enforceable against it.

Conflict of law issues (Q4)

Several foreign CSDs and participants are participating in DTC and are subject to United States law on securities transfers and pledges (Uniform Commercial Code Articles 8 and 9).

	Foreign CSDs would look to courts in New York to uphold the validity of CSD's claims as a participant in DTC. However, for non-U.S. Participants, additional jurisdictions also may be relevant. In the case of foreign participants, DTC requires applicant to submit a foreign counsel opinion to evaluate the risk of conflict of laws.
Assessment	Observed.
Comments	
Recommendation 2.	Confirmation of trades between direct market participants should occur as soon as possible after trade execution, but no later than trade date (T+0). Where confirmation of trades by indirect market participants (such as institutional investors) is required, it should occur as soon as possible after trade execution, preferably on T+0, but no later than T+1.
Description	<p><i>Confirmation of trades between direct market participants (Q1)</i></p> <p>In the United States, trade confirmation is performed typically at the broker level through an exchange, trade matching facility, or CCP. Today, over 99 percent of trades submitted to NSCC are done so on a locked-in basis, meaning the trade is already compared when NSCC receives it. Broker-to-broker trades are typically matched at the marketplace of execution, such as an exchange. Other trades may be matched by a FINRA Trade Reporting Facility that provides trade matching.</p> <p>Representing the remaining one percent of the trades it clears, NSCC provides trade comparison services for broker-to-broker over-the-counter ("OTC") equity product and fixed income transactions that are not matched at the marketplace of execution. Over time, the percentage of transactions that participants submit directly to NSCC for comparison has dwindled because comparisons are provided in the various marketplaces at point of execution. In the case of municipal securities, however, by MSRB rules, brokers are required to report all trades in municipal securities to NSCC for trade matching. For corporate bonds, NSCC believes that the vast majority of inter-dealer trades are submitted to NSCC for comparison and settlement. The volume of equity transactions settled outside of NSCC, whether or not matched by a trade reporting facility, is market-driven and NSCC does not have ready access to such data or any obligation to monitor such data.</p> <p>Omgeo, an affiliate of NSCC, provides trade comparison services for institutional trades. Omgeo provides comparison, for the vast majority of transactions in DTC eligible securities settling at third party custodians pursuant to SRO rules. Broker-dealers are required to compare the terms of institutional transactions in equity and fixed income securities eligible for settlement at DTC where the transactions settle at a custodian acting as agent for the customer. Approximately 90 percent of institutional trades are affirmed by noon of T+2, the remaining 10 percent being instructed directly to DTC by the delivering DTC participant.</p> <p>Omgeo, users are notified of any unmatched trade on close to a real-time basis. Confirmations are usually available within 15 minutes of receipt of a broker's trade input. For participants using real time messages, the data is pushed to them as soon as it is available. For batch file clients, the data is written into their mailbox and is available within the 15-minute timeframe.</p> <p>The use of electronic trade confirmation systems obviates the need for direct market participants to confirm the terms of trades.</p> <p><i>Matching of settlement instructions (prior to settlement) (Q2)</i></p> <p>DTC does not match settlement instructions to prior to settlement. Under certain circumstances intraday, however, a receiving participant can return securities to the</p>

	<p>deliverer. On an average day, according to DTC, returns amount to less than 2 percent of the aggregate dollar amount of deliver orders and payment orders processed.</p> <p>The existence of “locked-in” trades and prompt pre-settlement comparison services provided by NSCC and Omgeo, achieve, to some extent, the goal of the recommendation. Moreover, the securities deliveries in DTC associated with transactions cleared by NSCC are instructed directly by NSCC, not individual Participants. Additionally, receiving participants can set individual bilateral limits against each possible contra participant, which enables the review of transactions above a certain amount before the transaction is processed through the Receiver Authorized Delivery (RAD) Function. DTC permits a receiver to review incoming orders before they are processed if the settlement value is above USD 15 million for a Deliver Order and USD 1 million if the transaction is a payment order (money only transaction typically used for mark to market). The receiver can raise their RAD limit but cannot reduce it.</p> <p>According to DTC, the US\$15 million limit was set to promote efficiency in the settlement process as this threshold reduces the number of transactions that participants would have to pre-approve, which could potentially cause blockages in the system. Also, DTC permits a receiver to return (reclaim) Deliver Orders under the threshold back to the delivering firm regardless of the original delivering participant’s risk management controls.</p> <p><i>Confirmation between direct and indirect participants (Q3)</i></p> <p>Trade confirmation procedures to compare trade information between direct and indirect participants by T+1 are available. Thus, for corporate and municipal securities, broker-dealers are required by SEC Rule 10b-10 on confirmation of transactions and the Municipal Securities Rulemaking Board (MSRB) Rule G15 on customers’ confirmation to provide written confirmation to their customers at or before completion of a transaction. Under SRO rules (e.g., New York Stock Exchange Rule 387), a broker-dealer extending DVP privileges to a customer (usually, an institutional investor) is required to use, and obtain the customer’s agreement that it will use, the facilities of a registered clearing agency, a service provider that has obtained an exemption from SEC registration (e.g., Omgeo) or a Qualified Vendor for the electronic confirmation and affirmation of all transactions in depository-eligible securities. For institutional trades, the institutions place the trade order with the broker/dealer.</p> <p>In terms of trend, the same day affirmation rate has increased over the years, and the T+2 affirmation rates has slightly decreased over the years. For broker trade input, the rates have improved slightly over the past year.</p> <p>The industry timeliness in which a broker submits trade input to Omgeo for the generation of confirms is: on Trade date = 88 percent; by T + 1 = 96.7 percent. The industry affirmation percentage, which is the timeliness of the affirmation of confirmations by institutions or their agents, is as follows: on trade date = 33.8 percent, by T + 1 = 86.2 percent, by noon on T + 2 = 88.8 percent.</p>
Assessment	Observed.
Comments	DTC should explore the possibility to introduce instructions matching mechanism prior to settlement.
Recommendation 3.	Rolling settlement should be adopted in all securities markets. Final settlement should occur no later than T+3. The benefits and costs of a settlement cycle shorter than T+3 should be assessed.

Description	<p><i>Rolling settlement (Q1)</i></p> <p>Current U.S. regulations and SRO rules are designed to ensure settlement of all relevant trades on a T+3 basis. Since the mid 1990s, the SEC has reduced the settlement cycle from five business days to three business days. U.S. practice in the equity markets is T+3, the normal settlement cycle for OTC eligible instruments is T+3, and the settlement cycle for the money market instruments (MMI) and stock loan markets, which are supported by DTC, is T+0.</p> <p><i>Failed trades (Q2) and risk implications of fails (Q3)</i></p> <p>Trades that fail to settle are monitored and margined by NSCC, as the CCP. NSCC, via the CNS system, records and reports monthly on the percentage of fails in the CNS system. There is no reporting of fail details at the member level. NSCC only recognizes the percentage of the value of the total CNS end of day fails relative to the total value of all CNS start of day transactions. In November 2009, CNS averaged a daily closing fail value of USD 35.7 million per day out of an average daily total CNS start value of USD 1.175 billion, for an average fail rate per day of 3.04 percent. However, fails are monitored and margined at the member level, and NSCC nets open fails positions with members' other settlement positions (see NSCC Tule 11 and procedure XV).</p> <p>The SEC publishes NSCC fails data on its website.</p> <p><i>Incentive to settle in time</i></p> <p>As an incentive to reduce fails, NSCC imposes a fail-to-deliver charge on those members who owe securities to CNS and fail to deliver. This charge increases as a fail remains outstanding over time. NSCC also maintains, as part of its margin formula, a component charge for CNS fails.</p> <p>U.S. banking regulators take a balance sheet approach under Basel I, under which a standard risk weight, usually 100 percent is applied to the full notional amount of trades that have failed to settle outside of a grace period (typically 5 days). The risk weighting for calculation is determined by the nature of the underlying asset.</p> <p>Under Basel II, failed trades require a capital charge that increases as the duration of the fail increases. Five days after the trade fails, the bank is required to book risk weighted asset equal to the difference between the trade price and the market value of the securities times a risk weight multiplier (which ranges from 100 percent at 5 days to 1.250 percent at 46 or more days). Similarly, under SEC capital rules for broker-dealers there is a capital charge for aged fails.</p> <p><i>Benefits and costs of a settlement cycle shorter than T+3 (Q4)</i></p> <p>Benefits and costs of a settlement cycle shorter than T+3 have been evaluated by the market under the aegis of the SEC. The cost/benefit analysis shows that at this stage the current T+3 settlement cycle is acceptable. See 2004 SEC Concept Release (Release No. 33-8398) and comments to the release that discusses the costs/benefits of implementing a settlement cycle shorter than T+3. For transactions cleared via NSCC, risks are mitigated by the CCP.</p>
Assessment	Observed.
Comments	
Recommendation 4.	The benefits and costs of a central counterparty should be assessed. Where such a mechanism is introduced, the central counterparty should rigorously control the risks it assumes.
Description	NSCC, a DTC affiliate, is the CCP for broker to broker equities and corporate and municipal

	<p>bonds trades in the United States. Securities transactions that are executed on SRO exchanges and other trading venues clear through NSCC.</p> <p>Not all broker-to-broker transactions settled at DTC are cleared through NSCC or through another CCP. Transactions settled at DTC that do not clear through NSCC or another CCP are generally OTC transactions in a range of assets including, for instance, MMI, foreign securities, collateralized debt obligations and mortgage backed securities other than U.S. Agency issues.</p> <p><i>Cost-benefit analysis</i> Neither market participants nor U.S. regulators have done a cost-benefit analysis for the use of a CCP for the products/transactions settled at DTC that are not cleared by a CCP. However, according to the authorities, for some of these instruments, such as single-day maturing MMI, no sufficient secondary market may exist to merit lengthy analysis.</p> <p><i>Risk management (Q2, Q3, Q4)</i> NSCC risk control measures are assessed against the RCCPs in a separate assessment.</p>
Assessment	Broadly observed.
Comments	For the observance of this recommendation, a cost-benefit analysis should be conducted of the introduction of a CCP for transactions settled through DTC but not cleared by NSCC.
Recommendation 5.	Securities lending and borrowing (or repurchase agreements and other economically equivalent transactions) should be encouraged as a method for expediting the settlement of securities transactions. Barriers that inhibit the practice of lending securities for this purpose should be removed.
Description	<p><i>Legal, fiscal and contractual impediments to securities lending (Q1)</i> Securities lending and repurchase arrangements in the United States are largely over-the-counter bilateral transactions. Securities trade associations, such as the Securities Industry and Financial Markets Association (SIFMA), have worked to develop standardized documentation and, where relevant, sought to remove legal impediments and obtain regulatory guidance on the treatment and enforceability of such transactions. Accordingly, DTC is not aware of any legal impediments to stock loan or repo transactions.</p> <p><i>Support of securities lending facilities (Q2)</i> Securities lending facilities are available as a method for expediting settlement.</p> <p>NSCC provides a Stock Borrow Program (SBP), which was approved by the SEC in 1981, and is operated as part of NSCC's Continuous Net Settlement (CNS) system. Briefly, it works as follows. Where insufficient shares of a particular security have been delivered through CNS on the settlement date, the SBP provides a mechanism whereby NSCC's CNS system will automatically borrow securities from participants who have (1) voluntarily made such shares available for loan to NSCC and (2) actually have such securities on deposit in their DTC accounts, in order for NSCC to fulfill its CNS delivery obligations to buying brokers. The borrowed securities are then utilized by the automated systems (along with securities delivered to CNS by selling brokers, without any distinction) to make deliveries to participants with the right to receive delivery (i.e., have a net long position), thus satisfying that portion of the open transaction. However, the participant that has failed to deliver nonetheless remains obligated to make delivery; the SBP has no effect on the continuing obligations of sellers who have failed to deliver.</p> <p>Although DTC does not operate a stock loan service or itself engage in securities lending activities, it does provide its participants with certain functionality designed to facilitate the</p>

	<p>settlement of the stock loan and repurchase transactions between participants. Specifically, DTC's Stock Loan (SL) and Repurchase (REPO) Income tracking system facilitates the exchange of funds between stock lenders and borrowers (or, as applicable, REPO purchasers and sellers) for particular corporate action events. The tracking process is initiated when a DTC participant completes a deliver order within DTC that is reason-code designated as an SL or REPO transaction. Each designated transaction creates a bilateral pairing of the delivering and receiving participant by applying the quantity of the designated transaction to an SL/REPO memo position that indicates the net lender/seller and borrower/purchaser for each security. On an income payment date, DTC automatically debits the account of the borrower and credits the account of the lender for the appropriate amount based on the SL/REPO memo position as of the record date. For reference, further detail describing the service may be found in DTC Important Notice 5731-09 (October 22, 2009), a copy of which is available on the website.</p> <p><i>Supervisory policies (Q3)</i> There is no specific regulatory regime for securities lending and repo transactions. The relevant supervisor and securities regulators supervise market participants' risk management practices regarding securities lending transactions.</p>
Assessment	Observed.
Comments	
Recommendation 6.	Securities should be immobilized or dematerialized and transferred by book entry in CSDs to the greatest extent possible.
Description	<p><i>Dematerialization and immobilization (Q1)</i> Although some securities (e.g., U.S. Treasury bills) are issued on a fully dematerialized basis, most securities issued to the public in the U.S. are in the form of one or more physical certificates. According to DTC, approximately 90 percent of corporate and municipal securities issued to the public are distributed through DTC and are represented by one or more physical certificates immobilized in the depository.</p> <p>Because of recent developments encouraging direct registration of investor interests without the issuance of certificates and discouraging certificate withdrawals from the depository, the trend is toward dematerialization. Thus, SIFMA, with the support of DTCC, has promoted enabling legislation in each State of the U.S. that didn't already permit corporations to issue shares in electronic form. A milestone was achieved in 2005 when Delaware, the State in which many corporations in the U.S. are organized, adopted that approach. With this supportive legislation enacted, beginning in January 2007, all newly listed issues on the NYSE, AMEX and Nasdaq were required to be made eligible for the Direct Registration System (DRS) - a statement form of ownership that was developed by DTC in concert with the bank and broker-dealer participants and the transfer agent community. DRS offers investors an alternative to a physical certificate. Effective March 2008, all existing listed issues were mandated to be DRS eligible. Based upon the cumulative success of these programs, in December 2008, the SEC approved a DTC rule filing that staged, first in January 2009 and then in July 2009, the eventual elimination of certificated withdrawals from DTC of securities that are eligible in the DRS system.</p> <p>Almost all municipal bonds and corporate debt issues distributed through DTC are in book-entry-only form. According to DTC, through August of 2009, over 99 percent of municipal and corporate debt by par value distributed through DTC was in book-entry-only form. It is noted, however, that there are many small issues for which distribution through DTC would not make sense (e.g., municipal debt to purchase a fire engine issued to one purchaser).</p>

	<p><i>Transfer of title (Q2)</i></p> <p>Generally a domestic participant depositing a securities certificate in DTC is given immediate credit for the deposit in the Participant's DTC account, however for certificates that are not in negotiable form (i.e. missing stock power) DTC operates a Branch Deposit Service (BDS), which allows firms to send these certificates to DTC and DTC will hold these positions in a segregated account until it receives the stock power and at that point the participant is given credit for the deposit.</p> <p>While DTC is not the official registrar, and the transfer on DTC's books does not affect the official register, under applicable commercial law, book-entry transfers by DTC and, in turn by DTC Participants are legally sufficient to transfer beneficial ownership. UCC Art. 8, adopted by the State of New York, sets out rules regarding the rights and obligations of securities intermediaries such as DTC and DTC's Participants according to which a person that deposits securities with a securities intermediary obtains a "security entitlement" which is a property right that a person obtains in the contents of a securities account with a "securities intermediary." That term encompasses investor accounts with brokers and brokerage accounts with depository institutions. In general, a "security entitlement" guarantees an entitlement holder a priority in the financial assets held in that account over the securities intermediary or the security intermediary's creditors. The securities intermediary must follow the entitlement holder's directions with respect to the contents of the account. In particular, the securities intermediary must honor an "entitlement order" which is a communication from the entitlement holder directing transfer or redemption of a financial asset in the account.</p>
Assessment	Observed.
Comments	
Recommendation 7.	Securities settlement systems should eliminate principal risk by linking securities transfers to funds transfers in a way that achieves delivery versus payment.
Description	<p><i>Technical and contractual framework (Q1)</i></p> <p>DTC operates a DVP Model 2 settlement system. Securities settle on a gross basis intraday and associated funds settle on a net basis at the end of the day. To facilitate the settlement of securities transactions during the day, DTC provides liquidity to participants, based on rigorous risk management procedures. The DVP transfer is initiated by the deliverer of securities by sending an instruction. DTC debits the securities from the account of the delivering participant and, at the same time, credits delivering participant the corresponding payment amount. DTC then reflects a payment debit and securities credit in the account of the receiving participant, treating the securities credit as an incomplete transaction.¹ Receiving participants can incur a net money debit during the day up to a net debit cap established by DTC. Intraday receipts of securities delivered versus payment (incomplete securities transactions) are deemed completed, that is final, at the earlier of end-of-day money settlement or at the time any intraday redelivery, pledge or withdrawal of securities by the receiving participant successfully passes DTC risk management controls. (This is further explained in RSSS 8.) DTC's settlement system will not process securities delivery instructions that do not pass its risk controls. Separately, securities deliveries and receipts on behalf of NSCC are provisional intraday and are not final until the end of the day (see below).</p> <p>To manage end-of-day money settlement risk, DTC uses several tools, including real-time monitoring to ensure that the participants will not breach their net debit caps established by</p>

¹ As a technical matter under DTC rules, DTC transfers the securities from the account of the delivering participant to an account of DTC, debits the account of DTC by the same payment amount and credits the delivering participant, and then replicates the money debit and securities deposit in the account of the receiving participant as incomplete transactions.

DTC, and that they have sufficient collateral to fully collateralize any net debits within their caps. DTC assigns net debit caps to individual participants and to corporate families of affiliated participants. Individual and family net debit caps are always set below DTC's available liquid resources. Full collateralization of any intraday net debit money positions assures that, should several major participants fail to pay for their net debit money obligations at the end of the day, DTC would have sufficient collateral value (inclusive of haircuts) to cover the participants' unpaid obligation. Net debit caps and collateral controls are designed to assure that the net money debit of a participant cannot exceed the liquidity and collateral value available to DTC for end-of-day settlement. (These controls are described in greater detail in RSSS 9.)

DTC also settles the net securities deliveries and receipts on behalf of NSCC. NSCC maintains a securities account at DTC for purposes of settling net securities amounts coming out of NSCC's Continuous Net Settlement (CNS), which is the primary clearing mechanism for the New York Stock Exchange (NYSE), American Stock Exchange (AMEX), National Association of Securities Dealers (NASD), and other marketplaces. For each security, CNS nets down to one net buy and/or sell on all trades expected to settle on the next settlement day, including trades unable to settle on the previous settlement day. After the trades are netted, free book-entry movements at DTC to or from Omnibus Account allow NSCC participants to deliver short covers to NSCC and receive long allocations. On the settlement day, NSCC instructs DTC to make deliveries of securities from participant accounts that have a CNS net short (delivery) position to NSCC's CNS account at DTC, and then to redeliver securities from the CNS account to participants with a CNS net long (receipt) position. Under NSCC's rules, CNS securities deliveries to the receiver are provisional intraday and are not final until payment is received at the end of the day. Securities deliveries to/from NSCC's CNS account at DTC are made free of payment in DTC. NSCC calculates a separate net money settlement for its participants. To process transactions smoothly between DTC's system and the CNS system, DTC and NSCC have put in place certain collateralization arrangements and financial guarantees to ensure that:

- Debits created in DTC's system continue to be collateralized when the securities serving as collateral are delivered as CNS short covers, and
- Long allocations, or approximate values of long allocations, are made available to NSCC to cover certain exposures.

Optimization process of securities settlement

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

Cash settlement

Intraday, the settlement of payment occurs by that DTC credits the settlement account of the delivering securities participant and debits the settlement account of the securities receiving participant, subject to risk management controls (net debit caps and collateral controls). During the day, participants receive incoming securities to the extent their payment settlement account has sufficient net payment credits or sufficient net payment debit capacity and subject to DTC's net debit cap and collateral controls. At the end of the day, the final net payment debit or net payment credit in a participant's Settlement Account is settled by funds transfers through the Federal Reserve's National Settlement Service (NSS). DTC's End-of-Day Settlement Processing controls and coordinates the settling of participant accounts and settling bank accounts on DTC's systems. A settling bank is a bank participant that settles for itself and may settle for other participants, including other bank participants.

	<p>A settling bank must have access to the Federal Reserve's Fedwire system. To complete the money settlement that takes place at the end of the day, DTC and NSCC each separately calculate the net money position for each of their respective participants. DTC and NSCC then net the money settlement balances of each DTC participant who also is a member of NSCC (common participants). Once final net-net money settlement figures have been calculated and acknowledged by the designated settling bank for each participant, DTC submits a file of money debits and credits by settlement bank through the Federal Reserve's NSS in order to complete money settlement. This settlement file is typically submitted to the Federal Reserve between 16:00 and 16:30 ET. The Federal Reserve then processes the file, checking to see that settlement banks with a net debit entry have sufficient funds or credit in their Federal Reserve account to settle and if so, transferring the money to a temporary (technical) settlement account for the arrangement. Once all debits have been collected, funds are then credited to settlement banks in a net credit position. All debits and credits are final at the time they are made by the Federal Reserve.</p> <p>In accordance with Federal Reserve procedures, if a debit cannot be processed due to insufficient balances or credit, the Reserve Bank will promptly notify DTC, as the settlement agent. If the rejected debit is due to a settlement bank failure or a participant failure, then the Federal Reserve would expect DTC to arrange to transfer into the NSS technical settlement account by Fedwire Funds Transfer sufficient funds to permit settlement to proceed. DTC would likely obtain such funds from its liquidity resources. For a participant that fails to settle its net money obligation, any securities in the failing participants account designated as "incomplete transactions" (see above) would not be final to the failing participant. In such case, DTC will hold the entire interest in, and shall have the authority of a holder of securities to act, in its sole discretion, to issue or transfer the entire interest in such securities of the failing participant, including the authority to sell, pledge or otherwise dispose of such securities. This procedure is not applicable to a participant that successfully passes DTC risk management controls and the intraday receipts of securities have reached finality during the day.</p> <p>Amount of transactions settled on a DVP basis (Q2) All valued transactions in DTC are settled on a DVP basis.</p>
Assessment	Observed.
Comments	
Recommendation 8.	Final settlement on a DVP basis should occur no later than the end of the settlement day. Intra-day or real-time finality should be provided where necessary to reduce risks.
Description	<p><i>Timing of settlement finality (Q1)</i> DTC provides for both end-of-day and intraday finality.</p> <p>Net money settlement occurs and is final at the end of the day. NSS funds transfers are immediately final when effected. Under DTC's rules (9B), a DVP securities transfer is final and irrevocable as to the delivering party once the securities transfer has successfully passed DTC risk controls and the securities have been debited from the delivering party's account. In other words, deliverers of securities cannot take back securities transferred to another participant. The fact that finality of the cash takes place at the end of the day does not have any impact on the finality of the securities delivery. Furthermore, even in the event of a default of the delivering party, the delivered securities cannot legally be considered as part of the defaulting securities holdings.</p> <p>Securities deliveries are final and irrevocable as to the receiving party either at the end of the day or intraday. In particular, finality is achieved at the end of day, when (i) DTC has</p>

determined that the final cash balance in the settlement account of the receiving party for the business day is not negative (that is, at the end of the day, the participant does not owe money); or (ii) when the receiving party pays the amount of the negative balance in its settlement accounts determined by DTC for that business day (that is, at the end of the day the participant pays money that it owes). Free of payment (FOP) deliveries, such as CNS deliveries, are final and irrevocable (see Recommendation 1 on finality).

Alternatively, intraday finality for both internal cash transfer (in terms of net debit) and securities delivery is achieved so long as DTC's risk management controls are satisfied. In particular, the receiving participant instructs DTC to effect a delivery, pledge or withdrawal provided they comply with DTC risk control measures. This means that, during the day, a participant with a net receiving credit in its payment settlement account would be able to receive securities or redeliver securities previously received, if the receipt or deliver transaction pass DTC's risk controls, i.e., are within the participant's net debit cap and any resulting net debit remains fully collateralized (see Recommendation 9). The participant's original receipt of the securities and re-delivery of the securities are both final at this time, and such finality is legally enforceable. DTC's settlement system will not process securities delivery instructions that do not pass its risk controls. Although internal cash balances can be reused during the day, the ultimate finality of the cash transfers are achieved at the end of the day through a net settlement process using the Federal Reserve's NSS (see R555 7).

Needs for intraday finality (Q2)

As described above, DTC provides for intraday finality. Securities deliveries as to the deliverer are final intraday when the deliverer's DTC account is debited securities and credited the associated payment obligation (final payment of net money credits/debit occurs at the end of the day in central bank money). As to the receiver intraday finality is achieved if and when the receiver instructs DTC to redeliver, transfer or pledge received securities all DTC risk controls are met. However, cash transfers outside DTC can be effected with finality only at the end of the business day.

Unilateral revocation of settlement (Q3)

Under certain circumstances, intraday, a receiving participant can return securities to the deliverer. Participants are not required to inform DTC of the reasons for returning securities. The return of securities is subject to DTC's risk management controls except for securities with a settlement value below USD 15 million and payment orders below USD 1 million or if not returned on the same day as the original delivery. Returns amount to less than 2 percent of the aggregate dollar amount of deliver orders and payment orders processed on an average day. A deliverer participant cannot take back securities that have been delivered to other participants.

Returns do not take place after settlement finality is achieved: certain limited returns may either occur on the same day as the original delivery prior to 3.30 pm for settlement on that day, or on a subsequent day and are settled like any other delivery on that subsequent day. For a return made on the original delivery day, there is some relief from risk management controls and RAD restrictions:

- Same-day matched returns of Deliver Orders less than \$15 million are not subject to risk management controls.
- Same-day matched returns of Payment Orders less than \$1 million are not subject to risk management controls.
- Same-day matched returns of both Deliver Orders and Payment Orders are not subject to RAD restrictions and are permitted until 3:30 p.m.
- Returns of Deliver Orders and Payment Orders processed on a business day after the

	settlement day of the original are subject to risk management controls and RAD restrictions.
Assessment	Observed.
Comments	<p>The DVP Model 2 is characterized by intraday securities deliveries and end of day net money settlements. Without additional safeguards this design would expose DTC participants to principal and liquidity risk, potentially with systemic implications, in the event that the participants fail to meet their cash obligations at the end of day. However, DTC has in place measures to limit and control these risks.</p> <p>DTC should consider to conducting additional net funds settlement batches during the day in order to provide intraday finality for participants' net payment obligations, which will allow participants in a net credit position to have earlier access to their liquidity should they need to use such liquidity outside of DTC. However, additional intraday money settlement batches would place liquidity demands on participants in a net debit position, which would be obligated to make their payments during the day rather than at the end of the day.</p>
Recommendation 9.	CSDs that extend intraday credit to participants, including CSDs that operate net settlement systems, should institute risk controls that, at a minimum, ensure timely settlement in the event that the participant with the largest payment obligation is unable to settle. The most reliable set of controls is a combination of collateral requirements and limits.
Description	<p><i>Extension of intraday credit and risk management procedures (Q1)</i></p> <p>DTC facilitates securities settlement by providing intra-day funds accounts to Participants with positive net funds positions representing an end-of-day claim on the DTC and negative net amounts representing a claim by DTC on the Participant. The balances of the banks, acting as cash clearer, are settled at the end-of-day payment exchange process. To ensure timely settlement in the event of an inability to settle by the Participant or affiliated family of participants with the largest net money obligation, DTC limits settlement credit exposures by setting net debit caps for all participants and all affiliated families of participants and requiring that all net debits with caps are fully collateralized. DTC also maintains a Participant Fund and committed lines of credit among other risk controls (see below). If DTC's participant fund and collateral is insufficient to cover liquidity demands or credit losses, DTC would allocate these losses to surviving participants.</p> <p><i>Credit risk controls</i></p> <p>The credit risk associated with Participants' net cash settlement obligations is managed by limits on the maximum payment obligations that a participant can create in the system (debit cap) and collateralization of those payment obligations. The application of net debit cap controls ensures that the amount of the settlement obligation of any Participant or affiliated family of Participants will not exceed liquidity resources available to DTC to finance settlement notwithstanding the failure of said Participant or affiliated family.</p> <p>Collateralization ensures that a Participant that fails to pay for its settlement obligation will have collateral value (inclusive of haircuts) in its account sufficient for DTC to pledge to secure loans in an amount sufficient to cover the amount of the Participant's settlement obligation. With these loans, DTC will be able to complete money settlement for all non-defaulting Participants. DTC's real time risk controls prevent the completion of transactions that would cause a Participant's net debit to rise above its net debit cap or would cause this net debit to exceed the Participant's collateral value. Transactions that would cause either insufficient collateralization or a breach of the net debit cap of either the delivering or receiving Participants will not be completed by DTC (all risk controls must be met by both parties).</p>

The net debit cap of a Participant is calculated as the least of 4 amounts: (a) a net debit cap based on the 3 largest net debits that each Participant incurs over a rolling 3-month period; (b) an amount, if any, determined by the Participant's settling bank; (c) an amount, if any, determined by DTC; or (d) US\$1.8 billion. Affiliated family net debit caps are limited to US\$3.0 billion or less.

DTC monitors the value of the collateral supporting each Participant's net debit in DTC's settlement system through its Collateral Valuation System based on the daily receipt of pricing and rating data from independent and internal sources. A security designated as collateral by a Participant is valued based on the security's prior business day's closing market price, less a haircut. To provide additional comfort regarding its sufficiency of collateral, DTC currently monitors participants whose excess collateral value is less than 300 percent of their end-of-day net debit. According to DTC, to-date, results have indicated no problems to report. Stress testing is conducted to determine the largest haircuts that DTC could absorb when pledging collateral to borrow against its committed lines of credit and still satisfy the liquidity need of the single largest family.

Liquidity risk

Complementing these risk controls to limit possible DTC exposures to any one Participant or affiliated family of Participants, DTC maintains committed liquid resources in excess of its capped exposures. DTC maintains a Participants Fund and has committed lines of credit (together totaling \$3.2 billion at present). In the event of a Participant's failure to settle, DTC will successively access its liquidity resources in the following manner:

- First DTC will use the defaulting Participant's contribution to the Participants Fund in satisfaction of the defaulting Participant's settlement obligation.
- If that amount is insufficient, DTC will then borrow on its name from the non-defaulting Participants' contributions to the Participants Fund to complete settlement. Such borrowing may be secured by collateral of the failing Participant.
- Should this amount be insufficient, DTC will borrow from its committed lines of credit to secure a loan for settlement. The loan is to DTC as principal to be used for settlement of the amount of the obligations of the defaulting participant. (The obligations of the defaulting participant are not settled by DTC on behalf of the defaulting participant.) DTC will make use of its committed line of credit for funds needed by the end of the day. As security for the loans, DTC pledges securities which have been designated as collateral—all debits are fully collateralized—of the failing Participant.
- Finally, in situations involving multiple failures that exceed the depository's committed liquidity resources to settle, DTC may borrow from some or all of its Participants an amount up to the entire amount of the end-of-day credit balance due to Participants on the business day on which the settlement failures occur.

Replacement cost risk

In pledging collateral to secure a loan for settlement, DTC is potentially exposed to market risk if adverse market conditions (collateral price declines) result in the value of collateral not being sufficient to repay the loans for settlement. However, in that event, any loss would, up to specified limits, be mutualized among DTC Participants as provided in its Participants Agreement, Rules (see DTC Rule 4) and procedures. As noted above, DTC marks collateral to market daily and applies haircuts to mitigate this risk.

Overdrafts or debit balances in securities (Q2)

DTC does not permit participants to incur overdraft or debit balances in their securities accounts. However, on occasion a shortfall of securities in a Participant's securities account

	<p>may be inadvertently created by the failure of a transfer agent to re-register, in a timely manner, deposited securities in the nominee name of DTC. Under DTC's Rules, Participants are obligated to cover their short positions immediately as the maintenance of short positions causes an inventory shortfall for DTC. In order to mitigate the associated risks, DTC will debit the Participant's cash account for 130 percent of the market value of the securities to offset any credit for the redelivery plus a margin of safety to mitigate market risk and protect DTC until the position is covered. The 130 percent figure reflects the best judgment of DTC that this is an appropriate interim adjustment.</p> <p><i>Evaluation of the probability and impact of multiple fails (Q3)</i> DTC's risk management controls are designed to ensure that DTC can cover the failure of its single largest participant or largest family of affiliated participants. By ensuring it has sufficient liquid resources to complete settlement in the event of the failure of its largest family of affiliated Participants, DTC inherently is protecting itself against the failure of more than one participant. Additionally, the net debits of all Participants are fully collateralized. Thus, the possible failure of multiple Participants beyond DTC's committed liquidity resources would not cause DTC to have uncollateralized exposures. So far, DTC has never had to draw on its lenders for liquidity to finance settlement and has never failed to complete end-of-day net money settlement.</p>
Assessment	Observed.
Comments	Although DTC currently has sufficient liquidity resources to protect against the failure of the largest affiliated family of Participants, more extreme cases of multiple failures could test DTC's liquidity resources. To this end, this assessment recommends that DTC should be given access to central bank liquidity facilities.
Recommendation 10.	Assets used to settle the ultimate payment obligations arising from securities transactions should carry little or no credit or liquidity risk. If central bank money is not used, steps must be taken to protect CSD members from potential losses and liquidity pressures arising from the failure of the cash settlement agent whose assets are used for that purpose.
Description.	<p><i>Settlement asset (Q1)</i> During the day, cash settlement takes the form of a net debit balance provided by the system takes place (cf. commercial bank money), while at the end of the day final cash settlement occurs in central bank money. Intraday, the settlement of cash payment occurs by that DTC credits the cash settlement account of the delivering securities participant and debits the cash settlement account of the securities receiving participant for their respective payment obligations resulting from the securities transfer. Participants may incur net debit (money owed) payment obligations during the day up to their net debit cap. The received credit can be used to settle another securities transaction.</p> <p>At the end of day, DTC uses the Federal Reserve's NSS to complete end-of-day cash settlement, collecting net debits from and distributing net credits to participants' designated settling banks. Settling banks are DTC members having access to Fedwire Funds and the NSS. Settling banks settle for their own accounts and may also settle for other participants. Participants are required to designate a settlement bank for settling their payment obligations with DTC (Rule 9(B)). The Federal Reserve NSS service supports settlements in USD only.</p> <p>DTC is a limited purpose trust company organized under the NY Banking Law and a member bank of the Federal Reserve. DTC indicated performing risk assessments of its non settlement activities. In particular, DTC indicated that when considering the introduction of a new service, the system's senior management conducts a review that includes a risk assessment that may be reviewed by the Internal Risk Management Committee counsel, internal auditors, and DTC's independent external auditors and overseen by the appropriate</p>

committee of DTC's Board of Directors.

DTC has established a link to the Canadian CSD (CDS Clearing & Depository Services, Inc. ("CDS")) that supports transactions settled in Canadian dollars. It enables DTC participants to clear and settle cross-border Canadian dollar securities transactions. The settlement of the Canadian dollar securities are settled through a Canadian settlement bank acting for DTC. At the end of the settlement day, DTC performs a single net Canadian dollar settlement with CDS. To do this, DTC has engaged a cash correspondent bank in Canada which acts as DTC's settlement agent for Canadian dollars. The cash correspondent bank collects Participant's net settlement debit balances due to DTC and pays net cash settlement credit balances on behalf of DTC. If this private bank were to fail during the period pay-ins are received but have not yet been paid out, DTC would still be responsible for making the pay-outs to its participants. DTC would generally pass these losses on to its participants. However, this potential credit loss may represent a systemic risk for DTC, although such a risk is remote and the amounts are small relative to overall DTC settlement.

Concentration of settlement banks' exposures (Q2)

According to DTC rules and procedures, a settling bank is a bank or trust company, subject to supervision or regulation pursuant to Federal or State banking laws, and a party to an effective Settling Bank Agreement.

Following DTC rules and procedures (Rule 9D), a settling bank must meet the following conditions: a settling bank must be a DTC Participant bank and therefore meet the membership criteria laid down in DTC's rules and by laws and have access to both NSS and Fedwire.

A settling bank will settle for itself and may also settle for other participants. Participants in DTC choose their settling bank and possibly a "back-up settling bank" in DTC terminology which would be used in case the settling bank normally used by the participant is unable to perform its payment obligations. In case a participants' settling bank or back-up settling bank refuses to settle on its behalf, the participant remains obligated to settle with DTC directly by making arrangements with another bank, which may be a non-DTC-Participant bank, to wire funds to DTC's account at the Federal Reserve Bank of New York to satisfy the Participant's settlement obligation.

DTC advised that, as of February 4, 2010, 62 settling banks were used, 21 of which settle for their own accounts as well as other DTC Participants. These numbers will, naturally, vary over time due. Factors which affect these numbers include the addition of new Participants, which might be settling banks, and other industry developments, including mergers and acquisitions. On any business day, payment flows tend to be highly concentrated in the top five banks representing around 70 percent or more of the total payment flow but which banks are the top five banks may vary from time to time.

Settling banks are monitored by DTC's risk management department but DTCC does not monitor the concentration of payment flows of the settlement banks. However, settlement banks are subject to supervision and regulation by their federal and state regulators. The financial conditions of the settlement banks, including their intraday positions, are monitored and evaluated by banking supervisors. *Proceeds of securities settlement (Q3)* To complete end-of-day cash settlement, net-net obligations are debited from and credited to settling banks' Federal Reserve accounts over NSS – these payments are final and irrevocable when made and are available for immediate use. The Settling Bank would then credit the accounts of its customers (DTC Participants) owed credits from DTC. The individual account agreements in place between the Settling Bank and its Participant

	<p>customer would establish the timing of the Participant's use of the funds credited to its account.</p> <p>For instruments for which principal and income payments are due, participants may be entitled to payment on such instruments. In such case, subject to DTC's risk management controls participants are allowed to withdraw such payments on an intraday basis once DTC has been funded by the paying agent.</p> <p>Subject to DTC's risk management controls, DTC allows Participants to withdraw, on an intraday basis, redemption, reorganization, and dividend/income payments for which DTC has been funded by the paying agent and which DTC has allocated to Participants.</p> <p><i>Compliance of the relevant payment system with CPSIPS (Q4)</i> The relevant payment system is the Federal Reserve's NSS. Although the Federal Reserve has not published a self-assessment of NSS against the CPSIPS, NSS provides Fedwire-like payment finality, uses the same risk controls as those used for Fedwire, and shares the same business continuity model as the Fedwire Funds Service. Furthermore, DTC has the capability to settle its end of day positions through the Fedwire Funds Service if necessary. The Federal Reserve regularly publishes the self-assessment of the Fedwire Funds Service.</p>
Assessment	Observed.
Comments	<p>There is a high concentration of payment flows at the top five settling banks. DTC should continue to monitor the financial conditions and should begin monitoring the exposures of the settlement banks. Moreover, DTC needs to reduce the concentration of settlement cash for Canadian dollar. DTC may explore the possibility to of becoming a direct participant of the Canadian RTGS system.</p> <p>The self-assessment of the Federal Reserve's NSS against the CPSIPS should be reviewed by the relevant authorities and made public.</p>
Recommendation 11.	Sources of operational risk arising in the clearing and settlement process should be identified and minimized through the development of appropriate systems, controls and procedures. Systems should be reliable and secure, and have adequate, scalable capacity. Contingency plans and back-up facilities should be established to allow for timely recovery of operations and completion of the settlement process.
Description	<p>The description for this recommendation is very similar to the one of FICC and NSCC given that business continuity arrangements are organized at the holding company level.</p> <p><i>Identification and management of operational risk (Q1)</i> Business continuity requirements, sound practices, and objectives for U.S. infrastructure are established in the "Interagency Paper on Sound Practices to Strengthen the Resiliency of the U.S. Financial System". In principle, DTC, NSCC, FICC, Euro CCP and Trade Information Warehouse are different applications in the same mainframe. This does not create undue operational risk or interdependences on operational reliability since the applications of the various systems are clearly separated. There is a central Corporate Business Continuity function, which coordinates Business Continuity Plan (BCP) activities and planning for DTCC and all its subsidiaries.</p> <p>DTCC identifies sources and mitigation tools for operational risks through a number of dedicated permanent groups: the Operational Risk Group (develops and oversees operational risk management program), the Internal Risk Management Committee (evaluates and coordinates the risk management activities within the company), a high level Security Committee (addresses key areas of security risks associated with information services), and</p>

the Internal Audit Department (reviews the adequacy of internal controls, procedures and records of the company with respect to operational risk) and independent accountants.

Contingency plans and back-up facilities (Q2)

DTC has a formal BCP aimed at addressing events posing a significant risk of disrupting its operations. In support of DTC's business, DTCC operates data centers and staff in multiple locations. The BCP is tested several times in a year both from the technological and from the business perspective. Contingency plans and back-up facilities for the failure of key systems are not tested and reviewed with participants (only connectivity is tested with the critical participants). The out of region data centre is a warm site with 2 hour recovery capability. The site is fully staffed requiring no movement of personnel. Out of region business operations sites are hot sites. Contingency plans for the failure of the key systems are tested with critical participants. These critical participants represent 80% of DTC's total transaction volume and value. Many of DTC's smaller participants do not have dedicated backup facilities and rent or share space, often with a recovery vendor. DTC does not feel that it would be cost-effective to require those smaller participants (who together represent only 20% of transactions) to activate their recovery contracts and sites to verify connectivity with DTC's out-of-region backup site. The additional testing could impose a significant burden on smaller participants in exchange for a relatively small benefit.

DTC explained that the DTCC data centers in the New York region act as a single data centre and provide secondary backup to both systems and the entire facility. In the event the New York region data centers are not available, the out of region recovery site is available to recover all critical systems. Failover and recovery of any data centre does not require changes by participants. The network automatically reroutes the client traffic from their primary or backup sites to the recovered data centre. Therefore, it is not relevant to test the failure of one key system with the participants. It should be noted that while the connectivity test (from DTC and participants first and secondary sites) is conducted with all DTC participants when they join the system, this test is then conducted on an annual basis only with participants deemed critical by DTC. However, DTCC does not test its back-up sites to participant backup sites for the critical participants.

DTCC currently uses the Banking, Infrastructure and Technology Services (BITS) Shared Assessments Program to both describe DTC's Business Continuity and Information Security control structure in response to DTC participant inquiries and to evaluate DTC's service providers' Information Security controls.

Each year DTCC updates a white paper describing the DTCC BCP program and make it available to participants on DTCC's website. In addition, DTCC has produced an "Out-of-Region" guide to aid clients in reconciling transactions in the unlikely event that DTCC is forced to move to its out-of-region processing site. Data centre failover tests are conducted 3-4 times per year. Business Operations tests are conducted throughout the year.

Adequate management controls and periodic independent audit

Operational reliability issues are regularly reviewed by DTCC's senior management, including managers not responsible for the relevant operations of DTC. Operational issues are also reviewed by internal audit as well as review by DTC's external auditors. Deloitte LLC issued the most recent report for DTC on October 30, 2009, for the year ended June 30, 2009. These reports are available on the DTCC website.

Availability and scalability of the system (Q4)

According to DTC, no system failures occurred in the past year; however on the night of 3/27/08, a few delays were encountered in key systems following changes to a database

	<p>utility. A cut off time was affected which resulted in certain deliver orders not being processed in the night cycle. All affected transaction were processed in the day cycle during the following morning and successfully settled. DTC reported in late 2009 that the system availability for DTC systems was 100 percent, year to-date.</p> <p>With respect to processing capacity, DTCC maintains sufficient capacity to meet processing demands in stressful market conditions. For clearance and settlement purposes, DTC can process in excess of 2 times their respective historical peaks in a processing day. DTCC has dedicated capacity planning staffing and ensures that DTC has sufficient capacity to meet operational needs in all data centers. Daily, weekly and monthly capacity/utilization reports are generated and reviewed by the Infrastructure Department to track growth against projections and a yearly annual Capacity Planning Report is produced and presented to the Board of Directors, and to DTC's regulators.</p>
Assessment	Observed.
Comments	<p>Contingency plans and backup facilities for the failure of key systems are not tested and reviewed with participants (only connectivity is tested with the critical participants). NSCC explained that the data centers in the New York region act as a single data centre and provide secondary back-up to both systems and the entire facility. In the event that New York region data centers are not available, the out of region recovery site is available to cover all critical systems. Failover and recovery of any data centre does not require changes by participants. The network automatically reroutes the client traffic from their primary or backup sites to the recovered data centre. Therefore, it is not reliant to test the failure of one key system with the participants.</p> <p>DTCC should test its back-up sites to critical participants' backup sites.</p>
Recommendation 12.	Entities holding securities in custody should employ accounting practices and safekeeping procedures that fully protect customers' securities. It is essential that customers' securities be protected against the claims of a custodian's creditors.
Description	<p><i>Protection of customers' assets</i></p> <p>DTC is the clearing corporation at the top of a chain of ownership for many securities in the "indirect holding" system that characterizes the U.S. market for securities and is provided for in UCC Article 8. The nature of this system is that securities are registered on the books of the issuer (or its transfer agent) in the name (or nominee name) of securities intermediaries (such as DTC or its Participants), rather than in the name of the ultimate beneficial owner. Securities intermediaries, such as DTC and its Participants, maintain securities accounts for their customers, to which securities are credited, giving rise to a security entitlement of the customer to the securities so credited to the securities account. For DTC, this means that securities are registered in its nominee name, Cede & Co., and DTC credits the securities to securities accounts of its Participants. In turn, these Participants credit the securities to securities accounts of their customers, which may be the ultimate beneficial owners or further securities intermediaries, and so forth down the chain of interests to an ultimate beneficial owner. The intermediaries are responsible for the management of securities holdings in their client accounts, again through book-entry systems. Each entitlement holder in the chain only has rights against its securities intermediary and not against intermediaries further up the chain or the issuer, which only recognizes the party that is the registered owner on its books (in most cases, Cede & Co. for DTC). Securities held in the indirect holding system may be certificated or uncertificated. In the U.S., with some exceptions such as Federal Reserve book-entry securities (e.g., U.S. Treasury bills, bonds and notes), most securities are still issued in the form of one or more certificates which, in the case of DTC, are held as further explained below in the description of the FAST system.</p>

With regard to claims on securities of a Participant that are segregated by the Participant, including fully paid customer securities, DTC does not have any lien on or interest in such segregated securities (*see* DTC Rule 6). Under DTC Rules, other securities held by Participants, including securities that are the subject, intraday, of a DVP, are held subject to DTC's interest in them and right to pledge them to its creditors.

Any judicial proceeding concerning DTC's insolvency will be administered under either the New York Banking Law or the U.S. Federal Bankruptcy Code. Under the Uniform Commercial Code, securities intermediaries, including DTC, are required to maintain a sufficient quantity of investment property (e.g., securities) to satisfy all of their customers' claims. As a registered clearing agency, DTC is subject to Section 17(A)(b)(3)(F) of the Exchange Act which requires that the rules of the clearing agency be designed to, among other things, "assure the safeguarding of securities and funds which are in the custody or control of the clearing agency or for which it is responsible".

DTC protection against liability loss

DTC maintains insurance coverage for customers as follows: US\$850 million aggregate on premises and/or in-transit coverage under blanket bond/all-risk policies; US\$800 million aggregate in-transit coverage under an all-risk policy; and an additional limited coverage for mail losses. DTC does not have financial guaranty insurance.

Account segregation

Under the Securities Exchange Act and the rules thereunder, broker-dealers are required to segregate their holdings from their customer's fully paid securities. DTC participants can use the DTC system to achieve this segregation or can do it on their own books. This choice is at the discretion of DTC's participants. DTC only sees the participant and is not aware of the option chosen by a participant to segregate its holdings from its customer's assets.

Inventory control and reconciliation

The DTC rules and procedures require participants to reconcile their activity and positions with DTC upon receipt from DTC of the participant position statement and daily activity statement but DTC does not know how often the participant reconciles its own internal booking. DTC is subject to mandatory external audit. DTC's custodians are contractually prohibited from using the securities custodied with them.

At the end of each day, DTC prepares a Participant Position Statement that details a Participant's DTC securities holding, as well as a Participant Daily Activity Statement for each Participant that details the opening balance, activity, and closing balance for each security issue in which the Participant had activity on that day. The Rules and Procedures of DTC require Participants to reconcile both their activity and positions with DTC upon receipt from DTC and to immediately report any discrepancies. DTC takes several steps to reconcile its securities records: In DTC's FAST Automated Securities Transfer ("FAST") Program, pursuant to which a significant portion of securities custodied by DTC are in turn sub-custodied, a transfer agent acts as custodian for securities registered in the name of Cede & Co., nominee of DTC. The transfer agent is obligated to confirm daily with DTC the balances of the securities.

Since FAST securities are not under DTC's direct physical control, DTC receives reports on the internal controls of the transfer agent from their independent accountants annually. Entities holding securities on behalf of DTC confirm the number of shares, units, or obligations daily. Some securities are kept in custody by DTC itself.

	<p><i>Audits of inventory management procedures</i> DTC's Internal Audit Department and its independent accountant regularly review the adequacy of DTC's internal controls, procedures, and records. Evaluations of DTC's financial statements and internal controls over securities and related monies processed and/or held for Participants and others are conducted on a periodic basis. Such examinations cover all critical processing areas of the operation, as well as the data processing environment</p> <p><i>Supervision/regulation of entities holding customers' securities in custody (Q3)</i> DTC is regulated by the SEC and the Board of Governors of the Fed and NYSBD. These regulators and DTC's internal and external auditors regularly review the adequacy of DTC's internal controls, procedures, and records.</p>
Assessment	Observed.
Comments	
Recommendation 13.	Governance arrangements for CSDs and central counterparties should be designed to fulfill public interest requirements and to promote the objectives of owners and users.
Description	<p>The description for this recommendation is very similar to the one of FICC and NSCC given that there is a single governance structure organized at DTCC holding company level.</p> <p><i>Clarity and transparency of Governance arrangements (Q1)</i> DTCC is a holding company of DTC, FICC and NSCC and there is a single governance structure for the three clearing agencies. DTCC governance arrangements are available publicly and updated on a yearly basis (last update October 2009). DTCC common shareholders include approximately 362 banks, broker-dealers, mutual funds and other companies in the financial services industry participating in one or more of DTCC's clearing agency subsidiaries, including DTC.</p> <p>Certain governance information is publicly disclosed and other information is not because it is confidential and proprietary in nature. At the time of this assessment only limited information is available to the public. DTCC is currently reviewing its corporate governance structure and anticipates that once any changes have been duly approved and publication authorized, certain information will be made publicly available.</p> <p>DTC submitted a rule filing, which was approved by the SEC in December 2009, relating to proposed changes in the election of directors (Filing No. SR-2009-16), available on the SEC and DTC websites. Recently, three non-participant directors, who are not affiliated with firms that use DTCC services, were elected to DTC Board of Directors.</p> <p><i>Public interest objectives</i> DTC's public interest objectives are based upon Section 17 A of the Securities Exchange Act in which the Congress directed the SEC, "having due regard for the public interest," to facilitate the establishment of a national system for the prompt and accurate clearance and settlement of securities transactions by, among other things, the registration of clearing agencies that have been determined by the SEC to meet the statutory standards of the Exchange Act.</p> <p>The public interest is taken into account by the SEC in its review of each "rule filing" by DTC, i.e., the SEC has an obligation receive and consider public comments on each filing. SEC rules provide that the public comment period for proposed rule changes is at least 35 days from the date a proposal is published in the Federal Register (unless the proposal meets the criteria for accelerated or immediate approval). However, all the clearing agencies</p>

(DTC, NSCC and FICC) publish notices of their proposed rule changes on their websites at the same time as they are filed with the SEC, with contact information for participants should they wish to provide comments to the clearing agencies directly (which the affected clearing agency would then forward to the SEC). This effectively provides participants with a longer period to review and consider specific proposals.

Moreover, DTC indicated that in case it is known that an issue with a proposal that may have significant impact, the proposal is discussed with participants or participant groups (such as, for example, the relevant divisions of SIFMA), and DTC consults with its regulators before filing it formally. In addition to posting important notices on DTC's website that advise Participants of the submission/approval of proposed rule changes, DTC staff participates in various industry groups where information is shared, both in advance of submitting a particular proposed rule change, or after the filing is submitted (for example, as the implementation date of an approved change approaches). DTCC also publishes various periodicals and newsletters to its clearing agency membership, that are targeted to the financial services industry, trade organizations, regulators and Participants, which provide news and information on various products, services, corporate initiatives and expanding business opportunities.

Management incentives skills and accountability

DTCC Management and the Board establish formal corporate goals yearly based on consultation with individual participants, members of the Board, Board committees, advisory committees, industry associations, regulators, and others. Management's performance is assessed by the Board against these goals through the review of status reports from the management and Board Committees. Through evaluation of management performance, and by linking compensation to performance (via the Board's Compensation Committee which is composed of non-management directors), the Board seeks to ensure that management has the incentives and skills needed to achieve the clearing agency's objectives, and that management is accountable for its performance.

Board composition, expertise and relevant interest' representation

Currently the Board of DTCC is composed of 18 members. Fourteen of those members are designated by the shareholders and are employees of DTCC's participants. Two of those are DTCC Executives (CEO and COO). Two of the members are designated by the preferred shareholders (NYSE and FINRA). FINRA is not a participant of DTCC or its subsidiaries

The members of the Board are elected with for a one year term, usually at the April shareholders meeting, on the basis of the following procedure. Each year, the Board appoints members of the Governance Committee, who in turn, recommend nominees for directors to the Board after soliciting from participants of each clearing agency suggested nominees for election by common shareholders. The Committee standards in recommending nominees are designed to satisfy the fair representation requirement of Section 17A of the Exchange Act, and reflect other governance best practices. The Governance Committee has the responsibility to nominate persons for election as directors based on the following factors: ability to represent users of the services of each of DTCC's clearing and depository subsidiaries; ownership of DTCC common stock; expertise; with respect to current directors, their length of service, attendance at Board and Committee meetings, and effectiveness; and adequate diversity on the Board.

Separation between reporting lines for risk management and other operations

There is a clear separation in the reporting lines between risk management and other operations of DTC. The Chief Risk Officer reports directly to the Chairman and CEO. The board of directors has appointed a number of standing committees including a credit and

	market risk management committee, compliance and operational risk management committee and core services operations and planning committee.
Assessment	Broadly Observed.
Comments	For the observance of this recommendation, the governance arrangements for DTC should be more clearly specified and transparent, including criteria for the composition and selection of Board members. At the time of this assessment only limited information is available to the public.
Recommendation 14.	CSDs and central counterparties should have objective and publicly disclosed criteria for participation that permit fair and open access.
Description	<p><i>Access rules and criteria (Q1)</i></p> <p>DTC's rules and by-laws provide the access rules and criteria. DTC's rules are available on its website. According to Rule 2 on participants and pledges, partnerships, corporations or other organizations or entities may become participants in DTC if they (i) apply to DTC for the use of its services, (ii) meet the qualifications specified in Rule 3, (iii) are approved by DTC and (iv) if required, make a Required Participants Fund Deposit and Required Preferred Stock Investment. DTC approves applications if it concludes that the applicant meets the standards of financial condition, operational capability and character. These standards should be met on an ongoing basis. DTCC's Risk Management Department obtains information daily from other internal DTC departments regarding settlement, or operational, a problem experienced with any DTC participant and reviews the financial condition of all DTC Participants at least quarterly.</p> <p>DTC Rule 2 requires that an applicant for membership must have "demonstrated that it has sufficient financial ability to meet all of its anticipated obligations to the Corporation." The dollar standards implementing this Rule, as determined from time to time, are contained in guidelines provided to membership applicants on request. DTC Rule 3 on participants' qualifications provides further details on the qualifications required for different types of participants to be accepted by DTC.</p> <p>The framework of Section 17A of the Exchange Act provides for fair access to the clearing agency. Section 17A(b)(3) requires that the rules of a clearing agency provide that any (i) registered broker or dealer, (ii) other registered clearing agency, (iii) registered investment company, (iv) bank, (v) insurance company, or (vi) other person or class of persons as the Commission, by rule, may from time to time designate may become a participant in such clearing agency (although a clearing agency may deny participation to a person subject to a statutory disqualification or a person that does not meet such standards of financial responsibility, operational capability, experience, and competence as are prescribed by the rules of the clearing agency.) In addition, Section 17A(b)(3) provides that the rules of a clearing agency may not be designed to permit unfair discrimination in the admission of participants or among participants in the use of the clearing agency and may not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.</p> <p><i>Restrictions in access (Q2)</i></p> <p>Different criteria apply according to the scope of the services used. The same rules apply regardless of type, identity, location. DTC differentiates between "limited participants" (i.e. in DTC's terminology a participant that uses only certain limited services) and those applying for the full range of DTC services. A Limited Participant that does not utilize DTC's settlement services, which therefore does not present settlement risk to DTC, is not required to make the minimum Participants' Funds deposit. This distinction is explained in</p>

	<p>Rule 4 on the participants fund which states that depending upon the services it utilizes, a Limited Participant may or may not be required to make a Required Participants Fund Deposit.</p> <p>Some business and market-driven restrictions exist for foreign CSDs located in different time zones, These CSDs can maintain only free of payment (FOP) accounts at DTC because of time zone differences. According to DTC, this is based on risks grounds as it limits not only DTC’s risks, but also those of the Participant subject to the restriction by preventing misdirected value transactions.</p> <p><i>Exit procedures (Q3)</i> Termination of participants' membership can be the participant’s decision or DTC’s decision. In case a participant decides to terminate participation in DTC, it would do so by notifying DTC in writing. DTC can take special action under DTC Rule 32(Wind Down of a Participant) to protect itself and other Participants if a participant notifies DTC that due to external circumstances the Participant intends to wind down its activities. DTC will terminate the participation of members no longer meeting the membership qualification set forth in the DTC Rules (DTC Rule 11 on mandatory termination). DTC (Credit and Risk Management Committee) may also decide under DTC Rule 10 (Discretionary Termination) to cease to act for a participant if the participant is deemed unable to fulfill its obligations (e.g., if the participant becomes subject to a formal insolvency proceeding, fails to perform its obligations to DTC, if the Board has reasonable grounds to believe that the participant has been responsible for fraudulent or dishonest conduct, or the Board has reasonable grounds to believe that the participant is in or is approaching significant financial difficulty). A Participant that is terminated that is a settling bank will also be terminated as a settling bank. Rule 10 also requires a written report of the reasons for the termination.</p> <p>Finally, DTC’s rules also provide for the case of a participant notifying DTC that, due to exigent circumstances, it intends to wind-down its activities. In this context, DTC Rule 32 (on wind down of a participant) permits DTC in its discretion to take actions with regard to this participant in view of mitigating the risk to which DTC may be exposed, including in particular the restriction or modification of the Wind-Down Participant’s use of any or all of DTC’s services (whether generally, or with respect to given transactions) and requiring the Wind-Down Participant to post increased Participants Fund deposits in accordance with DTC Rule 4.</p> <p>These procedures are detailed in DTC’s rules and procedures which are published on DTCC’s website.</p>
Assessment	Observed.
Comments	
Recommendation 15.	While maintaining safe and secure operations, securities settlement systems should be cost-effective in meeting the requirements of users.
Description	<p><i>Benchmarking and cost control (Q1)</i> DTC's fees are cost based and DTC returns to its users excess net revenues not needed to fund its operations via rebates or other refunds. DTCC performs periodic benchmarking studies to assess cost effectiveness in the market place. Pricing levels are reviewed against the costs of operations during the annual budget process in order to provide guidance to the Board of the price impact.</p> <p>Section 17A of the Exchange Act requires that the rules of a clearing agency ensure a fair representation of its shareholders (or members) and participants in the selection of its directors and administration of its affairs. This allows participants to have a voice in</p>

	<p>maintaining cost-effective services. In addition, the Exchange Act provides that the rules of a clearing agency provide for the equitable allocation of reasonable dues, fees, and other charges among its participants.</p> <p>DTCC confirmed that there is no cross-subsidization among entities in the DTCC Group. The subsidiaries of DTCC operate as separate businesses on a self-sustaining at-cost basis. There are no transfers of cash or other assets among the operating companies in the Group and no bargain sale or service or other such arrangements. The operating companies in the Group pay DTCC only the actual costs of the corporate and technology services provided to them by DTCC, plus a uniform (percentage of cost) management fee. Such costs are allocated to the operating companies on the basis of their actual use of (i) DTCC corporate personnel (including the occupancy costs attributed to such personnel) and (ii) DTCC technology resources (principally data processing). Both Internal Audit and DTCC's external auditors review and test elements of this cost allocation methodology.</p> <p><i>Mechanisms to review service level and operational reliability (Q2)</i> DTC surveys its participants to test and help ensure adherence to service levels on an annual basis. As described in RSSS 13, some of the Committees of the Board of Directors are overseeing different aspects, covering the systems' operations. In addition, operational reliability is continuously monitored against specific service level targets, the results of which testing are transmitted to IT, product and senior management on a monthly basis. An annual Capacity Planning Report considering the projected capacity growth for the year to come is submitted to the Board of Directors of DTCC and to its regulators.</p>
Assessment	Observed
Comments	
Recommendation 16.	Securities settlement systems should use or accommodate the relevant international communication procedures and standards in order to facilitate efficient settlement of cross-border transactions.
Description	<p><i>Use of international communication procedures for cross-border transactions (Q1)</i> DTC uses ISO 15022 for cross-border linkages with CSDs. The messages (ISO-based and Message Queuing) are sent and received over DTC's proprietary system as well as SWIFT. DTC anticipates that it will publish Corporations Action announcement information in an ISO 20022 format beginning April 2011 after a pilot phase that is expected to start in February 2011. CAG plans to add further IS 20022 messaging to cover the complete Corporate Action lifecycle, such as election and payment processing , during 2012 and early 2013.</p> <p>DTCC and its operating subsidiaries, including DTC, use ISINs in a number of applications to identify securities, particularly in global applications and newer U.S. based applications. DTCC does not exclusively use ISINs. Older applications use CUSIPS.</p>
Assessment	Observed.
Comments	
Recommendation 17.	CSDs and central counterparties should provide market participants with sufficient information for them to accurately identify the risks and costs associated with using the CSD or central counterparty services.
Description	<p><i>Availability of rules, regulations, procedures (Q1)</i> DTC's rules and procedures, including its service guides, are publicly available on its website.</p> <p>Information, including proposed rule changes, is communicated via Important Notices posted on DTC's website, along with proposed rule change filings that are also submitted to</p>

	<p>the SEC. Information about key financial and operational risks associated with DTC services is also publicly disclosed. According to DTC Rule 15 (Reports), as soon as practicable, after the end of each calendar year, DTC must provide its participants with financial statements of DTC audited by independent public accountants for that calendar year, and that DTC must also provide unaudited financial statements of DTC for each of the first three calendar quarters of each calendar year.</p> <p>Operational issues – e.g. extensions and connectivity problems – are broadcast through DTC’s network system. The fee schedules of DTC, which are part of its rules, are published on DTCC’s website.</p> <p><i>CPSS-IOSCO disclosure framework (Q2)</i> DTC completed and disclosed both the questionnaire set out in the CPSS-IOSCO disclosure framework and the answers to the key questions from this assessment methodology. The CPSS-IOSCO disclosure framework is available on the CPSS website, while the self assessment based on the RSSS assessment methodology is published on DTCC’s website.</p> <p><i>Accessibility of information (Q3)</i> Information is made available in plain English via the Internet.</p> <p><i>Periodical review of accuracy and completeness of assessment (Q4)</i> As set in the Federal Reserve Policy on Payment System Risk, the Board expects the system’s senior management and board of directors to review and approve self-assessments upon completion in order to further ensure system accountability for accuracy and completeness. Accordingly, DTC’s self-assessment was reviewed by its senior management and approved by its Board of Directors prior to the publication. The review is conducted at least every two years, unless necessary before as a result of any material change to DTC’s system or environment.</p>
Assessment	Observed.
Comments	
Recommendation 18.	Securities settlement systems should be subject to transparent and effective regulation and oversight. Central banks and securities regulators should cooperate with each other and with other relevant authorities.
Description	<p><i>Regulation and oversight of the system (Q1)</i> DTC is a limited purpose trust company organized under the New York Banking Law, a clearing agency registered under the Exchange Act, a clearing organization as defined in the Federal Deposit Insurance Corporation Improvement Act (“FDICIA”), a clearing corporation as defined in the UCC and a member bank of the Federal Reserve System. DTC is regulated and overseen by the SEC, the Board of Governors of the Federal Reserve System (and under delegated authority from the Board, the FRBNY) and the NYSBD:</p> <ul style="list-style-type: none"> - The Federal Reserve Board derives its supervisory authority from DTC’s membership in the Federal Reserve System as a State Member Bank. The Board has the authority to examine state member banks pursuant to the Federal Reserve Act. Board regulations and policies also govern DTC’s activities as a state member bank. In addition, pursuant to the Securities Exchange Act of 1934 (Exchange Act), Section 3(a)(34)(B)(ii), the Board is the “appropriate regulatory agency” with respect to state member banks that act as clearing agencies. As such, the Board is primarily responsible for examining and enforcing compliance by DTC with Section 17 (records and reports), Section 19 (registration, responsibilities, and oversight of SROs), as well as Section 17A of the Exchange Act. - The SEC derives its authority from the Exchange Act. As a securities depository, DTC

	<p>meets the definition of a clearing agency and must register with the SEC under Section 17A of the Exchange Act. As a registered clearing agency, DTC is regulated by the SEC as a clearing agency and as a self-regulatory organization. As noted above, the Board is the ARA of DTC based on DTC's status as a State member bank of the Federal Reserve System and has primary examination authority with respect to Section 17 and 17A; however, the authority granted to the Board (or to the NYSBD) does not impair or limit the SEC's authority to make rules under any provision of the Exchange Act or to enforce compliance pursuant to any provision of this the Exchange Act by DTC with the provisions of the Exchange Act and the rules and regulations thereunder. In addition, the SEC reviews and, with limited exceptions, approves all rule changes (including policies, practices, and interpretations to rules) proposed by DTC based on its status as an SRO. The Exchange Act establishes a framework for cooperation with other regulators and the Board, as the ARA for DTC, may in some circumstances direct that a proposed rule change not be approved if the proposed rule may be inconsistent with the safeguarding of securities or funds in the custody or control of DTC or for which it is responsible pursuant to the standards set forth in Sections 17A and 19(b) of the Exchange Act.</p> <p>- The NYSBD's supervisory authority derives from DTC's organization as a limited purpose trust company under the New York Banking Law.</p> <p><i>Roles, responsibilities and resources (Q2)</i></p> <p>The Securities Exchange Act of 1934 in Section 3(a)(34)(B) defines the appropriate regulatory agency for clearing agencies, assigning responsibilities to the SEC, the Fed, and the relevant banking supervisor, depending on how the clearing agency is organized. The Federal securities laws, relevant rules, and SEC policies are written clearly and are available to the public through the SEC's website, The Federal Reserve Act and Board Regulations and policies are available at and Federal Reserve's website. The New York State Banking Law is available at the NYSBD's website.</p> <p>In FRBNY and the Board, about 20 budgeted officers and staff work full time on policy and oversight with respect to payment, clearing and settlement. Additionally, about 15 supervisory staff are dedicated full time to specific private sector systems; 9 examiners broadly dedicated to payment and settlement infrastructure; and 12 more focused on systemically important clearing activities by banks and affiliates.</p> <p>At the SEC, an estimated 51 staff are involved in whole or in part in clearing oversight (approximately 23 full-time equivalent staff positions). The SEC's oversight program encompasses staff from 7 different offices, including offices involved in legal and policy, examination and compliance, and automation review.</p> <p>SEC staff conducts onsite examinations of registered clearing agencies, including DTC. Examination reviews may include such areas as internal audit, membership, member financial surveillance, clearing fund and collateral risk, risk assessment and risk management systems, clearance and settlement processes, and liquidity. During examinations, DTC is required to provide examiners with documentation required as part of the examination.</p> <p><i>Basis of the regulatory and oversight framework (Q3)</i></p> <p>The regulatory and oversight framework is statutorily based on the Securities Exchange Act, SEC rules and policies, the Federal Reserve Act as well as Board regulations and policies.</p> <p><i>Cooperation between different authorities (Q4)</i></p> <p>There is a framework for co-operation among relevant authorities. Section 17A of the</p>
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	<p>Exchange Act directs the SEC to consult with the Federal Reserve Board in its efforts to facilitate the establishment of linked or coordinated facilities for clearance and settlement of transactions in securities. Section 17A(d)(3) of the Exchange Act requires that with respect to any clearing agency for which the SEC is not the appropriate regulatory authority, the SEC and the appropriate regulatory authority for such clearing agency shall consult and cooperate with each other, and, as may be appropriate, with State banking authorities having supervision over such clearing agency or transfer agent toward the end that, to the maximum extent practicable, their respective regulatory responsibilities may be fulfilled and the rules and regulations applicable to such clearing agency or transfer agent may be in accord with both sound banking practices and a national system for the prompt and accurate clearance and settlement of securities transactions. In this regard, the SEC and Federal Reserve cooperate, as appropriate, to exchange information to ensure the effectiveness and efficiency of the securities settlement system. Moreover, under Section 19 of the Exchange Act, the SEC is required to consider the views of the Board with respect to whether DTC's proposed rule changes are inconsistent with the safeguarding of securities or funds in DTC's custody or control (Section 19(b)(4)(C) of the Exchange Act).</p> <p><i>Cross-border cooperation</i></p> <p>At the cross-border level, Section 24(d) of the Exchange Act gives the SEC authority to facilitate cooperation with foreign authorities. The SEC has entered into memoranda of understanding (MOUs) with relevant foreign authorities, principally for facilitating the exchange of information with these authorities. In particular, the SEC has entered into enforcement cooperation with the authorities in Argentina, Canada, Chile, Germany, Hong Kong, Israel, Italy, Japan, the Netherlands, Singapore, Switzerland and the UK with which DTC has developed cross border links. These MOUs are available on the SEC's website at http://www.sec.gov/about/offices/oia/oia_cooparrangements.htm. As regards the Peru link, SEC does not yet have a MOU with the relevant Peruvian authorities. However some cooperation is in place.</p> <p>The Federal Reserve Board also cooperates with relevant authorities, based on the principles of RSSS 18 and the CPSS principles of international cooperative oversight.</p>
Assessment	Observed.
Comments	<p>Formal co-operation with Authorities in Peru needs to be established.</p> <p>It is important to point out that the Fed's oversight of DTC is not based on a general statutory oversight authority for payment, clearing, and settlement systems, but rather on DTC's status as a State Member Bank of the Federal Reserve System and the Fed's subsequent roles as banking supervisor and ARA under the Exchange Act. It would be more effective and transparent to legally entrust the Fed the role of overseer of securities settlement infrastructure. The banking supervision and the oversight functions have two different objectives and use different tools.</p> <p>The SEC has not yet required DTC to perform a self assessment with respect to the CPSS-IOSCO recommendations. However, the SEC reviews each self-assessment prepared by the clearing agencies. Furthermore, compliance with SEC rules ensures compliance with most of the recommendations. SEC staff stated that it would consider recommending to the Commission that clearing agencies be required to perform self-assessments against the CPSS-IOSCO recommendations by rules or in a policy statement. SEC is encouraged to do so, also with a view to encouraging consistency in the assessment of globally relevant systems and to facilitate co-operation with other domestic and international authorities.</p>

Recommendation 19.	CSDs that establish links to settle cross-border trades should design and operate such links to reduce effectively the risks associated with cross-border settlement.
Description	<p><i>Types of links in operation (Q1)</i></p> <p>DTC has two types of cross-border links with other CSDs, “inbound” and “outbound.” An “inbound” link is the establishment by a foreign CSD of one or more accounts at DTC. As of the date of this assessment, DTC has ten incoming links. An “outbound” link is the establishment by DTC of one or more accounts with a foreign CSD. As of the date of this assessment, there are three outgoing links. DTC has both inbound and outbound relationships with 2 CSDs, those in Canada and in Germany.</p> <p>Among the inbound CSD links developed by DTC, 3 are DVP, namely CDS (Canada), CAVALI ICLV (Peru) and DCV (Chile).</p> <p>While there is no prohibition on foreign CSDs in other time zones having DVP links with DTC, it is largely impractical because of DTC’s 5 p.m. end-of-day settlement. Despite the fact that all CSD participants must appoint a U.S. settlement bank to represent them in DTC settlement every day, it has not been practicable for a distant, non-U.S. CSD Participant to manage a DVP settlement if the foreign CSD Participant wishes to give instructions from its own time zone (in Europe, for instance, at least 5 hours ahead of, that is later than, the NY time).</p> <p>Even CSD Participants, which deliver and receive securities on a free-of-payment (FOP) basis must appoint a settlement bank, like all other Participants. These CSD Participants will have a daily settlement within DTC’s money settlement system through their designated settlement bank involving, for instance, cash proceeds of corporate actions (net of, where applicable, U.S. withholding tax), and payment of their monthly bills via the DTC Settlement System.</p> <p><i>Risk assessment of links</i></p> <p>With regard to an outbound link, DTC assesses the various risks associated with establishing a link with another CSD in order to allow its participants to process transactions with foreign CSD’s participants. DTC’s risk assessment included an evaluation of credit risk, market risk, processing risk, and general business risk. DTC also considered other areas related to risk, including but not limited to, third party due diligence, technology, and legal and regulatory issues. In addition, as part of its analysis, DTC reviewed the risk management controls available to mitigate an identified risk. For example, credit risk includes the risk that participants in the link may default on their obligations to DTC. This risk is mitigated by a series of controls, including: (i) the settlement debit obligations are subject to DTC established collateral and debit cap controls and DTC can control its participants’ debit caps; (ii) the collateral collected by DTC is subject to DTC’s security pricing and haircuts; (iii) the securities received by the participant via settlement are available as an additional source of collateral for DTC; (iv) liquidation of the collateral, if necessary, would be done by DTC and in accordance with its procedures; and (v) DTC requires CDS link participants to make an additional cash deposit to DTC’s participant fund, in such amount as determined by DTC.</p> <p>With respect to the establishment of an inbound link, the applicant CSD is treated like any other Participant and must meet established risk criteria for Participants, including the submission of legal opinions. Because these CSDs are foreign, they are subject to such heightened scrutiny as would apply to any other foreign Participant. For example, DTCC has established a policy statement for the admission of non-U.S. entities as participants that in addition to the standard DTC Participant’s Agreement, requires the non-U.S. entity to enter into a series of additional undertakings to address jurisdictional concerns, the entity’s regulatory status in its home country, and to assure that DTC is provided with audited</p>

financial information that is acceptable to DTC. All Participants, whether operating on a DVP or FOP basis or both, must appoint a settling bank, including CSD Participants.

In case of links with non-U.S. CSDs and CCPs, the SEC has negotiated memoranda of understanding between the SEC and certain relevant authorities.

Legal opinions are required to ensure the soundness of the links arrangements.

Name of the CSD / Country	Type of Link	Cut-Off Time for Deliveries Into Account	Network Provider
Canadian Depository for securities Ltd (CDS) / Canada	Bilateral DVP	3:15 PM NYT	SMART
Euroclear UK & Ireland	FOP	11:30 AM NYT	SWIFT
Clearstream Banking Frankfurt / Germany	Bilateral FOP	10:00 AM NYT	SWIFT
Monte Titoli / Italy	FOP	11:30 AM NYT	SWIFT
Caja de Valores / Argentina	FOP	3:15 PM NYT	SMART
CAVALI ICLV / Peru	DVP	3:15 PM NYT	SMART
Deposito Central de Valores (DCV) / Chile	DVP	3:15 PM NYT	SMART
Stock Exchange Clearing House / Israel	FOP	6:15 PM NYT	SMART
Hong Kong Securities Clearing Corp. / Hong Kong	FOP	6:15 PM NYT	SMART
Japan Securities Depository Center (JASDEC) / Japan	FOP	6:15 PM NYT	SWIFT
The Central Depository (PTE) Limited / Singapore	FOP	6:15 PM NYT	SMART
SIX SIS	FOP	14:30 PM NYT	Fax

Source: http://www.dtcc.com/customer/dtc_international.php

Delivery versus payment (Q2)

DVP deliveries to CSDs are final in accordance with DTC Rules on the same terms and conditions as for any other Participants. A CSD that engages in DVP transactions is subject to DTC risk management controls (net debit cap, collateral monitor) and, subject to those measures, may redeliver, pledge or withdraw securities intraday. A CSD that engages in DVP transactions must, like any other Participant, have a settling bank for end-of-day net settlement and, if the CSD fails to settle, whether due to its own failure or that of its settling bank, will not take delivery of securities that are, at the end of the day the subject of an “Incomplete Transaction” because those may be used to cover the CSD Participant’s failure to settle, just like any other Participant.

However, the assessment of Canadian CSD (CDS Clearing & Depository Services, Inc. (“CDS”)) revealed that delivers securities delivered throughout the day within DTC system could be transferred through the link during the day while finality is achieved at the end of the day. Given that DTC operates a DVP model 2, this shows that DTC delivers security before finality is achieved in DTC (i.e. allows for provisional deliveries).

	<p>For outbound links, settlement occurs as provided under the rules and procedures and applicable governing law and market practices of the foreign CSDs. The only outbound link with which DTC engages in deliveries versus payment is CDS. DTC has a Canadian settlement bank which acts on its behalf in CDS settlement.</p> <p>With respect to the outgoing link with CDS established in 2005, DTC maintains an omnibus account at CDS for both funds and securities, which is subject to all CDS risk management controls including the full collateralization of securities transactions, subject to appropriate haircuts, and limits on allowable net debits. The DTC Omnibus Account has its own (i) collateral requirements and controls and net debit requirements and controls, (ii) settlement obligations, and (iii) line of credit from a Canadian bank that is a CDS Participant to secure the settlement obligations of DTC to CDS. All DTC participants are eligible to participate in the link, provided they comply with all DTC and CDS rules and agreements regarding the link, but DTC at all times maintains control over the securities and funds credited to the DTC Omnibus Account. In addition, DTC participants that use the CDS link are subject to enhanced risk management controls of DTC, including an additional Clearing Fund Deposit, a separate net debit cap for Canadian Link transactions, and special adjustments to the participant’s collateral monitor at DTC.</p> <p>DTC adopted a new Rule 30 to address the operational and risk management issues with respect to the CDS link. Rule 30 provides detailed requirements and procedures regarding money and securities settlement, participant standards, securities eligibility, operational issues (such as the interface between CDS and DTC and how transaction processing is effected), and risk management issues including the net debit cap, adjustments to the collateral monitor, the required Clearing fund deposit, and security for Canadian-Link Transactions.</p> <p><i>Settlement agent risk</i></p> <p>For DVP links, the same process as for DTC participants applies to foreign CSDs, as noted above. CSD Participants, like other Participants need to have a settling bank. If a settling bank for a CSD became unavailable and DTC owed funds to that CSD participant, the CSD participant would need to identify to DTC a bank to which DTC should pay those funds. (DTC would assist the CSD, if necessary, to explore what other U.S. banking relationship the affected CSD participant has.) In any case, DTC would direct payment to the bank designated by its CSD Participant. If the CSD participant owes DTC a payment and the settling bank fails to pay, the CSD participant would have to make payment through another settling bank, or, if none was available, another bank. Like other Participants, a CSD Participant is the primary obligor for payment of its net settlement obligation. If the CSD participant did not pay, its net settlement obligation, DTC would be entitled to use its collateral to finance settlement as described for other Participants under Recommendation 7.</p> <p><i>Credit extensions to a linked CSD (Q3)</i></p> <p>CSDs that are DTC participants are subject to the same risk controls and requirements as other participants. If a CSD has a net debit balance intraday, it must be less than the amount of its net debit cap and, subject to the collateral monitor, will be fully collateralized.</p>
Assessment	Observed.
Comments	DTC should update the information on links on DTCC’s website to reflect the current status.

Table 2. Summary of the Detailed Assessment of the Observance of DTC of the CPSS-IOSCO Recommendations for Securities Settlement Systems

Responsibility	Grading	Comments
Legal risk		
1. Securities settlement systems should have a well-founded, clear and transparent legal basis in the relevant jurisdiction.	O	
Pre-settlement risk		
2. Confirmation of trades between market participants should occur as soon as possible after trade execution, but no later than the trade date (T+0). Where confirmation of trades by indirect market participants (such as institutional investors) is required, it should occur as soon as possible after trade execution, preferably on T+0, but no later than T+1.	O	DTC should explore the possibility to introduce instructions matching mechanism prior to settlement.
3. Rolling settlement should be adopted in all securities markets. Final settlement should occur no later than T+3. The benefits and costs of a settlement cycle shorter than T+3 should be assessed.	O	
4. The benefits and costs of a central counterparty should be assessed. Where such a mechanism is introduced, the central counterparty should rigorously control the risks it assumes.	BO	For the observance of this recommendation, a cost-benefit analysis should be conducted of the introduction of a CCP for transactions settled through DTC but not cleared by NSCC.
5. Securities lending and borrowing (or repurchase agreements and other economically equivalent transactions) should be encouraged as a method for expediting the settlement of securities transactions. Barriers that inhibit the practice of lending securities for this purpose should be removed.	O	
Settlement risk		
6. Securities should be immobilized or dematerialized and transferred by book entry in CSD to the greatest extent possible.	O	
7. Securities settlement systems should eliminate principal risk by linking securities transfers to funds transfers in a way that achieves delivery versus payment.	O	

Responsibility	Grading	Comments
8. Final settlement on a DVP basis should occur no later than the end of the settlement day. Intra-day or real-time finality should be provided where necessary to reduce risks.	O	<p>The DVP 2 model is characterized by intraday securities deliveries and end of day net money settlements. Without additional safeguards this design would expose DTC participants to principal and liquidity risk, potentially with systemic implications, in the event that the participants fail to meet their cash obligations at the end of day. However, DTC has in place measures to limit and control these risks.</p> <p>DTC should consider to conducting additional net funds settlement batches during the day in order to provide intraday finality for cash transfers, which will allow participants in a net credit position to have earlier access to their liquidity and move them out of DTC. However, participants in a net debit position would be obligated to make their payments during the day rather than at the end of the day.</p>
9. CSDs that extend intraday credit to participants, including CSDs that operate net settlement systems, should institute risk controls that, at a minimum, ensure timely settlement in the event that the participant with the largest payment obligation is unable to settle. The most reliable set of controls is a combination of collateral requirements and limits.	O	<p>Although DTC currently has sufficient liquidity resources to protect against the failure of the largest affiliated family of Participants, more extreme cases of multiple failures could test DTC's liquidity resources. To this end, this assessment recommends that DTC should be given access to central bank liquidity facilities.</p>
10. Assets used to settle the ultimate payment obligations arising from securities transactions should carry little or no credit or liquidity risk. If Central Bank money is not used, steps must be taken to protect CSD members from potential losses and liquidity pressures arising from the failure of the cash settlement agent whose assets are used for that purpose	O	<p>There is a high concentration of payment flows at the top five settling banks. DTC should continue to monitor the financial conditions and should begin monitoring the exposures of the settlement banks. Moreover, DTC needs to reduce the concentration of settlement cash for Canadian dollar. DTC may explore the possibility to of becoming a direct participant of the Canadian RTGS system.</p> <p>The self-assessment of the Federal Reserve's NSS against the CPSIPS should be reviewed by the relevant authorities and made public.</p>
Operational risk		
11. Sources of operational risk arising in the clearing and settlement process should be identified and minimized through the development of appropriate	O	<p>Contingency plans and backup facilities for the failure of key systems are not tested and reviewed with participants (only connectivity is tested with the critical participants). NSCC</p>

Responsibility	Grading	Comments
systems, controls, and procedures. Systems should be reliable and secure, and have adequate, scalable capacity. Contingency plans and back-up facilities should be established to allow for timely recovery of operations and completion of the settlement process.		<p>explained that the data centers in the New York region act as a single data centre and provide secondary back-up to both systems and the entire facility. In the event that New York region data centers are not available, the out of region recovery site is available to cover all critical systems. Failover and recovery of any data centre does not require changes by participants. The network automatically reroutes the client traffic from their primary or backup sites to the recovered data centre. Therefore, it is not reliant to test the failure of one key system with the participants.</p> <p>DTCC should test its back-up sites to critical participants' backup sites.</p>
Custody risk		
12. Entities holding securities in custody should employ accounting practices and safekeeping procedures that fully protect customers' securities. It is essential that customers' securities be protected against the claims of a custodian's creditors.	O	
Other issues		
13. Governance arrangements for CSDs and central counterparties should be designed to fulfill public interest requirements and to promote the objectives of owners and users.	BO	<p>For the observance of this recommendation, the governance arrangements for DTC should be more clearly specified and transparent, including criteria for the composition and selection of Board members. At the time of this assessment only limited information is available to the public.</p>
		<p>DTCC may also consider including independent members in the Board to reduce conflict of interests within the group, and ensuring the integrity and soundness of each entity.</p> <p>DTCC is currently reviewing its corporate governance structure and anticipates that once any changes have been duly approved and publication authorized.</p>
14. CSDs and central counterparties should have objectives and publicly disclosed criteria for participation that permit fair and open access.	O	
15. While maintaining safe and secure operations, securities settlement systems should be cost-effective in meeting the requirements of users.	O	

Responsibility	Grading	Comments
16. Securities settlement systems should use or accommodate the relevant international communication procedures and standards in order to facilitate efficient settlement of cross-border transactions.	O	
17. CSDs and central counterparties should provide market participants with sufficient information for them to accurately identify the risks and costs associated with using the CSD or central counterparty services.	O	
18. Securities settlement systems should be subject to regulation and oversight. The responsibilities and objectives of the securities regulator and the central bank with respect to SSSs should be clearly defined, and their roles and major policies should be publicly disclosed. They should have the ability and resources to perform their responsibilities, including assessing and promoting implementation of these recommendations. They should cooperate with each other and with other relevant authorities.	O	<p>Formal co-operation with Authorities in Peru needs to be established.</p> <p>It is important to point out that the Fed's oversight of DTC is not based on a general statutory oversight authority for payment, clearing, and settlement systems, but rather on DTC's status as a State Member Bank of the Federal Reserve System and the Fed's subsequent roles as banking supervisor and ARA. It would be more effective and transparent to legally entrust the Fed the role of overseer of securities settlement infrastructure. The banking supervision and the oversight functions have two different objectives and use different tools.</p> <p>The SEC has not yet required DTC to perform a self assessment with respect to the CPSS-IOSCO recommendations. However, the SEC reviews each self-assessment prepared by the clearing agencies.</p> <p>Furthermore, compliance with SEC rules ensures compliance with most of the recommendations. SEC staff stated that it would consider recommending to the Commission that clearing agencies be required to perform self-assessments against the CPSS-IOSCO recommendations by rules or in a policy statement. SEC is encouraged to do so, also with a view to encouraging consistency in the assessment of globally relevant systems and to facilitate co-operation with other domestic and international authorities.</p>

Responsibility	Grading	Comments
19. CSDs that establish links to settle cross-border trades should design and operate such links to reduce effectively the risks associated with cross-border settlement.	O	DTC should update the information on links on DTCC's website to reflect the current status.

Table 3. Actions to Improve Compliance

<i>Reference Recommendation</i>	<i>Recommended Action</i>
Recommendation 2: Trade confirmation	DTC should explore the possibility to introduce instructions matching mechanism prior to settlement.
Recommendation 4: CCPs	A cost-benefit analysis should be conducted of the introduction of a CCP for transactions not cleared by NSCC.
	DTC should consider to conducting additional net funds settlement batches during the day in order to provide intraday finality for cash transfers.
Recommendation 9: Risk controls	DTC should be given access to central bank liquidity facilities.
Recommendation 10: Cash settlement	DTC should continue to monitor the financial conditions and should begin monitoring the exposures of the settlement banks. DTC needs to reduce the concentration of settlement cash for Canadian dollar. DTC may explore the possibility to of becoming a direct participant of the Canadian RTGS system. The self-assessment of the Federal Reserve's NSS against the CPSIPS should be reviewed by the relevant authorities and made public.
Recommendation 11: operational risk	DTCC should test its back-up sites to critical participants' backup sites.
Recommendation 13: Governance	DTC's governance arrangements for should be more clearly specified and transparent, including criteria for the composition and selection of Board members.
Recommendation 18: Oversight and regulation	Formal co-operation with Authorities in Peru needs to be established. It would be more effective and transparent to legally entrust the Fed the role of overseer of financial market infrastructure, and to separate between the banking supervision and the oversight functions. SEC is encouraged to require clearing agencies to perform self-assessments against the CPSS-IOSCO recommendations by rules or in a policy statement.
Recommendation 19: Risks in links	DTC should update the information on links on DTCC's website to reflect the current status.

Authorities' response to the assessment

1. The U.S. authorities welcome the IMF's assessment of the Depository Trust Company (DTC) against the CPSS-IOSCO Recommendations for Securities Settlement Systems (RSSS). We appreciate the significant undertaking associated with an FSAP review of the biggest financial sector in the world, as well as the challenges that accompany the first assessment of a large advanced country in the wake of the crisis.
2. The authorities are pleased to note that the IMF's assessment reflects the high degree of compliance of DTC with the RSSSs, and are largely in agreement with the assessment's comments and recommendations, which the authorities will share with DTC.
3. Again, the authorities appreciate the significant undertaking associated with the assessment of DTC and the contribution that the assessment process makes to the stability and effective regulation and oversight of systemically important payment, clearing and settlement systems.