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DTCC Reference Guide

UNSCHEDULED CLOSING OF EXCHANGES AND MARKETS FOR CLEARING AGENCIES

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The logo for DTCC, consisting of the letters 'DTCC' in a bold, white, sans-serif font. The letters are set against a dark background with a repeating geometric pattern of small squares and lines.

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SECTION 1 INTRODUCTION

DTCC (on behalf of DTC, FICC & NSCC, the “Clearing Agencies”) has prepared the following guidelines to address processing issues that may arise due to an unscheduled closing of any exchanges, banks and/or markets (“unscheduled closing”) supported by the Clearing Agencies’ products and services. In the event that an unscheduled closing does occur, DTCC and the Clearing Agencies would work closely with the appropriate regulatory bodies, industry groups and the Clearing Agencies’ members/participants to employ the steps necessary, taking into account the market conditions and circumstances presented at the time, in order to minimize disruption to the markets.

In the case of an unscheduled closing, which could occur, for example, on a national day of mourning (i.e., the death of a former President), or during an event causing significant regional impact, such as natural disaster or other similar circumstances, each Clearing Agency will continue to process data for clearance and settlement purposes by accepting transactions from any open exchanges, markets, or members/participants, as applicable, as well as the aging and staging of transactions that have already been submitted and accepted by the respective Clearing Agency for the next steps in the settlement cycle.

During an unscheduled closing, DTCC and the Clearing Agencies would seek to minimize disruptions to the securities industry by continuing a “business as usual” processing routine and conforming as closely as practical to normal operations. Although numerous scenarios could occur in the event of an unscheduled closing, DTCC and the Clearing Agencies intend to adhere to as consistent of a plan as possible, depending on the facts and circumstances presented at that time that is readily adaptable by the industry.

DTCC is issuing these guidelines to advise members/participants of the Clearing Agencies’ plan to follow in the event of an unscheduled closing, and to encourage clients to assess the impact of these procedures on their own processes in such an event. Accordingly, DTCC strongly recommends that members/participants examine their internal processing and dependencies and, where feasible, take these guidelines into account in preparation of their own procedures relating to the processing of transactions and related activity.

Questions or comments regarding the topics in this paper may be directed to your Relationship Manager.

SECTION 2 UNSCHEDULED CLOSINGS PROCEDURES

Overview

DTCC and the Clearing Agencies have managed several unscheduled closings, including the September 11th attacks, the days of mourning declared on the deaths of former Presidents Ronald Reagan and Gerald Ford, Superstorm Sandy and, most recently the December 5th, 2018 National Day of Mourning to honor President George H.W. Bush. In each of these cases, the equity and fixed income markets closed and Fedwire remained open and settlement of trades continued on a normal basis.

The Clearing Agency processes during an unscheduled closing as described in this document assume that markets would be closed but banks and Fedwire services would

remain open. However, members/participants of the Clearing Agencies are reminded that each unscheduled closing could pose unique circumstances that are not assumed in the procedures outlined in this document and a Clearing Agency's actions may vary depending on the market conditions and circumstances presented at the time.

From time to time, NSCC, FICC, DTC, and their respective members/participants and marketplaces may experience unique processing scenarios. While the assumptions in this document are based on recent precedents for unscheduled market closings, DTCC also recognizes that not all situations are identical, and any future scenarios may present market conditions and circumstances that are not covered by the procedures outlined in this document. In those instances, DTCC and the Clearing Agencies would work with the appropriate industry stakeholders to ensure that those conditions and circumstances are addressed and will take the steps the Clearing Agencies deem necessary to communicate the status of each Clearing Agency's processing services to their members/participants.

Members/participants are reminded that there could be minimal lead-time before the date of an unscheduled closing is announced. In the event of an unscheduled closing that results in markets being closed NSCC, FICC and DTC expect to remain open for certain types of processing. The Clearing Agencies would continue normal processing to the extent practical with a view towards minimizing the impact to the industry and providing consistency for their members/participants.

Below summarizes the planned status of general functions, applicable to each of the Clearing Agencies, if markets are closed, but banks and Fedwire remain open.

Participant Input

Member/participants and marketplaces will not be required to submit empty files to NSCC, FICC and DTC in the event some or all exchanges or markets are closed. Since the Clearing Agencies will continue to run their systems in "business as usual" mode, members/participants may continue to submit prior-day corrections and "as of" transactions as part of their trade capture and reporting processes. The Clearing Agencies also expect to be prepared to accept input in services that are not market-related (e.g., insurance services). Unless otherwise announced by DTCC or the applicable Clearing Agency, all input should be submitted within normally scheduled timeframes, pursuant to the respective rules of the Clearing Agencies.

Participant Output

Since members/participants use the output distributed by the Clearing Agencies to trigger their internal processes, the Clearing Agencies, as appropriate, expect to continue to create and distribute all output as scheduled, allowing members/participants to roll and age existing data "in sync" with the Clearing Agencies. Members/participants are reminded that files related to trade reporting may be empty due to the market closings. Since the Clearing Agencies would be processing data already in the settlement cycle, files containing prior day activity will contain data reflecting updated status.

Communication

The DTCC web site, www.dtcc.com, will contain information relating to the Clearing Agencies' processing if markets, exchanges, settling banks and Fedwire are subject to an unscheduled closing.

Questions may also be directed to the Client Contact Center at U.S. 888. 382.2721 or International +1 212.855. 8099. DTCC Relationship Managers will be available to address any processing issues.

SECTION 3 STATUS OF NSCC/DTC FUNCTIONS IN AN UNSCHEDULED CLOSING

The table below summarizes the expected status of certain NSCC/DTC functions if markets are closed, but banks and Fedwire remain open. The status of any service or function may vary depending on determinations made by the respective Clearing Agencies at the time, or in anticipation, of an unscheduled closing.

NSCC/DTC Unscheduled Closing	
Function	Markets Closed Banks/Fedwire Open
<i>Equity Trade Capture & Reporting</i>	<p>Universal Trade Capture (UTC) input will be accepted from any market or exchange that remains open.</p> <p>ETF Creates/Redeems will be accepted. PCF files will follow normal processing.</p> <p>Correspondent Clearing input for trades and for corrections from the day prior to the event and older will be accepted.</p>
<i>Equity Trade Processing</i>	Aging and adjustment processing will be applied to all new trade data as well as trade data being processed from prior days. When Issued and New Issue trades are extracted for applicable settlement dates.
<i>Trade Processing (CMU only)</i>	<p>When Issued and New Issue trades are extracted for applicable settlement dates.</p> <p>NSCC-eligible fixed income transactions that were previously calculated for the prior business days settlement will not be recalculated.</p>
<i>Obligation Warehouse (OW)</i>	OW access, input, and matching are available.
<i>DTCC Trade Limit Monitoring</i>	Limit Monitoring will be available, but with limited output due to exchange closings.
<i>Trade Netting (Consolidated Trade Summary)</i>	<p>Consistent with normal processing, trades will be netted and reported as positions on the Consolidated Trade Summary.</p> <p>Balance Orders are issued for non-CNS eligible securities.</p> <p>This same processing applies to any “as of” trades.</p>
<i>CNS Processing</i>	<p>Consistent with normal processing, the CNS night cycle will run as scheduled. The CNS day cycle will run as normal, and all CNS exemptions and priorities will be applied.</p> <p>In the absence of override input for CNS exemptions and priorities, standing instructions will be applied as the normal default.</p> <p>All output will be distributed as scheduled.</p>

NSCC/DTC Unscheduled Closing	
Function	Markets Closed Banks/Fedwire Open
	<p>All corporate actions will be applied consistent with normal processing.</p> <p>Updated CNS positions will be marked-to-market using the prior night's closing prices, consistent with normal processing.</p> <p>Buy-in processing will continue as normal, keeping in mind that markets may be closed for executions.</p>
<i>CMU Trade Netting (Consolidated Trade Summary)</i>	<p>Consistent with normal processing, trades will be netted and reported as positions on the Consolidated Trade Summary.</p> <p>Balance Orders will be issued for non-CNS eligible securities. This same processing applies to any "as of" trades.</p>
<i>Cost Basis Reporting Service (CBRS)</i>	<p>Normal processing.</p>
<i>Settlement</i>	<p>All application processing will be included in settlement calculations and current pay/collect procedures will be exercised.</p> <p>All payments will occur per normal procedures and will become part of DTC's end-of-day settlement.</p> <p>Principal, interest, dividend, and reorganization payments scheduled to be made will be allocated.</p> <p>DTC will post final figures at the normal processing time and all participants and settling banks are required to acknowledge credit/debit balances according to normal DTC acknowledgement times.</p>
<i>Institutional Deliveries (ID)</i>	<p>Consistent with normal processing, DTC will accept trades from ITP and IMS.</p> <p>All output will be distributed as scheduled. ID Net processing will remain unchanged.</p>
<i>Settlement Transactional Input</i>	<p>All valued deliveries, Securities Payment Orders (SPOs), pledges/releases, and free Money Market Instrument (MMI) deliveries will process normally.</p> <p>Unapproved valued RAD transactions will be dropped from the system at the normal RAD approval cut-off period.</p>

NSCC/DTC Unscheduled Closing

Function	Markets Closed Banks/Fedwire Open
<i>Money Market Instruments</i>	<p>Normal processing for MMI maturity presentments, Periodic Interest Payments (PIPs) and Periodic Principal Payments (PPPs).</p> <p>Free (non-MMI) deliveries will be allowed.</p> <p>MMI Issuances will process normally.</p>
<i>Corporate Actions</i>	<p>Proxy services will be available.</p> <p>Mandatory Cash & Stock allocations will be processed, and announcements will be processed.</p> <p>Voluntary Cash & Stock allocations will be processed, and announcements will be processed. The DTC Rights and Warrant platforms will be open.</p> <p>IVORS and CMOP will be disabled for the day. Income, Redemption, and Stock Dividend Events will process normally.</p> <p>Note:</p> <p>Updates and changes to critical information (e.g., Record Dates/Ex-dates/Payable Dates/Effective Dates/Expiration Dates, etc.) resulting from an unscheduled closing will be provided to participants based on information received from issuers, agents and/or exchanges. Participants are advised to monitor RIPS, CA- Web and other Corporate Action Information sources to ensure that their internal records are accurate.</p>
<i>Physical Deliveries (Envelope Processing)</i>	<p>Normal processing for all Envelope Settlement Services (ESS). New York Window (NYW) will be open.</p>
<i>Customer Account Transfer Processing</i>	<p>The ACATS system will run as normal including the aging of prior activity and the interfaces with CNS, Fund/SERV and settlement.</p> <p>All output will be distributed as scheduled.</p>
<i>Mutual Funds Processing</i>	<p>Normal processing for Networking, Profile, MF Info Exchange, Payment aXis and Fund/SERV, including the confirmation and aging of prior transactions and the interfaces with ACATS and settlement.</p> <p>All output will be distributed as scheduled.</p>

NSCC/DTC Unscheduled Closing	
Function	Markets Closed Banks/Fedwire Open
<i>Alternative Investment Products</i>	<p>Normal processing for AIP, including the confirmation and aging of prior transactions and the interfaces with settlement.</p> <p>All output will be distributed as scheduled.</p>
<i>Insurance Processing</i>	<p>Normal processing for the Insurance systems, including the aging of prior activity and the interfaces with settlement.</p> <p>All input will be accepted and processed, and all output will be distributed as scheduled.</p>
<i>Canadian Link Processing</i>	<p>Canadian Dollar services will run as normal, including current interfaces and the processing of input and output.</p>
<i>IPOs & Underwritings</i>	<p>Normal processing for new issue eligibility submissions from underwriters and their correspondents (via UWSOURCE, the Underwriting web application).</p> <p>Normal processing for new issue closing process</p>
<i>Physical Processing Deposits - Withdrawals (DTC) and Custody</i>	<p>Normal processing.</p>
<i>CMU Regulatory Interfaces (MSRB)</i>	<p>All submissions will be made available via the regulatory interface to MSRB.</p>
<i>Risk Management</i>	<p>Normal risk management procedures will apply, including all risk-based margining components, such as value-at-risk, mark-to-market and risk special charges.</p>

SECTION 4 STATUS OF FICC/GSD FUNCTIONS IN AN UNSCHEDULED CLOSING

The table below summarizes the expected status of certain FICC/GSD functions if markets are closed, but banks and Fedwire remain open. The status of any service or function may vary depending on a determination made by FICC at the time, or in anticipation, of an unscheduled closing.

FICC/GSD UNSCHEDULED CLOSING	
Function	Markets Closed Banks/Fedwire Open
<i>GSD Trade Processing (Capture, Matching & Reporting) & Auctions</i>	<p>All trade processing will be available (trade input, trade matching, messaging, and reporting).</p> <p>Auction trades and files received from the Federal Reserve Bank or from a Government Sponsored Agency will be processed.</p> <p>All reports, files and message output will be created and distributed as scheduled, even if the files are empty.</p>
<i>GSD Trade Netting & Settlement Obligations Reports/MRO</i>	<p>Netting will run as scheduled.</p> <p>Settlement obligations reports/MROs generated by the netting function will be distributed as scheduled.</p>
<i>GSD Funds Only Settlement</i> <ul style="list-style-type: none"> • <i>Forward Mark</i> • <i>Coupon Pay</i> • <i>TAP</i> • <i>Invoice</i> 	<p>Funds only settlement will proceed normally for both intraday and end-of-day settlement since banks are open for money transfers.</p>
<i>GSD Settlement of Receive and Deliver Obligations (includes auction obligations)</i>	<p>Settlement of obligations will proceed normally since the Fed Book Entry System is available.</p>
<i>GSD Risk Management</i>	<p>Normal risk management procedures will apply. This includes the calculation of clearing fund requirements and the enforcement/collection of clearing fund deficits for both the intraday and end-of-day margin cycles.</p>
<i>GSD Fails to Receive and Deliver & TMPG Charges</i>	<p>Fails are captured and resubmitted for netting.</p> <p>TMPG charges will be applied to all failed obligations.</p>

FICC/GSD UNSCHEDULED CLOSING	
Function	Markets Closed Banks/Fedwire Open
<i>GSD Blind Broker Fails</i>	Any fails of blind broker settlements will be assumed by FICC and submitted into the net, if netting eligible.
<i>GSD Repo Substitutions</i>	Substitution requests will be accepted.
<i>GSD Cross Margining</i>	Cross margining will occur if data is available from the CME.
<i>GCF Repo Settlement</i>	GCF processing (including CCIT transactions), matching, netting and files to the banks, allocations and settlements will occur normally.
<i>GCF Repo Index</i>	GCF Repo Index will update as a regular business day.
<i>GSD Member Onboarding</i>	All new members will be activated.

SECTION 5 STATUS OF FICC/MBSD FUNCTIONS IN AN UNSCHEDULED CLOSING

The table below summarizes the status of certain FICC/MBSD functions if markets are closed, but banks and Fedwire remain open.

FICC/MBSD UNSCHEDULED CLOSING	
Function	Markets Closed Banks/Fedwire Open
<i>MBSD Trade Processing (Capture, Matching & Reporting)</i>	All trade processing will be available (trade input, trade matching, and messaging). All reports, files and message output will be created and distributed as scheduled, even if the files are empty.
<i>MBSD TBA & Pool Trade Netting & Pool Conversion</i>	TBA obligations generated by the netting process will be created on the designated SIFMA netting days (A, B, C, and D). Pool net and Pool Conversion will run as scheduled. Pool obligations scheduled for deliver on that day may settle as usual.

FICC/MBSD UNSCHEDULED CLOSING	
Function	Markets Closed Banks/Fedwire Open
<i>MBSD Funds Only Settlement</i> <ul style="list-style-type: none"> • <i>TBA</i> • <i>Cash Adj.</i> • <i>TAP</i> • <i>Invoice</i> 	Settlement of cash obligation items will proceed normally.
<i>MBSD Settlement of Receive and Deliver Obligations (RVP/DVP)</i>	Settlement of obligations will proceed normally since the Fed Book Entry System is available.
<i>MBSD Do Not Allocate, TBA Reprice, and Expanded Pool Net</i>	The Do Not Allocate (DNA), TBA Reprice, and Expanded Pool Net will run as scheduled on SIFMA 24-hour day.
<i>MBSD Electronic Pool Notification (EPN)</i>	EPN is available for message processing.
<i>MBSD Pool Substitutions</i>	Substitution requests will be accepted.
<i>MBSD TMPG Charges</i>	TMPG charges will be applied to all failed obligations.
<i>MBSD Settlement Obligations Reporting</i>	Settlement processing reports / MROs generated by the netting function will be distributed as scheduled.
<i>MBSD Risk Management</i>	Normal risk management procedures will apply. This includes the calculation of clearing fund requirements and the enforcement/collection of clearing fund deficits for daily margin requirements as well as any potential intraday margin calls.
<i>MBSD Member Onboarding</i>	All new members will be activated.

If participants or other stakeholders have any comments or questions regarding these procedures, or require additional information or details, please contact your Relationship Manager.