



FIXED INCOME CLEARING CORPORATION

AND

NATIONAL SECURITIES CLEARING CORPORATION

PUBLIC QUANTITATIVE DISCLOSURES FOR CENTRAL COUNTERPARTIES

Q1 2023

TABLE OF CONTENTS

PRINCIPLE#	DISCLOSURE #	DISCLOSURE TITLE
4	4.1	Total value of default resources (excluding initial and retained variation margin), split by clearing service if default funds are segregated by clearing service)
	4.2	Ксср
	4.3	Value of pre-funded default resources (excluding initial and retained variation margin) held for each clearing service, in total and split by
	4.4	Credit Risk Disclosures
5	5.1	Assets eligible as initial margin, and the respective haircuts applied
	5.2	Assets Eligible for pre-funded participant contributions to the default resources, and the respective haircuts applied (if different from 5.1)
	5.3	Results of testing of haircuts
6	6.1	For each clearing service, total initial margin required, split by house and client (or combined total if not segregated)
	6.2	For each clearing service, total initial margin held, split by house and client
	6.3	Initial Margin rates on individual contracts, where the CCP sets such rates
	6.4	Type of initial margin model used (e.g. portfolio simulation or risk aggregation) for each clearing service and the key model design parameters for each initial margin model applied to that clearing service
	6.5	Results of back-testing of initial margin. At a minimum, this should include, for each clearing service and each initial margin model applied to that clearing service
	6.6	Average Total Variation Margin Paid to the CCP by participants each business
	6.7	Maximum total variation margin paid to the CCP on any given business day over the period
	6.8	Maximum aggregate initial margin call on any given business day over the period
7	7.1	Liquidity Risk
	7.2	Size and composition of any supplementary liquidity risk resources for each clearing service above those qualifying liquid resources above.
	7.3	Liquidity Risk

TABLE OF CONTENTS CONT'D

PRINCIPLE #	DISCLOSURE#	DISCLOSURE TITLE
12	12.1	Percentage of settlements by value effected using a DvP, DvD or PvP settlement mechanism
	12.2	Percentage of settlements by volume effected using a DvP, DvD or PvP settlement mechanism
13	13.1	Quantitative information related to defaults
14	14.1	Total Client Positions held as a share of notional values cleared or of the settlement value of securities transactions
15	15.1	General business risk
	15.2	General business risk; Financial Disclosures
	15.3	General business risk; Income breakdown
16	16.1	Total cash (but not securities) received from participants, regardless of the form in which it is held, deposited or invested, split by whether it was received as initial margin or default fund contribution
	16.2	How total cash received from participants (16.1) is held/deposited/invested, including;
	16.3	Rehypothecation of participant assets (ie non-cash)
17	17.1	Operational availability target for the core system(s) involved in clearing (whether or not outsourced) over specified period for the system (e.g. 99.99% over a twelve-month period)
	17.2	Actual availability of the core system(s) over the previous twelve month period
	17.3	Total number of failures
	17.4	Recovery time objective(s)
18	18.1	Number of clearing members, by clearing service
	18.2	Open Position Concentration
	18.3	Initial Margin Concentration
	18.4	Segregated Default Fund Concentration

TABLE OF CONTENTS CONT'D

PRINCIPLE#	DISCLOSURE#	DISCLOSURE TITLE
19	19.1	Tiered participation arrangements, measures of concentration of client clearing
20	20.1	FMI Links, Value of Trades
	20.2	FMI Links, Initial Margin or equivalent financial resources provided
	20.3	FMI Links, Initial Margin or equivalent financial resources collected
	20.4	FMI Links, Results of Back-testing coverage
	20.5	FMI Links, Additional pre-funded financial resources provided to
	20.6	FMI Links, Additional pre-funded financial resources collected from
	20.7	FMI Links, Cross Margining
23	23.1	Disclosure of rules, key procedures, and market data; Average Daily Volumes
	23.2	Disclosure of rules, key procedures, and market data; Non-Yet-Settled
	23.3	Disclosure of rules, key procedures, and market data; Execution Facility
PRC	PRC 1	Payment Risk Committee Disclosure - Concentration Measures
	PRC 2	Payment Risk Committee Disclosure - Initial Margin Detail
APPENDIX	Revision Log	Restatement of Disclosure #15.2.4 and #15.2.5 for NSCC

EXECUTIVE SUMMARY

In February 2015, CPMI-IOSCO issued its final report on Quantitative Disclosure Standards for Central Counterparties ("CCPs"), which provides specific quantitative disclosure requirements for CCPs relative to a number of the PFMI principles. These disclosures are intended to complement the narrative disclosures included in the CPMI-IOSCO Disclosure Framework*. This document contains the quantitative disclosures for the two divisions of the Fixed Income Clearing Corporation ("FICC") — the Government Securities Division ("GSD") and Mortgage-Backed Securities Division ("MBSD") — and the National Securities Clearing Corporation ("NSCC"). FICC and NSCC are wholly owned subsidiaries of The Depository Trust & Clearing Corporation ("DTCC").

The attached disclosures include, in addition to those required by CPMI-IOSCO, some supplemental disclosures as proposed by the Payments Risk Committee's Recommendations for Supporting Clearing Member Due Diligence of Central Counterparties (Feb 2013).

The information provided in this disclosure is reported as of the dates specified. For further information, please contact **CPMI-IOSCO Quant@dtcc.com**.

* The Disclosure Frameworks for FICC and NSCC can be found at www.dtcc.com

Q1 2023 SUPPLEMENTAL EXPLANATORY NOTE

Management Note

The U.S. equity markets rose during the first quarter of 2023, despite a sharp decrease in March due to the banking crisis, with the tech sector leading the strongest gains and favorable inflation data suggesting limited interest rate hikes ahead by the Federal Reserve, with the S&P 500 index increasing by 7.5% in the quarter.

The yields on U.S. treasuries were very volatile during the course of the first quarter of 2023. The 10-year U.S. Treasury yield for the quarter peaked at 4.07% following the interest rates increase by the Federal Reserve, but later dropped to 3.28% amid contagion concerns over the banking sector. The 2-year and 10-year U.S. Treasury curve remained inverted since July 5th, 2022 with the negative spread between the two, exceeding 1% in early March 2023.

Clearing Fund Backtesting Results

At DTCC, backtesting is conducted to measure the sufficiency of the overall Clearing Fund coverage by comparing a Member's Required Deposit to the 3-day observed P&L for the Member's portfolio and aggregated into the CCP-level backtesting coverage data that is provided in this disclosure. The backtesting assesses the adequacy of a 3-day liquidation period assumption in the event of Member default, and all VaR models at DTCC are currently calibrated at a minimum of 99% coverage.

FICC-Government Securities Division (GSD)

At the end of the first quarter of 2023, GSD's 12-month backtesting coverage level was 98.4%. The 1-month coverage ratio at GSD was 99.9% for January, 99.4% for February, and 96.4% for March. The 12-month backtesting coverage remained below 99% primarily due to backtesting deficiencies following market volatility from June to November 2022, and March 2023. The largest deficiency for the quarter totaled \$339.4MM observed on 03/08/2023 and was driven by a large 3-day downward movement in yield (-66bps at the 5yr, -54bps at the 7yr and -43bps at the 10yr points of the curve). The median backtesting deficiency for the quarter was \$10.8MM.

FICC-Mortgage-Backed Securities Division (MBSD)

At the end of the first quarter of 2023, MBSD's 12-month backtesting coverage level was 98.4%. The 1-month coverage ratio at MBSD was 99.9% for January, 99.8% for February, and 99.9% for March. The 12-month backtesting coverage remained below 99% primarily due to backtesting deficiencies from June and November 2022. The largest deficiency for the quarter was for \$2.2MM incurred on 02/03/2023 and was driven by a Member's position change. The median backtesting deficiency for the quarter was \$425K.

National Securities Clearing Corporation (NSCC)

At the end of the first quarter of 2023, NSCC's 12-month backtesting coverage level was 99.8%, with the 1-month coverage ratio for January and February at 99.8%, and 99.9% for March. The median backtesting deficiency for the quarter was \$882K. The largest deficiency for the quarter was \$27.5MM which occurred on 03/07/2023, with the top driver being a security exhibiting idiosyncratic risk.

Q1 2023 SUPPLEMENTAL EXPANATORY NOTE (Cont'd)

Liquidity Results

GSD, MBSD, and NSCC did not experience a default event nor did any Member fail to satisfy payment obligations in Q1 2023. Simulated default liquidity sufficiency shortfalls were observed for MBSD and NSCC in Q1 2023, as described below.

For GSD and MBSD, the values are estimated liquidity obligations, post netting that are based on trades that are due to settle the following business day. MBSD observed one simulated default liquidity suffiency shortfall of \$3.8BN, due to the elevated liquidity obligation of the largest affiliated family during January Class A settlement. For NSCC, the values are estimated liquidity obligations that are based on multi-day obligations throughout the (T+2) settlement cycle plus the Long Allocation and CALM offsets. The total reflects, where relevant, intraday and multiday payment obligations that could be caused by the default of any single participant and its affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions.

The liquidity results reflect NSCC's potential liquidity obligations in a Member default scenario. In a non-default scenario, NSCC's Members have cash obligations for all securities deliveries (buy positions). Those cash obligations are netted with cash received for all securities deliveries (sell positions). If a portfolio is balanced with buys/sells, these settlement amounts will largely offset.

In a default scenario, NSCC is responsible for the receipt of securities from, and payment of cash to, the contra side Members (buy positions). This represents the exposure that is published in this report. NSCC may also need to source securities that the defaulting Member was unable to deliver (sell positions). The liquidity obligations of the sell positions pair-off, as NSCC would exchange settlement proceeds between the two contra side Members. As such, the buy positions drive the potential default liquidity risk that is posed to NSCC, since NSCC would be responsible for the payment of cash required to settle those purchases. Therefore, NSCC's conservative liquidity results derived from a default scenario are not comparable to the non-default settlement obligations of its Members.

Liquidity results also reflect the fact that NSCC receives option activity from the Options Clearing Corporation ("OCC") each business day, but activity on non-expiry dates is not as significant as the activity observed around standard expiration periods. Liquidity needs are conservatively calculated and liquidity resources are measured assuming the guarantee for OCC options has been transferred to NSCC. Liquidity risk measurement is calibrated extremely conservatively to address uncertainty of potential outcomes; resources are likely to increase during periods of stress over a 4-day default period, but no such increases are taken into account as potential risk mitigation.

NSCC observed one simulated default liquidity suffiency shortfall totalling \$813MM during March option expiry period that was resolved with the collection of a Supplemental Liquidity Deposit ("SLD"), the following start-of-day. NSCC uses SLD, a payment obligation, determined by whether the daily liquidity need on a business day exceeds the sum of NSCC's qualifying liquid resources ("QLR") available to NSCC, after the application of a wide-range of stressed market assumptions. The SLD payment obligation is based on the calculated QLR and actual liquidity exposure over the upcoming settlement cycle that a Member's daily activity would pose to NSCC on that particular day in the event of that Member's default. NSCC collected SLD five times in Q1. SLD is part of NSCC's diversified set of liquidity resources; QLR includes cash deposits to the NSCC Clearing Fund; proceeds of the issuance and private placement of (a) short-term, unsecured notes in the form of commercial paper and extendable notes and (b) term debt; and cash that would be obtained by drawing on NSCC's committed 364-day credit facility with a consortium of banks. The SLD rule is Rule 4A in the NSCC rulebook that can be accessed via https://www.dtcc.com/~/media/Files/Downloads/legal/rules/nscc_rules.pdf. Full text of the SLD filings may be obtained by visiting the DTCC website at www.dtcc.com/legal/sec-rule-filings.

CPIVII-I	OSCO Quantitative Disclosures - DTCC							As of March 31, 2023
Disclosure	Disclosur	: Description	Frequency	Data Type	F	FICC	NSCC	Explanatory Notes
Reference	Disclosur	. Description	rrequency	Data Type	GSD	MBSD	Noce	Explanatory Notes
Disclosu	re 4.1 - Total value of default resources (excluding initial and retained	I variation margin), split by clearing service if default funds are segregated	ted by clearing se	rvice				
4.1.1	Prefunded - Own Capital Before		Quarterly/ Quarter End	USD \$BN		76	120	The Company maintains an amount referred to as the corporate contribution, to be applied to losses of the Company as provided in the clearing agency rules. The amount of the corporate contribution
4.1.2	Prefunded - Own Capital Alongside			USD \$MM	N/A	N/A	N/A	generally equal to 50% of the Company's general business risk capital requirement.
4.1.3	Prefunded - Own Capital After			USD \$MM	N/A	N/A	N/A	
4.1.4	Prefunded - Aggregate Participant Contributions - Required			USD \$MM	36,677	8,902	10,363	NSCC and each FICC Division calculates and collects Clearing Fund from its Members using a risk-based margin methodology. These amounts (a Member's "Required Fund Deposit") operate as the
4.1.5	Prefunded - Aggregate Participant Contributions - Post-Haircut Posted			USD \$MM	43,657	11,102	11,349	Member's margin, and the aggregate of all such Members' deposits is, collectively, the Clearing Fun which operates as NSCC's/FICC (with respect to each division's) default fund.
								For NSCC, on September 5, 2017, the US cash equities markets moved to a T+2 settlement cycle. Accordingly, after that date, the clearing fund has been calculated to take into account the shortene settlement cycle.
4.1.6	Prefunded - Other			USD \$MM	N/A	N/A	N/A	
4.1.7	Committed - Own/parent funds that are committed to address a participant default	or round of participant defaults)		USD \$MM	N/A	N/A	N/A	
4.1.8	Committed - Aggregate participant commitments to address an initial participant def	ault (or initial round of participant defaults)		USD \$MM	N/A	N/A	N/A	
4.1.9	Committed - Aggregate participant commitments to replenish the default fund to de	al with a subsequent participant default (or round of participant defaults) after the initial		USD \$MM	N/A	N/A	N/A	
	participant default (or round of participant defaults) has been addressed.							
4 1 10	Committed - Other			USD \$MM	N/A	N/A	N/A	
4.1.10	Committee - Other			ואוואול חבט	11/71	NYZ	NYA	
Disclosu	re 4.2 - Kccp - Quarter End							
4.2.1	Kccp - Kccp need only be reported by those CCPs which are, or seek to be a "qualifying the company of the compa	ng CCP" under relevant law.	Quarterly	USD \$MM	550	N/A	N/A	
Disclosu	re 4.3 - Value of pre-funded default resources (excluding initial and re	tained variation margin) held for each clearing service						
4.3.1	Cash deposited at a central bank of issue of the currency concerned	Pre Haircut	Quarterly/	USD \$MM	16,752	4,200	9,986	
		Post Haircut	Quarter End	USD \$MM	16,752	4,200	9,986	
4.3.2	Cash deposited at other central banks	Pre Haircut		USD \$MM	0	0	0	
		Post Haircut		USD \$MM	0	0	0	
4.3.3	Secured cash deposited at commercial banks (including reverse repo)	Pre Haircut		USD \$MM	0	0	0	
		Post Haircut		USD \$MM	0	0	0	
4.3.4	Unsecured cash deposited at commercial banks	Pre Haircut		USD \$MM	521	145	770	See Explanatory Note from 4.1
		Post Haircut		USD \$MM	521	145	770	
4.3.4.2	Unsecured cash invested in Money Market Mutual Funds	Pre Haircut		USD \$MM	0	0	0	See Explanatory Note from 4.1
		Post Haircut		USD \$MM	0	0	0	
4.3.4.3	Unsecured cash invested in US Treasury Bills	Pre Haircut		USD \$MM	0	0	0	See Explanatory Note from 4.1
		Post Haircut		USD \$MM	0	0	0	
4.3.5	Non-Cash Sovereign Government Bonds - Domestic	Pre Haircut		USD \$MM	23,546	6,882	614	See Explanatory Note from 4.1
		Post Haircut	1	USD \$MM	22,671	6,610	595	

Page 8 of 21

Disclosure				Dota T	F	ICC	NSSS	Evylandam Natas
eference	Disclosure Descript	ion	Frequency	Data Type	GSD	MBSD	NSCC	Explanatory Notes
Disclosu	re 4.3 - Value of pre-funded default resources (excluding initial and retained	variation margin) held for each clearing service - Cont'd						
4.3.6	Non-Cash Sovereign Government Bonds - Other	Pre Haircut	Quarterly/	USD \$MM	0	0	0	
		Post Haircut	Quarter End	USD \$MM	0	0	0	
4.3.7	Non-Cash Agency Bonds	Pre Haircut		USD \$MM	4,081	176	0	See Explanatory Note from 4.1
		Post Haircut		USD \$MM	3,795	163	0	
4.3.8	Non-Cash State/municipal bonds	Pre Haircut		USD \$MM	0	0	0	
		Post Haircut		USD \$MM	0	0	0	
4.3.9	Non-Cash Corporate bonds	Pre Haircut		USD \$MM	0	0	0	
		Post Haircut		USD \$MM	0	0	0	
4.3.10	Non-Cash Equities	Pre Haircut		USD \$MM	0	0	0	
		Post Haircut		USD \$MM	0	0	0	
4.3.11	Non-Cash Commodities - Gold	Pre Haircut		USD \$MM	0	0	0	
		Post Haircut		USD \$MM	0	0	0	
4.3.12	Non-Cash Commodities - Other	Pre Haircut		USD \$MM	0	0	0	
		Post Haircut		USD \$MM	0	0	0	
4.3.13	Non-Cash Commodities - Mutual Funds / UCITs	Pre Haircut		USD \$MM	0	0	0	
		Post Haircut		USD \$MM	0	0	0	
4.3.14	Non-Cash Commodities - Other	Pre Haircut		USD \$MM	0	0	0	
		Post Haircut		USD \$MM	0	0	0	
4.3.15		Pre Haircut		USD \$MM	44,900	11,402	11,370	
	Reported as at quarter end; Pre-Haircut and Post-Haircut	Post Haircut		USD \$MM	43,740	11,119	11,351	
Disclosu	re 4.4 - Credit Risk Disclosures							
4.4.1	State whether the CCP is subject to a minimum "Cover 1" or "Cover 2"		Quarterly		Cover 1	Cover 1	Cover 1	
	requirement in relation to total pre-funded default resources.		·					
4.4.2	For each clearing service, state the number of business days within which the							
	CCP assumes it will close out the default when calculating credit exposures that			Bus. Days	3	3	3	This is our risk horizon for liquidation and hedging of market risk.
	cce assumes it will close out the default when calculating credit exposures that			Bus. Days	3	3	3	This is our risk horizon for liquidation and hedging of market risk.
	would potentially need to be covered by the default fund.			Bus. Days	3	3	3	This is our risk horizon for liquidation and hedging of market risk.
4.4.3	would potentially need to be covered by the default fund. For each clearing service, the estimated largest aggregate stress loss (in excess of initial	Peak Day/		Bus. Days USD \$MM	2,456	2,552	1,235	Amounts correspond to largest Cover 1 ratio. This may not correspond to the largest stress loss
4.4.3	would potentially need to be covered by the default fund. For each clearing service, the estimated largest aggregate stress loss (in excess of initial margin) that would be caused by the default of any single participant and its affiliates	Previous 12 Months		USD \$MM	2,456	·	1,235	Amounts correspond to largest Cover 1 ratio. This may not correspond to the largest stress loss amount observed during the look-back period.
4.4.3	would potentially need to be covered by the default fund. For each clearing service, the estimated largest aggregate stress loss (in excess of initial margin) that would be caused by the default of any single participant and its affiliates (including transactions cleared for indirect participants) in extreme but plausible market	Previous 12 Months Mean Avg/		·	•	2,552 1,571		Amounts correspond to largest Cover 1 ratio. This may not correspond to the largest stress loss amount observed during the look-back period. In November 2022, a rule filing related to GSD's stress testing program was approved by regulators,
4.4.3	would potentially need to be covered by the default fund. For each clearing service, the estimated largest aggregate stress loss (in excess of initial margin) that would be caused by the default of any single participant and its affiliates	Previous 12 Months		USD \$MM	2,456	·	1,235	Amounts correspond to largest Cover 1 ratio. This may not correspond to the largest stress loss amount observed during the look-back period. In November 2022, a rule filing related to GSD's stress testing program was approved by regulators, henceforth GSD results from December 2022 onwards are derived from a model that includes
4.4.3	would potentially need to be covered by the default fund. For each clearing service, the estimated largest aggregate stress loss (in excess of initial margin) that would be caused by the default of any single participant and its affiliates (including transactions cleared for indirect participants) in extreme but plausible market	Previous 12 Months Mean Avg/		USD \$MM	2,456	·	1,235	Amounts correspond to largest Cover 1 ratio. This may not correspond to the largest stress loss amount observed during the look-back period. In November 2022, a rule filing related to GSD's stress testing program was approved by regulators, henceforth GSD results from December 2022 onwards are derived from a model that includes changes described in the rule filing. GSD ST results are the combined average of outputs before and
4.4.3	would potentially need to be covered by the default fund. For each clearing service, the estimated largest aggregate stress loss (in excess of initial margin) that would be caused by the default of any single participant and its affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions. (Previous 12 Months)	Previous 12 Months Mean Avg/		USD \$MM	2,456	·	1,235	Amounts correspond to largest Cover 1 ratio. This may not correspond to the largest stress loss amount observed during the look-back period. In November 2022, a rule filing related to GSD's stress testing program was approved by regulators, henceforth GSD results from December 2022 onwards are derived from a model that includes
	would potentially need to be covered by the default fund. For each clearing service, the estimated largest aggregate stress loss (in excess of initial margin) that would be caused by the default of any single participant and its affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions. (Previous 12 Months)	Previous 12 Months Mean Avg/		USD \$MM USD \$MM	2,456	1,571	1,235 492	Amounts correspond to largest Cover 1 ratio. This may not correspond to the largest stress loss amount observed during the look-back period. In November 2022, a rule filing related to GSD's stress testing program was approved by regulators, henceforth GSD results from December 2022 onwards are derived from a model that includes changes described in the rule filing. GSD ST results are the combined average of outputs before and
	would potentially need to be covered by the default fund. For each clearing service, the estimated largest aggregate stress loss (in excess of initial margin) that would be caused by the default of any single participant and its affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions. (Previous 12 Months) Report the number of business days, if any, on which the above amount (4.4.3) exceeded actual pre-funded default resources (in excess of initial margin).	Previous 12 Months Mean Avg/		USD \$MM USD \$MM	2,456	1,571	1,235 492	Amounts correspond to largest Cover 1 ratio. This may not correspond to the largest stress loss amount observed during the look-back period. In November 2022, a rule filing related to GSD's stress testing program was approved by regulators, henceforth GSD results from December 2022 onwards are derived from a model that includes changes described in the rule filing. GSD ST results are the combined average of outputs before and
4.4.4	would potentially need to be covered by the default fund. For each clearing service, the estimated largest aggregate stress loss (in excess of initial margin) that would be caused by the default of any single participant and its affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions. (Previous 12 Months) Report the number of business days, if any, on which the above amount (4.4.3) exceeded actual pre-funded default resources (in excess of initial margin).	Previous 12 Months Mean Avg/ Previous 12 Months		USD \$MM USD \$MM Bus. Days	2,456	0	1,235 492 0	Amounts correspond to largest Cover 1 ratio. This may not correspond to the largest stress loss amount observed during the look-back period. In November 2022, a rule filing related to GSD's stress testing program was approved by regulators, henceforth GSD results from December 2022 onwards are derived from a model that includes changes described in the rule filing. GSD ST results are the combined average of outputs before and
4.4.4	would potentially need to be covered by the default fund. For each clearing service, the estimated largest aggregate stress loss (in excess of initial margin) that would be caused by the default of any single participant and its affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions. (Previous 12 Months) Report the number of business days, if any, on which the above amount (4.4.3) exceeded actual pre-funded default resources (in excess of initial margin). The amount in 4.4.3 which exceeded actual pre-funded default resources (in excess of initial margin) (Previous 12 Months)	Previous 12 Months Mean Avg/ Previous 12 Months Amt Exceeded/		USD \$MM USD \$MM Bus. Days	2,456	0	1,235 492 0	Amounts correspond to largest Cover 1 ratio. This may not correspond to the largest stress loss amount observed during the look-back period. In November 2022, a rule filing related to GSD's stress testing program was approved by regulators, henceforth GSD results from December 2022 onwards are derived from a model that includes changes described in the rule filing. GSD ST results are the combined average of outputs before and after the described changes.
4.4.4 4.4.5	would potentially need to be covered by the default fund. For each clearing service, the estimated largest aggregate stress loss (in excess of initial margin) that would be caused by the default of any single participant and its affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions. (Previous 12 Months) Report the number of business days, if any, on which the above amount (4.4.3) exceeded actual pre-funded default resources (in excess of initial margin). The amount in 4.4.3 which exceeded actual pre-funded default resources (in excess of initial margin) (Previous 12 Months)	Previous 12 Months Mean Avg/ Previous 12 Months Amt Exceeded/ Previous 12 Months		USD \$MM USD \$MM Bus. Days USD \$MM USD \$MM	2,456 1,665 0	0 0	1,235 492 0	Amounts correspond to largest Cover 1 ratio. This may not correspond to the largest stress loss amount observed during the look-back period. In November 2022, a rule filing related to GSD's stress testing program was approved by regulators, henceforth GSD results from December 2022 onwards are derived from a model that includes changes described in the rule filing. GSD ST results are the combined average of outputs before and
4.4.4 4.4.5	would potentially need to be covered by the default fund. For each clearing service, the estimated largest aggregate stress loss (in excess of initial margin) that would be caused by the default of any single participant and its affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions. (Previous 12 Months) Report the number of business days, if any, on which the above amount (4.4.3) exceeded actual pre-funded default resources (in excess of initial margin). The amount in 4.4.3 which exceeded actual pre-funded default resources (in excess of initial margin) (Previous 12 Months) For each clearing service, the actual largest aggregate credit exposure (in excess of initial	Previous 12 Months Mean Avg/ Previous 12 Months Amt Exceeded/ Previous 12 Months Peak Day/ Previous 12 Months Avg/		USD \$MM USD \$MM Bus. Days USD \$MM	2,456 1,665 0	0 0	1,235 492 0	Amounts correspond to largest Cover 1 ratio. This may not correspond to the largest stress loss amount observed during the look-back period. In November 2022, a rule filing related to GSD's stress testing program was approved by regulators, henceforth GSD results from December 2022 onwards are derived from a model that includes changes described in the rule filing. GSD ST results are the combined average of outputs before and after the described changes.
4.4.4 4.4.5 4.4.6	would potentially need to be covered by the default fund. For each clearing service, the estimated largest aggregate stress loss (in excess of initial margin) that would be caused by the default of any single participant and its affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions. (Previous 12 Months) Report the number of business days, if any, on which the above amount (4.4.3) exceeded actual pre-funded default resources (in excess of initial margin). The amount in 4.4.3 which exceeded actual pre-funded default resources (in excess of initial margin) (Previous 12 Months) For each clearing service, the actual largest aggregate credit exposure (in excess of initial margin) to any single participant and its affiliates (including transactions cleared for indirect participants) (Previous 12 Months)	Previous 12 Months Mean Avg/ Previous 12 Months Amt Exceeded/ Previous 12 Months Peak Day/ Previous 12 Months Avg/ Previous 12 Months		USD \$MM USD \$MM Bus. Days USD \$MM USD \$MM USD \$MM	2,456 1,665 0 0 1,013 79	1,571 0 0 913 198	1,235 492 0 0 82 7	Amounts correspond to largest Cover 1 ratio. This may not correspond to the largest stress loss amount observed during the look-back period. In November 2022, a rule filing related to GSD's stress testing program was approved by regulators, henceforth GSD results from December 2022 onwards are derived from a model that includes changes described in the rule filing. GSD ST results are the combined average of outputs before and after the described changes. Amount represents Peak/Average VaR model back test results.
4.4.4 4.4.5	would potentially need to be covered by the default fund. For each clearing service, the estimated largest aggregate stress loss (in excess of initial margin) that would be caused by the default of any single participant and its affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions. (Previous 12 Months) Report the number of business days, if any, on which the above amount (4.4.3) exceeded actual pre-funded default resources (in excess of initial margin). The amount in 4.4.3 which exceeded actual pre-funded default resources (in excess of initial margin) (Previous 12 Months) For each clearing service, the actual largest aggregate credit exposure (in excess of initial margin) to any single participant and its affiliates (including transactions cleared for indirect participants) (Previous 12 Months) For each clearing service, the estimated largest aggregate stress loss (in excess of initial	Previous 12 Months Mean Avg/ Previous 12 Months Amt Exceeded/ Previous 12 Months Peak Day/ Previous 12 Months Avg/ Previous 12 Months Peak Day/ Previous 12 Months Peak Day/		USD \$MM USD \$MM Bus. Days USD \$MM USD \$MM	2,456 1,665 0 0	0 0 0 913	1,235 492 0 0	Amounts correspond to largest Cover 1 ratio. This may not correspond to the largest stress loss amount observed during the look-back period. In November 2022, a rule filing related to GSD's stress testing program was approved by regulators, henceforth GSD results from December 2022 onwards are derived from a model that includes changes described in the rule filing. GSD ST results are the combined average of outputs before and after the described changes. Amount represents Peak/Average VaR model back test results. Amounts correspond to largest Cover 2 ratio. This may not correspond to the largest Cover-2 stress
4.4.4 4.4.5 4.4.6	would potentially need to be covered by the default fund. For each clearing service, the estimated largest aggregate stress loss (in excess of initial margin) that would be caused by the default of any single participant and its affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions. (Previous 12 Months) Report the number of business days, if any, on which the above amount (4.4.3) exceeded actual pre-funded default resources (in excess of initial margin). The amount in 4.4.3 which exceeded actual pre-funded default resources (in excess of initial margin) (Previous 12 Months) For each clearing service, the actual largest aggregate credit exposure (in excess of initial margin) to any single participant and its affiliates (including transactions cleared for indirect participants) (Previous 12 Months)	Previous 12 Months Mean Avg/ Previous 12 Months Amt Exceeded/ Previous 12 Months Peak Day/ Previous 12 Months Avg/ Previous 12 Months		USD \$MM USD \$MM Bus. Days USD \$MM USD \$MM USD \$MM	2,456 1,665 0 0 1,013 79	1,571 0 0 913 198	1,235 492 0 0 82 7	Amounts correspond to largest Cover 1 ratio. This may not correspond to the largest stress loss amount observed during the look-back period. In November 2022, a rule filing related to GSD's stress testing program was approved by regulators, henceforth GSD results from December 2022 onwards are derived from a model that includes changes described in the rule filing. GSD ST results are the combined average of outputs before and after the described changes. Amount represents Peak/Average VaR model back test results.

Page 9 of 21

changes described in the rule filing. GSD ST results are the combined average of outputs before and

after the described changes.

CPMI-	IOSCO Quantitative Disclosures - DTCC							As of March 31, 2023
isclosure eference	Disclosure De	scription	Frequency	Data Type	GSD F	ICC MBSD	NSCC	Explanatory Notes
Disclos	ure 4.4 - Credit Risk Disclosures - Cont'd							
4.4.8	Number of business days, if any, on which the above amount (4.4.7) exceeded actual pre-funded default resources (in excess of initial margin) and by how much.		Quarterly	Bus. Days	0	0	0	Total number of business days where the largest Cover 2 ratio per day exceeded 100% for the last months of this test period. Excess amounts above pre-funded default resources (in excess of initial margin) corresponding to these business days are referenced below in 4.4.9 explanatory notes, what applicable.
4.4.9	The amount in 4.4.7 which exceeded actual pre-funded default resources (in excess of initial margin) (Previous 12 Months)	Amt Exceeded/ Previous 12 Months		USD \$MM	0	0	0	- арунсамс.
4.4.10	For each clearing service, what was the actual largest aggregate credit exposure (in excess of initial margin) to any two participants and their affiliates	Peak Day/ Previous 12 Months Avg/		USD \$MM	1,441	1,550 328	109	Amount represents Peak/Average VaR model back test results.
isclosu	lure 5.1 - Assets eligible as initial margin, and the respective haircuts appli	Previous 12 Months ed						
5.1.1	Assets eligible as initial margin and the respective haircuts applied		Update as changes are made	Website/ Hyperlink	.com/~/media/Fi les/Downloads/l	http://www.dtcc. com/~/media/File s/Downloads/lega l/rules/ficc_mbsd _rules.pdf	.com/~/media/Fi les/Downloads/I	GSD: Section: "SCHEDULE OF HAIRCUTS FOR ELIGIBLE CLEARING FUND SECURITIES" MBSD: Section: "SCHEDULE OF HAIRCUTS FOR ELIGIBLE CLEARING FUND SECURITIES" NSCC: Section: "PROCEDURE XV", "III. Collateral Value of Eligible Clearing Fund Securities"
Disclos	ure 5.2 - Assets Eligible for pre-funded participant contributions to the def	fault resources, and the respective haircuts applied (if differ	ent from 5.1)					
5.2.1	Assets Eligible for pre-funded participant contributions to the default resources, and the	respective haircuts applied (if different from 5.1)	Update as changes are made		See 5.1	See 5.1	See 5.1	
Disclosu	ure 5.3 - Results of testing of haircuts							
5.3.1	Confidence interval targeted through the calculation of haircuts		Quarterly	Percentage	99%	99%	99%	
5.3.2	Assumed holding/liquidation period for the assets accepted			Bus. Days	3	3	3	See Explanatory Note from 4.4.2
5.3.3	Look-back period used for testing the haircuts				10+ years	10+ years	10+ years	For Treasury and Agencies the lookback period, "10+ years", starts Jan 1, 2008 and continues to the last day of this quarter tested & reported herewith. Similar to current scenario selection or retention approach, where Historic Stress Scenario Dates are selected from a timespan of more than 10 years (utilizing a fixed start date and extending the end date), or retained for all Historic Scenario Dates previously derived which are on or after Jan 1, 2008. For Mortgages, Historic Stress Scenarios are selected from a 10+ years look-back period starting in 2002 and applied to CUSIPs selected from the months of the quarterly test period.
5.3.4	Number of days during the look-back period on which the fall in value during the assume	ed holding/liquidation period exceeded the haircut on an asset.		Bus. Days	Treasury total of 8 days.	Treasury total of 8 days. Mortgages total	Treasury total of 8 days.	See 5.1 for list of eligible assets and the respective haircuts applied. For Treasuries, based on the "1 years +" lookback period (including 2008 and onward), 2 days for 20 yrs. and 8 days for 30 yrs. tend were observed, where a change in rate caused a breach of respective HC. The total day count for

DTCC Public (White) Page 10 of 21

Agency 0 days.

Agency 0 days.

Agency 0 days.

were 62 days in Q1 2023 where at least one breach occurred. In total, the stress return (loss) for 24 CUSIPs under two historic stress scenarios breached the current HC. For Agencies no breaches were

observed under current HCs. For Agencies no breaches were observed under current HCs.

Section Control Cont	CPMI-	IOSCO Quantitative Disclosures - DTCC							As of March 31, 2023			
Mate and the many received split by house, diest agree, deep metal shall first supposes the form of the many received split by house, sheet agree of the many received split by house, sheet agree of the many received split by house agree of the many received split by house agree of the many received. Split by house agree of the many required. Split by house agree of the split by hous	Disclosure Reference	Disclosure Descript	ion	Frequency	Data Type		_	NSCC	Explanatory Notes			
Part		l Ire 6.1 - Total initial margin required split by house, client gross, client net and	I total (if not segregated)			<u> </u>	IVIDSD					
Part												
Part	6.1.1		· · ·	Quarterly					See Explanatory Note from 4.1.4			
Table Tabl		segregated)				· ·	,		¹ Not applicable. GSD/MBSD/NSCC does not hold client margin. See NSCC/FICC's Disclosure			
Disclosure 6.2- For each clearing service, total initial margin required, split by howe and client (or combined total into sepregated) Disclosure 6.3- Initial Margin rates on individual contracts, where the CCP sets such rates							,		Frameworks, Principle 14 discussion.			
Column C	Disclosu	······································										
Second S	Disclosu	Disclosure 6.3 - Initial Margin rates on individual contracts, where the CCP sets such rates										
6.4.1 Type of noted marget model lake, perfolio simulation or risk aggregation for each clearing service and the key model design parameters for each initial margin model applied to that clearing service. 6.5.1 Number of large perfolio simulation margin, At a minimum, this should include, for each clearing service and each initial margin model applied to that clearing service. 6.5.1 Number of large perfolio simulation margin, At a minimum, this should include, for each clearing service and each initial margin model applied to that clearing service. 6.5.1 Number of large perfolio simulation margin part of the control of the co	6.3.1	Initial Margin rates on individual contracts where the CCP sets such rates				N/A	N/A	N/A				
6.4.1 Type of noted marget model lake, perfolio simulation or risk aggregation for each clearing service and the key model design parameters for each initial margin model applied to that clearing service. 6.5.1 Number of large perfolio simulation margin, At a minimum, this should include, for each clearing service and each initial margin model applied to that clearing service. 6.5.1 Number of large perfolio simulation margin, At a minimum, this should include, for each clearing service and each initial margin model applied to that clearing service. 6.5.1 Number of large perfolio simulation margin part of the control of the co	Disalosu	us C.A. Turns of initial magning model used (a.g. poutfolio simulation or viels ag		avometors for each	initial manain	model applied to		ioo				
Disclosure 6.5 - Results of back-testing of initial margin. At a minimum, this should include, for each clearing service and each initial margin model applied to that clearing service 6.5.1 Number of three over the past facility or morths part a range coverage that against any account of the conduct response of that rember account – based on play that facility that the rember account – based on play that the rembe	DISCIOSU	ine 0.4 - Type of illitial margin model used (e.g. portiono simulation of risk ag	regation, for each cleaning service and the key model design pa	arameters for each	i iiiiliai iiiaigiii i	nouer applied to	o that thearing serv	ice				
Disclosure 6.5 - Results of back-testing of initial margin. At a minimum, this should include, for each clearing service and each initial margin model applied to that clearing service 6.5.1 Number of tines over the past twelve monits that margin coverage held against any account fell below the actual marks to market responsive of that member account - based on daily back fell below the actual marks to market responsive in the member account - based on daily back fell below the actual marks to market responsive in the member account - based on daily back fell below the actual marks to market responsive in the member account - based on daily back fell below the actual marks to market responsive in the member of daily like in the company of the past twelve in display in the company of the past twelve in display in the company of the past twelve in display in the company of the past twelve in display in the company of the past twelve in display in the company of the past twelve in display in the company of the past twelve in display in the company of the past twelve in display in the company of the past twelve in display in the company of the past twelve in display in the company of the past twelve in display in the company of the past twelve in display in the company of the past twelve in display in the company of the past twelve in display in the company of the com	6.4.1		g service and the key model design parameters for each initial margin model	Update as changes								
6.5.1 Number of times over the past twelve months that margin coverage held against any account. Once a day/ Hell below the actual mark-to-market exposure of that member account—based on daily back. Pervious 12 Months 6.5.2 Number of observations ((Number of accounts * number of day)) 6.5.3 Achieved coverage level (aggregate CP7-level backtest coverage) 6.5.4 Where breaches of initial margin coverage (as defined in 6.5(a)) have occurred, report on size previous 12 Months 6.5.5 On discovered coposure 6.5.5 Where breaches of initial margin coverage (as defined in 6.5(a)) have occurred, report on size Peak Size/ Pervious 12 Months 6.5.5 of successed coposure 6.5.6 Where breaches of initial margin coverage (as defined in 6.5(a)) have occurred, report on size Peak Size/ Pervious 12 Months 6.5.5 of successed coposure 6.5.6 Average Total Variation Margin Paid to the CCP by participants each business 6.6.1 Average Total Variation Margin Paid to the CCP by participants cach business are included as part of the Cearing fund requirements. 6.7. Maximum total variation margin paid to the CCP on any given business day over the period		applied to that clearing service		are made			Simulation + Haircut	VaR + Haircut				
6.5.1 Number of times over the past twelve months that margin coverage held against any account. Once a day/ Hell below the actual mark-to-market exposure of that member account—based on daily back. Pervious 12 Months 6.5.2 Number of observations ((Number of accounts * number of day)) 6.5.3 Achieved coverage level (aggregate CP7-level backtest coverage) 6.5.4 Where breaches of initial margin coverage (as defined in 6.5(a)) have occurred, report on size previous 12 Months 6.5.5 On discovered coposure 6.5.5 Where breaches of initial margin coverage (as defined in 6.5(a)) have occurred, report on size Peak Size/ Pervious 12 Months 6.5.5 of successed coposure 6.5.6 Where breaches of initial margin coverage (as defined in 6.5(a)) have occurred, report on size Peak Size/ Pervious 12 Months 6.5.5 of successed coposure 6.5.6 Average Total Variation Margin Paid to the CCP by participants each business 6.6.1 Average Total Variation Margin Paid to the CCP by participants cach business are included as part of the Cearing fund requirements. 6.7. Maximum total variation margin paid to the CCP on any given business day over the period												
tell blow the actual mark-to-market exposure of that member account – based on daily back testing results 6.5.2 Number of observations ([Number of accounts * number of days]) 6.5.3 Achieved coverage level [aggregate CCP-level backtest coverage] 6.5.4 Where breaches of initial margin coverage las defined in 6.5(a)) have occurred, report on size Peak Star/ Previous 12 Months 6.5.3 Where breaches of initial margin coverage [as defined in 6.5(a)) have occurred, report on size Previous 12 Months 6.5.3 Where breaches of initial margin coverage [as defined in 6.5(a)) have occurred, report on size Previous 12 Months 6.5.3 Where breaches of initial margin coverage [as defined in 6.5(a)) have occurred, report on size Previous 12 Months 6.5.4 Where breaches of initial margin coverage [as defined in 6.5(a)) have occurred, report on size Previous 12 Months 6.5.5 Where breaches of initial margin coverage [as defined in 6.5(a)) have occurred, report on size Previous 12 Months 6.6.1 Average Total Variation Margin Paid to the CCP by participants each business 6.6.1 Average Total Variation Margin Paid to the CCP by participants each business day 6.6.1 Average Total Variation Margin Paid to the CCP by participants each business day 6.6.1 Average Total Variation Margin Paid to the CCP by participants each business day 6.6.1 Average Total Variation Margin Paid to the CCP by participants each business day over the period 6.6.2 Average Total Variation Margin paid to the CCP on any given business day over the period	Disclosu	re 6.5 - Results of back-testing of initial margin. At a minimum, this should in	clude, for each clearing service and each initial margin model a	pplied to that clea	ring service							
testing results 6.5.2 Number of observations ([Number of accounts * number of days]) 6.5.3 Achieved coverage level [aggregate CCP-level backtest coverage] 6.5.4 Where breaches of initial margin coverage (as defined in 6.5(a)) have occurred, report on size of uncovered exposure 6.5.4 Where breaches of initial margin coverage (as defined in 6.5(a)) have occurred, report on size of uncovered exposure 6.5.5 Where breaches of initial margin coverage (as defined in 6.5(a)) have occurred, report on size of uncovered exposure 6.5.5 Where breaches of initial margin coverage (as defined in 6.5(a)) have occurred, report on size of uncovered exposure 6.5.6 Where breaches of initial margin coverage (as defined in 6.5(a)) have occurred, report on size of uncovered exposure 6.5.7 Where breaches of initial margin coverage (as defined in 6.5(a)) have occurred, report on size of uncovered exposure 6.5.8 Where breaches of initial margin coverage (as defined in 6.5(a)) have occurred, report on size of uncovered exposure 6.5.1 Werage Total Variation Margin Paid to the CCP by participants each business day 6.6.2 Where breaches of initial margin paid to the CCP by participants each business day 6.6.3 Werage Total Variation Margin Paid to the CCP by participants each business day 6.6.3 Werage Total Variation Margin Paid to the CCP by participants each business day 6.6.3 Werage Total Variation Margin Paid to the CCP by participants each business day 6.6.3 Werage Total Variation Margin Paid to the CCP by participants each business day 6.6.4 Werage Total Variation Margin Paid to the CCP by participants each business day 6.6.5 Werage Total Variation Margin Paid to the CCP by participants each business day 6.6.1 Werage Total Variation Margin Paid to the CCP by participants each business day 6.6.2 Werage Total Variation Margin Paid to the CCP by participants each business day 6.6.3 Werage Total Variation Margin Paid to the CCP by participants each business day 6.6.3 Werage Total Variation Margin Paid to the CCP by parti	6.5.1			Quarterly	Count	498	266	67				
6.5.3 Achieved coverage level [aggregate CCP-level backtest coverage] Percotage 98.4% 98.4% 99.8			Previous 12 Months									
6.5.4 Where breaches of initial margin coverage (as defined in 6.5(a)) have occurred, report on size of uncovered exposure 6.5.5 Where breaches of initial margin coverage (as defined in 6.5(a)) have occurred, report on size of uncovered exposure 6.5.5 Where breaches of initial margin coverage (as defined in 6.5(a)) have occurred, report on size of uncovered exposure 6.5.5 Where breaches of initial margin coverage (as defined in 6.5(a)) have occurred, report on size of uncovered exposure 6.5.6 Neverage Total Variation Margin Paid to the CCP by participants each business 6.6.1 Variation Margin Paid to the CCP by participants each business day 6.6.1 Variation Margin Paid to the CCP by participants each business day 6.6.2 Variation Margin Paid to the CCP by participants each business day 6.6.3 Variation Margin Paid to the CCP by participants each business day 6.6.4 Variation Margin Paid to the CCP by participants each business day 6.6.5 Variation Margin Paid to the CCP by participants each business day over the period 6.6.5 Variation Margin Paid to the CCP by participants each business day 6.6.6 Variation Margin Paid to the CCP by participants each business day 6.6.7 Maximum total variation margin paid to the CCP on any given business day over the period	6.5.2	Number of observations ([Number of accounts * number of days])	Previous 12 Months		Count	30,615	16,701	31,922				
of uncovered exposure 6.5.5 Where breaches of initial margin coverage (as defined in 6.5(a)) have occurred, report on size of uncovered exposure Disclosure 6.6 - Average Total Variation Margin Paid to the CCP by participants each business Average Quarterly USD \$MM Jo G For GSD and MBSD, VM is a cash pass-through process across the Members; for NSCC, VM character included as part of the Clearing Fund requirements. MTM debits were aggregated across all Members to reflect the variation margin paid to all Members to reflect the variation margin paid to the CCP on any given business day over the period	6.5.3	Achieved coverage level [aggregate CCP-level backtest coverage]	Previous 12 Months		Percentage	98.4%	98.4%	99.8%				
of uncovered exposure 6.5.5 Where breaches of initial margin coverage (as defined in 6.5(a)) have occurred, report on size of uncovered exposure Disclosure 6.6 - Average Total Variation Margin Paid to the CCP by participants each business Average Quarterly USD \$MM Jo G For GSD and MBSD, VM is a cash pass-through process across the Members; for NSCC, VM character included as part of the Clearing Fund requirements. MTM debits were aggregated across all Members to reflect the variation margin paid to all Members to reflect the variation margin paid to the CCP on any given business day over the period												
6.5.5 Where breaches of initial margin coverage (as defined in 6.5(a)) have occurred, report on size of uncovered exposure Average Size/ Previous 12 Months Disclosure 6.6 - Average Total Variation Margin Paid to the CCP by participants each business 4. Average Total Variation Margin Paid to the CCP by participants each business day Average Quarterly USD SMM Solution For GSD and MBSD, VM is a cash pass-through process across the Members; for NSCC, VM charaer included as part of the Clearing Fund requirements. MTM debits were aggregated across all Members to reflect the variation margin paid to all Members to reflect the variation margin paid to all Members to reflect the variation margin paid to all Members to reflect the variation margin paid to the CCP on any given business day over the period	6.5.4				USD \$MM	995	899	48				
of uncovered exposure Disclosure 6.6 - Average Total Variation Margin Paid to the CCP by participants each business 6.6.1 Average Total Variation Margin Paid to the CCP by participants each business day Disclosure 6.7 - Maximum total variation margin paid to the CCP on any given business day over the period Previous 12 Months Quarterly USD SMM S,690 S70 810 For GSD and MBSD, VM is a cash pass-through process across the Members; for NSCC, VM charaer included as part of the Clearing Fund requirements. MTM debits were aggregated across all Members to reflect the variation margin paid to all Members to reflect the variation margin paid to all Members to reflect the variation margin paid to the CCP on any given business day over the period		· · · · · · · · · · · · · · · · · · ·										
6.6.1 Average Total Variation Margin Paid to the CCP by participants each business day Average Quarterly USD \$MM 5,690 For GSD and MBSD, VM is a cash pass-through process across the Members; for NSCC, VM characteristic included as part of the Clearing Fund requirements. MTM debits were aggregated across all Members to reflect the variation margin paid to all Members to reflect the variation margin paid to the CCP on any given business day over the period	6.5.5				USD \$MM	30	40	6				
Disclosure 6.7 - Maximum total variation margin paid to the CCP on any given business day over the period	Disclosu		pusiness									
Disclosure 6.7 - Maximum total variation margin paid to the CCP on any given business day over the period	6.6.1	Average Total Variation Margin Paid to the CCP by participants each business day	Average	Quarterly	USD \$MM	5.690	570	810	For GSD and MBSD, VM is a cash pass-through process across the Members: for NSCC. VM charges			
Disclosure 6.7 - Maximum total variation margin paid to the CCP on any given business day over the period		,, , , , , , , , , , , , , , , , , , , ,	-		·							
									MTM debits were aggregated across all Members to reflect the variation margin paid to all Members.			
6.7.1 Maximum total variation margin paid to the CCP on any given business day over the period Maximum Quarterly USD \$MM 9,623 1,517 3,020 See Explanatory Note from 6.6	Disclosu	re 6.7 - Maximum total variation margin paid to the CCP on any given busine	ss day over the period									
	6.7.1	Maximum total variation margin paid to the CCP on any given business day over the period	Maximum	Quarterly	USD \$MM	9,623	1,517	3,020	See Explanatory Note from 6.6			

Page 11 of 21

OI IVII-I	10300 Quantitative disclosures - DTCC							AS OF Warch 31, 2023
Disclosure	Disclosure Descript	Disclosure Description		Data Type	F	icc	- NSCC	Explanatory Notes
Reference			Frequency	Data Type	GSD	MBSD		Explanator, Hotes
Disclosu	re 6.8 - Maximum aggregate initial margin call on any given business day ove	r the period						
6.8.1	Maximum aggregate initial margin call on any given business day over the period	Maximum	Quarterly	USD \$MM	4,822	1,045	4,855	Amount represents the largest aggregate deficit over amounts on deposit. This is the actual call made, to be reduced by any excess collateral that was held. Call amount would be inclusive of any intraday calls made.
Disclosu	re 7.1 - Liquidity Risk							
7.1.1	State whether the clearing service maintains sufficient liquid resources to 'Cover 1' or 'Cover 2		Quarterly/ Quarter End		Cover 1	Cover 1	Cover 1	
7.1.2	Size and composition of qualifying liquid resources for each clearing service; (a) Cash deposite	d at a central bank of issue of the currency concerned	4.00.00.00.00	USD \$MM	16,752	4,200	22,828	
7.1.3	Size and composition of qualifying liquid resources for each clearing service; (b) Cash deposite	d at other central banks		USD \$MM	0	0	0	
7.1.4	Size and composition of qualifying liquid resources for each clearing service; (c) Secured cash deposited at commercial banks (including reverse repo)	Repo Only		USD \$MM	0	0	0	
7.1.5		Commercial Bank Deposits		USD \$MM	521	145	1,815	
	·	Money Market Funds		USD \$MM	0	0	0	
		US Treasury Bills		USD \$MM	0	0	0	
7.1.6	Size and composition of qualifying liquid resources for each clearing service; (e) secured commented the CCP if drawn) including committed foreign exchange swaps and committed repos	nitted lines of credit (ie those for which collateral/security will be provided by		USD \$MM	76,099	43,789	10,020	For FICC, amount represents the assigned total amount of rules-based facility, Capped Contingency Liquidity Facility ("CCLF") for the reported quarter. For NSCC, the amount represents a secured line of credit with a syndicate of lenders.
7.1.7	Size and composition of qualifying liquid resources for each clearing service; (f) unsecured concollateral/security)	nmitted lines of credit (ie which the CCP may draw without providing		USD \$MM	N/A	N/A	N/A	
7.1.8	Size and composition of qualifying liquid resources for each clearing service; (g) highly markets convertible into cash with prearranged and highly reliable funding arrangements even in extre			USD \$MM	N/A	N/A	N/A	
7.1.9	Size and composition of qualifying liquid resources for each clearing service; (h) other			USD \$MM	N/A	N/A	0	For NSCC, Supplemental Liquidity Deposit ('SLD') program provides for additional rules-based liquidity resources. As of 3/31/23 there were no SLD deposits on hand. Please see Supplemental Note for additional information. Resources reported in Section 7.1 are as of 3/31/23 and do not correspond to the dates of the actual largest obligations.
7.1.10	State whether the CCP has routine access to central bank liquidity or facilities.				N/A	N/A	N/A	
7.1.11	Details regarding the schedule of payments or priority for allocating payments, if such exists, a such decision making.	nd any applicable rule, policy, procedure, and governance arrangement around			N/A	N/A	N/A	

Page 12 of 21

CPIVII-I	OSCO Quantitative Disclosures - DTCC						AS OF Warch 31, 2023
Disclosure Reference	Disclosure Description	Frequency	Data Type	F GSD	ICC MBSD	NSCC	Explanatory Notes
Disclosu	re 7.2 - Size and composition of any supplementary liquidity risk resources for each clearing service above those qualifying liquid resources a	bove.					
7.2.1	Size and composition of any supplementary liquidity risk resources for each clearing service above those qualifying liquid resources in 7.1	Quarterly/ Quarter End	USD \$MM	0	0	N/A	FICC has entered into uncommitted master repurchase agreements ("MRAs") which it may look to as a liquidity source in addition to the resources discussed in the explanatory note from 7.1. These are not designated as qualifying liquid resources. Amounts available under the MRAs cannot be quantified.
Disclosu	re 7.3 - Liquidity Risk						
7.3.1	Estimated largest same-day and, where relevant, intraday and multiday payment obligation in total that would be caused by the default of any single participant and its affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions	Forward looking/ Quarterly	USD \$MM	63,255	34,958	42,328	GSD/MBSD/NSCC did not experience a default event nor did any Member fail to satisfy payment obligations. See Supplemental Note.
7.3.2	Number of business days, if any, on which the above amount exceeded its qualifying liquid resources (identified as in 7.1, and available at the point the breach occurred), and by how much.	Quarterly	Bus. Days	0	1	1	See Supplemental Note
7.3.3			USD \$MM	0	3,819	813	
7.3.4	Actual largest intraday and multiday payment obligation of a single participant and its affiliates (including transactions cleared for indirect participants) over the past twelve months; Peak day amount in previous twelve months	Previous 12 Months	USD \$MM	63,255	34,958	42,328	GSD/MBSD/NSCC did not experience a default event nor did any Member fail to satisfy payment obligations. See Supplemental Note.
7.3.5	Estimated largest same-day and, where relevant, intraday and multiday payment obligation in each relevant currency that would be caused by the default of any single participant and its affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions	Forward looking/ Quarterly	USD \$MM	63,255	34,958	42,328	See Explanatory Note from 7.3.1
7.3.6	Number of business days, if any, on which the above amounts exceeded its qualifying liquid resources in each relevant currency (as identified in 7.1 and available at the point the breach occurred), and by how much	Quarterly	Bus. Days	0	1	1	See Supplemental Note
7.3.7			USD \$MM	0	3,819	813	
Disclosu	re 12.1 - Percentage of settlements by value effected using a DvP, DvD or PvP settlement mechanism						
12.1.1	Percentage of settlements by value effected using a DvP settlement mechanism	Quarterly	Percentage	100%	100%	100%	FICC data provided with respect to GSD GCF Repo and non-GCF Repo CCP services and MBSD clearing services.
12.1.2	Percentage of settlements by value effected using a DvD settlement mechanism		Percentage	N/A	N/A	N/A	NSCC data provided with respect to CNS, NSCC's CCP service, which uses a model 2 DvP Settlement
12.1.3	Percentage of settlements by value effected using a PvP settlement mechanism		Percentage	N/A	N/A	N/A	mechanism.
Disclosu	re 12.2 - Percentage of settlements by volume effected using a DvP, DvD or PvP settlement mechanism						
12.2.1	Percentage of settlements by volume effected using a DvP settlement mechanism	Quarterly	Percentage	100%	100%	100%	FICC data provided with respect to GSD GCF Repo and non-GCF Repo CCP services and MBSD clearing
12.2.2	Percentage of settlements by volume effected using a DvD settlement mechanism		Percentage	N/A	N/A	N/A	services. NSCC data provided with respect to CNS, NSCC's CCP service, which uses a model 2 DvP Settlement mechanism.
12.2.3	Percentage of settlements by volume effected using a PvP settlement mechanism		Percentage	N/A	N/A	N/A	
					<u> </u>	<u> </u>	

Page 13 of 21

CPMI-	OSCO Quantitative Disclosures - DTCC						As of March 31, 2023
Disclosure Reference	Disclosure Description	Frequency	Data Type	FICC GSD	MBSD	NSCC	Explanatory Notes
	re 13.1 - Quantitative information related to defaults			ם מצפ	IVIDSD		
13.1.1	Quantitative information related to defaults; Amount of loss versus amount of initial margin	Ad-hoc		N/A	N/A	N/A	
13.1.2	Quantitative information related to defaults; Amount of other financial resources used to cover losses			N/A	N/A	N/A	
13.1.3.1	Quantitative information related to defaults; Proportion of client positions closed-out			N/A	N/A	N/A	
13.1.3.2	Quantitative information related to defaults; Proportion of client positions ported			N/A	N/A	N/A	
13.1.4	Quantitative information related to defaults; Appropriate references to other published material related to the defaults			N/A	N/A	N/A	
				<u> </u>			
Disclosu	re 14.1 - Total Client Positions held as a share of notional values cleared or of the settlement value of securities transactions						
14.1.1	Total Client Positions held in individually segregated accounts	Quarterly/		N/A	N/A	N/A	Not applicable. GSD/MBSD/NSCC does not maintain separate "house" and "client" accounts for its
14.1.2	Total Client Positions held in omnibus client-only accounts, other than LSOC accounts	Quarter End		N/A	N/A	N/A	Members. See NSCC/FICC's Disclosure Frameworks, Principle 14 discussion.
14.1.3	Total Client Positions held in legally segregated but operationally comingled (LSOC) accounts			N/A	N/A	N/A	
14.1.4	Total Client Positions held in comingled house and client accounts			N/A	N/A	N/A	
Disclosu	re 15.1 - General business risk						
15.1.1	Value of liquid net assets funded by equity	Annual	USD \$MM	347	T	656	
15.1.2	Six months of current operating expenses		USD \$MM	151		239	Quarter-end
Disclosu	re 15.2 - General business risk; Financial Disclosures						
15.2.1	Total Revenue	Annual	USD \$MM	327		635	Calculated on a trailing 12-month basis
15.2.2	Total Expenditure		USD \$MM	322		472	Calculated on a trailing 12-month basis
15.2.3	Profits		USD \$MM	5		164	Calculated on a trailing 12-month basis
15.2.4	Total Assets		USD \$MM	56,386		26,166	Quarter-end
15.2.5	Total Liabilities		USD \$MM	56,039		25,470	Quarter-end
15.2.6	Explain if collateral posted by clearing participants is held on or off the CCP's balance sheet			Collateral is held on Bal	lance Sheet	Collateral is held	
						on Balance Sheet	
15.2.7	Additional items as necessary		USD \$MM	n/a		n/a	

Page 14 of 21

CPMI-IOSCO Quantitative Disclosures - DTCC						As of March 31, 2023					
Disclosure Disclosure Description	Frequency	Data Type	GSD F	HCC MBSD	- NSCC	Explanatory Notes					
Disclosure 15.3 - General business risk; Income breakdown											
15.3.1 Percentage of total income that comes from fees related to provision of clearing services	Annual	Percentage	99	9.6%	98.6%	Calculated on a trailing 12-month basis					
15.3.2 Percentage of total income that comes from the reinvestment (or rehypothecation) of assets provided by clearing participants		Percentage	r	n/a	n/a	Calculated on a trailing 12-month basis					
Disclosure 16.1 - Total cash (but not securities) received from participants, regardless of the form in which it is held, deposited or invested, split by whether it was received as initial margin or default fund contribution											
16.1.1 Total cash (but not securities) received from participants, regardless of the form in which it is held, deposited or invested, received as initial margin	Quarterly/ Quarter End	USD \$MM	17,273	4,345	10,756	See Explanatory Note from 4.1					
16.1.2 Total cash (but not securities) received from participants, regardless of the form in which it is held, deposited or invested, received as default fund contribution		USD	0	0	0						
Disclosure 16.2 - How total cash received from participants (16.1) is held/deposited/invested, including;											
16.2.1 Percentage of total participant cash held as cash deposits (including through reverse repo)	Quarterly/ Quarter End	Percentage	100.0%	100.0%	100.0%						
16.2.2 Percentage of total participant cash held as cash deposits (including through reverse repo); as cash deposits at central banks of issue of the currency deposited		Percentage	97.0%	96.7%	92.8%						
16.2.3 Percentage of total participant cash held as cash deposits (including through reverse repo); as cash deposits at other central banks		Percentage	N/A	N/A	N/A						
16.2.4 Percentage of total participant cash held as cash deposits (including through reverse repo); as cash deposits at commercial banks (Secured, including through reverse repo))	Percentage	N/A	N/A	N/A						
16.2.5 Percentage of total participant cash held as cash deposits (including through reverse repo); as cash deposits at commercial banks (Unsecured)		Percentage	3.0%	3.3%	7.2%						
16.2.6 Percentage of total participant cash held as cash deposits (including through reverse repo); in money market funds		Percentage	N/A	N/A	N/A						
16.2.7 Percentage of total participant cash held as cash deposits (including through reverse repo); in other forms		Percentage	N/A	N/A	N/A						
16.2.8 Percentage of total participant cash held as cash deposits (including through reverse repo); percentage split by currency of these cash deposits (including reverse repo) an money market funds by CCY; Specify local currency in comments	d	Percentage	100.0%	100.0%	100.0%	All investments are in USD					
16.2.9 Weighted average maturity of these cash deposits (including reverse repo) and money market funds		Bus. Days	100.0%	100.0%	100.0%	All investments are overnight					
16.2.10 Percentage of total participant cash invested in securities; Domestic sovereign government bonds		Percentage	N/A	N/A	N/A						
16.2.11 Percentage of total participant cash invested in securities; Other sovereign government bonds		Percentage	N/A	N/A	N/A						
16.2.12 Percentage of total participant cash invested in securities; Agency Bonds		Percentage	N/A	N/A	N/A						
16.2.13 Percentage of total participant cash invested in securities; State/municipal bonds		Percentage	N/A	N/A	N/A						
16.2.14 Percentage of total participant cash invested in securities; Other instruments		Percentage	N/A	N/A	N/A						
16.2.15 Percentage of total participant cash invested in securities; percentage split by currency of these securities; Specify local currency in comments;		Percentage	N/A	N/A	N/A	All investments are in USD					
16.2.16 Weighted average maturity of cash received from participants invested in securities. The maturity should be reported as number of days.		Bus. Days	N/A	N/A	N/A						
16.2.17 Provide an estimate of the risk on the investment portfolio (excluding central bank and commercial bank deposits) (99% one-day VaR, or equivalent)		USD \$MM	<1	<1	<1						
16.2.18 State if the CCP investment policy sets a limit on the proportion of the investment portfolio that may be allocated to a single counterparty, and the size of that limit.			Yes	Yes	Yes	Size of limits will vary depending on credit rating and other factors.					
16.2.19 State the number of times over the previous quarter in which this limit has been exceeded.		Count	0	0	0						

Page 15 of 21

CPIVII-I	OSCO Quantitative Disclosures - DTCC							As of March 31, 2023
Disclosure Reference	Disclosure Descrip	tion	Frequency	Data Type	GSD	HCC MBSD	NSCC	Explanatory Notes
	re 16.3 - Rehypothecation of participant assets (ie non-cash)		_		GSD GSD	INIRSD		
16.3.1	Total value of participant non-cash rehypothecated (Initial margin)		Quarterly/	USD \$MM	N/A	N/A	N/A	
16.3.2	Total value of participant non-cash rehypothecated (Default fund)	value of participant non-cash rehypothecated (Default fund)		USD \$MM	0 0 0	0	Rehypothecation of clearing fund securities used for liquidity purposes only in the event of a default	
16.3.3		ON_1D		USD \$MM	N/A	N/A	N/A	
10.5.5	over the following maturities:	1D_1W		USD \$MM	N/A	N/A	N/A	
	Overnight/one day; one day and up to one week; One week and up to one month; One	1W_1M		USD \$MM	N/A	N/A	N/A	
	month and up to one year; One year and up to two years; Over two years	1M_1Y		USD \$MM	N/A	N/A	N/A	
				USD \$MM	N/A	N/A	N/A	
		2Y+		USD \$MM	N/A	N/A	N/A	
16.3.4	Rehypothecation of participant assets (ie non-cash); default fund; over the following	ON_1D		USD \$MM	0	0	0	Rehypothecation of clearing fund securities used for liquidity purposes only in the event of a defau
	maturities:	1D_1W		USD \$MM	0	0	0	,, , , , , , , , , , , , , , , , ,
	Overnight/one day; one day and up to one week; One week and up to one month; One	1W_1M		USD \$MM	0	0	0	
	month and up to one year; One year and up to two years; Over two years			USD \$MM	0	0	0	
		1Y_2Y		USD \$MM	0	0	0	
		2Y+		USD \$MM		0		
17.1.1	Operational availability target for the core system(s) involved in clearing (whether or not out	sourced) over specified period for the system	Quarterly	Percentage	99.6%	99.6%	99.6%	This target and the actual results below are calculated at the individual product-line level and then averaged across all of the systems identified below, in accordance with the established calculation the applicable SLA.
Disclosu	re 17.2 - Actual availability of the core system(s) over the previous twelve m	onth period						
17.2.1	Actual availability of the core system(s) over the previous twelve month period		Quarterly	Percentage		99.95%		Availability is calculated across multiple systems. Specifically, CMU, CNS, Risk Management, GSD, MBSD and Trade Capture. Since Risk Management is across FICC and NSCC, actual availability cann be captured at the individual entity level. Actual availability is across all three in total.
Disclosu	re 17.3 - Total number of failures							
17.3.1	Total number of failures and duration affecting the core system(s) involved in clearing over t	he previous twelve month period (Duration of Failure)	Quarterly	Count / hh:mm:ss		5 / 11:31:00		Regulation Systems Compliance and Integrity (Regulation SCI) events for NSCC, GSD, and MBSD over the previous twelve month period are reviewed for Disclosure 17.3 reporting. Regulation SCI event that impact core systems used in clearing that enable the acceptance and novation of trades, and enable the calculation of margin and settlement obligations are assessed by Risk Management, Product Management, Regulation SCI personnel, and Legal to confirm total number of incidents and duration of failures. Incidents that do not result in a direct business impact to clients are not report as a failure for Disclosure 17.3. During Q1 2023, processing issues were encountered on DTCC's mainframe impacting ATP and other systems for 4 hours and 34 minutes. In Q4 2022, on two separ occassions, Clearing Fund Letters were regenerated after the client delivery SLA time by 2 hours an 10 minutes and then 8 minutes. In another instance, a network disruption caused the delay of settl bank acknowledgement by 1 hour and 54 minutes. Manual processing caused the unavailability of intraday VaR calculations for 2 hours and 45 minutes.
Disclosu	re 17.4 - Recovery time objective(s)							
17.4.1	Recovery time objective(s) (e.g. within two hours)		Quarterly	Time	Within 2 Hours	Within 2 Hours	Within 2 Hours	Recovery time objective is within 2 hours.

Page 16 of 21

closure	Disclosure Descript	ion	Frequency	Data Type	FICC		NSCC	Explanatory Notes
rence	Disclosure Descript	ion	Frequency	Data Type	GSD	MBSD	NSCC	
sclosu	re 18.1 - Number of clearing members, by clearing service							For GSD, there are Broker/Dealers, Government Sponsored Entities, Banks, and Hedge Funds For MBSD, there are Broker/Dealers, Hedge Fund, Mortgage Companies, Government Sponsored Entities, Registered Investment Companies, etc. For NSCC there are Broker/Dealers, certain stock exchanges (for omnibus account reporting), and CSD.
18.1.1.1	Number of general clearing members		Quarterly/ Quarter End	Count	139	79	67	FICC does not distinguish membership categories between members that clear for others and sel- clearing. Accordingly, the total number of FICC members are reported here.
18.1.1.2	Number of direct clearing members			Count	0	0	82	
18.1.1.3	Number of others category (Describe in comments)			Count	0	0	0	Numbers do not include types of members that are not eligible for CCP services: GSD Comparison-Only members, MBSD Electronic Pool Notification (EPN)-only members, and NS has several limited membership categories that are not reported here.
18.1.2.1	Number of central bank participants			Count	0	0	0	
18.1.2.2	Number of CCP participants			Count	0	0	0	
18.1.2.3	Number of bank participants			Count	45	17	14	
8.1.2.4	Number of other participants (Describe in comments)			Count	94	62	135	Includes Broker/dealers, Stock Exchanges, CSD's and Trust members. Excludes Banks.
.8.1.3.1	Number of domestic participants			Count	96	74	147	
18.1.3.2	Number of foreign participants			Count	43	5	2	US Branches/Agencies of Non US legal entities will be considered Non-US (foreign)
isclosu	re 18.2 - Open Position Concentration							
18.2.1	For each clearing service with ten or more members, but fewer than 25 members; Percentage of open positions held by the largest five clearing members, including both house	Average End of Day	Quarterly	Percentage	N/A	N/A	N/A	
	and client, in aggregate	Peak End of Day		Percentage	N/A	N/A	N/A	
18.2.2	For each clearing service with 25 or more members; Percentage of open positions held by the largest five clearing members, including both house and client, in aggregate	Average End of Day Peak End of Day		Percentage	29% 31%	46%	37%	
18.2.3	For each clearing service with 25 or more members; Percentage of open positions held by the	Average End of Day		Percentage Percentage	42%	68%	54%	
	largest ten clearing members, including both house and client, in aggregate	Peak End of Day		Percentage	44%	70%	57%	
isclosu	re 18.3 - Initial Margin Concentration		,					
18.3.1	For each clearing service with ten or more members, but fewer than 25 members;	Average End of Day	Quarterly	Percentage	N/A	N/A	N/A	Under NSCC's and each of FICC Division's current rules and structure, they do not maintain sepa Guaranty Funds. NSCC and each FICC Division collect Clearing Fund deposits from their Membe
	Percentage of initial margin posted by the largest five clearing members, including both house and client, in aggregate	Peak End of Day		Percentage	N/A	N/A	N/A	using a risk-based margin methodology. These amounts operate, individually, as the Member's
18.3.2	For each clearing service with 25 or more members; Percentage of initial margin posted by the largest five clearing members, including both house and client, in aggregate	Average End of Day		Percentage	35%	41%	33%	margin, and the aggregate of all such Members' deposits* is referred to, collectively, as the Clear Fund, which operates as NSCC's and each of FICC Division's default fund.
10.0.5		Peak End of Day		Percentage	38%	46%	41%	* Member's deposits include excess deposits exceeding the requirement that can be withdrawn in
18.3.3	For each clearing service with 25 or more members; Percentage of initial margin posted by the largest ten clearing members, including both house and client, in aggregate	Average End of Day		Percentage	51%	61%	48%	members.
		Peak End of Day		Percentage	54%	65%	53%	

DTCC Public (White) Page 17 of 21

ا-PIVII-ر	OSCO Quantitative Disclosures - DTCC						As of March 31, 2023
isclosure eference	Disclosure Description	- NSCC	Explanatory Notes				
Disclosu	e 18.4 - Segregated Default Fund Concentration						
18.4.1	For each segregated default fund with ten or more members, but fewer than 25 members; Percentage of participant contributions to the default fund contributed by largest five clearing members in aggregate	Quarterly/ Quarter End	Percentage	N/A	N/A	N/A	See Explanatory Note from 18.3
18.4.2	For each segregated default fund with 25 or more members; Percentage of participant contributions to the default fund contributed by largest five clearing members in aggregate		Percentage	N/A	N/A	N/A	
18.4.3	For each segregated default fund with 25 or more members; Percentage of participant contributions to the default fund contributed by largest ten clearing members in aggregate		Percentage	N/A	N/A	N/A	
Disclosu	e 19.1 - Tiered participation arrangements, measures of concentration of client clearing						
19.1.1	Number of clients (if known)	Quarterly/ Quarter End	Count	N/A	N/A	N/A	See Explanatory Note from 14.1
19.1.2	Number of direct members that clear for clients		Count	N/A	N/A	67	NSCC: Number denotes members that clear for other Broker/Dealers.
19.1.3.1	Percent of client transactions attributable to the top five clearing members (if CCP has 10+ clearing members); Peak		Percentage	N/A	N/A	N/A	See Explanatory Note from 14.1
19.1.3.2	Percent of client transactions attributable to the top ten clearing members (if CCP has 10+ clearing members); Average		Percentage	N/A	N/A	N/A	See Explanatory Note from 14.1
19.1.4.1	Percent of client transactions attributable to the top five clearing members (if CCP has 25+ clearing members); Peak		Percentage	N/A	N/A	N/A	See Explanatory Note from 14.1
19.1.4.2	Percent of client transactions attributable to the top ten clearing members (if CCP has 25+ clearing members); Average		Percentage	N/A	N/A	N/A	See Explanatory Note from 14.1
Disclosu	e 20.1 - FMI Links, Value of Trades						
20.1.1	Value of trades cleared through each link – as a share of total trade values/total notional values cleared in that service	Quarterly	USD \$MM	N/A	N/A	N/A	NSCC does not maintain any interoperable links as described by these items. CDS Clearing and Depository Services, Inc. (the Canadian CSD) is a full service member of NSCC, and is subject to margining and the other requirements of membership as a member. The CDS relationship is described in NSCC's Disclosure Framework under Principle 20. The GSD/CME Cross-Margining Agreement, which is described in GSD's disclosure with respect to PFMI Principle 20, is not an interoperable link as described by sections 20.1 through 20.6 of the quantitative disclosure.
Disclosu	e 20.2 - FMI Links, Initial Margin or equivalent financial resources provided						See Explanatory Note from 20.1
Disclosu	e 20.3 - FMI Links, Initial Margin or equivalent financial resources collected						See Explanatory Note from 20.1
Disclosu	e 20.4 - FMI Links, Results of Back-testing coverage		See Explanatory Note from 20.1				
Disclosu	e 20.5 - FMI Links, Additional pre-funded financial resources provided to						See Explanatory Note from 20.1
Disclosu	e 20.6 - FMI Links, Additional pre-funded financial resources collected from						See Explanatory Note from 20.1

Page 18 of 21

-	OSCO Quantitative Disclosures - DTCC							As of March 31, 202
sclosure eference	Disclosure Description			Data Type	FICC		NSCC	Explanatory Notes
	re 20.7 - FMI Links, Cross Margining		_		GSD	MBSD		
20.7.1	Value of trades subject to cross margining, by clearing service, as a percentage of total trade	Quarter End	Percentage	17.07%	N/A	N/A	NSCC does not maintain any cross margining arrangements. NSCC does maintain an arrangement OCC for the settlement of exercised and assigned options, which is described in NSCC's Disclosur	
20.7.2	Reduction in total initial margin held by the CCP as a result of cross margining, as a percentag	e of total initial margin that would otherwise have been held.		Percentage	0.45%	N/A	N/A	Framework under Principle 20. GSD has a cross-margining arrangement with the Chicago Mercal Exchange. For GSD under section 20.7, disclosures are quarter end.
isclosu	re 23.1 - Disclosure of rules, key procedures, and market data; Average Daily	Volumes						
23.1.1	Average Daily Volumes by Asset Class, CCY and OTC/ETD	ОТС	Quarterly		476,663	13,381	86,915,236	For GSD/MBSD and NSCC, average daily volume data is based on sides (as opposed to trades). For NSCC: Includes Exchange-based and OTC trades. Omnibus Accounts are excluded for NSCC.
22.1.2		NSCC_Exchange			-	-	114,015,420	
23.1.2	Average Notional Value of trades cleared by Asset Class, CCY and OTC/ETD	OTC NSCC Fushange		USD \$MM	5,459,541	329,335	1,289,197	
		NSCC_Exchange		USD \$MM	-	-	657,204	
isclosu	re 23.2 - Disclosure of rules, key procedures, and market data; Non-Yet-Settl	ed						
23.2.1	Gross notional outstanding/total settlement value of novated but not-yet settled securities transactions by Asset Class, CCY and OTC/ETD	CDS_OTC	Quarterly/ Quarter End	USD \$BN	1,570	309	230	Sources: FICC and NSCC financial statements, as available in the DTCC public website
Disclosu	re 23.3 - Disclosure of rules, key procedures, and market data; Execution Fac	ility						
23.3.1	Average daily volumes submitted by Execution facility or matching/confirmation venue		Quarterly		N/A	N/A	See 23.1	See comment from 23.1
23.3.2	Notional contract values submitted by Execution facility or matching/confirmation venue		USD \$MM	N/A	N/A	See 23.1		
aymen	t Risk Committee Disclosure 1 - Concentration Measures							
	Initial Margin Required	Top 3 Members	Quarterly/ Quarter End	USD \$MM	7,805	2,683	2,811	
	Number of Members with x% of Initial Margin Requirement	> 20%		Count	0	0	0	Aggregated by deposit account.
		15% to 20%		Count	0	0	0	
		10% to 15%		Count	0	2	1	
		5% to 10%		Count	5	3	2	
		< 5%		Count	175	99	146	
	Total Initial Margin Posted (Market Value)	Total		USD \$MM	44,544	11,264	11,366	

Page 19 of 21

	Disclasura Description		Doto T	FICC		NSCC	Fundamentame Nation
	Disclosure Description	Frequency	Data Type	GSD	MBSD	NSCC	Explanatory Notes
Risk Committee Disclosure 2 - Initial Margin Do	etail etail						
Initial Margin Breakdown by Component	VaR / Volatility	Quarterly/ Quarter End	USD \$MM	30,288	7,004	6,200	The Value-at-Risk (VaR) and Volatility components are based on the potential price fluctuati unsettled positions.
							With the implementation of SVaR for FICC, Margin Proxy is now used as a backup VaR meth the event of a significant vendor data disruption.
	Coverage Component (CC)		USD \$MM	N/A	N/A	6	The Coverage Component is a back-test-like component that is meant to address potential deficiencies. The Coverage Component is designed by NSCC to mitigate the risks associated with a Meml Required Deposit being insufficient to cover projected liquidation losses to the Coverage Taadjusting a Member's Required Deposit towards the Coverage Target.
Margin Liquidity Deposit (MLA) Blackout Period Exposure Adjustment CME Cross Margin Margin Req. Differential (MRD) Mark-to-Market (MtM)	Margin Liquidity Deposit (MLA)		USD \$MM	151	15	371	The Margin Liquidity Adjustment Charge (MLA), addresses the risk presented to the Clearin when a Member's portfolio contains large Net Unsettled Positions in the particular group of with a similar risk profile or in a particular asset type.
	Blackout Period Exposure Adjustment		USD \$MM	14	N/A	N/A	Blackout Period Exposure: Refers to the exposure to GSD and Reverse Repo participants of potential overvaluation of MBS Collateral in GCF Repos during the Blackout Period. An adju Clearing Fund Requirements (increase to Repo participants and decrease to Reverse Repo participants) is made based on MBS positions in Member's GCF portfolios during the Black The adjustment is based on the average realized pay-down rate transactions. The adjustment during the Blackout Period, the first 5 to 7 business days each month.
		USD \$MM	-166	N/A	N/A	GSD has a cross-margining arrangement with the Chicago Mercantile Exchange. The amou represents the aggregate margin savings for common members who elect to participate in margining arrangement.	
	Margin Req. Differential (MRD)		USD \$MM	N/A	N/A	2,097	The NSCC MRD is designed to address position-variability risk by estimating the shortfall of VaR and mark-to-market compared with the next day's intraday risk and the risk that the n call will not be satisfied.
	Mark-to-Market (MtM)		USD \$MM	N/A	N/A	330	As a cash market CCP, NSCC uses a continuous net system where securities within the settl system are marked daily to the prior night's closing price. Net portfolio debits per Member collected as part of the Member's Required Deposit; net portfolio credits are not included. includes 'When Issues MtM'. In FICC, GSD and MBSD maintain a pass-through MtM process whereby it collects MTM de those Members with debits and passes those to the Members with MTM credits.
	Special Charge		USD \$MM	6,389	1,879	368	GSD includes: Back Test Charges, Intraday Supp. Fund Deposit, Minimum Deposit, and Special MBSD includes: Back Test Charges, Intraday MTM Charges, Intraday VaR Charges, Adequate Assurance, and Special Charges NSCC includes: Back Test Charges, Adequate Assurance, Intraday Mark-to-Market Charge, a Intraday VaR Charge.
	Other Charges		USD \$MM	0	4	990	GSD includes: Minimum Requirement Adjustments, Excess Capital Premium, and Falling Be Minimum Requirement MBSD includes: 6 Day Fails Interest, Excess Capital Premium, Falling Below Minimum Requirement Adjustments NSCC includes: Family Issued Securities, CNS Fails, Non-CNS Requirements, CF Premium, an Minimum Requirement Adjustments

Page 20 of 21

CPMI-IOSCO Quantitative Disclosures - DTCC

As of March 31, 2023

	APPENDIX- Revision Log									
Report Date	Revision Date	Disclosure Reference	Reported Data	Revised Data Revision Comments						
12/31/22	3/2/23	15.2.4 (NSCC)	26,698	26,699	Revision of initially reported NSCC assets after finalization of the financial statements					
12/31/22	3/2/23	15.2.5 (NSCC)	26,052	26,053	Revision of initially reported NSCC Liabilities after finalization of the financial statements					

DTCC Public (White) Page 21 of 21