The Depository Trust & Clearing Corporation

Consolidated Financial Statements
as of March 31, 2020 and December 31, 2019 and for the three months ended March 31, 2020 and 2019

THE DEPOSITORY TRUST & CLEARING CORPORATION

TABLE OF CONTENTS

THE DEPOSITORY TRUST & CLEARING CORPORATION

CONSOLIDATED STATEMENTS OF FINANCIAL CONDITION (UNAUDITED)

(In thousands, except share data)	As of March 31, 2020	As of December 31, 2019
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 8,063,219	$ 8,395,163
Participants' segregated cash	3,496	4,876
Short-term investments	800,000	900,000
Accounts receivable - net of allowance for credit losses	221,824	177,219
Participants' and Clearing Funds	64,710,980	40,814,905
Other Participants' assets	1,364,517	514,104
Other current assets	145,399	177,940
Total current assets	75,309,435	50,984,207
NON-CURRENT ASSETS:		
Premises and equipment - net of accumulated depreciation of $333,791 and $322,474 as of March 31, 2020 and December 31, 2019, respectively	215,622	216,417
Goodwill	57,699	57,699
Intangible assets - net of accumulated amortization of $768,965 and $747,006 as of March 31, 2020 and December 31, 2019, respectively	327,520	325,125
Equity method investments	10,590	10,676
Operating lease right-of-use-asset	232,225	237,689
Other non-current assets	285,470	304,719
Total non-current assets	1,129,126	1,152,325
TOTAL ASSETS	$ 76,438,561	$ 52,136,532
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Commercial paper - net of unamortized discount	$ 6,785,278	$ 7,154,217
Current portion of long-term debt	4,058	4,103
Current portion of pension and postretirement benefits	30,842	34,270
Current portion of operating lease liability	26,139	25,906
Accounts payable and accrued expenses	103,402	102,179
Participants' and Clearing Funds	64,710,980	40,814,905
Payable to Participants	1,368,013	518,980
Other current liabilities	124,790	266,160
Total current liabilities	73,153,502	48,920,720
NON-CURRENT LIABILITIES:		
Non-current portion of long-term debt	1,503	3,921
Non-current portion of pension and postretirement benefits	177,358	178,384
Non-current operating lease liability	258,903	264,848
Other non-current liabilities	259,675	263,681
Total non-current liabilities	697,439	710,834
Total liabilities	73,850,941	49,631,554
COMMITMENTS AND CONTINGENCIES (Note 2)		
SHAREHOLDERS' EQUITY		
Preferred stock:		
Series A, $0.50 par value - 10,000 shares authorized, issued (above par), and outstanding	300	300
Series B, $0.50 par value - 10,000 shares authorized, issued (above par), and outstanding	300	300
Series C, $0.50 par value - 1,600 shares authorized, issued (above par), and outstanding	390,516	390,516
Common stock, $100 par value - 80,000 shares authorized, 50,908 shares issued and outstanding	5,091	5,091
Additional paid-in capital	411,065	411,065
Retained earnings	1,855,890	1,769,638
Accumulated other comprehensive loss, net of tax	(225,542)	(221,932)
Non-controlling interests	150,000	150,000
Total shareholders' equity	2,587,620	2,504,978
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	$ 76,438,561	$ 52,136,532

The Notes to Consolidated Financial Statements are an integral part of these statements.

THE DEPOSITORY TRUST & CLEARING CORPORATION

CONSOLIDATED STATEMENTS OF INCOME (UNAUDITED)

(In thousands)	For the three months ended March 31, 2020	2019
REVENUES		
Settlement and asset services	$ 119,282	$ 110,831
Clearing services	193,104	154,805
Matching and data services	78,179	67,966
Repository and derivatives services	67,811	72,435
Wealth management services	28,321	26,318
Other services	7,836	9,066
Investment income (loss), net	(17,078)	8,749
Total revenues	477,455	450,170
EXPENSES		
Employee compensation and related benefits	171,988	192,319
Information technology	46,620	41,226
Professional and other services	85,386	82,599
Occupancy	12,291	12,031
Depreciation and amortization	33,277	35,337
General and administrative	12,960	9,708
Total expenses	362,522	373,220
Total operating income	114,933	76,950
NON-OPERATING INCOME (EXPENSE)		
Interest income	97,877	156,292
Refunds to Participants	(66,864)	(102,511)
Interest expense	(42,297)	(57,502)
Net income (loss) from Equity method investments	99	(245)
Other non-operating income, net	12,289	11,351
Total non-operating income	1,104	7,385
Income before taxes	116,037	84,335
Provision for income taxes	29,785	22,379
Net income	$ 86,252	$ 61,956

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THE DEPOSITORY TRUST & CLEARING CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (UNAUDITED)

(In thousands)	For the three months ended March 31, 2020	2019
Net income	$ 86,252	$ 61,956
OTHER COMPREHENSIVE INCOME (LOSS) - Net of tax:		
Foreign currency translation	(3,610)	212
Other comprehensive (loss) income	(3,610)	212
Comprehensive income	$ 82,642	$ 62,168

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THE DEPOSITORY TRUST & CLEARING CORPORATION
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY (UNAUDITED)

	Preferred Stock						Accumulated Other Comprehensive Income (Loss), Net of Tax			
(In thousands)	Series A	Series B	Series C	Common Stock	Additional Paid-In Capital	Retained Earnings	Defined Benefit Pension and Other Plans	Foreign Currency Translation	Non-controlling Interests	Total Shareholders' Equity
BALANCE - January 1, 2020	$ 300	$ 300	$ 390,516	$ 5,091	$ 411,065	$ 1,769,638	$ (216,758)	$ (5,174)	$ 150,000	$ 2,504,978
Net income	—	—	—	—	—	86,252	—	—	—	86,252
Other comprehensive loss	—	—	—	—	—	—	—	(3,610)	—	(3,610)
BALANCE - March 31, 2020	$ 300	$ 300	$ 390,516	$ 5,091	$ 411,065	$ 1,855,890	$ (216,758)	$ (8,784)	$ 150,000	$ 2,587,620

	Preferred Stock						Accumulated Other Comprehensive Income (Loss), Net of Tax			
(In thousands)	Series A	Series B	Series C	Common Stock	Additional Paid-In Capital	Retained Earnings	Defined Benefit Pension and Other Plans	Foreign Currency Translation	Non-controlling Interests	Total Shareholders' Equity
BALANCE - January 1, 2019	$ 300	$ 300	$ 390,516	$ 5,091	$ 411,065	$ 1,571,298	$ (189,472)	$ (6,863)	$ 150,000	$ 2,332,235
Net income	—	—	—	—	—	61,956	—	—	—	61,956
Other comprehensive income	—	—	—	—	—	—	—	212	—	212
BALANCE - March 31, 2019	$ 300	$ 300	$ 390,516	$ 5,091	$ 411,065	$ 1,633,254	$ (189,472)	$ (6,651)	$ 150,000	$ 2,394,403

The Notes to Consolidated Financial Statements are an integral part of these statements.

THE DEPOSITORY TRUST & CLEARING CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED)

(In thousands)	For the three months ended March 31, 2020	2019
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net income	$ 86,252	$ 61,956
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	33,277	35,337
Net (income)/loss from Equity method investments	(99)	245
Deferred income taxes	579	798
Accretion of discount on Commercial paper	(17,018)	3,598
Other	6,183	5,960
Net change in:		
Accounts receivable	(44,427)	1,664
Other Participants' assets	—	432
Other assets	51,113	7,792
Accounts payable and accrued expenses	3,863	30,047
Pension and postretirement benefits	(4,454)	657
Operating lease liability	(6,609)	(6,044)
Other liabilities	(145,278)	(116,184)
Participants' and Clearing Funds liabilities	18,536,400	27,195
Payable to Participants	849,033	451,877
Net cash provided by operating activities	19,348,815	505,330
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchases of Short-term investments	(500,000)	(300,000)
Maturities of Short-term investments	600,000	400,000
Purchases of Premises and equipment	(10,522)	(6,902)
Capitalized software development costs	(24,354)	(17,350)
Net cash provided by investing activities	65,124	75,748
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from Commercial paper	10,326,931	9,610,641
Repayments of Commercial paper	(10,678,852)	(11,202,974)
Repayments on long-term debt and other borrowings	(2,463)	(3,343)
Payment to Non-controlling interests	(2,640)	—
Net cash used in financing activities	(357,024)	(1,595,676)
Effect of foreign exchange rate changes on Cash and cash equivalents	(3,426)	421
Net increase/(decrease) in Cash and cash equivalents, Participants' segregated cash, Participants' and Clearing Funds cash deposits, Cash in Other Participants' assets	19,053,489	(1,014,177)
Cash and cash equivalents, Participants' segregated cash, Participants' and Clearing Funds cash deposits, Cash in Other Participants' assets - Beginning of period	26,345,625	25,569,357
Cash and cash equivalents, Participants' segregated cash, Participants' and Clearing Funds cash deposits, Cash in Other Participants' assets - End of period	$ 45,399,114	$ 24,555,180
SUPPLEMENTAL DISCLOSURES:		
Interest paid	$ 51,990	$ 42,537
Income taxes paid - net of refunds	$ 7,239	$ 8,490

The Notes to Consolidated Financial Statements are an integral part of these statements.

1. BUSINESS AND OWNERSHIP

The Depository Trust & Clearing Corporation (DTCC) is the parent company of various operating subsidiaries, including, but not limited to, The Depository Trust Company (DTC), National Securities Clearing Corporation (NSCC), Fixed Income Clearing Corporation (FICC), DTCC ITP LLC (ITP), DTCC Deriv/SERV LLC (Deriv/SERV), DTCC Solutions LLC (Solutions), Business Entity Data, B.V. (BED); collectively, the "Company" or "Companies."

Subsidiaries

DTC is a limited purpose trust company formed under the Banking Law of New York State and supervised by the New York State Department of Financial Services (NYSDFS); a State member bank of the Federal Reserve System (FRS), subject to examination by the Federal Reserve Bank of New York (FRBNY) under delegated authority from the Board of Governors (the FRB) of the FRS; and a clearing agency registered with and under the supervision of the U.S. Securities and Exchange Commission (SEC). DTC provides central securities depository, settlement and related services to members of the securities, banking and other financial industries.

NSCC is organized as a business corporation under New York law, and is a clearing agency registered with the SEC. NSCC provides clearing, settlement, risk management, and central counterparty (CCP) services to its members for broker-to broker trades involving equities, corporate and municipal debt, exchange-traded funds, and unit investment trusts.

FICC is a clearing agency registered with the SEC that provides CCP services to members that participate in the U.S. government and mortgage-backed securities markets, consisting principally of automated real-time trade comparison, netting, settlement, trade confirmation, clearing, risk management and electronic pool notification. FICC has two divisions: the Government Securities Division (GSD) and the Mortgage-Backed Securities Division (MBSD).

DTC, NSCC and FICC are designated as Systemically Important Financial Market Utilities (SIFMUs) by the U.S. Financial Stability Oversight Council pursuant to Title VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. This designation subjects the clearing agencies to enhanced standards for operation and governance, as established by the SEC's Standards for Covered Clearing Agencies (CCAS).

The members of DTCC's clearing agencies are collectively referred to as Participants.

ITP, provides post-trade matching, processing and other related services, primarily to members of the financial community.

Deriv/SERV, through its subsidiaries and affiliates, enhances transparency and provides operational efficiency for derivatives and securities financing transactions. Deriv/SERV offers the Trade Information Warehouse asset servicing for credit default swaps.

Solutions provides information and data related-solutions.

BED owns and operates the Global Market Entity Identifier (GMEI) Utility legal entity identifier (LEI) solution in the federated Global LEI system (GLEIS). The GMEI Utility is designed to provide a single, universal standard identifier to any organization or firm involved in a financial transaction internationally across all asset classes. LEIs issued by the GMEI Utility are ISO 17442 compliant and are recognized by all 55 global regulators who are members of the Regulatory Oversight Committee.

2. BASIS OF PRESENTATION AND USE OF ESTIMATES

Basis of presentation. The accompanying unaudited consolidated financial statements (interim financial statements) are prepared in accordance with generally accepted accounting principles in the United States of America (U.S. GAAP). The accompanying interim financial statements exclude some of the disclosures required in audited financial statements and should be read in conjunction with DTCC's Audited consolidated financial statements for the years ended December 31, 2019 and 2018, which are located on the Company's website at *http://www.dtcc.com/legal/financial-statements*. See Note 2 in DTCC's Audited consolidated financial statements for the years ended December 31, 2019 and 2018, for additional information on the Company's Summary of Significant Accounting Policies.

The consolidated financial statements reflect all adjustments of a normal recurring nature that are, in the opinion of management, necessary for the fair presentation of the results for the interim period. The results of operations for interim periods are not necessarily indicative of results for the entire year. The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. Intercompany accounts and transactions have been eliminated in consolidation.

Use of estimates. The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements. Management makes estimates regarding, among other things, the collectability of receivables, the outcome of litigation, the realization of deferred taxes, unrecognized tax benefits, impairment of intangible assets, fair value measurements and other matters that affect the reported amounts. Estimates are based on judgment and available information; therefore, actual results could differ materially from those estimates.

Commitments and contingencies. The Company is involved in legal proceedings and litigation arising in the ordinary course of business. In the opinion of management, the outcome of such proceedings and litigation is not expected to have a material effect on the accompanying Consolidated Statements of Financial Condition, Income or Cash Flows.

Revenue recognition. The Company derives its revenue from transaction fees, subscription revenue and support services, and other services. Revenue from transaction fees is recognized at a point in time on the transaction date, as the customer obtains the control and benefit of the service at that point. Subscription and support revenues are recognized ratably over the performance period of the relevant contract using a time elapsed measure of progress as the customer receives the benefits of the services throughout the term of the contract. Other services, which represent fees generated from offering referential based data and business processing solutions to financial institutions globally, is recognized when services are provided based on contractual terms.

Details for each revenue stream presented in the Company's Consolidated Statements of Income follow:

S*ettlement and asset services.* Revenue derived from this revenue stream may be in the form of transaction fees and subscription revenue. The Company provides settlement services for equity, corporate and municipal debt trades and money market instruments in the United States of America. Asset Servicing, includes a broad range of services for underwriting, custody, corporate actions, dividend, proxy and reorganization services, as well as the electronic registration and transfer of securities processing.

Clearing services. Revenue derived from this revenue stream may be in the form of transaction fees that are based on either the volume or value of trading activity. Services include continuous net settlement of equity and corporate bonds, mortgage backed securities clearing, and government securities clearing.

Matching and data services. Revenue derived from this revenue stream may be in the form of transaction fees, subscription revenue and support services. Services include trade enrichment, trade agreement, LEIs and data analytics.

Repository and derivatives services. Revenue derived from this revenue stream may be in the form of transaction fees, subscription revenue and support services. Services support derivatives trade data submissions covering real-time price reporting, transaction details, valuation data to meet members' reporting obligations in various jurisdictions globally, as well as, an asset servicing infrastructure for credit default swaps, matching service for equity derivatives payments and tools to member firms to address the quality of their derivatives trade submissions.

2. BASIS OF PRESENTATION AND USE OF ESTIMATES (CONTINUED)

Wealth management services. Revenue derived from this revenue stream may be in the form of transaction fees. Services include centralized, automated processing and information services for mutual fund, alternative investment, and insurance and retirement products.

Other services. Revenue derived from this revenue stream may be in the form of other services, which include referential and activity-based announcement, security reference, and liquidity data through the DTCC Data Services product. These offerings are delivered in fixed or configurable formats, sourced from the Company's transaction, reference, position and asset servicing data.

Contract balances

Deferred revenue represents the Company's contract liabilities related to billings or payments received in advance for subscription and support services where the performance obligation has not yet been satisfied. Deferred revenue is included in Other current liabilities and Other non-current liabilities on the accompanying Consolidated Statements of Financial Condition, as disclosed in Note 10.

Reconciliation of Cash and cash equivalents and other limited use cash. When reconciling the beginning and ending total amounts shown in the Consolidated Statements of Cash Flows, the Company includes all cash on the Consolidated Statements of Financial Condition. regardless of which line it is included. The Statement of Cash Flows includes Cash and cash equivalents and cash balances that are not available for general corporate purposes due to certain limitations, including - Participants' segregated cash, Participants' and Clearing Funds cash deposits and Cash in Other Participants' assets.

A reconciliation of Cash and cash equivalents, Participants' segregated cash, Participants' and Clearing Funds cash deposits, Cash in Other Participants' assets, reported within the accompanying Consolidated Statements of Financial Condition that sum to the total of the same such amounts shown on the accompanying Consolidated Statements of Cash Flows follows (in thousands):

	March 31, 2020	December 31, 2019	March 31, 2019
Cash and cash equivalents	$ 8,063,219	$ 8,395,163	$ 7,147,355
Participants' segregated cash	3,496	4,876	103,610
Participants' and Clearing Funds cash deposits	35,967,882	17,431,482	16,359,863
Cash in Other Participants' assets	1,364,517	514,104	944,352
Total Cash and cash equivalents, Participants' segregated cash, Participants' and Clearing Funds cash deposits, Cash in Other Participants' assets shown on the Consolidated Statements of Cash Flows	$ 45,399,114	$ 26,345,625	$ 24,555,180

3. ACCOUNTING AND REPORTING DEVELOPMENTS

See Note 3 in DTCC's Audited Consolidated Financial Statements for the years ended December 31, 2019 and 2018, for additional information on the Company's Accounting and Reporting Developments.

Standard	Description	Impact on the financial statements or other significant matters
Financial Accounting Standards Board Standard Issued, but not yet Adopted		
ASU 2020-04 Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting *Issued March 2020*	• Provides optional expedients and exceptions for applying U.S. GAAP to contract modifications and hedging relationships that currently utilize the London Interbank Offered Rate (LIBOR) as their benchmark rate, subject to certain criteria being met.	• Effective during March 12, 2020 through December 31, 2022 for all entities. • The Company is evaluating the impact on its consolidated financial statements and related disclosures.
ASU 2020-01 Clarifying the Interactions Between the Accounting for Equity Securities, Equity Method Investments, and Certain Derivative Instruments *Issued January 2020*	• Clarifies that an entity should consider observable transactions that require it to either apply or discontinue the equity method of accounting for the purposes of applying the measurement alternative immediately before applying or upon discontinuing the equity method. • Clarifies the scoping consideration for forward contracts and purchased options on certain securities.	• Effective January 1, 2021 for public companies and January 1, 2022 for non-public companies. • The adoption of the standard will not have a material impact on the Company's consolidated financial statements and related disclosures.

Standard	Description	Impact on the financial statements or other significant matters
Recently Adopted Accounting Standards		
ASU 2020-02 Financial Instruments - Credit Losses (Topic 326) and Leases (Topic 842): Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 119 and Update to SEC Section on Effective Date Related to Accounting Standards Update No. 2016-02, Leases (Topic 842) *Issued February 2020*	• Provides guidance on what SEC staff would expect registrant to perform and document when measuring and recording its allowance for credit loss for financial assets recorded at amortized cost.	• Adopted February 2020 on a prospective basis. • The adoption of the standard did not have a material impact on the Company's consolidated financial statements and related disclosures.
ASU 2019-05 Financial Instruments - Credit Losses: Targeted Transition Relief *Issued May 2019*	• Provides entities with an option upon adoption of ASU 2016-13 *Customer's Financial Instruments - Credit Losses* to irrevocably elect the fair value option on an instrument-by-instrument basis for certain financial instruments that are both within the scope of the current expected credit loss and eligible for the fair value option.	• Adopted January 1, 2020 on a modified retrospective basis. • The Company did not elect the fair value option on any instrument within the scope and therefore there was no impact on its consolidated financial statements and related disclosures.

3. ACCOUNTING AND REPORTING DEVELOPMENTS (CONTINUED)

Standard	Description	Impact on the financial statements or other significant matters
Recently Adopted Accounting Standards		
ASU 2018-15 Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement (CCA) That Is a Service Contract *Issued August 2018*	• Implementation costs related to a CCA will be deferred or expensed as incurred in accordance with the existing internal-use software guidance for similar costs.	• Adopted January 1, 2020 on a prospective basis. • The adoption of the standard did not have a material impact on the Company's consolidated financial statements and related disclosures.
ASU 2018-13 Changes to the Disclosure Requirements for Fair Value Measurement *Issued August 2018*	• Entities will no longer be required to disclose the amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy. • Public companies will be required to disclose the range and weighted average used to develop significant unobservable inputs for recurring Level 3 fair value measurements. • Modifies certain disclosure requirements for nonpublic entities to make them less burdensome.	• Adopted January 1, 2020 on a prospective basis. • The adoption of the standard had no impact on the related disclosures in the Company's consolidated financial statements.
ASU 2017-04 Intangibles - Goodwill and Other - Simplifying the Test for Goodwill Impairment *Issued January 2017*	• Eliminates the second step from the goodwill impairment test. If a reporting unit's carrying amount exceeds its fair value, an entity will record an impairment charge based on that difference. The impairment charge will be limited to the amount of goodwill allocated to that reporting unit.	• Adopted January 1, 2020 on a prospective basis. • The adoption of the standard had no impact on the Company's consolidated financial statements and related disclosures. • The adoption of the standard will reduce the complexity of future goodwill impairment assessments.
ASU 2016-13 Measurement of Credit Losses on Financial Instruments *Issued June 2016*	• Replaces the current incurred loss approach for credit losses with an "expected loss" model for instruments measured at amortized cost. • Requires all lifetime credit losses for financial assets held at the reporting date to be estimated based on factors such as historical experience, current conditions and forecasts. • Requires entities to record allowances for available-for-sale debt securities.	• Adopted January 1, 2020 on a modified retrospective basis. • The Company determined the largest instrument in scope of the standard is trade receivables. Trade receivables and management's provision matrix were assessed for current economic conditions and forward-looking projections however, an adjustment was not required. • The adoption of the standard did not have a material impact on the Company's consolidated financial statements and related disclosures.

4. PARTICIPANTS' SEGREGATED CASH, OTHER PARTICIPANTS' ASSETS AND PAYABLE TO PARTICIPANTS

Details for Participants' segregated cash, Other Participants' assets and Payable to Participants as of March 31, 2020 and December 31, 2019 follow (in thousands):

	2020	2019
Assets:		
Participants' segregated cash	$ 3,496	$ 4,876
Other Participants' assets	1,364,517	514,104
Total	$ 1,368,013	$ 518,980
Liabilities:		
Payable to Participants	$ 1,368,013	$ 518,980

Participants' segregated cash represents cash received from Participants to facilitate their compliance with SEC customer protection rules.

Payable to Participants included $146,000 and $126,000 of cash collateral received from Participants, representing 130% of short positions as of March 31, 2020 and December 31, 2019, respectively.

5. ACCOUNTS RECEIVABLE

Details for Accounts receivable as of March 31, 2020 and December 31, 2019 follow (in thousands):

	2020	2019
Due from Participants and customers for services	$ 210,670	$ 163,432
Allowance for credit losses	(751)	(614)
Due from Participants and customers for services, net	209,919	162,818
Other receivables	11,905	14,401
Total	$ 221,824	$ 177,219

Details for allowance for credit losses for the three months ended March 31, 2020 and 2019 follow (in thousands):

	2020	2019
Beginning balance of allowance for credit losses	$ 614	$ 1,650
Provision/(benefit)	452	(136)
Less: Write-offs	(315)	(43)
Ending balance of allowance for credit losses	$ 751	$ 1,471

6. PARTICIPANTS' AND CLEARING FUNDS

Details for the Participants' and Clearing Funds as of March 31, 2020 and December 31, 2019 follow (in thousands):

	2020			
	DTC	NSCC	FICC	Total
Required deposits	$ 1,150,000	$ 18,312,324	$ 31,547,451	$ 51,009,775
Excess deposits	780,652	1,342,524	11,578,029	13,701,205
Total	$ 1,930,652	$ 19,654,848	$ 43,125,480	$ 64,710,980

	2019			
	DTC	NSCC	FICC	Total
Required deposits	$ 1,150,000	$ 5,183,646	$ 24,221,483	$ 30,555,129
Excess deposits	807,140	713,606	8,739,030	10,259,776
Total	$ 1,957,140	$ 5,897,252	$ 32,960,513	$ 40,814,905

Cash and Securities on deposit. Details for cash deposits and securities on deposit of the Participants' and Clearing Funds, which may be applied to satisfy obligations of the depositing Participant, other Participants, or the Company as provided in the rules of the relevant subsidiaries of the Company, as of March 31, 2020 and December 31, 2019 follow (in thousands):

	2020			
	DTC	NSCC	FICC	Total
Cash	$ 1,930,652	$ 18,886,202	$ 15,151,028	$ 35,967,882
Securities on deposit - at fair value	—	768,646	27,974,452	28,743,098
Total	$ 1,930,652	$ 19,654,848	$ 43,125,480	$ 64,710,980

	2019			
	DTC	NSCC	FICC	Total
Cash	$ 1,957,140	$ 5,554,586	$ 9,919,756	$ 17,431,482
Securities on deposit - at fair value	—	342,666	23,040,757	23,383,423
Total	$ 1,957,140	$ 5,897,252	$ 32,960,513	$ 40,814,905

Details for the Participants' and Clearing Funds cash deposits as of March 31, 2020 and December 31, 2019 follow (in thousands):

	2020			
	DTC	NSCC	FICC	Total
Bank deposits	$ 1,930,652	$ 18,023,202	$ 14,194,028	$ 34,147,882
Money market fund investments - at fair value	—	488,000	807,000	1,295,000
Reverse repurchase agreements	—	375,000	150,000	525,000
Total	$ 1,930,652	$ 18,886,202	$ 15,151,028	$ 35,967,882

	2019			
	DTC	NSCC	FICC	Total
Bank deposits	$ 1,957,140	$ 3,953,586	$ 7,851,756	$ 13,762,482
Money market fund investments - at fair value	—	1,226,000	1,618,000	2,844,000
Reverse repurchase agreements	—	375,000	450,000	825,000
Total	$ 1,957,140	$ 5,554,586	$ 9,919,756	$ 17,431,482

7. EQUITY METHOD INVESTMENTS

Details for DTCC's Equity method investments as of March 31, 2020 and December 31, 2019 follow (in thousands, except ownership percentage):

	2020	2019
European Central Counterparty N.V.		
Percentage ownership	20%	20%
Carrying value	$ 10,590	$ 10,676
DTCC-Euroclear GlobalCollateral, LTD		
Percentage ownership	—%	50%
Carrying value	$ —	$ —

European Central Counterparty N.V. (ECCP N.V.), a joint venture with ABN AMRO Clearing Investments B.V., NASDAQ AB, CBOE Worldwide Holdings Limited and Euronext N.V., provides a pan-European clearing solution offering economies of scale and risk management expertise to European market participants. ECCP N.V. uses the risk management framework and customer service organization of European Multilateral Clearing Facility N.V. (EMCF), and conducts its operations using the technology platform and infrastructure of EMCF.

On December 9, 2019, the Company entered into a binding agreement to sell its 20% minority stake in ECCP N.V., along with the other ECCP N.V. shareholders, to CBOE Worldwide Holdings Limited. The transaction is expected to close in the first half of 2020, pending the receipt of required regulatory approval.

DTCC-Euroclear GlobalCollateral LTD (DEGCL), a joint venture with Euroclear plc, provides support to financial institutions in addressing significant regulatory, operational and industry challenges related to the management of margin calls and collateral impacting the over-the-counter (OTC) derivatives market.

On March 10, 2020, Euroclear plc and the Company finalized a dissolution, business and share transfer agreement with respect to the DEGCL joint venture. As a result, the Company transferred its investment in DEGCL to Euroclear plc in exchange for cash totaling $3,640,000 and the rights to certain products of the joint venture. In addition, all agreements between DEGCL and DTCC, which provided various support services and office facilities on a reimbursement basis, were terminated. The dissolution, business and share transfer resulted in a gain of $3,640,000, which is included in Other non-operating income, net in the accompanying Consolidated Statements of Income.

8. LEASES

The Company leases corporate offices, data centers and certain equipment primarily through operating leases. The Company's leases have remaining lease terms of 1 to 14 years, some of which may include options to extend the lease up to 10 years, and some of which may include options to terminate the lease within 1 year.

The Company determines if an arrangement is or contains a lease at contract inception and accounts for lease components separately from non-lease components of an arrangement. Operating leases are included in Operating lease right-of-use (ROU) asset, Current portion of operating lease liability, and Non-current operating lease liability on the Company's Consolidated Statements of Financial Condition.

ROU assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease. The ROU assets are measured at the amount equal to the lease liabilities, adjusted for balances of accrued or prepaid rent and unamortized lease incentives provided by lessors.

Operating lease liabilities are recognized based on the present value of the future lease payments over the remaining lease term. The Company uses its incremental borrowing rate, factoring in the lease term, to determine the lease liability. When determining lease term, the Company considers renewal options that the Company is reasonably certain to exercise and termination options that the Company is reasonably certain not to exercise. For operating leases, expense is generally recognized on a straight-line basis over the lease term.

8. LEASES (CONTINUED)

Details for operating lease assets and lease liabilities as of March 31, 2020 and December 31, 2019 follow (in thousands):

	2020	2019
Assets		
Operating lease right-of-use-asset	$ 232,225	$ 237,689
Liabilities		
Current portion of operating lease liability	26,139	25,906
Non-current operating lease liability	258,903	264,848
Total leased liabilities	$ 285,042	$ 290,754

Details for the maturity of lease liabilities as of March 31, 2020 for each of the next five years and thereafter follow (in thousands):

2020	$ 26,596
2021	33,733
2022	27,915
2023	27,874
2024	27,321
Thereafter	203,011
Total lease payments	346,450
Less: Imputed interest	(61,408)
Present value of lease liability	$ 285,042

Details for lease expense for the three months ended March 31, 2020 and 2019 follow (in thousands):

	2020	2019
Lease expense		
Occupancy	$ 8,267	$ 7,972
Information technology	920	920
Total lease expense	9,187	8,892
Sublease income	(1,440)	(1,460)
Net lease expense	$ 7,747	$ 7,432

Details for supplemental cash flow information related to lease liabilities for the three months ended March 31, 2020 and 2019 follow (in thousands):

	2020	2019
Lease payments included in the measurement of lease liabilities	$ (8,874)	$ (8,573)
Accretion of lease liabilities	2,265	$ 2,529
Net change in Operating lease liability (1)	$ (6,609)	$ (6,044)

(1) Included in operating activities in the Consolidated Statements of Cash Flows

8. LEASES (CONTINUED)

Details of the weighted average remaining lease term and weighted average discount rate used to determine the lease liability as of March 31, 2020 and December 31, 2019 follow:

	2020	2019
Weighted average remaining lease term (years)	10.9	11.1
Weighted average discount rate	3.36%	3.37%

Leased assets obtained in exchange for operating lease obligations were $2,593,000 and $0 for the three months ended March 31, 2020 and 2019, respectively.

9. OTHER ASSETS

Details for Other assets as of March 31, 2020 and December 31, 2019 follow (in thousands):

	2020	2019
Prepaids	$ 96,859	$ 93,661
Prepaid taxes	42,776	64,069
Interest receivable	5,425	19,872
Other current assets	339	338
Total other current assets	145,399	177,940
Long-term incentive plan assets	140,387	158,264
Cash surrender value on insurance policies	66,567	66,324
Deferred tax assets	31,794	32,472
Prepaids	25,133	26,082
Equity investments	12,393	12,393
Investment in Federal reserve stock	6,402	6,402
Other non-current assets	2,794	2,782
Total other non-current assets	285,470	304,719
Total	$ 430,869	$ 482,659

10. OTHER LIABILITIES

Details for Other liabilities as of March 31, 2020 and December 31, 2019 follow (in thousands):

	2020	2019
Compensation payable	$ 36,826	$ 147,363
Long-term incentive plan liabilities	24,788	52,450
Deferred revenue	13,275	8,627
Other current liabilities	49,901	57,720
Total other current liabilities	124,790	266,160
Long-term incentive plan liabilities	211,959	216,092
Unrecognized tax benefits	43,791	43,474
Deferred revenue	1,222	1,264
Deferred tax liabilities	562	660
Other non-current liabilities	2,141	2,191
Total other non-current liabilities	259,675	263,681
Total	$ 384,465	$ 529,841

11. COMMERCIAL PAPER

Details for Commercial paper as of March 31, 2020 and December 31, 2019 follow (in thousands):

	2020	2019
Commercial paper - net of unamortized discount of $23,752 and $20,623. as of March 31, 2020 and December 31, 2019, respectively	$ 6,785,278	$ 7,154,217
Weighted-average interest rate	1.67%	1.95%

Interest expense on Commercial paper, included in Interest expense in the accompanying Consolidated Statements of Income, was $32,761,000 and $45,805,000 for the three months ended March 31, 2020 and 2019, respectively.

12. LONG-TERM DEBT

Details for Long-term debt as of March 31, 2020 and December 31, 2019 follow (in thousands):

	2020	2019
Information technology financing	$ 5,561	$ 8,024
Less: Current portion of long-term debt	(4,058)	(4,103)
Non-current portion of long-term debt	$ 1,503	$ 3,921

Details for principal payments due on Long-term debt as of March 31, 2020 for each of the next five years and thereafter follow (in thousands):

	Information Technology Financing
2020	$ 1,640
2021	3,921
2022	—
2023	—
2024	—
Thereafter	—
Total	$ 5,561

On January 1, 2019, the Company obtained three year financing of $14 million from IBM Credit LLC in connection to its software and services purchase agreement with IBM. The weighted-average interest rate of the loan was 3.90% as of March 31, 2020. Interest expense on the loan included in the accompanying Consolidated Statements of Income was $62,000 and $123,000 for the three months ended March 31, 2020 and 2019, respectively.

12. LONG-TERM DEBT (CONTINUED)

Lines of credit. DTCC maintains a committed line of credit for general funding purposes while certain of its subsidiaries, DTC and NSCC, also maintain committed lines of credit to support settlement.

Details for the terms of the outstanding lines of credit as of March 31, 2020 and December 31, 2019 follow:

	2020	2019
DTCC		
Committed Amount	$500 million [(1)]	$500 million [(1)]
Denomination	USD	USD
Number of Participants/Lenders	10/10	10/10
Borrowing Rate	Either base rate plus 0.25% or eurodollar plus 1.25%	Either base rate plus 0.25% or eurodollar plus 1.25%
Maturity Date	January 2022	January 2022
DTC		
Committed Amount	$1.9 billion [(2)]	$1.9 billion [(2)]
Denomination	USD	USD
Number of Participants/Lenders	32/41	32/41
Borrowing Rate	The greater of the federal funds offered rate, adjusted LIBOR, or lenders' cost of funds, on the day of borrowing, plus 1.40%	
Maturity Date	May 2020	May 2020
Uncommitted Amount	C$150 million [(3)]	C$150 million [(3)]
Denomination	CAD	CAD
Number of Participants/Lenders	1/1	1/1
Borrowing Rate	A rate per annum equal to the Canadian Prime Rate minus 0.50%	
Maturity Date	On Demand	On Demand
NSCC		
Committed Amount	$12.1 billion[(2)]	$12.1 billion[(2)]
Denomination	USD	USD
Number of Participants/Lenders	32/41	32/41
Borrowing Rate	The greater of the federal funds offered rate, adjusted LIBOR, or lenders' cost of funds, on the day of borrowing, plus 1.40%	
Maturity Date	May 2020	May 2020

(1) The annual commitment fee associated with maintaining the line of credit was 0.15% of the unused amount of the total line of credit, for the three months ended March 31, 2020 and 2019, respectively, and is included in Professional and other services in the accompanying Consolidated Statements of Income.

(2) The annual facility fee associated with maintaining the line of credit was 0.10% of the total line of credit, for the three months ended March 31, 2020 and 2019, and is included in Professional and other services in the accompanying Statements of Income.

(3) Used to support Canadian settlement.

There were no borrowings under the lines of credit during 2020 and 2019.

12. LONG-TERM DEBT (CONTINUED)

Details for debt covenants related to the lines of credit as of March 31, 2020 and December 31, 2019 follow:

	2020	2019
DTCC		
Minimum Net Worth	$1.25 billion	$1.25 billion
Maximum Priority Debt	$200 million	$200 million
DTC		
Minimum Net Worth	$150 million	$150 million
Minimum Participants' Fund deposits	$750 million	$750 million
NSCC		
Minimum Net Worth	$125 million	$125 million
Minimum Clearing Fund deposits	$1 billion	$1 billion

As of March 31, 2020 and December 31, 2019, the Company was in compliance with its debt covenants.

Credit Ratings. DTCC, DTC, FICC and NSCC are rated by Moody's Investors Service, Inc. (Moody's) and S&P Global Inc. (S&P). Details for issuer credit ratings and ratings outlooks for DTCC and its three clearing agency subsidiaries as of March 31, 2020 follow:

	Moody's (1)			S&P		
	Long-term	**Short-term**	**Outlook**	**Long-term**	**Short-term**	**Outlook**
DTCC	Aa3	N/A	Stable	AA-	A-1+	Stable
DTC	Aaa	P-1	Stable	AA+	A-1+	Stable
FICC	Aaa	P-1	Stable	AA	A-1+	Stable
NSCC	Aaa	P-1	Stable	AA+	A-1+	Stable

(1) Moody’s categorizes the long-term issuer ratings of DTC, FICC and NSCC as clearing counterparty ratings (CCR) under the agency's Clearing Houses Rating Methodology.

13. FAIR VALUE MEASUREMENTS

See Note 15 in DTCC's audited consolidated financial statements for the years ended December 31, 2019 and 2018, for the Company's valuation basis, including valuation techniques and inputs, as well as the fair value hierarchy used in measuring the Company's financial assets and liabilities that are both accounted for at fair value and at other than fair value.

Financial Assets and Liabilities measured at fair value on a recurring basis.

Fair value measurements of those items measured on a recurring basis as of March 31, 2020 and December 31, 2019 are summarized below (in thousands):

	2020			
	Level 1	Level 2	Level 3	Total
Assets - Participants' and Clearing Funds				
Securities on deposit	$ 24,463,404	$ 4,279,694	$ —	$ 28,743,098
Cash deposits - Money market fund investments	1,295,000	—	—	1,295,000
Non-current assets				
Long-term incentive plan assets - Mutual fund and Stable value fund investments	106,090	34,297	—	140,387
Total assets	$ 25,864,494	$ 4,313,991	$ —	$ 30,178,485
Participants' and Clearing Funds				
Securities liabilities	$ 24,463,404	$ 4,279,694	$ —	$ 28,743,098
Money market fund investments liabilities	1,295,000	—	—	1,295,000
Total	$ 25,758,404	$ 4,279,694	$ —	$ 30,038,098

	2019			
	Level 1	Level 2	Level 3	Total
Assets - Participants' and Clearing Funds				
Securities on deposit	$ 18,469,797	$ 4,913,626	$ —	$ 23,383,423
Cash deposits - Money market fund investments	2,844,000	—	—	2,844,000
Non-current assets				
Long-term incentive plan assets - Mutual fund and Stable value fund investments	100,706	33,813	—	134,519
Total assets, excluding investments at fair value based on NAV	$ 21,414,503	$ 4,947,439	$ —	$ 26,361,942
Participants' and Clearing Funds				
Securities liabilities	$ 18,469,797	$ 4,913,626	$ —	$ 23,383,423
Money market fund investments liabilities	2,844,000	—	—	2,844,000
Total	$ 21,313,797	$ 4,913,626	$ —	$ 26,227,423

The Company uses Net Asset Value (NAV) to estimate the fair value of certain investments related to the long-term incentive plan. Investments in common collective trust funds are valued at NAV based upon the redemption price of the units, which is based on the current fair value of the common collective trust funds' underlying assets. Unit values are determined by the financial institution sponsoring such funds by dividing the funds' net assets at fair value by its units outstanding at the valuation dates.

13. FAIR VALUE MEASUREMENTS (CONTINUED)

Details of investments measured at fair value using NAV as of December 31, 2019 follow (in thousands):

	2019			
	NAV	Redemption Frequency	Other Redemption Restrictions	Redemption Notice Period
Common collective trusts	$ 23,745	Daily	None	None

There was no unfunded commitment to these investments as of March 31, 2020 and December 31, 2019

Certain investments may transfer between the fair value hierarchy classifications during the year due to changes in valuation methodology and pricing sources. There were no financial assets and liabilities measured at fair value on a recurring basis classified as Level 3 for the periods ended March 31, 2020 and December 31, 2019.

Financial Assets and Liabilities measured at other than fair value. The carrying values, fair values and fair value hierarchy levels of all financial instruments measured at other than fair value on the accompanying Consolidated Statements of Financial Condition as of March 31, 2020 and December 31, 2019 follow (in thousands):

	2020				
	Carrying Amount	Total Fair Value	Level 1	Level 2	Level 3
Assets:					
Cash and cash equivalents	$ 8,063,219	$ 8,063,219	$ 8,063,219	$ —	$ —
Participants' segregated cash	3,496	3,496	3,496	—	—
Short-term investments	800,000	800,000	—	800,000	—
Participants' and Clearing Funds:					
Cash deposits - Bank deposits	34,147,882	34,147,882	34,147,882		—
Cash deposits - Reverse repurchase agreements	525,000	525,000	—	525,000	—
Other Participants' assets	1,364,517	1,364,517	1,364,517	—	—
Total	$ 44,904,114	$ 44,904,114	$ 43,579,114	$ 1,325,000	$ —
Liabilities:					
Commercial paper	$ 6,785,278	$ 6,785,278	$ —	$ 6,785,278	$ —
Participants' and Clearing Funds Cash deposits - Bank deposits and Reverse repurchase agreements	34,672,882	34,672,882	34,672,882	—	—
Payable to Participants	1,368,013	1,368,013	1,368,013	—	—
Long-term debt	5,561	5,978	—	5,978	—
Total	$ 42,831,734	$ 42,832,151	$ 36,040,895	$ 6,791,256	$ —

13. FAIR VALUE MEASUREMENTS (CONTINUED)

	2019				
	Carrying Amount	Total Fair Value	Level 1	Level 2	Level 3
Assets:					
Cash and cash equivalents	$ 8,395,163	$ 8,395,163	$ 8,395,163	$ —	$ —
Participants' segregated cash	4,876	4,876	4,876	—	—
Short-term investments	900,000	900,000	—	900,000	—
Participants' and Clearing Funds:					
Cash deposits - Bank deposits	13,762,482	13,762,482	13,762,482	—	—
Cash deposits - Reverse repurchase agreements	825,000	825,000	—	825,000	—
Other Participants' assets	514,104	514,104	514,104	—	—
Total	$ 24,401,625	$ 24,401,625	$ 22,676,625	$ 1,725,000	$ —
Liabilities:					
Commercial paper	$ 7,154,217	$ 7,154,217	$ —	$ 7,154,217	$ —
Accounts payable and accrued expenses	102,179	102,179	—	102,179	—
Participants' and Clearing Funds Cash deposits - Bank deposits and Reverse repurchase agreements	14,587,482	14,587,482	14,587,482	—	—
Payable to Participants	518,980	518,980	518,980	—	—
Long-term debt	8,024	8,565	—	8,565	—
Total	$ 22,370,882	$ 22,371,423	$ 15,106,462	$ 7,264,961	$ —

14. PENSION AND POSTRETIREMENT BENEFITS

Defined benefit pension and other postretirement benefit plans. Details of the components of net periodic benefit expense (income) and amortization for the Company's pension and postretirement benefit plans, included in Employee compensation and related benefits, Interest expense, and Other non-operating income, net in the accompanying Consolidated Statements of Income, for the three months ended March 31, 2020 and 2019 follow (in thousands):

	Pension Benefits		Other Benefits	
	2020	2019	2020	2019
Components of net periodic benefit expense (income):				
Expected return on plan assets	$ (10,019)	$ (10,102)	$ —	$ —
Interest cost	8,199	10,023	454	611
Service cost	908	1,051	167	167
Amortizations:				
Prior service cost (credit)	207	234	(1,392)	(1,482)
Actuarial loss	2,552	1,318	381	318
Settlement loss	135	23	—	—
Net periodic benefit expense (income)	$ 1,982	$ 2,547	$ (390)	$ (386)

Defined contribution retirement plans. Total expense for the defined contribution retirement plans included in Employee compensation and related benefits in the accompanying Consolidated Statements of Income was $10,630,000 and $10,397,000 for the three months ended March 31, 2020 and 2019, respectively.

See Note 16 in DTCC's Audited Consolidated Financial Statements for the years ended December 31, 2019 and 2018 for additional information.

15. INCOME TAXES

Details for unrecognized tax benefits, included in Other non-current liabilities on the accompanying Consolidated Statements of Financial Condition, as of March 31, 2020 and 2019 follow (in thousands):

	2020	2019
Beginning balance	$ 29,197	$ 28,692
Increases:		
Current period tax positions	50	—
Decreases:		
Prior period tax positions	(533)	—
Unrecognized tax benefit	28,714	28,692
Accrued interest	15,077	12,637
Ending balance	$ 43,791	$ 41,329

See Note 17 in DTCC's Audited consolidated financial statements for the years ended December 31, 2019 and 2018 for additional information.

16. SHAREHOLDERS' EQUITY

DTCC Series A Preferred stock. All 10,000 shares of DTCC Series A Preferred stock are issued and outstanding and held of record by Stock Clearing Corporation, a wholly owned subsidiary of the New York Stock Exchange LLC, the successor-in-interest to the New York Stock Exchange Inc. In the event of DTCC's voluntary or involuntary liquidation, dissolution or winding-up, the holders of Series A Non-Cumulative Perpetual Preferred stock are entitled to a liquidation preference of $30.00 per share.

DTCC Series B Preferred stock. All 10,000 shares of DTCC Series B Preferred stock are issued and outstanding and held of record by National Clearing Corporation, a wholly owned subsidiary of the Financial Industry Regulatory Authority Inc. ("FINRA"). In the event of DTCC's voluntary or involuntary liquidation, dissolution or winding-up, the holders of Series B Preferred stock are entitled to a liquidation preference of $30.00 per share.

DTCC Series C Fixed-to-Floating Rate Non-Cumulative Perpetual Preferred stock. DTCC issued 1,600 shares of Fixed-to-Floating Rate Non-Cumulative Perpetual Preferred stock, Series C, $0.50 par value per share, with a liquidation preference of $250,000 per share. When declared by DTCC's Board of Directors, dividends on the Series C Preferred stock are payable in arrears on June 15 and December 15 of each year through June 15, 2020 at a fixed rate of 4.875% per annum. From June 15, 2020 onward, dividends will accrue at a floating rate equal to three-month LIBOR plus 3.167% per annum.

DTCC may redeem the Series C Preferred Stock at its option, for cash, i) in whole or in part, from time to time, on any dividend payment date on or after June 15, 2020 at a redemption price equal to $250,000 per share, plus any declared and unpaid dividends to, but excluding the redemption date, or ii) in whole but not in part, at any time within 90 days following a Regulatory Capital Treatment Event, as defined in the Series C Preferred Stock Offering Memorandum, at a redemption price equal to $250,000 per share, plus any declared and unpaid dividends to, but excluding, the redemption date.

On April 7, 2020 , in accordance with the Amended Certificate of Incorporation of DTCC, the Board of Directors approved and declared dividends in the amount of $6,093.75 per share on 1,600 shares outstanding of its Series C Preferred Stock. The aggregate dividend of $9,750,000 will be payable on June 15, 2020 to the holders of the Series C Preferred Stock as of record date May 29, 2020.

16. SHAREHOLDERS' EQUITY (CONTINUED)

DTC Series A Non-Cumulative Perpetual Preferred stock. Under a plan adopted by the Board of Directors, each Participant of DTC is required to own shares of DTC Series A preferred stock. The ownership of DTC preferred stock is reported as non-controlling interests in the consolidated financial statements. There was $150,000,000 of DTC Series A preferred stock (1,500,000 shares at par value of $100 per share) outstanding as of March 31, 2020 and December 31, 2019. Annual dividends are accrued based on the weighted-average rate of interest paid by the Company on required Participants' Fund deposits during the dividend period as disclosed in the DTC's rules. The 2019 annual dividend amount of $2,640,000 was approved and declared by the Board of Directors in February 2020, and was paid in March 2020, to the holders of DTC Series A Preferred stock during 2019.

17. CAPITAL REQUIREMENTS

The capital requirement for each of the clearing agencies is equal to the sum of the general business risk capital requirement and corporate contribution, as described below. The clearing agencies must meet the capital requirements by holding liquid net assets funded by equity, as described in rule 17Ad-22(e)(15) of the CCAS and the Clearing Agency Policy on Capital Requirements.

General Business Risk Capital Requirement. The general business risk capital requirement is determined according to Rule 17Ad-22(e)(15) of the CCAS and the Clearing Agency Policy on Capital Requirements. The capital requirement is held to cover potential general business losses so that the clearing agencies can continue operations and provide services as a going concern if those losses materialize. It is determined based on the general business risk profile and estimated time to execute a recovery or orderly wind-down of critical operations for each of the clearing agencies and, at a minimum, is equal to six months of operating expenses.

Corporate Contribution. The clearing agencies maintain an amount referred to as the corporate contribution, to be applied to losses as provided in each of the respective clearing agencies rules. The amount of the corporate contribution is generally equal to 50% of each clearing agency's general business risk capital requirement.

Details of the general business risk capital requirement, corporate contribution and liquid net assets funded by equity for the clearing agencies as of March 31, 2020 and December 31, 2019 follow (in thousands):

	2020		
	DTC	NSCC	FICC
General business risk capital requirement	$ 170,814	$ 173,163	$ 117,415
Corporate contribution	85,407	86,581	58,708
Total requirement	256,221	259,744	176,123
Liquid net assets funded by equity	631,888	552,717	287,403
Excess	$ 375,667	$ 292,973	$ 111,280

	2019		
	DTC	NSCC	FICC
General business risk capital requirement	$ 169,398	$ 159,218	$ 113,137
Corporate contribution	84,699	79,609	56,568
Total requirement	254,097	238,827	169,705
Liquid net assets funded by equity	606,572	524,817	277,811
Excess	$ 352,475	$ 285,990	$ 108,106

17. CAPITAL REQUIREMENTS (CONTINUED)

Regulatory capital. DTCC's regulated subsidiaries maintain and report regulatory capital in accordance with all relevant laws, rules and guidelines. As a multinational enterprise, various DTCC subsidiaries are subject to regulatory capital regimes, as applicable. Certain DTCC subsidiaries submit regulatory capital reports to various regulators, including, but not limited to, FRBNY, the NYSDFS and the Commodity Futures Trading Commission in the United States; Ontario Securities Commission in Canada; and the Monetary Authority of Singapore in Singapore.

Capital adequacy. DTC is subject to capital guidelines issued by United States federal and state banking regulators.

DTC capital and leverage ratios filed with the FRBNY and the NYSDFS as of March 31, 2020 follow:

	Ratio	Minimum Capital Ratio[(a)]	Well Capitalized Ratio[(a)]
Tier 1 capital ratio [(1)]	86.93%	6.00%	8.00%
Total capital ratio [(1)]	86.93%	8.00%	10.00%
Tier 1 leverage ratio [(2)]	20.20%	4.00%	4.00%

(a) As defined by the regulations issued by the Federal Reserve, Office of the Comptroller of the Currency and the Federal Deposit Insurance Corporation.

(1) Total capital and Tier 1 capital includes common stock, retained earnings and preferred stock. DTC's tier 1 capital and total capital ratios are based on tier 1 capital and total risk-weighted assets.

(2) Tier 1 leverage ratio is based on tier 1 capital and quarterly average total assets.

18. GUARANTEES

FICC and NSCC provide CCP services, including clearing, settlement and risk management services. Acting as a CCP, FICC (through GSD and MBSD) and NSCC guarantee the settlement of trades in the event one or more of their Participants' defaults. A Participant default is defined in the respective rules of NSCC, GSD and MBSD. In their guarantor role, each clearing subsidiary has equal claims to and from Participants, as applicable, on opposite sides of netted transactions. To cover their guarantee risk, FICC (through GSD and MBSD) and NSCC use risk-based margining to collect cash and securities collateral through their Clearing Funds. NSCC's trade guaranty attaches at the point of validation for locked-in submissions, or at the point of comparison and validation for bilateral submissions.

DTC, NSCC, FICC and The Options Clearing Corporation have also entered into a multilateral netting contract and limited cross-guaranty agreement. In accordance with the cross-guaranty agreement, these clearing agencies have agreed to make payments to each other for any remaining unsatisfied obligations of a common defaulting Participant to the extent that these clearing agencies have excess resources belonging to the defaulting Participant. Under this agreement, no party ever needs to pay out of pocket and no party can receive more than its loss.

Details for open CCP positions for which a trade guaranty applied as of March 31, 2020 and December 31, 2019 follow (in billions):

	2020	2019
FICC		
GSD	$ 1,180	$ 1,172
MBSD	543	419
NSCC	236	143

18. GUARANTEES (CONTINUED)

On March 20, 2020, FICC summarily suspended Ronin Capital LLC ("Ronin") as a member of its Government Securities Division. In conjunction with the cross-margining agreement with Chicago Mercantile Exchange Inc. (CME), FICC commenced a joint liquidation with CME of Ronin's portfolio. On March 25, 2020, FICC announced that the liquidation process was completed and that no loss allocation would be imposed on GSD member firms as a result of this liquidation. The deposited funds from Ronin were reclassified from the Clearing Fund and segregated to a Liquidating Fund. As of March 31, 2020, the liquidation balance was $45 million, which is included in Other Participant's assets and Payable to Participants on the accompanying Statements of Financial Condition. The liquidation balance is subject to further review, including any outstanding expenses and/or contingent liabilities.

See Note 21 in DTCC's Audited Consolidated Financial Statements for the years ended December 31, 2019 and 2018 for additional information on the Company's guarantees.

19. OTHER MATTERS

The outbreak of the novel coronavirus ("COVID-19") in many countries continues to adversely impact global commercial activity and has contributed to significant volatility in financial markets. The World Health Organization has declared COVID-19 a "Public Health Emergency of International Concern." The global impact of the outbreak continues to evolve, and as cases of the virus have continued to be identified, many countries have reacted by instituting quarantines and restrictions on travel. Such actions are creating disruption in global supply chains, and adversely impacting a number of industries. The outbreak could have a continued adverse impact on economic and market conditions and trigger a period of global economic slowdown. The rapid development and fluidity of this situation precludes any prediction as to the ultimate adverse impact of COVID-19. Nevertheless, COVID-19 could have a material impact on the Company's financial statements. In addition to the factors described above, other factors either in the U.S or internationally that may affect market, economic and geopolitical conditions, and thereby adversely affect the Company's business include, without limitation, economic slowdown, changes in interest rates and/or a lack of availability of credit, changes in law and/or regulation, and uncertainty regarding government and regulatory policy.

The ongoing concerns related to the COVID-19 virus caused DTC to suspend all physical securities processing services from the Company's vault. DTC is at risk for a range of additional potential exposures, the most significant of which stem from the inability to process physical securities. As a result, the Company has potential contingent liabilities from: (i) the acceptance of Letters of Securities Possession (LOP) and (ii) the issuance of Letters of Indemnification certificates (LOI). The LOP is used when, due to extraordinary circumstances, the underwriter of a new issue is unable to deliver the physical certificates to DTC as required by DTC's operating rules. An LOI is issued to Transfer Agents to enable the processing of transactions when the presentment of physical certificates is not possible. An LOI is effective until such time that the physical certificates become available and are returned to the Transfer Agent.

Since March 20, 2020, DTC received 1,929 LOP certificates for $18.4 billion in new issuances, which remained outstanding as of March 31, 2020. Of the $18.4 billion, 804 LOP certificates were outstanding with a total value of $7.1 billion as of May 8, 2020, the date these consolidated financial statements are available to be issued. There were no LOI certificates issued or outstanding from March 20 through March 31, 2020. The Company continues to assess this matter and believes, based on information available to it, the resolution of these matters will not have a material adverse effect on the financial condition and to the Company's operating results or cash flows for any particular period. Accordingly, no such amounts have been recognized by the Company in the accompanying consolidated financial statements. The Company continues to assess the probability and the estimation of the exposure to determine the extent of further disclosures and/or whether recognition may be necessary going forward.

All other DTCC services remain uninterrupted and the Company has not experienced any impairments to the Company's assets or negative financial impacts related to COVID-19.

20. SUBSEQUENT EVENTS

The Company evaluated events and transactions occurring after March 31, 2020 through May 8, 2020, the date these consolidated financial statements are available to be issued, for potential recognition or disclosure. No additional events or transactions, other than as disclosed below and disclosed in Note 16, Shareholders' Equity, occurred during such period that would require recognition or disclosure in these consolidated financial statements.

On May 5, 2020, the Company renewed the annual lines of credit on DTC and NSCC for $1.9 billion and $10.9 billion respectively. These lines will mature on May 4, 2021.

On April 23, 2020, NSCC issued three-year and five-year senior unsecured medium term notes for a total of $2 billion. The proceeds from the issuances constitute liquid resources that, together with other liquid resources of the Company, will enable NSCC to effect the settlement of its payment obligations in the event of the default of any of its Participants in accordance with NSCC's rules and procedures.

Details of the medium term notes follow (in thousands):

	Three-Year	**Five-Year**
Face Value	$1,000,000	$1,000,000
Discount	$940	$1,970
Net Proceeds	$992,450	$990,420
Maturity Date	April 23, 2023	April 23, 2025
Interest Rate (1)	1.2%	1.5%

(1) Interest is payable semi-annually in arrears on October 23 and April 23 of each year, beginning October 23, 2020