# The Depository Trust & Clearing Corporation

Condensed Consolidated Financial Statements
as of September 30, 2018 and December 31, 2017 and for the
three and nine months ended September 30, 2018 and 2017

# THE DEPOSITORY TRUST & CLEARING CORPORATION

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# THE DEPOSITORY TRUST & CLEARING CORPORATION

## CONDENSED CONSOLIDATED STATEMENTS OF FINANCIAL CONDITION (UNAUDITED)

| (In thousands, except share data) | As of September 30, 2018 | As of December 31, 2017 |
|---|---|---|
| **ASSETS** | | |
| CURRENT ASSETS: | | |
| Cash and cash equivalents | $ 8,373,786 | $ 5,075,318 |
| Participants' segregated cash | 151,459 | 20,120 |
| Accounts receivable - net of allowance for doubtful accounts of $384 and $205 as of September 30, 2018 and December 31, 2017, respectively | 168,018 | 174,456 |
| Participants' and Clearing Funds | 33,465,835 | 27,015,465 |
| Other Participants' assets | 1,252,820 | 868,036 |
| Other current assets | 110,755 | 101,654 |
| Total current assets | 43,522,673 | 33,255,049 |
| NON-CURRENT ASSETS: | | |
| Premises and equipment - net of accumulated depreciation of $413,804 and $394,039 as of September 30, 2018 and December 31, 2017, respectively | 209,656 | 233,835 |
| Goodwill | 57,699 | 57,699 |
| Intangible assets - net of accumulated amortization of $820,517 and $740,942 as of September 30, 2018 and December 31, 2017, respectively | 330,794 | 338,359 |
| Equity method investments | 10,502 | 10,394 |
| Other non-current assets | 356,911 | 353,836 |
| Total non-current assets | 965,562 | 994,123 |
| TOTAL ASSETS | $ 44,488,235 | $ 34,249,172 |
| **LIABILITIES AND SHAREHOLDERS' EQUITY** | | |
| CURRENT LIABILITIES: | | |
| Commercial paper - net of unamortized discount of $27,216 and $3,371 as of September 30, 2018 and December 31, 2017, respectively | $ 6,422,338 | $ 3,222,571 |
| Current portion of long-term debt | 2,650 | 7,877 |
| Current portion of pension and postretirement benefits | 21,337 | 21,337 |
| Accounts payable and accrued expenses | 107,181 | 118,345 |
| Participants' and Clearing Funds | 33,465,835 | 27,015,465 |
| Payable to Participants | 1,404,279 | 888,156 |
| Other current liabilities | 200,774 | 249,929 |
| Total current liabilities | 41,624,394 | 31,523,680 |
| NON-CURRENT LIABILITIES: | | |
| Non-current portion of long-term debt | 34,450 | 36,375 |
| Non-current portion of pension and postretirement benefits | 239,591 | 291,208 |
| Other non-current liabilities | 344,190 | 370,242 |
| Total non-current liabilities | 618,231 | 697,825 |
| Total liabilities | 42,242,625 | 32,221,505 |
| COMMITMENTS AND CONTINGENCIES (Note 17) | | |
| **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 |
| Paid-in capital | 411,065 | 411,065 |
| Retained earnings | 1,485,228 | 1,261,309 |
| Accumulated other comprehensive loss, net of tax | (195,330) | (189,354) |
| Non-controlling interests | 148,440 | 148,440 |
| Total shareholders' equity | 2,245,610 | 2,027,667 |
| TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY | $ 44,488,235 | $ 34,249,172 |

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

# THE DEPOSITORY TRUST & CLEARING CORPORATION

## CONDENSED CONSOLIDATED STATEMENTS OF INCOME (UNADITED)

| (In thousands) | For the three months ended September 30, 2018 | For the three months ended September 30, 2017 | For the nine months ended September 30, 2018 | For the nine months ended September 30, 2017 |
|---|---|---|---|---|
| **REVENUES** | | | | |
| Settlement and asset services | $ 110,712 | $ 111,211 | $ 340,565 | $ 331,868 |
| Clearing services | 141,707 | 130,218 | 448,617 | 392,631 |
| Matching and data services | 67,149 | 65,173 | 206,308 | 199,866 |
| Repository services | 70,225 | 68,975 | 213,413 | 205,852 |
| Wealth management services | 27,406 | 26,811 | 83,868 | 81,717 |
| Other services | 10,297 | 10,129 | 33,033 | 39,433 |
| Investment income | 4,555 | 2,951 | 4,975 | 10,836 |
| Total revenues | 432,051 | 415,468 | 1,330,779 | 1,262,203 |
| **EXPENSES** | | | | |
| Employee compensation and related benefits | 159,749 | 154,408 | 502,542 | 484,522 |
| Information technology | 40,584 | 38,439 | 117,890 | 116,190 |
| Professional and other services | 89,109 | 80,338 | 267,046 | 242,158 |
| Occupancy | 11,795 | 10,174 | 35,223 | 32,408 |
| Depreciation and amortization | 38,542 | 43,518 | 121,785 | 135,447 |
| General and administrative | 8,256 | 6,868 | 28,455 | 24,230 |
| Impairment of Intangible assets | — | 14,788 | — | 14,788 |
| Total expenses | 348,035 | 348,533 | 1,072,941 | 1,049,743 |
| Total operating income | 84,016 | 66,935 | 257,838 | 212,460 |
| **NON-OPERATING INCOME (EXPENSE)** | | | | |
| Interest income | 117,439 | 61,539 | 313,247 | 148,622 |
| Refunds to Participants | (80,240) | (46,480) | (229,627) | (114,631) |
| Interest expense | (42,064) | (20,096) | (97,890) | (55,662) |
| Impairment of Equity method investments | — | (9,881) | — | (9,881) |
| Net income (loss) from Equity method investments | 123 | (2,206) | (4,543) | (4,267) |
| Other non-operating income | 8,706 | 7,520 | 33,931 | 70,400 |
| Total non-operating income (expense) | 3,964 | (9,604) | 15,118 | 34,581 |
| Income before taxes | 87,980 | 57,331 | 272,956 | 247,041 |
| Provision (benefit) for income taxes | (9,884) | 16,755 | 39,287 | 55,484 |
| Net income | 97,864 | 40,576 | 233,669 | 191,557 |
| Net income attributable to non-controlling interests | — | — | — | 13,342 |
| Net income attributable to DTCC | $ 97,864 | $ 40,576 | $ 233,669 | $ 178,215 |

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

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

| | For the three months ended September 30, | | For the nine months ended September 30, | |
|---|---|---|---|---|
| **(In thousands)** | **2018** | **2017** | **2018** | **2017** |
| Net income | $ 97,864 | $ 40,576 | $ 233,669 | $ 191,557 |
| OTHER COMPREHENSIVE INCOME (LOSS) - Net of tax: | | | | |
| Foreign currency translation | (652) | 1,610 | (5,976) | (783) |
| Other comprehensive income (loss) | (652) | 1,610 | (5,976) | (783) |
| Comprehensive income | 97,212 | 42,186 | 227,693 | 190,774 |
| Comprehensive income attributable to non-controlling interests | — | — | — | 13,342 |
| Comprehensive income attributable to DTCC | $ 97,212 | $ 42,186 | $ 227,693 | $ 177,432 |

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

# THE DEPOSITORY TRUST & CLEARING CORPORATION

## CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY (UNAUDITED)

| | | | | | | | Accumulated Other Comprehensive Income (Loss), Net of Tax | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Preferred Stock | | | | | | | | | |
| (In thousands) | Series A | Series B | Series C | Common Stock | Paid-In Capital | Retained Earnings | Defined Benefit Pension and Other Plans | Foreign Currency Translation | Non-controlling Interests | Total Shareholders' Equity |
| BALANCE - January 1, 2017 | $ 300 | $ 300 | $ 390,516 | $ 5,091 | $ 411,065 | $ 1,115,917 | $ (159,646) | $ (1,683) | $ 144,748 | $ 1,906,608 |
| Net income | — | — | — | — | — | 164,892 | — | — | 13,342 | 178,234 |
| Other comprehensive (loss) income | — | — | — | — | — | — | (29,279) | 1,254 | — | (28,025) |
| Business disposition | — | — | — | — | — | — | — | — | (8,570) | (8,570) |
| Dividend to non-controlling interest | — | — | — | — | — | — | — | — | (1,080) | (1,080) |
| Dividends on preferred stock | — | — | — | — | — | (19,500) | — | — | — | (19,500) |
| BALANCE - December 31, 2017 | 300 | 300 | 390,516 | 5,091 | 411,065 | 1,261,309 | (188,925) | (429) | 148,440 | 2,027,667 |
| Net income | — | — | — | — | — | 233,669 | — | — | — | 233,669 |
| Other comprehensive loss | — | — | — | — | — | — | — | (5,976) | — | (5,976) |
| Dividend on preferred stock | — | — | — | — | — | (9,750) | — | — | — | (9,750) |
| BALANCE - September 30, 2018 | $ 300 | $ 300 | $ 390,516 | $ 5,091 | $ 411,065 | $ 1,485,228 | $ (188,925) | $ (6,405) | $ 148,440 | $ 2,245,610 |

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

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

| (In thousands) | For the nine months ended September 30, 2018 | 2017 |
|---|---|---|
| CASH FLOWS FROM OPERATING ACTIVITIES: | | |
| Net income | $ 233,669 | $ 191,557 |
| Adjustments to reconcile net income to net cash provided by/(used in) operating activities: | | |
| Depreciation and amortization | 121,785 | 135,447 |
| Loss on impairment of Intangible assets | — | 14,788 |
| Net (gain)/loss on disposal of Premises and equipment and Intangible assets | (1,828) | 743 |
| Loss on impairment of Equity method investments | — | 9,881 |
| Net (gain)/loss from Equity method investments | 4,543 | 4,267 |
| Deferred income taxes | 17,194 | (24,614) |
| Gain on business dispositions | — | (47,001) |
| Other | 6,918 | (13) |
| Net change (excluding the effects of business dispositions) in: | | |
| Accounts receivable | 4,053 | 28,354 |
| Other Participants' assets | 2,044 | 791 |
| Other assets | (20,315) | (14,956) |
| Accounts payable and accrued expenses | (10,407) | (460) |
| Pension and postretirement benefits | (51,617) | (31,105) |
| Other liabilities | (76,431) | (21,166) |
| Participants' and Clearing Funds liabilities, net | (60,444) | (971,429) |
| Payable to Participants | 516,123 | 1,511,603 |
| Net cash provided by/(used in) operating activities | 685,287 | 786,687 |
| CASH FLOWS FROM INVESTING ACTIVITIES: | | |
| Sale/(Purchase) of securities under Reverse repurchase agreements | — | 100,000 |
| Maturities of Investments in marketable securities | 83,600 | 50,000 |
| Purchases of Investments in marketable securities | (58,600) | (50,000) |
| Purchases of Premises and equipment | (20,353) | (30,364) |
| Purchases of Intangible assets | (71,500) | (65,035) |
| Investment in Equity method investments | (5,000) | (10,000) |
| Purchase of equity investments | (1,104) | — |
| Proceeds from disposition of businesses, net of Cash and cash equivalents sold | — | 23,096 |
| Net cash provided by/(used in) investing activities | (72,957) | 17,697 |
| CASH FLOWS FROM FINANCING ACTIVITIES: | | |
| Change in Commercial paper, net | 3,185,170 | 544,824 |
| Repayments on long-term debt and other borrowings | (3,512) | (18,161) |
| Preferred stock dividend payments | (9,750) | (9,750) |
| Payment to Non-controlling interests | (1,080) | (480) |
| Net cash provided by/(used in) financing activities | 3,170,828 | 516,433 |
| Effect of foreign exchange rate changes on Cash and cash equivalents | (1,967) | 4,782 |
| Net increase/(decrease) in Cash and cash equivalents, Participants' segregated cash, Participants' and Clearing Funds cash deposits, Cash in Other Participants' assets | 3,781,191 | 1,325,599 |
| Cash and cash equivalents, Participants' segregated cash, Participants' and Clearing Funds cash deposits, Cash in Other Participants' assets - Beginning of period | 20,268,842 | 20,617,562 |
| Cash and cash equivalents, Participants' segregated cash, Participants' and Clearing Funds cash deposits, Cash in Other Participants' assets - End of period | $ 24,050,033 | $ 21,943,161 |
| SUPPLEMENTAL DISCLOSURES: | | |
| Cash interest paid | $ 51,953 | $ 21,556 |
| Cash income taxes paid - net of refunds | $ 65,848 | $ 45,053 |
| Non-cash financing activity - capital lease obligation | $ 3,640 | $ — |

The Notes to Condensed 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. (GMEI); 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 financial services 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, clearance, settlement, trade confirmation, 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*, formerly known as Omgeo LLC, 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 the derivatives market. Its trade repository system supports a multitude of data submissions, including real-time price reporting, transaction details, confirmation records and valuation data.

*Solutions* provides information-based and business processing solutions to financial intermediaries globally.

*GMEI* utility is DTCC's Legal Entity Identifier (LEI) solution offered in collaboration with Society for Worldwide Interbank Financial Telecommunication (SWIFT) and a consortium of 14 global financial services organizations, led by the Global Financial Markets Association (GFMA), to meet the requirements across all asset classes. GMEI is designed to create and apply a single, universal standard identifier to any organization or firm involved in a financial transaction globally.

## 2. BASIS OF PRESENTATION AND USE OF ESTIMATES

**Basis of presentation.** The accompanying Condensed Consolidated 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 have not been audited. These accompanying interim financial statements do not include all of the information and notes required by U.S. GAAP for complete financial statements and should be read in conjunction with DTCC's Audited Consolidated Financial Statements for the years ended December 31, 2017 and 2016, 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, 2017 and 2016, for additional information on the Company's Summary of Significant Accounting Policies.

The Condensed 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 Condensed Consolidated Financial Statements include the accounts of the Company and its wholly-owned subsidiaries. Intercompany accounts and transactions have been eliminated in consolidation.

The Company reclassified prior period amounts related to Refunds to Participants and certain components of net periodic benefit expense (income) to conform to the current year presentation. See below and Note 3 for additional information.

**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 Condensed 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.

**Revenue recognition.** On January 1, 2018, the Company adopted Accounting Standards Update (ASU) 2014-09, *Revenue from Contracts with Customers* under the full retrospective method of adoption. See Note 3 for additional information.

The Company recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. To achieve that principle, the Company applies the following steps: identify the contract(s) with the customer, identify the performance obligations in the contract(s), determine the transaction price, allocate the transaction price to the performance obligations in the contract and recognize revenue when (or as) the entity satisfies a performance obligation.

The Company enters into contracts that can include various services, in which each service, an explicit promise, is generally distinct and accounted for as separate performance obligations. Certain promised services are substantially the same and have the same pattern of transfer to the customer and therefore are considered as a series of services.

The Company recognizes revenue from contracts with customers as performance obligations are satisfied when promised services are transferred to the customer. The majority of the promised services and related performance obligations are recognized at the point in time when the control of the promised service is transferred to the customer. The amount of revenue recognized reflects the consideration the Company expects to be entitled to for transferring the promised services to the customer. For certain contracts with customers, the consideration in which the Company expects to be entitled to in exchange for transferring promised service to a customer consists of variable consideration. The variable consideration primarily relates to volume based discounts or rebates for certain services, however, the volume targets or thresholds typically reset on a monthly basis therefore, the variable consideration does not have an impact on the revenue recognition.

The Company derives its revenue from transaction fees, subscription and support services, professional 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. Professional services and other revenues, when sold with subscription and support offerings, are accounted for separately when these services have value to the customer on a standalone basis and are recognized as the performance obligation is satisfied and control of the service is transferred to the customer, otherwise they are recognized ratably over the contract term. Other services, which represents 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. The Company typically bills its customers 30 days in arrears.

***Revenue streams***

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

S*ettlement and asset services.* DTC provides settlement services for equity, corporate and municipal debt trades and money market instruments in the U.S. The payment and transfer of securities ownership occurs at DTC, which provides custody and asset servicing for securities. Asset services include underwriting, corporate actions processing, securities processing, global tax services and issuer services.

*Clearing services.* The Company's subsidiaries, NSCC and FICC, deliver clearing services across the U.S. equities and fixed income markets. Clearing services include continuous net settlement, mortgage backed securities clearing, and government securities clearing.

*Matching and data services.* DTCC's Institutional Trade Processing (ITP) service provides trade processing solutions combined with DTCC's global solution for LEIs and its settlement capabilities with pre-trade and matching services. ITP offers buy-side, sell-side, and custodian firms an end-to-end straight-through-processing solution for their trading activity. Matching and data services include trade enrichment, trade agreement, and data analytics.

*Repository services.* The Global Trade Repository service supports data submissions including real-time price reporting, transaction details, confirmation records and valuation data. The Trade Information Warehouse's Trade Reporting Repository enables regulators and market participants to view the market's overall risk exposure to over-the-counter (OTC) credit derivatives instruments by operating and maintaining the centralized, electronic database for credit default swap contracts outstanding in the global marketplace. Repository services include OTC derivatives reporting and trade reporting.

*Wealth management services*. NSCC provides wealth management services which include mutual fund, alternative investment, and insurance and retirement services. These businesses drive centralized, automated processing and information services. Wealth management services enable seamless, end-to-end communications with broker/dealers and other distribution partners for funds, asset managers and insurance companies and their service providers.

*Other services.* DTCC Data Services offers referential and activity-based data, delivered in fixed or configurable formats, sourced from DTCC's transaction, reference, position and asset servicing data covering major asset classes. Other services include data on market and benchmark analytics, announcement, liquidity, and security reference.

***Accounts receivable and deferred revenue***

The period in which the Company recognizes revenue may differ from the timing of payments received from customers. The Company records a receivable when revenue is recognized prior to payment and there is an unconditional right to payment. See Note 6, Due from Participants and customers for services, net, for the Company's receivables related to revenues from contracts with customers. Alternatively, when payment precedes the provision of the related services, the Company records deferred revenue until the performance obligations are satisfied. Deferred revenue represents the Company's contract liabilities related to billings or payments received in advance for subscription and support services, as well as professional service fees, where the performance obligation has not yet been satisfied. Deferred revenue was $13,378,000 and $16,612,000 at September 30, 2018 and December 31, 2017, respectively, and is included in Other current liabilities on the accompanying Condensed Consolidated Statements of Financial Condition.

***Impacts to previously reported results***

The impact of the new revenue recognition standard on the Company's previously reported results for the three and nine months ended September 30, 2017 follows (in thousands):

| | For the three months ended September 30, 2017 | | | For the nine months ended September 30, 2017 | | |
|---|---|---|---|---|---|---|
| | As Previously Reported | New Revenue Standard Adjustment | As Restated | As Previously Reported | New Revenue Standard Adjustment | As Restated |
| Interest income | $ 40,535 | $ 21,004 | $ 61,539 | $ 96,549 | $ 52,073 | $ 148,622 |
| Refunds to Participants | (25,476) | (21,004) | (46,480) | (62,558) | (52,073) | (114,631) |

**Restricted cash.** As a result of the adoption of ASU 2016-18, *Statement of Cash Flows: Restricted Cash* under the full retrospective method of adoption, (see Note 3), the Company has reported the cash and cash equivalents related to Participants' segregated cash, Participants' and Clearing Funds cash deposits, Other Participants' assets within the beginning and ending balances of Cash and cash equivalents, Participants' segregated cash, Participants' and Clearing Funds cash deposits, Other Participants' assets on the accompanying Condensed Consolidated Statements of Cash Flows.

A reconciliation of Cash and cash equivalents, Participants' segregated cash, Clearing Fund cash deposits, Cash in Other Participants' assets, reported within the accompanying Condensed Consolidated Statements of Financial Condition that sum to the total of the same such amounts shown on the accompanying Condensed Consolidated Statements of Cash Flows as of September 30, 2018 and December 31, 2017 follows (in thousands):

| | 2018 | 2017 |
|---|---|---|
| Cash and cash equivalents | $ 8,373,786 | $ 5,075,318 |
| Participants' segregated cash | 151,459 | 20,120 |
| Participants' and Clearing Funds cash deposits | 14,277,076 | 14,312,520 |
| Cash in Other Participants' assets | 1,247,712 | 860,884 |
| Total Cash and cash equivalents, Participants' segregated cash, Participants' and Clearing Funds cash deposits, Cash in Other Participants' assets shown on the Condensed Consolidated Statements of Cash Flows | $ 24,050,033 | $ 20,268,842 |

Net cash provided by operating activities of approximately $685 million is primarily driven by the change in Participants' and Clearing Funds liabilities and Payable to Participants.

***Impacts to previously reported results***

The impact of the new cash flows standard on the Company's previously reported results for the nine months ended September 30, 2017 follows (in thousands):

| | As Previously Reported | New Restricted Cash Standard Adjustment | As Restated |
|---|---|---|---|
| CASH FLOWS FROM OPERATING ACTIVITIES | | | |
| Other Participants' assets | $ (1,513,284) | $ 1,514,075 | $ 791 |
| Participants' and Clearing Funds liabilities, net | — | (971,429) | (971,429) |
| Net cash provided by/(used in) operating activities | 244,041 | 542,646 | 786,687 |
| CASH FLOWS FROM INVESTING ACTIVITIES | | | |
| Change in Participants' segregated cash | $ 1,681 | $ (1,681) | $ — |
| Net cash provided by/(used in) investing activities | 19,378 | (1,681) | 17,697 |

**Retirement benefits.** On January 1, 2018, the Company adopted ASU 2017-06, *Compensation: Retirement Benefits* under the retrospective method of adoption. See Note 3 for additional information.

***Impacts to previously reported results***

The impact of the new retirement benefits standard on the Company's previously reported results for the three and nine months ended September 30, 2017 follows (in thousands):

| | For the three months ended September 30, 2017 | | | For the nine months ended September 30, 2017 | | |
|---|---|---|---|---|---|---|
| | As Previously Reported | New Retirement Benefits Standard Adjustment | As Restated | As Previously Reported | New Retirement Benefits Standard Adjustment | As Restated |
| Employee compensation and related benefits | $ 155,629 | $ (1,221) | $ 154,408 | $ 488,183 | $ (3,661) | $ 484,522 |
| Interest expense | (10,052) | (10,044) | (20,096) | (25,532) | (30,130) | (55,662) |
| Other non-operating income | (1,303) | 8,823 | 7,520 | 43,931 | 26,469 | 70,400 |

## 3. ACCOUNTING AND REPORTING DEVELOPMENTS

See Note 3 in DTCC's Audited Consolidated Financial Statements for the years ended December 31, 2017 and 2016, 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 2018-14 Changes to the Disclosure Requirements for Defined Benefit Plans<br><br>*Issued August 2018* | • Eliminates requirements for certain disclosures that are no longer considered cost beneficial and requires new ones that the FASB considers pertinent. | • Effective January 1, 2021.<br><br>• The Company is evaluating the impact on related disclosures in its Consolidated Financial Statements. |
| ASU 2018-15 Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement (CCA) That Is a Service Contract<br><br>*Issued August 2018* | • Implementation costs incurred by customers in CCA that is a service contract are deferred if they would be capitalized by customers in software licensing arrangements under the internal-use software guidance. | • Effective January 1, 2020.<br><br>• The Company is evaluating the impact on its Consolidated Financial Statements and related disclosures. |
| ASU 2018-13 Changes to the Disclosure Requirements for Fair Value Measurement<br><br>*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.<br><br>• Public companies will be required to disclose the range and weighted average used to develop significant unobservable inputs for Level 3 fair value measurements.<br><br>• Modifies certain disclosure requirements for nonpublic entities to make them less burdensome. | • Effective January 1, 2020.<br><br>• The Company is evaluating the impact on related disclosures in its Consolidated Financial Statements. |
| ASU 2018-02 Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income<br><br>*Issued February 2018* | • Allows companies to reclassify the stranded tax effects associated with the enactment of the U.S. Tax Cuts and Jobs Act of 2017 (Tax Act) from Accumulated Other Comprehensive Income to Retained Earnings.<br><br>• In the period of adoption, companies must disclose whether or not such an election was made and a description of the tax effects that are reclassified, if any.<br><br>• May be applied either in the period of adoption or retrospectively to the period in which the tax effects associated with the Tax Act are recognized. | • Effective January 1, 2019.<br><br>• The Company is evaluating the impact on its Consolidated Financial Statements and related disclosures. |

| Standard | Description | Impact on the financial statements or other significant matters |
|---|---|---|
| *Financial Accounting Standards Board Standard Issued, but not yet Adopted (Continued)* | | |
| ASU 2016-02 Leases<br><br>*Issued February 2016* | • Requires a lessee to recognize leases with terms of longer than 12 months within balance sheet assets and liabilities.<br><br>• Changes the recognition measurement and presentation of expenses and cash flows arising from a lease depending on its classification as a financing or operating leases as determined by the lessee.<br><br>• Lessor accounting will remain largely unchanged from current GAAP. Leases of fewer than 12 months are exempt from the updated standard. | • Effective January 1, 2019.<br><br>• The Company is in the process of its implementation which includes evaluating its leasing activities and certain contracts for embedded leases and updating processes and internal controls for its leasing activities.<br><br>• As a lessee, the Company is developing its estimate of the right-of-use asset and lease liability, which is based on the present value of lease payments; however, the population of contracts subject to balance sheet recognition and their initial measurement remains under evaluation and final financial statement impacts will depend on the lease portfolio at the time of adoption. |

| Standard | Description | Impact on the financial statements or other significant matters |
|---|---|---|
| *Recently Adopted Accounting Standards* | | |
| ASU 2017-07 Compensation - Retirement Benefits<br><br>*Issued March 2017* | • Requires the service cost component of net periodic pension and postretirement benefit cost to be reported separately in the Company's Condensed Consolidated Statements of Income.<br><br>• Requires retrospective application and presentation in the Condensed Consolidated Statements of Income.<br><br>• Requires the service cost component in the same line item as other employee compensation costs and presentation of the other components in a different line item from the service cost component. | • Adopted January 1, 2018.<br><br>• The adoption of the standard did not change the Company's Consolidated Net Income, but required the Company to reclassify other components of net periodic pension cost from Total operating income to Total non-operating income (expense). The service cost component is presented in Employee compensation and related benefits, the interest cost component is presented in Interest expense, and all other components of net periodic pension cost are presented in Other non-operating income (expense) in the accompanying Condensed Consolidated Statements of Income. See Note 2 for additional information. |

| Standard | Description | Impact on the financial statements or other significant matters |
|---|---|---|
| *Recently Adopted Accounting Standards (Continued)* | | |
| ASU 2016-18 Statement of Cash Flows - Restricted Cash<br><br>*Issued November 2016* | • Requires inclusion of restricted cash in the cash and cash equivalents balances in the Condensed Consolidated Statements of Cash Flows.<br><br>• Requires additional disclosures to supplement the Condensed Consolidated Statements of Cash Flows.<br><br>• Requires retrospective application to all periods presented. | • Adopted April 1, 2018.<br><br>• The Company adopted the new restricted cash standard under the retrospective method of adoption.<br><br>• The adoption of the standard did not change the Company's Condensed Consolidated Statements of Financial Condition or Statements of Income; however, it resulted in a presentation change related to the Condensed Consolidated Statements of Cash Flows by broadening the definition of cash and cash equivalents to include items that are not on the balance sheet's cash line, e.g., Participants' segregated cash, Participants' and Clearing Funds cash deposits and Cash in Other Participants' assets. See Note 2 for additional information. |
| ASU 2016-01 Recognition and Measurement of Financial Assets and Financial Liabilities<br><br>*Issued January 2016* | • Requires the fair value measurement of unconsolidated equity investments, except those accounted for under the equity method.<br><br>• Requires measurement of these investments at the end of each reporting period and recognition of the changes in fair value in net income.<br><br>• Will no longer be able to recognize unrealized gains and losses on equity securities classified as available-for-sale in other comprehensive income.<br><br>• Requires a modified retrospective approach but specifies prospective transition for equity investments without a readily determinable fair value. | • Adopted January 1, 2018.<br><br>• The Company adopted the standard under the prospective transition method of adoption.<br><br>• The adoption of the standard did not have a material impact on the accompanying Condensed Consolidated Financial Statements. |

| Standard | Description | Impact on the financial statements or other significant matters |
|---|---|---|
| *Recently Adopted Accounting Standards (Continued)* | | |
| ASU 2014-09 Revenue from Contracts with Customers<br><br>*Issued May 2014* | • Requires revenue from contracts with customers to be recognized upon transfer of control of a good or service in the amount of consideration expected to be received.<br><br>• Changes the accounting for certain contract costs, including whether they may be offset against revenue in the accompanying Condensed Consolidated Statements of Income, and requires additional disclosures about revenue and contract costs.<br><br>• May be adopted using a full retrospective approach or a modified, cumulative effect approach wherein the guidance is applied only to existing contracts as of the day of initial application, and to new contracts transacted after that date. | • Adopted January 1, 2018.<br><br>• The Company adopted the revenue recognition standard under the full retrospective transition method of adoption.<br><br>• The Company's implementation efforts included the identification of revenue within the scope of the standard and the evaluation of revenue contracts using the practical expedient portfolio approach.<br><br>• The adoption of the standard did not have a material impact to the recognition and timing of its revenues, but required the Company to change the presentation of Interest Income and Refunds to Participants from a net basis to a gross basis in the accompanying Condensed Consolidated Statements of Income. See Note 2 for additional information. |

## 4. BUSINESS DISPOSITIONS

On February 6, 2017, the Company, along with Clarient Global LLC's (Clarient) minority interest owners, signed a definitive agreement to sell their interests in Clarient to the Thomson Reuters Corporation (Thomson Reuters). On the same day, the Company also signed a definitive agreement to sell Avox Ltd (Avox) to Thomson Reuters. Both sales closed on March 14, 2017. As a result of these transactions, the Company disposed of Clarient and Avox, effective March 14, 2017. The Company's gain on the sales, net of the gain attributable to non-controlling interests related to Clarient, totaled $31,136,000 and was included in Other non-operating income in the Company's accompanying Consolidated Statements of Income. The agreements were subject to indemnity clauses for which there were indemnification escrows that were released in September 2018.

Details of the gain on sales follow (in thousands):

| | Clarient | Avox | Total |
|---|---|---|---|
| Gain on sale included in Other non-operating income | $ 39,082 | $ 7,919 | $ 47,001 |
| Less: Gain on sale attributable to non-controlling interest | (15,865) | — | (15,865) |
| Net gain on business dispositions | $ 23,217 | $ 7,919 | $ 31,136 |

Details of the balances related to the business dispositions follow (in thousands):

| | Clarient | Avox | Total |
|---|---|---|---|
| Consolidated assets: | | | |
| Cash and cash equivalents | $ 708 | $ 3,122 | $ 3,830 |
| Accounts receivable - net | 531 | 3,488 | 4,019 |
| Other current assets | 848 | 51 | 899 |
| Premises and equipment | — | 1,215 | 1,215 |
| Goodwill | — | 7,836 | 7,836 |
| Intangible assets | 6,932 | 2,674 | 9,606 |
| Other non-current assets | 476 | — | 476 |
| Total assets | $ 9,495 | $ 18,386 | $ 27,881 |
| | | | |
| Consolidated liabilities: | | | |
| Accounts payable | $ 257 | $ 252 | $ 509 |
| Other current liabilities | 28,239 | 6,043 | 34,282 |
| Total liabilities | $ 28,496 | $ 6,295 | $ 34,791 |

## 5. OTHER PARTICIPANTS' ASSETS AND PAYABLE TO PARTICIPANTS

Details for Participants' segregated cash, Other Participants' assets and Payable to Participants as of September 30, 2018 and December 31, 2017 follow (in thousands):

| | 2018 | 2017 |
|---|---|---|
| Assets: | | |
| Participants' segregated cash | $ 151,459 | $ 20,120 |
| Other Participants' assets | 1,252,820 | 868,036 |
| Total | $ 1,404,279 | $ 888,156 |
| | | |
| Liabilities: | | |
| Payable to Participants | $ 1,404,279 | $ 888,156 |

Participants' segregated cash represents cash received from Participants to facilitate their compliance with SEC 15c3-3 customer protection rules. Unclaimed balances are remitted to the appropriate authority when required by abandoned property laws.

Payable to Participants included $281,000 and $435,000 of cash collateral received from Participants, representing 130% of short positions as of September 30, 2018 and December 31, 2017, respectively. Unclaimed balances are remitted to the appropriate authority when required, pursuant to abandoned property laws.

## 6. ACCOUNTS RECEIVABLE

Details for Accounts receivable as of September 30, 2018 and December 31, 2017 follow (in thousands):

| | 2018 | 2017 |
|---|---|---|
| Due from Participants and customers for services | $ 160,959 | $ 161,935 |
| Allowance for doubtful accounts | (384) | (205) |
| Due from Participants and customers for services, net | 160,575 | 161,730 |
| Other receivables | 7,443 | 12,726 |
| Total | $ 168,018 | $ 174,456 |

Total write-offs in the allowance for doubtful accounts were $94,000 and $115,000 for the three months ended September 30, 2018 and 2017, respectively, and $299,000 and $377,000 for the nine months ended September 30, 2018 and 2017, respectively.

## 7. PARTICIPANTS' AND CLEARING FUNDS

All deposits of cash and securities by Participants are recorded on the accompanying Condensed Consolidated Statements of Financial Condition under Participants' and Clearing Funds.

Details for the Participants' and Clearing Funds as of September 30, 2018 and December 31, 2017 follow (in thousands):

| | 2018 | | | |
|---|---|---|---|---|
| | DTC | NSCC | FICC | Total |
| Required deposits | $ 1,150,000 | $ 6,115,968 | $ 17,790,232 | $ 25,056,200 |
| Excess deposits | 617,803 | 675,445 | 7,116,387 | 8,409,635 |
| Total | $ 1,767,803 | $ 6,791,413 | $ 24,906,619 | $ 33,465,835 |

| | 2017 | | | |
|---|---|---|---|---|
| | DTC | NSCC | FICC | Total |
| Required deposits | $ 1,150,000 | $ 3,360,160 | $ 14,970,573 | $ 19,480,733 |
| Excess deposits | 621,078 | 631,610 | 6,282,044 | 7,534,732 |
| Total | $ 1,771,078 | $ 3,991,770 | $ 21,252,617 | $ 27,015,465 |

**Cash deposits, Investments in marketable securities and Securities on deposit.** Details for cash deposits, investments in marketable securities and securities on deposit of the Participants' and Clearing Funds, which may be applied to satisfy obligations of the depositing Participants as provided in the respective clearing agency rules, as of September 30, 2018 and December 31, 2017 follow (in thousands):

| | 2018 | | | |
|---|---|---|---|---|
| | DTC | NSCC | FICC | Total |
| Cash deposits | $ 1,767,803 | $ 6,374,246 | $ 6,135,027 | $ 14,277,076 |
| Securities on deposit - at fair value | — | 417,167 | 18,771,592 | 19,188,759 |
| Total | $ 1,767,803 | $ 6,791,413 | $ 24,906,619 | $ 33,465,835 |

| | 2017 | | | |
|---|---|---|---|---|
| | DTC | NSCC | FICC | Total |
| Cash deposits | $ 1,771,078 | $ 3,725,574 | $ 8,815,868 | $ 14,312,520 |
| Investments in marketable securities | — | — | 25,000 | 25,000 |
| Securities on deposit - at fair value | — | 266,196 | 12,411,749 | 12,677,945 |
| Total | $ 1,771,078 | $ 3,991,770 | $ 21,252,617 | $ 27,015,465 |

Details for the Participants' and Clearing Funds cash deposits and investments in marketable securities as of September 30, 2018 and December 31, 2017 follow (in thousands):

| | 2018 | | | |
|---|---|---|---|---|
| | DTC | NSCC | FICC | Total |
| Bank deposits | $ 1,767,803 | $ 4,380,246 | $ 4,546,027 | $ 10,694,076 |
| Money market fund investments | — | 1,609,000 | 1,129,000 | 2,738,000 |
| Reverse repurchase agreements | — | 385,000 | 460,000 | 845,000 |
| Total | $ 1,767,803 | $ 6,374,246 | $ 6,135,027 | $ 14,277,076 |

| | 2017 | | | |
|---|---|---|---|---|
| | DTC | NSCC | FICC | Total |
| Bank deposits | $ 1,771,078 | $ 2,820,574 | $ 6,116,868 | $ 10,708,520 |
| Money market fund investments | — | 595,000 | 2,139,000 | 2,734,000 |
| Reverse repurchase agreements | — | 310,000 | 560,000 | 870,000 |
| U.S. Treasury bills | — | — | 25,000 | 25,000 |
| Total | $ 1,771,078 | $ 3,725,574 | $ 8,840,868 | $ 14,337,520 |

## 8. EQUITY METHOD INVESTMENTS

Details for DTCC's Equity method investments as of September 30, 2018 and December 31, 2017 follow (in thousands, except ownership percentage):

| | 2018 | 2017 |
|---|---|---|
| **European Central Counterparty N.V.** | | |
| Percentage ownership | 20% | 20% |
| Carrying value | $ 10,502 | $ 10,394 |
| **DTCC-Euroclear GlobalCollateral, LTD** | | |
| Percentage ownership | 50% | 50% |
| Carrying value | $ — | $ — |

**European Central Counterparty N.V. (ECCP N.V.)**, a joint venture with ABN AMRO Clearing Investments B.V., NASDAQ AB, BATS Trading 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.

**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 April 6, 2017, November 10, 2017, and June 19, 2018, the Company contributed $10,000,000, $5,000,000 and $5,000,000 to DEGCL, respectively. The Company maintained the same ownership percentage as the joint venture partner, Euroclear plc, who also contributed a total of $20,000,000.

Based on the delayed revenue generation and losses sustained by DEGCL services, a triggering event resulted during 2017 that required DTCC to assess its investment in DEGCL for other-than-temporary impairment. DTCC utilized a discounted cash flow methodology based on the forecasted cash flows for DEGCL to determine fair value for both its investment and internally developed software related to DEGCL. DTCC applied a discount rate of 25%, which reflected the weighted-average cost of capital adjusted for the risks inherent in the future cash flows. As a result, DTCC determined the fair value of its investment in DEGCL was less than its carrying value and concluded that this loss was other-than temporary. DTCC recognized an impairment charge of $9,881,000, which is included in Impairment of Equity method investments in DTCC's Audited Consolidated Statements of Income for the year ended December 31, 2017. Contributions made to DEGCL subsequent to impairment will be included in Net loss from Equity method investments in the accompanying Condensed Consolidated Statements of Income, as cash is contributed until financial conditions improve. DTCC continues to maintain its relationship with the DEGCL joint venture.

## 9. OTHER ASSETS

Details for Other assets as of September 30, 2018 and December 31, 2017 follow (in thousands):

| | 2018 | 2017 |
|---|---|---|
| Prepaids | $ 80,152 | $ 63,203 |
| Prepaid taxes | 19,585 | 22,130 |
| Other current assets | 11,018 | 16,321 |
| Total other current assets | 110,755 | 101,654 |
| | | |
| Long-term incentive plan assets | 164,989 | 171,995 |
| Deferred tax assets, net | 69,048 | 86,242 |
| Cash surrender value on insurance policies | 62,118 | 59,618 |
| Prepaids | 40,603 | 24,036 |
| Equity investments | 11,750 | 5,411 |
| Other non-current assets | 8,403 | 6,534 |
| Total other non-current assets | 356,911 | 353,836 |
| Total | $ 467,666 | $ 455,490 |

See Note 12 in DTCC's Audited Consolidated Financial Statements for the years ended December 31, 2017 and 2016, for additional information.

## 10. OTHER LIABILITIES

Details for Other liabilities as of September 30, 2018 and December 31, 2017 follow (in thousands):

| | 2018 | 2017 |
|---|---|---|
| Compensation payable | $ 106,144 | $ 137,446 |
| Long-term incentive plan liabilities | 28,030 | 44,072 |
| Deferred rent | 1,173 | 5,053 |
| Other current liabilities | 65,427 | 63,358 |
| Total other current liabilities | 200,774 | 249,929 |
| | | |
| Long-term incentive plan liabilities | 245,650 | 224,791 |
| Unrecognized tax benefits [(1)] | 36,911 | 81,601 |
| Deferred rent | 35,471 | 36,117 |
| Other payables | 26,158 | 27,733 |
| Total other non-current liabilities | 344,190 | 370,242 |
| Total | $ 544,964 | $ 620,171 |

(1) See Note 15 for additional information.

See Note 13 in DTCC's Audited Consolidated Financial Statements for the years ended December 31, 2017 and 2016, for additional information.

## 11. COMMERCIAL PAPER

Details for Commercial paper as of September 30, 2018 and December 31, 2017 follow (in thousands):

| | 2018 | 2017 |
|---|---|---|
| Commercial paper - net of unamortized discount of $27,216 and $3,371 as of September 30, 2018 and December 31, 2017, respectively | $ 6,422,338 | $ 3,222,571 |
| Weighted-average interest rate | 2.27% | 1.43% |

Interest expense on Commercial paper included in the accompanying Condensed Consolidated Statements of Income was $31,424,000 and $9,461,000 for the three months ended September 30, 2018 and 2017, respectively, and $65,453,000 and $22,153,000 for the nine months ended September 30, 2018 and 2017, respectively.

Details for the cash flows associated with the issuance and maturities of Commercial paper for the nine months ended September 30, 2018 and 2017 follow (in thousands):

| | 2018 | 2017 |
|---|---|---|
| Maturities less than 90 days: | | |
| Proceeds from/(Repayments of) Commercial paper less than 90 days, net | $ 340,932 | $ 283,436 |
| | | |
| Maturities greater than 90 days: | | |
| Proceeds from Commercial paper | 5,066,469 | 1,925,934 |
| Repayments of Commercial paper | (2,222,231) | (1,664,546) |
| Proceeds from/(Repayments of) Commercial paper greater than 90 days, net | 2,844,238 | 261,388 |
| Change in Commercial paper, net | $ 3,185,170 | $ 544,824 |

## 12. LONG-TERM DEBT

Details for Long-term debt as of September 30, 2018 and December 31, 2017 follow (in thousands):

| | 2018 | 2017 |
|---|---|---|
| Notes payable | $ 37,100 | $ 39,025 |
| Capital lease obligations | — | 5,227 |
| Total long-term debt | 37,100 | 44,252 |
| Less: Current portion of long-term debt | (2,650) | (7,877) |
| Non-current portion of long-term debt | $ 34,450 | $ 36,375 |

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

| | Notes Payable |
|---|---|
| 2018 | $ 725 |
| 2019 | 2,650 |
| 2020 | 2,650 |
| 2021 | 2,650 |
| 2022 | 2,650 |
| Thereafter | 25,775 |
| Total | $ 37,100 |

**Notes payable.** Details for notes payable as of September 30, 2018 and December 31, 2017 follow (in thousands):

| | | | Outstanding Balance | |
|---|---|---|---|---|
| Issue Date | Maturity | Rate | 2018 | 2017 |
| April 26, 2012 | April 26, 2032 | 3.83% | $ 20,300 | $ 21,025 |
| September 28, 2012 | September 28, 2032 | 3.93% | 16,800 | 18,000 |
| Total | | | $ 37,100 | $ 39,025 |

The weighted-average interest rate was 3.88% as of September 30, 2018 and December 31, 2017, respectively. Total Interest expense on notes payable included in the accompanying Condensed Consolidated Statements of Income was $365,000 and $393,000 for three months ended September 30, 2018 and 2017, respectively, and $1,110,000 and $1,283,000 for the nine months ended September 30, 2018 and 2017, respectively.

**Capital lease obligations.** Leased property meeting certain criteria is capitalized and the present value of the related lease payments is recorded as a liability. During the first quarter of 2018, the Company extinguished its remaining capital lease obligations.

The weighted-average interest rate was 0.00% and 1.80% as of September 30, 2018 and December 31, 2017, respectively. Total Interest expense on capital lease obligations included in the accompanying Condensed Consolidated Statements of Income was $0 and $78,000 for the three months ended September 30, 2018 and 2017, respectively, and $68,000 and $266,000 for the nine months ended September 30, 2018 and 2017, respectively.

**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 September 30, 2018 and December 31, 2017 follow:

| | 2018 | 2017 |
|---|---|---|
| ***DTCC*** | | |
| **Committed Amount** | $500 million | $500 million |
| **Denomination** | USD | USD |
| **No. of Participants/Lenders** | 10/10 | 10/10 |
| | | |
| ***DTC*** | | |
| **Committed Amount** | $1.9 billion | $1.9 billion |
| **Denomination** | USD | USD |
| **No. of Participants/Lenders** | 33/41 | 32/41 |
| | | |
| **Uncommitted Amount** | C$150 million (1) | C$150 million (1) |
| **Denomination** | CAD | CAD |
| **No. of Participants/Lenders** | 1/1 | 1/1 |
| | | |
| ***NSCC*** | | |
| **Committed Amount** | $12.1 billion | $12.2 billion |
| **Denomination** | USD | USD |
| **No. of Participants/Lenders** | 33/41 | 32/41 |

(1) Used to support Canadian settlement.

Details for debt covenants related to the notes payable and lines of credit as of September 30, 2018 and December 31, 2017 follow:

| | 2018 | 2017 |
|---|---|---|
| **Notes Payable** | | |
| ***DTCC*** | | |
| **Minimum Net Worth** | $400 million | $400 million |
| **Maximum Priority Debt** | 20% of Net Worth | 20% of Net Worth |
| **Lines of Credit** | | |
| ***DTCC*** | | |
| **Minimum Net Worth** | $1.1 billion | $1.1 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 September 30, 2018 and December 31, 2017, 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 senior debt ratings and ratings outlooks for DTCC and its three clearing agency subsidiaries as of September 30, 2018 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 16 in DTCC's Audited Consolidated Financial Statements for the years ended December 31, 2017 and 2016, 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 are summarized below as of September 30, 2018 and December 31, 2017 (in thousands):

| | 2018 | | | |
|---|---|---|---|---|
| | Level 1 | Level 2 | Level 3 | Total |
| Assets - Participants' and Clearing Funds | | | | |
| Securities on deposit | $ 16,790,740 | $ 2,398,019 | $ — | $ 19,188,759 |
| Non-current assets | | | | |
| Long-term incentive plan assets | 129,842 | 35,147 | — | 164,989 |
| Equity investments | — | — | 11,750 | 11,750 |
| Total | $ 16,920,582 | $ 2,433,166 | $ 11,750 | $ 19,365,498 |
| Liabilities - Participants' and Clearing Funds | | | | |
| Securities on deposit | $ 16,790,740 | $ 2,398,019 | $ — | $ 19,188,759 |
| Total | $ 16,790,740 | $ 2,398,019 | $ — | $ 19,188,759 |

| | 2017 | | | |
|---|---|---|---|---|
| | Level 1 | Level 2 | Level 3 | Total |
| Assets - Participants' and Clearing Funds | | | | |
| Securities on deposit | $ 10,900,451 | $ 1,777,494 | $ — | $ 12,677,945 |
| Non-current assets | | | | |
| Long-term incentive plan assets | 135,087 | 36,908 | — | 171,995 |
| Total | $ 11,035,538 | $ 1,814,402 | $ — | $ 12,849,940 |
| Liabilities - Participants' and Clearing Funds | | | | |
| Securities on deposit | $ 10,900,451 | $ 1,777,494 | $ — | $ 12,677,945 |
| Total | $ 10,900,451 | $ 1,777,494 | $ — | $ 12,677,945 |

There were no transfers between levels in the fair value hierarchy for the periods ended September 30, 2018 and December 31, 2017.

The rollforward of the Company's Equity investments categorized within Level 3 in the fair value hierarchy for the nine months ended September 30, 2018 follow (in thousands):

| | Investment at December 31, 2017 | Transfers Into Level 3 (1) | Purchases(2) | Unrealized Gain | Fair Value at September 30, 2018 |
|---|---|---|---|---|---|
| Equity investments | $ — | $ 5,411 | $ 1,104 | $ 5,235 | $ 11,750 |

(1) On January 1, 2018, the Company adopted the new standard related to fair value measurement of unconsolidated equity investments under the prospective transition method of adoption. See Note 3 for additional information.

(2) On June 25, 2018, the Company made an additional cash investment of $1,104,000 in Equity investments, which increased the Company's total investment in Equity investments, to $11,750,000, including a $5,235,000 mark-to-market investment gain included in Other non-operating income in the accompanying Condensed Consolidated Statements of Income. The fair value of the investments were determined based on the latest valuation of Equity investments from their most recent round of financing, using Level 3 inputs.

The Company's primary level 3 financial asset, the valuation techniques used to measure the fair value of the financial asset and the significant unobservable inputs as of September 30, 2018 follow (in thousands):

| Financial Instruments Owned | Fair Value (in thousands) | Valuation Technique | Unobservable Inputs | Input Range | Weighted Average |
|---|---|---|---|---|---|
| Equity Investments | $11,750 | Last Round of Financing | Price Per Share(1) | $15 - $107(2) | $71(2) |

(1) Price is determined using the latest valuation from the most recent round of financing of equity investments.

(2) The unobservable input range and weighted-average are driven by the individual equity investments.

**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 Condensed Consolidated Statements of Financial Condition as of September 30, 2018 and December 31, 2017 follow (in thousands):

| | 2018 | | | | |
|---|---|---|---|---|---|
| | Carrying Amount | Total Fair Value | Level 1 | Level 2 | Level 3 |
| Assets: | | | | | |
| Cash and cash equivalents | $ 8,373,786 | $ 8,373,786 | $ 8,373,786 | $ — | $ — |
| Participants' segregated cash | 151,459 | 151,459 | 151,459 | — | — |
| Accounts receivable | 168,018 | 168,018 | — | 168,018 | — |
| Participants' and Clearing Funds: | | | | | |
| Cash deposits | 14,277,076 | 14,277,076 | 13,434,330 | 842,746 | — |
| Other Participants' assets | 1,252,820 | 1,252,820 | 1,247,712 | 5,108 | — |
| Total | $ 24,223,159 | $ 24,223,159 | $ 23,207,287 | $ 1,015,872 | $ — |
| Liabilities: | | | | | |
| Commercial paper | $ 6,422,338 | $ 6,422,338 | $ — | $ 6,422,338 | $ — |
| Accounts payable and accrued expenses | 107,181 | 107,181 | — | 107,181 | — |
| Participants' and Clearing Funds: | | | | | |
| Cash deposits | 14,277,076 | 14,277,076 | 14,277,076 | — | — |
| Payable to Participants | 1,404,279 | 1,404,279 | 1,404,279 | — | — |
| Long-term debt | 37,100 | 36,883 | — | 36,883 | — |
| Total | $ 22,247,974 | $ 22,247,757 | $ 15,681,355 | $ 6,566,402 | $ — |

| | 2017 | | | | |
|---|---|---|---|---|---|
| | Carrying Amount | Total Fair Value | Level 1 | Level 2 | Level 3 |
| Assets: | | | | | |
| Cash and cash equivalents | $ 5,075,318 | $ 5,075,318 | $ 5,075,318 | $ — | $ — |
| Participants' segregated cash | 20,120 | 20,120 | 20,120 | — | — |
| Accounts receivable | 174,456 | 174,456 | — | 174,456 | — |
| Participants' and Clearing Funds: | | | | | |
| Cash deposits | 14,312,520 | 14,312,520 | 13,442,520 | 870,000 | — |
| Investments in marketable securities | 25,000 | 24,920 | 24,920 | — | — |
| Other Participants' assets | 868,036 | 868,036 | 862,802 | 5,234 | — |
| Total | $ 20,475,450 | $ 20,475,370 | $ 19,425,680 | $ 1,049,690 | $ — |
| Liabilities: | | | | | |
| Commercial paper | $ 3,222,571 | $ 3,222,571 | $ — | $ 3,222,571 | $ — |
| Accounts payable and accrued expenses | 118,345 | 118,345 | — | 118,345 | — |
| Participants' and Clearing Funds: | | | | | |
| Cash deposits | 14,337,520 | 14,337,520 | 14,337,520 | — | — |
| Payable to Participants | 888,156 | 888,156 | 888,156 | — | — |
| Long-term debt | 44,252 | 45,822 | — | 45,822 | — |
| Total | $ 18,610,844 | $ 18,612,414 | $ 15,225,676 | $ 3,386,738 | $ — |

## 14. PENSION AND POSTRETIREMENT BENEFITS

**Defined contribution retirement plans.** Total expense for the defined contribution retirement plans included in Employee compensation and related benefits in the accompanying Condensed Consolidated Statements of Income was $10,468,000 and $9,783,000 for the three months ended September 30, 2018 and 2017, respectively, and $26,399,000 and $29,224,000 for the nine months ended September 30, 2018 and 2017, respectively.

**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 in the accompanying Condensed Consolidated Statements of Income, for the three months ended September 30, 2018 and 2017 follow (in thousands):

| | Pension Benefits | | Other Benefits | |
|---|---|---|---|---|
| | 2018 | 2017 | 2018 | 2017 |
| Components of net periodic benefit expense (income): | | | | |
| Expected return on plan assets | $ (9,896) | $ (9,307) | $ — | $ — |
| Interest cost | 8,530 | 8,698 | 1,412 | (79) |
| Service cost | 793 | 1,260 | 1,071 | (103) |
| Amortizations: | | | | |
| Prior service cost (credit) | 22 | 21 | (1,270) | 3,394 |
| Actuarial loss | 1,951 | 1,505 | 914 | (260) |
| Settlement loss | — | — | 56 | 85 |
| Net periodic benefit expense | $ 1,400 | $ 2,177 | $ 2,183 | $ 3,037 |

Details of the components of net periodic benefit expense (income) and amortization for the Company's pension and postretirement benefit plans for the nine months ended September 30, 2018 and 2017 follow (in thousands):

| | Pension Benefits | | Other Benefits | |
|---|---|---|---|---|
| | 2018 | 2017 | 2018 | 2017 |
| Components of net periodic benefit expense (income): | | | | |
| Expected return on plan assets | $ (29,688) | $ (28,087) | $ — | $ — |
| Interest cost | 25,590 | 26,010 | 4,236 | 2,697 |
| Service cost | 2,379 | 2,876 | 3,213 | 2,441 |
| Amortizations: | | | | |
| Prior service cost (credit) | 66 | 65 | (3,810) | 634 |
| Actuarial loss | 5,853 | 4,243 | 2,739 | 776 |
| Settlement loss | — | — | 168 | 161 |
| Net periodic benefit expense | $ 4,200 | $ 5,107 | $ 6,546 | $ 6,709 |

The Company contributed $55 million to the Retirement Plan for the nine months ended September 30, 2018 and anticipates making no further contributions for the remainder of the fiscal year. The Company contributed $40 million to the Retirement Plan for the nine months ended September 30, 2017.

See Note 17 in DTCC’s Audited Consolidated Financial Statements for the years ended December 31, 2017 and 2016 for additional information.

## 15. INCOME TAXES

The Company's effective tax rate was 14.4% and 22.5% for the nine months ended September 30, 2018 and 2017, respectively. The decrease in the effective tax rate was primarily due to the favorable settlement of the New York state tax audit, and a lower corporate tax rate from the enactment of the Tax Act.

The Tax Act introduced many changes to U.S. tax law including, among other items, reducing the corporate tax rate and introducing Base Erosion and Anti-Abuse Tax (BEAT), a minimum tax on U.S. corporations that make deductible payments to foreign affiliates and subsidiaries, and Global Intangible Low Taxed Income (GILTI), an anti-deferral provision on certain earnings of foreign subsidiaries. The Company recorded provisional amounts associated with the Tax Act for the year ended December 31, 2017. The SEC issued rules that allows the Company a measurement period of up to one year after the enactment date of the Tax Act to recognize the impact of the Tax Act. As of September 30, 2018, the Company believes the potential adjustments in future periods will not have a material impact on its Condensed Consolidated Statements of Financial Condition and Income. The Company has not changed its provisional amounts and will continue to refine its calculations as further information and interpretations become available. The Company has not made an accounting policy election to recognize income tax expense associated with GILTI as incurred or as a deferred tax expense.

Details for unrecognized tax benefits, included in Other non-current liabilities on the accompanying Condensed Consolidated Statements of Financial Condition, as of September 30, 2018 and 2017 follow (in thousands):

| | 2018 | 2017 |
|---|---|---|
| Beginning balance | $ 53,008 | $ 45,410 |
| Prior period tax positions | (21,481) | 14,633 |
| Current period tax positions | 400 | — |
| Settlements with taxing authorities | (5,420) | — |
| Lapses in statute | (649) | (6,255) |
| Unrecognized tax benefit | 25,858 | 53,788 |
| Accrued interest | 11,053 | 20,603 |
| Ending balance | $ 36,911 | $ 74,391 |

See Note 18 in DTCC's Audited Consolidated Financial Statements for the years ended December 31, 2017 and 2016 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 17, 2018, in accordance with the Amended Certificate of Incorporation of DTCC, the Board of Directors approved and declared a dividend 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 was paid on June 15, 2018, to the holders of the Series C Preferred Stock as of record date May 31, 2018.

**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. 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 September 30, 2018 and December 31, 2017. Dividends are accrued based on the weighted-average rate of interest paid by the Corporation on required Participants' Fund deposits during the dividend period as disclosed in the DTC's rules. The 2017 annual dividend amount of $1,080,000 was approved and declared by the Board of Directors in February 2018, and paid in April 2018, to the holders of DTC Series A Preferred stock during 2017.

## 17. COMMITMENTS AND CONTINGENCIES

**Litigation.** 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 Condensed Consolidated Statements of Financial Condition, Income or Cash Flows.

**Lease commitments.** The Company leases office space and equipment. Rent expense under the leases for office space was $6,587,000 and $6,256,000 for the three months ended September 30, 2018 and 2017, respectively, and $19,819,000 and $19,293,000 for the nine months ended September 30, 2018 and 2017, respectively. These amounts are included in Occupancy in the accompanying Condensed Consolidated Statements of Income.

The Company sublets office space in some of its leased offices. Rental income under these subleases was $421,000 and $241,000 for the three months ended September 30, 2018 and 2017, respectively, and $1,368,000 and $372,000 for the nine months ended September 30, 2018 and 2017, respectively. These amounts are included in Other non-operating income (expense) in the accompanying Condensed Consolidated Statements of Income.

Details for estimated future minimum rental payments under all noncancelable leases follow (in thousands):

| | |
|---|---|
| 2018 | $ 7,191 |
| 2019 | 28,974 |
| 2020 | 28,905 |
| 2021 | 29,169 |
| 2022 | 29,116 |
| Thereafter | 260,792 |
| Total minimum rental payments (1) | $ 384,147 |

(1) Future minimum rental payments were not reduced by minimum sublease rentals of $53,890,000 due in the future under noncancelable subleases.

## 18. CAPITAL REQUIREMENTS

The capital requirement for each of the clearing agency 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 requirement by holding liquid net assets funded by equity, as described in rule 17Ad-22(e)(15) of the CCAS and DTCC's 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 DTCC's clearing agency policy on capital requirements for DTC, NSCC and FICC. 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 DTC, NSCC and FICC's respective 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 September 30, 2018 and December 31, 2017 follow (in thousands):

| | 2018 | | |
|---|---|---|---|
| | DTC | NSCC | FICC |
| General business risk capital requirement | $ 164,282 | $ 148,533 | $ 103,756 |
| Corporate contribution | 82,141 | 74,267 | 51,878 |
| Total requirement | 246,423 | 222,800 | 155,634 |
| Liquid net assets funded by equity | 509,862 | 443,111 | 261,270 |
| Excess/(shortfall) | $ 263,439 | $ 220,311 | $ 105,636 |

| | 2017 | | |
|---|---|---|---|
| | DTC | NSCC | FICC |
| General business risk capital requirement | $ 159,181 | $ 142,035 | $ 93,520 |
| Corporate contribution | 79,590 | 71,017 | 46,760 |
| Total requirement | 238,771 | 213,052 | 140,280 |
| Liquid net assets funded by equity | 444,265 | 397,540 | 236,922 |
| Excess/(shortfall) | $ 205,494 | $ 184,488 | $ 96,642 |

**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.** Certain DTCC subsidiaries are subject to capital guidelines issued by United States federal and state banking regulators. During the year DTCC engaged in banking activities under DTC.

DTC capital ratios filed with the FRBNY and the NYSDFS, and included in DTC's Condensed Financial Statements submitted to the SEC as of September 30, 2018, follow:

| | DTC | Minimum Capital Ratio(1) | Well Capitalized Ratio(1) |
|---|---|---|---|
| Tier 1 capital ratio | 78.40% | 6.00% | 8.00% |
| Total capital ratio | 78.40% | 8.00% | 10.00% |
| Tier 1 leverage ratio | 18.80% | 4.00% | 4.00% |

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

## 19. 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.

Details for open CCP positions for which a trade guarantee applied as of September 30, 2018 and December 31, 2017 follow (in billions):

| | 2018 | 2017 |
|---|---|---|
| FICC | | |
| GSD | $ 981 | $ 1,039 |
| MBSD | 354 | 312 |
| NSCC | 182 | 135 |

There were no defaults by Participants to these obligations.

If a Participant defaults in either NSCC or FICC, such Participant's deposits to the applicable Clearing Fund are the first source of funds and collateral that NSCC and FICC would use to cover any losses that may result from the close-out and liquidation of the defaulting Participant's positions. To address potential tail losses, NSCC and FICC each separately maintain additional prefunded resources. These consist of (i) the CCP's Clearing Fund that, in the aggregate, currently serves as the CCP's default fund, and (ii) the CCP's Corporate Contribution, as described in Note 18.

If, after closing out and liquidating a defaulting Participant's positions, the CCP were to suffer a loss, such loss would be satisfied as follows: (i) first, applying the defaulter's Clearing Fund deposit, including any amounts available under cross-guaranty agreements to which the CCPs are a party, described below, (ii) next, the CCPs may apply their Corporate Contributions (or such higher amount as approved by their Board of Directors), and (iii) by allocating any remaining loss to Participants.

Amounts that may be available under cross-guaranty agreements include, for NSCC, amounts available under either the netting contract and limited cross-guaranty between DTC and NSCC relating to collateralization across the DTC-NSCC interface; or, for FICC, amounts available under the cross-margining agreement between GSD and the Chicago Mercantile Exchange Inc., which may provide for additional funds if the defaulting member was a cross-margining Participant.

DTC, NSCC, FICC and OCC have also entered into a multilateral netting contract and limited cross-guaranty agreement. In accordance with these agreements, 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.

See Note 22 in DTCC's Audited Consolidated Financial Statements for the years ended December 31, 2017 and 2016, for additional information.

## 20. SUBSEQUENT EVENTS

The Company evaluated events and transactions occurring after September 30, 2018 through October 31, 2018, for potential recognition or disclosure in these accompanying Condensed Consolidated Financial Statements. No events or transactions occurred during such period that would require recognition or disclosure in these accompanying Condensed Consolidated Financial Statements.