

# 2021 Financials

**OCC**

**THE FOUNDATION  
FOR SECURE  
MARKETS®**

## Statements of Financial Condition

DECEMBER 31 (IN THOUSANDS)	2021	2020
<b>Assets</b>		
Current Assets:		
Cash and cash equivalents NOTE 2	\$ 653,410	\$ 624,717
Accounts receivable	9,853	86,986
Exchange billing receivable NOTE 12	124,314	106,166
Due from participant exchanges NOTE 12	108	45
Other current assets	38,547	43,801
<b>Total Current Assets</b>	<b>826,232</b>	<b>861,715</b>
Property and equipment – net NOTE 2	129,808	92,656
Clearing fund deposits NOTES 6, 16	16,220,888	10,750,546
Other assets NOTES 10, 16	62,075	63,637
Deferred income taxes NOTE 13	6,524	2,116
<b>Total Assets</b>	<b>\$ 17,245,527</b>	<b>\$ 11,770,670</b>
<b>Liabilities and Shareholders' Equity</b>		
Current Liabilities:		
Accounts payable and other	\$ 52,992	\$ 38,971
SEC transaction fees payable NOTE 12	20,564	65,377
Refundable clearing fees	76,300	156,000
Exchange billing payable NOTE 12	124,314	106,166
Other accrued liabilities	54,220	51,171
<b>Total Current Liabilities</b>	<b>328,390</b>	<b>417,685</b>
Clearing fund deposits NOTES 6, 16	16,220,888	10,750,546
Other liabilities NOTES 14, 15	44,734	44,833
<b>Total Liabilities</b>	<b>16,594,012</b>	<b>11,213,064</b>
Shareholders' Equity: NOTE 7		
Common stock	500	500
Retained earnings	681,140	585,825
Accumulated other comprehensive loss NOTES 14, 15 (net of tax benefit of \$9,924 in 2021 and \$9,517 in 2020)	(30,125)	(28,719)
<b>Total Shareholders' Equity</b>	<b>651,515</b>	<b>557,606</b>
<b>Total Liabilities and Shareholders' Equity</b>	<b>\$ 17,245,527</b>	<b>\$ 11,770,670</b>

SEE NOTES TO THE FINANCIAL STATEMENTS

## Statements of Income and Comprehensive Income

FOR THE YEARS ENDED DECEMBER 31 (IN THOUSANDS)	2021	2020	2019
<b>Revenues</b>			
Clearing fees NOTE 9	\$ 429,189	\$ 558,111	\$ 467,925
Data service fees	4,943	4,806	4,737
Exercise fees	8,095	6,572	4,895
Other	8,517	7,823	3,431
<b>Total Revenues</b>	<b>450,744</b>	<b>577,312</b>	<b>480,988</b>
<b>Expenses</b>			
Employee costs	168,985	169,094	163,777
Information technology	62,126	57,356	61,417
Professional fees and outside services	46,427	43,566	63,730
General and administrative	34,508	33,406	45,975
Rental, office and equipment	10,722	12,014	11,884
Depreciation and amortization	10,789	13,242	14,261
Loss on disposal, property and equipment	63	268	—
<b>Total Expenses</b>	<b>333,620</b>	<b>328,946</b>	<b>361,044</b>
<b>Total Operating Income</b>	<b>117,124</b>	<b>248,366</b>	<b>119,944</b>
<b>Non-Operating Income (Expense)</b>			
Investment income NOTES 8, 10	1,491	12,406	39,053
Interest income NOTE 6	10,993	23,411	106,998
Interest expense NOTE 6	(10,993)	(23,411)	(106,998)
Other non-operating expense NOTE 2	(1,084)	(1,577)	(2,036)
<b>Total Non-Operating Income (Expense)</b>	<b>407</b>	<b>10,829</b>	<b>37,017</b>
<b>Income Before Income Taxes</b>	<b>117,531</b>	<b>259,195</b>	<b>156,961</b>
Provision for Income Taxes NOTE 13	22,216	57,966	29,529
<b>Net Income</b>	<b>95,315</b>	<b>201,229</b>	<b>127,432</b>
<b>Other Comprehensive Income, Net of Tax</b>			
Pension and postretirement benefit plan adjustments, net of tax of \$(407) in 2021, \$1,632 in 2020 and \$(234) in 2019	(1,406)	5,065	(1,491)
<b>Comprehensive Income</b>	<b>\$ 93,909</b>	<b>\$ 206,294</b>	<b>\$ 125,941</b>

SEE NOTES TO THE FINANCIAL STATEMENTS

## Statements of Shareholders' Equity

(IN THOUSANDS)	COMMON STOCK	PAID-IN-CAPITAL	ACCUMULATED OTHER COMPREHENSIVE LOSS	RETAINED EARNINGS	TOTAL
Balance - December 31, 2018	\$ 500	\$ 37,827	\$ (32,293)	\$ 261,438	\$ 267,472
Net income / loss				127,432	127,432
Distribution of shareholders' equity		(37,827)		(4,274)	(42,101)
Amounts included in other comprehensive income, net of tax:					
Changes in unamortized gain/(loss)			(575)		(575)
Changes in unamortized prior service (cost)			(916)		(916)
Subtotal			(1,491)		(1,491)
Balance - December 31, 2019	\$ 500	-	\$ (33,784)	\$ 384,596	\$ 351,312
Net income / loss				201,229	201,229
Amounts included in other comprehensive income, net of tax:					
Changes in unamortized gain/(loss)			6,377		6,377
Changes in unamortized prior service (cost)			(1,312)		(1,312)
Subtotal			5,065		5,065
Balance - December 31, 2020	\$ 500	-	\$ (28,719)	\$ 585,825	\$ 557,606
Net income / loss				95,315	95,315
Amounts included in other comprehensive income, net of tax:					
Changes in unamortized gain/(loss)			(77)		(77)
Changes in unamortized prior service (cost)			(1,329)		(1,329)
Subtotal			(1,406)		(1,406)
Balance - December 31, 2021	\$ 500	-	\$ (30,125)	\$ 681,140	\$ 651,515

SEE NOTES TO THE FINANCIAL STATEMENTS

# Statements of Cash Flows

DECEMBER 31 (IN THOUSANDS)	2021	2020	2019
<b>Cash Flows From / (Used In) Operating Activities</b>			
Net income	\$ 95,315	\$ 201,229	\$ 127,432
Adjustments to reconcile net income to net cash flows from / (used in) operating activities:			
Unrealized (gains) losses on investments	1,732	(3,139)	(3,165)
Depreciation and amortization	10,789	13,242	14,261
Loss on disposal, property and equipment	63	268	–
Deferred income taxes	(4,001)	3,295	848
Changes in assets and liabilities:			
Accounts receivable and other receivables	58,922	(45,781)	16,825
Other current assets	13,291	(7,859)	246
Restricted cash (clearing fund)	4,265,042	1,166,616	(136,866)
Other assets	1,683	(9,432)	(486)
Purchases of investments included in other assets	(977)	1,687	(2,376)
Sales of investments included in other assets	(876)	(76)	(77)
Accounts payable and other liabilities	(8,071)	52,895	(21,565)
Refundable clearing fees	(79,700)	156,000	–
Net Cash Flows From / (Used In) Operating Activities	4,353,212	1,528,945	(4,923)
<b>Cash Flows (Used In) / From Investing Activities</b>			
Capital expenditures	(44,453)	(42,713)	(35,952)
Net Cash Flows (Used In) / From Investing Activities	(44,453)	(42,713)	(35,952)
<b>Cash Flows (Used In) / From Financing Activities</b>			
Issuance of notes	–	–	1,000
Borrowings on revolving line of credit	20,700	10,600	10,000
Repayments on revolving line of credit	(20,700)	(10,600)	(10,000)
Proceeds from liquidity facility repurchase agreements	11,000	30,000	–
Payments for liquidity facility repurchase agreements	(11,000)	(30,000)	–
Payments for debt issuance costs	(15,024)	(16,411)	(11,003)
Distribution to shareholders	–	–	(158,151)
Net Cash Flows (Used In) / From Financing Activities	(15,024)	(16,411)	(168,154)
Net increase/ (decrease) in cash, cash equivalents and restricted cash	4,293,735	1,469,821	(209,029)
Cash, cash equivalents and restricted cash, beginning of year	6,958,012	5,488,191	5,697,220
Cash, cash equivalents and restricted cash, end of year	\$ 11,251,747	\$ 6,958,012	\$ 5,488,191
<b>Reconciliation of Cash, Cash Equivalents and Restricted Cash</b>			
Cash and cash equivalents	653,410	624,717	321,512
Restricted cash (clearing fund)	10,598,337	6,333,295	5,166,679
Total	\$ 11,251,747	\$ 6,958,012	\$ 5,488,191
<b>Noncash Investing Activities</b>			
Accounts payable for capital expenditures	6,601	3,051	5,362
Total Noncash Investing Activities	\$ 6,601	\$ 3,051	\$ 5,362
Supplemental disclosure of cash flow information:			
Cash paid for income taxes	\$ 23,332	\$ 66,208	\$ 65,255
Cash paid for interest	195	400	467

SEE NOTES TO THE FINANCIAL STATEMENTS

# Notes to the Financial Statements

AS OF DECEMBER 31, 2021 AND 2020, AND FOR THE YEARS ENDED DECEMBER 31, 2021, 2020 AND 2019

## NOTE 1. NATURE OF OPERATIONS

The Options Clearing Corporation (“OCC” or “the Corporation”) is a central counterparty (“CCP”) and the world’s largest equity derivatives clearing organization. Founded in 1973, OCC operates under the jurisdiction of the Securities and Exchange Commission (“SEC”) as a Registered Clearing Agency, the Commodity Futures Trading Commission (“CFTC”) as a Derivatives Clearing Organization, and under prudential regulation by the Board of Governors of the Federal Reserve System (the “Federal Reserve”) as a systemically important financial market utility (“SIFMU”). OCC provides CCP clearing and settlement services to 19 exchanges and trading platforms for options, financial futures and securities lending transactions. OCC clears contracts based on several types of underlying interests, including equity interests; stock, commodity and other indexes; foreign currencies; interest rate composites and debt securities. OCC is headquartered in Chicago, Illinois and has offices in New Jersey, Texas, and Washington DC.

**IMPACT OF COVID-19** On March 11, 2020, the World Health Organization declared COVID-19 a global pandemic. Throughout 2020 and 2021, OCC closely monitored developments and followed guidance provided by governmental and public health agencies (such as social distancing and working from home). Management provided and continues to provide frequent communications to employees, Exchanges, Clearing Members and other stakeholders and has instructed employees to work from home on a temporary basis. OCC cleared, settled and risk managed record volumes in both trades and contracts without disruptions to

operations. While the Corporation has not been negatively impacted by the pandemic throughout 2021, OCC continues to closely monitor COVID-19 developments and assess its impact on operations.

## NOTE 2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### BASIS OF PRESENTATION AND USE OF ESTIMATES

The financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (“GAAP”). The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Although these estimates and assumptions are based on the best available information, actual results could differ from those estimates.

**CASH AND CASH EQUIVALENTS** Management defines cash and cash equivalents to include cash from banks and highly liquid investments. OCC considers all highly liquid investments with an initial maturity of three months or less from the date of purchase to be cash equivalents. In 2021 and 2020, cash equivalents are comprised of investments in reverse repurchase agreements with major banks and broker dealers, which mature on the next business day. Under these agreements, OCC purchases United States of America (“U.S.”) Treasury securities and the counterparties agree to repurchase the instruments the following business day at a set price, plus interest. During the term of the agreements, the underlying securities are transferred through the Federal Reserve to a custodial account maintained by the transacting bank for the benefit of OCC. The reverse repurchase agreements are secured with collateral that has a market value greater than or equal to 102% of the cash invested at the time the trade is placed. At December 31, 2021 and 2020, the carrying value of OCC’s cash equivalents approximates fair value due to the short maturities of these investments.

**PROPERTY AND EQUIPMENT** Property and equipment are stated at historical cost, less accumulated depreciation and amortization. Depreciation is computed using straight-line and accelerated methods based on estimated useful lives that range from five to thirty-nine and one half years. Leasehold improvements are amortized over the shorter of the remaining term of the lease or the useful life of the asset.

OCC capitalizes direct and incremental costs, both internal and external, related to software developed or obtained for internal use in accordance with GAAP. Software, which includes capitalized labor, is amortized on a straight-line basis over its useful life, typically five years. In 2021, OCC capitalized software development costs of \$46.9 million, including \$31.0 million of internal labor costs. In 2020, OCC capitalized software development costs of \$32.9 million, including \$19.3 million of internal labor costs. In 2019, OCC capitalized software development costs of \$17.7 million, including \$6.2 million of internal labor costs. Amortization expense related to computer software was \$0.6 million, \$0.7 million and \$1.9 million for 2021, 2020 and 2019, respectively.

Property and equipment consisted of the following:

AS OF DECEMBER 31, (IN THOUSANDS)	2021	2020
Leasehold improvements	\$ 27,497	\$ 33,896
Equipment, furniture and other	39,906	39,527
Software	226,251	180,678
Hardware leased	4,145	4,145
Software leased	6,295	6,295
Total property and equipment	304,094	264,541
Accumulated depreciation and amortization	(174,286)	(171,885)
Property and equipment - net	\$ 129,808	\$ 92,656

**IMPAIRMENT OF LONG-LIVED ASSETS** OCC reviews its long lived assets for possible impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be fully recoverable. If this review indicates that the carrying amount of a long-lived

asset is not recoverable, the carrying amount is reduced to the fair value. As of December 31, 2021 and 2020, OCC determined that no assets were impaired, and no impairment charges were recorded in the financial statements for the years ended 2021, 2020, and 2019.

**INCOME TAXES** The Corporation files U.S. federal income tax returns and state income tax returns in various states. OCC accounts for income taxes under the asset and liability method. Under this method, deferred tax assets and liabilities are recorded based on the differences between the financial accounting and tax bases of assets and liabilities. Deferred tax assets and liabilities are recorded based on the currently enacted tax rate expected to apply to taxable income in the year in which the deferred tax asset or liability is expected to be settled or realized. OCC may record uncertain tax positions and the related interest and penalties based on management's assessment of whether a tax benefit is more likely than not to be sustained upon examination by the tax authorities. Uncertain tax positions are classified as current only when OCC expects to pay in the next twelve months. Income taxes are discussed in more detail in Note 13.

**INVESTMENTS** OCC designates all of its investments as trading securities in accordance with GAAP and are recorded at fair value.

**REVENUE RECOGNITION** Revenue is recognized as services are rendered and performance obligations are satisfied. OCC's revenues primarily consist of clearing fee revenues, which include per contract charges for clearing services, which are billed on a monthly basis and recorded as a receivable. Amounts due are paid within five days after month-end. Data service fees are charged monthly based on a tiered fee structure and services provided may include access to OCC's proprietary clearing system and proprietary website, as well as receipt of files or report bundles. Exercise fees are charged for each contract exercised and are also billed on a monthly basis. Investment and interest income is recorded on an accrual basis when earned. No estimates are used for recording the above fees as they are based on a published fee schedule or agreement.

**NEW ACCOUNTING PRONOUNCEMENTS** On August 28, 2018, the FASB issued ASU 2018-14, *Compensation – Retirement Benefits – Defined Benefit Plans – General*. This ASU eliminates requirements for certain disclosures that are no longer considered cost beneficial and requires new ones that FASB considers pertinent. OCC adopted the new standard effective January 1, 2021 and it had no impact on OCC's financial statements and no material impact to the disclosures.

In August 2018, the FASB issued ASU 2018-15, *Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement that is a Service Contract*. OCC adopted the new standard effective January 1, 2021 and it had no impact on OCC's financial statements or disclosures.

In February 2016, the FASB issued ASU 2016-02 *Leases, Topic 842*, which supersedes Topic 840, *Leases*. This ASU increases the transparency and comparability of organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. At the lease commencement date, a lessee recognizes a lease liability and right-of-use asset, which is initially measured at the present value of future lease payments. There are two approaches for amortizing the right-of-use asset. Under the finance lease approach, interest on the lease liability is recognized separately from amortization of the right-of-use asset. Repayments of the principal portion of the lease liability will be classified as financing activities and payments of interest on the lease liability and variable lease payments will be classified as operating activities in the statement of cash flows. Under the operating lease approach, the cost of the lease is calculated on a straight-line basis over the life of the lease term. All cash payments are classified as operating activities in the statement of cash flows. *Revenue from Contracts with Customers (Topic 606) and Leases (Topic 842) Effective Dates for Certain Entities ("ASU 2020-05")*, deferred the effective date of ASU 2016-02. This ASU is effective for annual periods beginning after December 15, 2021 for nonpublic companies. Therefore, OCC will adopt the new

standard on January 1, 2022. This standard will have a significant impact on OCC's statement of financial condition since it requires a liability and corresponding asset to be recognized for operating leases representing the right to use the leased asset over the term. As of January 1, 2022, the Corporation has a right-of-use asset and lease liability of approximately \$87 million, which is comprised primarily of office leases. OCC does not expect a material impact to OCC's statement of income and comprehensive income.

In December 2019, the FASB issued ASU 2019-12, *Income Taxes (Topic 740)– Simplifying the Accounting for Income Taxes*. ASU 2019-12 clarifies and simplifies aspects of accounting for income taxes. Specifically, this ASU eliminates certain exceptions related to the approach for intraperiod tax allocation, the methodology for calculating income taxes in an interim period and the recognition of deferred tax liabilities for basis differences between book and tax. For nonpublic entities, this update is effective for fiscal years beginning after December 15, 2021. OCC is evaluating the impact on its financial statements and disclosures.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*. The ASU adds an impairment model (known as the current expected credit loss or "CECL") that is based on expected losses rather than incurred losses. It's anticipated that adoption of the new guidance will result in more timely recognition of such losses. ASU 2019-10, *Financial Instruments–Credit Losses (Topic 326), Derivatives and Hedging (Topic 815), and Leases (Topic 842) Effective Dates*, (ASU 2019-10), deferred the effective date of ASU 2016-13. For nonpublic entities, this update is effective beginning after December 15, 2022. OCC is evaluating the impact on its financial statements and disclosures.

### **NOTE 3. GUARANTEES**

OCC performs a guarantee function that ensures the financial integrity of the markets in which it clears contracts. In its role as guarantor and central



counterparty, OCC ensures that the obligations of the contracts it clears are fulfilled. Through a novation process, OCC becomes the buyer for every seller and the seller for every buyer, protecting clearing members from counterparty risk and allowing the settlement of trades in the event of a clearing member default.

OCC does not assume any guarantor role unless it has a precisely equal and offsetting claim against a clearing member. OCC's obligations under the guarantee would arise if a clearing member were unable to meet its obligations to OCC. Margin deposits, collateral in lieu of margin deposits, and clearing fund deposits are required to collateralize clearing members' obligations and support OCC's guarantee.

As of December 31, 2021, and 2020, the amount of margin required by OCC to support its guarantee was \$121.0 billion and \$108.7 billion, respectively, which represents the aggregate market value of outstanding positions plus an additional amount to cover adverse price movements. Margin deposits and clearing fund deposits are discussed in Notes 5 and 6, respectively.

As OCC only assumes the guarantor role if it has an equal and offsetting claim, the fair value of the open interest of options and futures contracts and securities lending positions cleared and settled by OCC is not included in the Statements of Financial Condition. There were no events of default during the years ended 2021 or 2020 for which a liability should be recognized in accordance with GAAP.

#### **NOTE 4. OFF-BALANCE SHEET RISK AND CONCENTRATION OF CREDIT RISK**

Credit risk represents the potential for loss due to the deterioration in credit quality or default of a counterparty or an issuer of securities or other instruments. OCC's exposure to credit risk comes from its clearing and settlement operations and from financial assets, which consist primarily of cash and cash equivalents, accounts receivable, and margin and clearing fund deposits.

**CASH AND CASH EQUIVALENTS** OCC maintains cash and cash equivalents with various financial institutions. When clearing members provide margin deposits in the form of cash, OCC may invest the cash deposits in overnight reverse repurchase agreements.

OCC bears credit risk related to overnight reverse repurchase agreements to the extent that cash advanced to the counterparty exceeds the value of collateral received. These securities have minimal credit risk due to the low probability of U.S. government default and their highly liquid and short-term nature. Additionally, OCC requires 102% in market value of collateral received compared to the cash provided to the counterparties.

OCC is also exposed to risk related to the potential inability to access liquidity in financial institutions where it holds cash and cash equivalents. The financial institutions are in different geographical locations and OCC monitors their financial condition on an ongoing basis to identify any significant changes.

**ACCOUNTS RECEIVABLE** Credit risk related to accounts receivable includes the risk of nonpayment by the counterparty. OCC's credit risk is diversified due to the large number of clearing members composing OCC's customer base. OCC also conducts ongoing evaluations of the institutions with which it does business.

**CLEARING MEMBERS, MARGIN AND CLEARING FUND** OCC bears counterparty credit risk in the event that clearing members fail to meet their obligations to OCC.

OCC reduces its exposure through a risk management program that strives to achieve a prudent balance between market integrity and liquidity. This program of safeguards, which provides support to OCC's guarantee, consists of rigorous initial and ongoing financial responsibility standards for membership, margin deposits and clearing fund deposits. In 2021, OCC maintained four liquidity facilities to support potential liquidity needs in the event of a clearing member default and one facility to finance working capital needs and for general corporate purposes, as described in Note 11.

If a clearing member does not meet its settlement obligation to OCC or is declared in default, OCC may utilize the defaulting member's margin and clearing fund deposits to cover any losses resulting from the default. If those resources are exhausted, OCC would then apply its own prefunded resources per the Capital Management Policy. If further funds are required, the OCC would utilize the unvested balances deposited on and after January 1, 2020 in respect of the Executive Deferred Compensation Plan and the respective clearing fund deposits of all clearing members on a pro-rata basis.

The collateral posted by clearing members is also subject to market and credit risk, as there is a risk of price fluctuations and nonperformance by the counterparty, which could result in a material loss. To mitigate this risk, OCC only allows collateral deposits at approved OCC banks or securities depositories, which OCC monitors on an ongoing basis.

**NOTE 5. MARGIN DEPOSITS**

OCC's rules require each clearing member representing the seller of an option to collateralize its contract obligations by either depositing the underlying security ("specific deposits"), other securities in lieu of margin deposits or by maintaining specified margin deposits. Margin deposits are also required for futures, futures options positions and stock loan/borrow positions. Securities in lieu of margin and margin deposits may include cash, bank letters of credit, U.S. and Canadian Government securities, U.S. Government sponsored enterprise debt securities ("GSE debt securities") or other acceptable margin securities ("valued securities"), which may consist of common stocks and exchange-traded funds ("ETFs").

The margin deposits of each clearing member are available to meet the financial obligations of that specific clearing member to OCC. The market value of all obligations is determined on a daily basis and OCC may issue intra-day margin calls for additional margin deposits, if necessary. Margin deposits must meet specified requirements, as provided for in OCC's rules,

and all margin deposits are held at approved securities depositories or banks, except letters of credit.

Since OCC does not take legal ownership of margin deposits or securities deposited in lieu of margin deposits, the below assets are not reflected in the Statements of Financial Condition. However, OCC has rights to these assets in the event of a clearing member default. At December 31, 2021 and 2020, margin deposits exceeded OCC's required margin.

The fair values of securities in lieu of margin deposits and margin deposits at December 31, 2021 and 2020 were as follows (foreign securities are converted to U.S. dollars using the year-end exchange rate):

AS OF DECEMBER 31, (IN THOUSANDS)	2021	2020
Valued securities	\$ 116,821,390	\$ 96,963,235
Specific deposits	43,773,563	36,049,127
Government securities	24,776,975	22,474,758
Cash and cash equivalents	10,637,309	5,980,129
Bank letters of credit	58,000	289,000
<b>Total</b>	<b>\$ 196,067,237</b>	<b>\$ 161,756,249</b>

**VALUED SECURITIES** Valued securities consist of common stock (including fund shares, as defined in OCC's Rules and By-Laws) and are traded on U.S. securities exchanges and are principally valued using the composite closing price. Valued securities are included in margin calculations and the value ascribed to this collateral is based on OCC's margin methodology, rather than traditional haircuts. As a result, the margin calculations reflect the scope for price movements to exacerbate or mitigate losses on the cleared products in the account.

**SPECIFIC DEPOSITS** OCC also accepts specific deposits, which are pledges of underlying stock to OCC that cover a specified short equity call option series. Specific deposits are collateral deposited in lieu of margin and remove the covered short position from the clearing member's daily margin requirement. Specific deposits are also generally traded on U.S. securities exchanges and are generally valued using the composite closing price.

### GOVERNMENT SECURITIES AND GSE DEBT SECURITIES

For margin requirements, clearing members may deposit U.S. and Canadian Government securities, as well as eligible GSE debt securities. GSE debt securities must be approved by OCC's Risk Committee and include debt securities issued by congressionally-chartered corporations, such as the Federal Home Loan Mortgage Corporation ("Freddie Mac") and the Federal National Mortgage Association ("Fannie Mae"). Coupon interest and maturity payments on delivered Government and GSE debt securities are initially paid to OCC and then credited to clearing members. For daily margin purposes, U.S. Government securities (excluding Treasury Inflation Protected securities) are included in margin calculations and the value ascribed to this collateral is based on OCC's margin methodology. OCC haircuts the market value of (i) U.S. and Canadian Government securities not included in margin calculations or (ii) GSE debt securities to provide a cushion against adverse price fluctuations. The haircuts for Government and GSE debt securities are based on a maturity schedule and range from 0.5% to 7%. An additional haircut of 3% is applied to Canadian Government securities. Government securities are valued on the basis of evaluated prices provided by independent pricing services.

**CASH AND CASH EQUIVALENTS** Cash and cash equivalents held as margin deposits may be invested, and any interest or gain received, or loss incurred is included as Investment income in the Statements of Income and Comprehensive Income.

**BANK LETTERS OF CREDIT** Under OCC's Rules, bank letters of credit are required to be irrevocable and may only be issued by banks or trust companies approved by OCC. OCC maintains concentration limits for bank letters of credit as described in OCC's Rules. Letters of credit are valued at their face value amounts.

**ESCROW DEPOSITS** OCC has an Escrow Deposit Program ("Program") that allows a customer of a clearing member to deposit cash and/or fully-paid for securities (including common stock and fund shares in addition to U.S. Government Securities), held at OCC approved escrow

banks, as supporting collateral to cover short positions in call and put index options and equity put options. Collateral consisting of securities must be pledged to OCC by the escrow banks via the Depository Trust Company. Cash escrow deposits are held at approved escrow banks and are governed by tri-party account agreements between OCC, the escrow bank, and the customer. Both the security and cash escrow deposits are viewable in OCC's collateral system by OCC, clearing members and escrow banks.

An escrow deposit is considered a deposit in lieu of margin, therefore, the covered short position is not subject to margining by OCC. OCC has specified collateral restrictions for escrow deposits. Escrow deposits for a short position in an equity or an index put option can consist of cash and U.S. Government securities in any combination. Escrow deposits related to a short position in an index call option can consist of cash, U.S. Government securities and common stocks (including fund shares) in any combination, that are listed on a national securities exchange or the NASDAQ Stock Market.

As of December 31, 2021 and 2020, deposits were held for 164,000 and 79,000 short equity and index options contracts in the Escrow Deposit Program, respectively, and the fair value of the underlying securities (times the unit of trading or the multiplier, as appropriate) was approximately \$29.3 billion and \$18.5 billion.

**CROSS-MARGIN ARRANGEMENTS** OCC also maintains a cross-margining arrangement with a U.S. derivatives clearing organization. Under the terms of that arrangement, an OCC clearing member that is or has an affiliate that is also a clearing member of the derivatives clearing organization, may maintain cross-margin accounts. Within these cross-margin accounts, the clearing members' positions in OCC-cleared options are combined with positions of the clearing member (or its affiliate) in futures contracts and/or options on futures contracts cleared at the derivatives clearing organization for purposes of calculating margin requirements and daily net settlements.

Margin deposits on the combined positions are held jointly by OCC and the derivatives clearing organization and are available (together with any proceeds of the options and futures positions themselves) to meet financial obligations of the clearing members to OCC and the derivatives clearing organization. In the event that either OCC or the derivatives clearing organization suffers a loss in liquidating positions in a cross-margin account, the loss is to be shared between OCC and the derivatives clearing organization. Margin deposits for these cross-margin accounts may be in the form of cash, U.S. Government securities, or bank letters of credit, and are reflected in the margin deposit table. OCC's share of margin deposits subject to cross-margin agreements were \$167.3 million and \$192.3 million at December 31, 2021 and 2020, respectively.

**NOTE 6. CLEARING FUND DEPOSITS**

OCC calculates the required fund based upon a methodology intended to simulate potential losses in the event of a simultaneous default of its two largest clearing member groups. The clearing fund size is established at an amount to be sufficient to protect OCC from loss under simulated default scenarios. A clearing member's contribution is the sum of \$500,000 and a separate amount equal to the weighted average of the clearing member's proportionate shares of total risk, open interest and volume, in all accounts of the clearing member. As of December 31, 2021, and 2020, the weightings were: total risk 70%, open interest 15% and volume 15%.

The clearing fund mutualizes the risk of default among all clearing members. The entire clearing fund is available to cover potential losses in the event that the margin deposits and the clearing fund deposits of a defaulting clearing member are inadequate or not immediately available to fulfill that clearing member's outstanding financial obligations. In the event of a default, OCC is generally required to liquidate the defaulting clearing member's open positions. To the extent that the positions remain open, OCC is required to assume the defaulting clearing member's obligations related to the open

positions. The clearing fund is available to cover the cost of liquidating a defaulting clearing member's open positions or performing OCC's obligations with respect to positions not yet liquidated.

Clearing fund deposits must be in the form of cash or U.S. and Canadian Government securities, as the clearing fund is intended to provide OCC with a highly liquid pool of assets. OCC discounts the fair value of U.S. and Canadian Government securities on a daily basis to provide a cushion against adverse price fluctuations. Cash held as clearing fund deposits may be invested at an approved commercial or central bank, and any interest or gain received, or loss incurred on invested funds is recorded in the Statements of Income and Comprehensive Income.

OCC has an approved account at the Federal Reserve Bank of Chicago. As of December 31, 2021 and 2020, the balance held at the Federal Reserve Bank of Chicago totaled \$10.5 billion and \$6.2 billion, respectively. Interest earned is recorded as Interest Income under Non-Operating Income (Expense) in the Statements of Income and Comprehensive Income. Clearing members are required to maintain a minimum cash requirement in the Clearing Fund. As of December 31, 2021 the aggregate amount required was \$5 billion. The majority of cash resides in an account at the Federal Reserve Bank of Chicago. Interest earned on those funds is passed through to the clearing members on a proportional basis and shown on the Statement of Income and Comprehensive Income under Non-Operating Income (Expense) as interest income and interest expense. OCC charges a cash management fee of 5 basis points monthly.

The U.S. Government securities included in the clearing fund are valued using inputs from pricing services that include interest accruing on the next coupon payment. Canadian Government securities are pledged, rather than delivered to OCC. Clearing members maintain control of the interest payment for Canadian Government securities and, therefore, the accrued interest is not included in the fair value for these securities.

The fair value of the clearing fund is included in the Statements of Financial Condition as Clearing fund deposits. The collateral types and their fair values at December 31, 2021 and 2020 are as follows (Canadian Government securities are converted to U.S. dollars using the year-end exchange rate):

AS OF DECEMBER 31, (IN THOUSANDS)	2021	2020
U.S. Government securities	\$ 5,390,538	\$ 4,243,797
Cash and cash equivalents	10,598,337	6,333,295
Canadian Government securities	232,013	173,454
<b>Total</b>	<b>\$ 16,220,888</b>	<b>\$ 10,750,546</b>

#### **NOTE 7. SHAREHOLDERS' EQUITY**

OCC has Class A and Class B common stock, each with a \$10 par value, 60,000 shares authorized, and 25,000 shares issued and outstanding at December 31, 2021 and at December 31, 2020.

The Class B common stock is issuable in twelve series of 5,000 shares each. In the event of liquidation of OCC, holders of Class A common stock and Class B common stock would first be paid the par value of their shares. Next, each holder of Class B common stock would receive a distribution of \$1 million. Subsequently, an amount equal to OCC's shareholders' equity at December 31, 1998 of \$22.9 million minus the distributions described above, would be distributed to those holders who acquired their Class B common stock before December 31, 1998. Finally, any remaining shareholders' equity would be distributed equally to all holders of Class B common stock.

The By-Laws of OCC provide that any national securities exchange or national securities association, which meets specific requirements, may qualify for participation in OCC. Until 2002, exchanges qualified for participation by purchasing 5,000 shares of Class A common stock and 5,000 shares of Class B common stock. The purchase price for these shares was the aggregate book value of a comparable number of shares at the end of the preceding

calendar month, but not more than \$1 million. In 2002, OCC amended its By-Laws to provide that securities exchanges would qualify for participation in OCC by purchasing a \$1 million interest bearing promissory note. Five of OCC's participant exchanges were shareholders as of December 31, 2021 and 2020. Eleven participant exchanges were noteholders as of December 31, 2021 and 2020. These interest-bearing notes are recorded in Accounts Payable and other in the Statements of Financial Condition and were \$11.0 million at December 31, 2021 and at December 31, 2020.

OCC is a party to a Stockholders Agreement with its shareholders. The Stockholders Agreement provides that each shareholder appoints the members of the Governance and Nominating Committee of the Board of Directors ("Governance and Nominating Committee") as its proxy for purposes of voting its shares for the election of member directors, management director(s), and public director(s). The Governance and Nominating Committee nominates individuals for election as member directors and public directors. Under certain circumstances, it also provides for OCC to purchase all of the stock owned by any shareholder; however, the obligation to pay the purchase price will be subordinated to OCC's obligations to creditors, and the purchase price cannot be paid if the payment would reduce capital and surplus below \$1 million. The purchase price is the lesser of the aggregate book value of the shares or the original purchase price paid, less \$240,000, \$180,000, \$120,000, \$60,000 or zero after the second, third, fourth, fifth or sixth year, respectively, from the date of sale of the stock.

OCC is also party to a Noteholders Agreement with the noteholders. The Noteholders Agreement provides OCC with the right to purchase all notes owned by any noteholder under certain circumstances; however, the obligation to pay the purchase price will be subordinated to OCC's obligations to creditors except that such obligation will not be subordinate to OCC's obligation to pay the purchase price to any other noteholder or any shareholder under the Stockholders Agreement. If OCC exercises these purchase rights, the purchase price for the

two years following the date of OCC's execution is the original aggregate principal amount of the notes plus any accrued and unpaid interest reduced by \$300,000. Thereafter, the purchase price is the original aggregate principal amount of the notes plus any accrued and unpaid interest, less \$240,000, \$180,000, \$120,000, \$60,000 or zero after the second, third, fourth, fifth or sixth year, respectively, from the date the note was executed.

**NOTE 8. REVERSE REPURCHASE AGREEMENTS**

Reverse repurchase agreements outstanding, including amounts in cash and cash equivalents and margin deposits, had a daily average of \$6.2 billion and \$3.9 billion during 2021 and 2020, respectively. The maximum amount outstanding was \$8.2 billion during 2021 and \$6.3 billion during 2020. Amounts outstanding and included in cash and cash equivalents in the Statements of Financial Condition at December 31, 2021 was \$600 million. Amounts outstanding and included in cash and cash equivalents in the Statements of Financial Condition at December 31, 2020 was \$590 million. No Clearing Fund deposit amount was invested as of December 31, 2021 or 2020. Margin deposits had amounts outstanding at December 31, 2021 and 2020 of \$7.0 billion and \$4.2 billion, respectively. Interest income earned on these reverse repurchase agreements totaled \$0.8 million, \$6.9 million, and \$31.7 million for the years ended December 31, 2021, 2020 and 2019. This interest income is recorded within Investment income on the Statements of Income and Comprehensive Income.

**NOTE 9. CLEARING FEES**

OCC's Board of Directors ("Board") sets clearing fees to cover OCC's operating expenses plus an additional amount set by the Board in accordance with the Capital Management Policy (Note 18). The Capital Management Policy provides that, if OCC's Equity is above 110% of its target capital level and other approved capital needs, the Board may approve tools to reduce the cost of clearing, including by issuing refunds. The Board approved refunds in the amount of \$76.3 million and \$156 million for

the years ended December 31, 2021 and 2020, respectively. No refund was recognized for the year ended December 31, 2019. Clearing fees are recorded net of refunds, if any, in the Statements of Income and Comprehensive Income. On June 1, 2021, OCC decreased its clearing fee from \$0.045 to \$0.02 per contract. The maximum per trade fee remained at \$55. On November 1, 2021, OCC implemented a clearing fee holiday and charged \$0 for executed options and futures trades through December 31, 2021. On January 3, 2022, the clearing fee reverted to \$0.02 per contract with a maximum per trade fee of \$55.

**NOTE 10. OTHER ASSETS**

Other assets, which include investments for the supplemental executive retirement plan ("SERP") and the deferred compensation plan, consisted of the following:

AS OF DECEMBER 31, (IN THOUSANDS)	2021	2020
SERP NOTE 14	\$ 30,579	\$ 33,696
Executive deferred compensation plan NOTE 11	13,023	10,217
Other assets	18,472	19,724
<b>Total other assets</b>	<b>\$ 62,075</b>	<b>\$ 63,637</b>

SERP investments are recorded at fair value and changes in fair value are recorded as Investment Income under Non-Operating Income (Expense) in the Statements of Income and Comprehensive Income. The amount recorded as Investment income/(loss) for SERP investments for the years ended December 31, 2021, 2020 and 2019 was (\$930,000), \$4.0 million, and \$4.1 million, respectively.

Investments held in the executive deferred compensation plan are recorded at fair value and changes in fair value are recorded as Investment Income under Non-Operating Income (Expense) in the Statements of Income and Comprehensive Income. The amount recorded in Investment Income and Employee costs for the executive deferred compensation plan investments for the years ended December 31, 2021, 2020 and 2019 was \$1.4 million, \$1.3 million, and \$1.3 million, respectively.

**NOTE 11. COMMITMENTS**

**LEASES** OCC leases office space, software and hardware equipment. The total expense for office space, software and hardware equipment for the years ended December 31, 2021, 2020 and 2019 was \$42.7 million, \$42.9 million and \$52.1 million, respectively. Of these amounts, the total rental expense for leases for the years ended December 31, 2021, 2020, and 2019 was \$10.7 million, \$17.2 million, and \$21.3 million.

On December 15, 2017, OCC entered into an agreement with Banc of America Leasing & Capital, LLC (“BALC”) for the lease of property improvements and fixtures for the office in Texas. The lease agreement has a principal amount of \$4.7 million and a term of 7 years, at the end of which OCC has a bargain purchase option to repurchase the improvements at \$1.

Future minimum aggregate rental payments under operating leases having initial or remaining noncancelable lease terms in excess of one year as of December 31, 2021 are as follows:

(IN THOUSANDS)	OPERATING LEASES	CAPITAL LEASES
2022	\$ 9,626	\$ 758
2023	8,971	757
2024	7,474	757
2025	7,413	-
2026	7,292	-
Thereafter	41,697	-
Total minimum lease payments	\$ 82,473	\$ 2,272
Amount representing interest	N/A	(117)
Present value of minimum lease payments	N/A	\$ 2,155

**EMPLOYEE COSTS** OCC entered into employment agreements with certain senior officers. The aggregate commitment for future salaries and deferred compensation payments at December 31, 2021 and 2020, excluding bonuses, was approximately \$2.2 million and \$4.1 million, respectively.

Effective January 1, 2006, OCC implemented the Executive Deferred Compensation Plan (“Plan”) for senior officers. At December 31, 2021 and 2020, the Plan was funded in the amount of \$3.9 million and \$3.5 million, respectively. All contributions will vest and become payable on the third anniversary. The Plan investments, consisting primarily of mutual funds, are designated as trading assets under applicable accounting guidance.

**LINES OF CREDIT** In 2021, OCC maintained four liquidity facilities totaling \$3.0 billion in aggregate commitments, which were available to enable OCC to meet clearing member default or suspension obligations or to cover certain other bankruptcy losses.

One facility was a 364-day syndicated, committed, line of credit with major domestic and foreign banks in the amount of \$2.0 billion at December 31, 2021. OCC maintained a similar \$2.0 billion, committed line of credit at December 31, 2020.

Three other facilities totaling \$1.0 billion in aggregate commitments were with three pension funds, included two \$250 million, evergreen facilities terminable upon 183 days’ notice with two pension funds, and one \$500 million, 364-day facility, divided into two \$250 million tranches with one pension fund. Under the facilities, OCC can sell U.S. Government securities with an agreement to repurchase those securities within thirty days. OCC maintained \$1.0 billion in aggregate commitments, consisting of a \$500 million committed facility with a major bank, and \$500 million in aggregate commitments with two pension funds at December 31, 2020.

In August 2021, OCC renewed its 364-day, committed, line of credit with BMO Harris Bank N.A. in the amount of \$35 million to finance working capital needs and for general corporate purposes. No amounts were outstanding as of December 31, 2021 or 2020 under any of these facilities.

**NOTE 12. RELATED PARTY TRANSACTIONS AND OTHER MARKET AGREEMENTS**

OCC bills and collects transaction fees on behalf of certain exchanges for which it provides clearing and settlement services. Fees billed and uncollected by OCC, and not remitted to the exchanges, at December 31, 2021 and 2020 were \$124.3 million and \$106.2 million respectively, and are included in the Statements of Financial Condition as Exchange billing receivable and Exchange billing payable. In addition, OCC bills and collects Section 31 transaction fees on behalf of certain exchanges that are remitted to the SEC. At December 31, 2021, the Section 31 fees yet to be collected from clearing members was \$6 million and included in the Statements of Financial Condition under Accounts receivable. The Section 31 fees already received, but not yet remitted to the SEC, are included in SEC transaction fees payable.

OCC is also a party to a Restated Participant Exchange Agreement dealing with the business relationship between and among OCC and each participant options exchange. OCC is also a party to clearing and settlement services agreements for certain futures contracts with Cboe Futures Exchange, LLC and Small Exchange, Inc., both of which are designated contract markets registered with the Commodity Futures Trading Commission.

OCC entered into a Software Development and License Agreement with Nasdaq Technology AB and Cinnober Financial Technology Aktiebolag. Each of these entities are wholly-owned subsidiaries of Nasdaq, Inc., which is the ultimate parent of Nasdaq International Securities Exchange, LLC and Nasdaq OMX PHLX, LLC, two of OCC's five stockholder owner exchanges.

**NOTE 13. INCOME TAXES**

The provision for income taxes is reconciled to the amount determined by applying the statutory federal income tax rate to income before taxes as follows:

YEARS ENDED DECEMBER 31, (IN THOUSANDS)	2021	2020	2019
Federal income tax			
at the statutory rate	\$ 24,682	\$ 54,431	\$ 32,962
Permanent tax differences	250	485	1,652
State income tax effect	729	5,593	994
Federal R&D Credit	(4,143)	(3,166)	(4,254)
Uncertain tax position	698	623	1,486
Impact for Amended Returns			
2015-2017	–	–	(2,310)
Other	–	–	(1,001)
Provision for income taxes	\$ 22,216	\$ 57,966	\$ 29,529

The components of OCC's income tax provision (benefit) for the years ended December 31, 2021, 2020 and 2019 are as follows (in thousands):

	2021	2020	2019
Current income tax (benefit)			
Federal	\$ 23,551	\$ 48,018	\$ 27,337
State and local	2,666	6,653	1,344
Deferred income tax			
Federal	(2,623)	2,958	916
State and local	(1,378)	337	(68)
Provision for income taxes	\$ 22,216	\$ 57,966	\$ 29,529

Uncertain income tax positions are recognized based on a "more likely than not" threshold. Penalties and interest are recognized in the Provision for Income Taxes in the Statements of Income and Comprehensive Income. The balance of unrecognized tax benefits as of December 31, 2021 was \$4.22 million (\$3.89 million net of the federal benefit of state matters), which if recognized would favorably affect the effective tax rate in any future periods. The balance of unrecognized tax benefits as of December 31, 2020 was \$2.30 million (\$2.23 million net of the federal benefit of state matters). The Company does



not believe it is reasonably possible that, within the next twelve months, unrecognized domestic tax benefits will change by a significant amount. As of December 31, 2021, no liability for interest or penalties has been recognized.

OCC is subject to U.S. federal income tax, as well as income tax in various state and local jurisdictions. Currently, federal tax returns for the years 2016-2020 and various state returns for the years 2016-2020 remain open. Some of these returns are currently under audit.

Amounts reported in the consolidated financial statements and the tax basis of assets and liabilities result in temporary differences. The deferred tax asset consists of the following:

AS OF DECEMBER 31, (IN THOUSANDS)	2021	2020
Compensation, employee benefits and prepaid expenses	\$ (2,284)	\$ (3,240)
Accelerated depreciation and amortization	(6,802)	(8,320)
Deferred rent	4,453	3,957
Pension, postretirement and deferred compensation	9,466	9,059
Tax credit carryforwards	992	—
Other items	699	660
<b>Total</b>	<b>\$ 6,524</b>	<b>\$ 2,116</b>

#### NOTE 14. RETIREMENT PLANS

OCC has a trustee, noncontributory, qualified retirement plan ("Retirement Plan") covering employees who meet specified age and service requirements. OCC also has a SERP that includes a benefit replacement plan. Retirement benefits under the Retirement Plan are primarily a function of both years of service and levels of compensation.

On January 1, 2002, OCC amended and restated its retirement plan and established a defined contribution plan for new employees effective March 7, 2002. Certain employees were frozen in the Retirement plan and were no longer eligible to earn future benefit service after December 31, 2002.

Additionally, effective December 31, 2014, the Board of Directors approved an amendment to freeze benefit accruals under the Retirement Plan.

OCC's funding policies are to contribute amounts determined on an actuarial basis and provide the Retirement Plan with assets sufficient to meet the benefit obligation of the plans, subject to the minimum funding requirements of U.S. employee benefit and tax laws. The OCC funds the SERP on a current basis as compensation is awarded.

Net periodic benefit cost of the plans consisted of the following:

YEARS ENDED DECEMBER 31, (IN THOUSANDS)	2021	2020	2019
Interest cost	\$ 4,419	\$ 5,567	\$ 6,788
Expected return on assets	(3,893)	(4,702)	(5,553)
<b>Amortization:</b>			
Actuarial loss	1,567	1,721	1,812
<b>Net periodic benefit cost</b>	<b>\$ 2,093</b>	<b>\$ 2,586</b>	<b>\$ 3,047</b>

Other changes in plan assets and benefit obligations recognized in other comprehensive income include:

YEARS ENDED DECEMBER 31, (IN THOUSANDS)	2021	2020	2019
Amortization of net actuarial (loss)	\$ (1,567)	\$ (1,721)	\$ (1,812)
Net actuarial loss / (gain) for the period	2,308	(5,460)	1,888
Total recognized in other comprehensive income	741	(7,181)	76
Total recognized in net benefit cost and other comprehensive income	<b>\$ 2,834</b>	<b>\$ (4,595)</b>	<b>\$ 3,123</b>

## Financials

The Retirement Plan and SERP assets and the plans' benefit obligation and funded status are as follows:

AS OF DECEMBER 31, (IN THOUSANDS)	2021	2020
<b>Change in benefit obligation:</b>		
Benefit obligation		
at beginning of year	\$ 186,238	\$ 178,685
Interest cost	4,419	5,567
Actuarial loss / (gain)	(6,176)	11,418
Gross benefits paid	(10,065)	(9,432)
Benefit obligation		
at end of year	\$ 174,416	\$ 186,238
<b>Change in plan assets:</b>		
Fair value of plan assets		
at beginning of year	\$ 162,867	\$ 148,358
Actual return on plan assets	(4,591)	21,580
Employer contributions	2,187	2,361
Gross benefits paid	(10,065)	(9,432)
Fair value of plan assets		
at end of year	\$ 150,398	\$ 162,867
<b>Funded status end of year:</b>		
Fair value on plan assets -		
overfunded	\$ 150,398	\$ 162,867
Benefit obligation - overfunded	143,869	153,286
Benefit obligation - underfunded	30,547	32,952
Funded status	\$ (24,018)	\$ (23,371)
<b>Amounts recognized in the statements of financial condition:</b>		
Noncurrent asset	\$ 6,529	\$ 9,581
Current liability	(2,141)	(2,147)
Noncurrent liability	(28,406)	(30,805)
Total	\$ (24,018)	\$ (23,371)
<b>Amounts recognized in accumulated other comprehensive loss consist of:</b>		
Net actuarial loss	\$ 50,859	\$ 50,118
Net amount recognized	\$ 50,859	\$ 50,118

Gross benefits paid from the SERP were \$2.2 million and \$2.1 million for the years ended December 31, 2021 and 2020, respectively. Assets set aside for SERP are described in Note 10.

The accumulated benefit obligation for the Retirement Plan was \$143.9 million and \$153.3 million at December 31, 2021 and 2020, respectively.

The primary assumptions used to determine the accumulated benefit obligation and benefit costs are summarized below:

DECEMBER 31,	RETIREMENT PLAN		SERP	
	2021	2020	2021	2020
<b>Accumulated benefit obligation:</b>				
Discount rate	2.85%	2.45%	2.75%	2.30%
<b>Benefit costs:</b>				
Discount rate	2.45%	3.25%	2.30%	3.15%
Expected return on assets	2.45%	3.25%	N/A	N/A

The expected return on assets is derived using the plans' asset mix, historical returns by asset category and expectations for future capital market performance. Both the plans' investment policy and the expected long-term rate of return assumption are reviewed periodically. The plan's assets are allocated 100% in fixed income mutual fund investments.

In October 2021, the Society of Actuaries ("SOA") released an updated mortality improvement scale called MP-2021, which reflected one additional year of U.S. population mortality improvement data from the Social Security Administration ("SSA") and updated long-term improvement rates. The additional data shows a very small year-over-year increase in mortality. As new mortality tables and projection scales have been released by the SOA, OCC has reviewed the tables and adopted them as they were deemed the best estimate of anticipated future plan experience. This change in mortality assumption did not have a material impact to the financial statements at December 31, 2021.

OCC's expected cash outlay for employer contributions for both plans in 2022 is \$2.2 million, and future expected cash outlays for benefit payments are as follows:

(IN THOUSANDS)

2022	\$ 10,475
2023	10,693
2024	10,883
2025	10,934
2026	10,877
2027-2031	52,222

In 2014, OCC adopted a liability-driven investment strategy, in which the return on investments held in the Retirement Plan aims to match the yield of the corporate bonds utilized in the calculation of the discount rate. As a result, the mix of investments was shifted to and remains 100% fixed income mutual funds.

Retirement plan assets, which are comprised of registered mutual funds, \$149.3 million and \$161.3 million at December 31, 2021 and 2020, and money market funds, \$1.0 million and \$1.5 million at December 31, 2021 and 2020, are required to be reported and disclosed at fair value in the financial statements. See Note 16 for discussion about OCC's fair value policy. The shares of the underlying mutual funds are fair valued using quoted market prices in an active market, and therefore all of the assets were considered Level 1 within the fair value hierarchy as of December 31, 2021 and 2020. There have been no changes in the valuation methodologies and there were no transfers between Levels 1 and 2 within the fair value hierarchy for the years ended December 31, 2021 and 2020.

OCC maintains a defined contribution plan ("401(k) plan") qualified under Internal Revenue Code Section 401(k) for eligible employees who elect to participate in the plan. Eligible employees may elect to have their salaries reduced by an amount that is subject to applicable IRS limitations. This amount is then paid into the plan by OCC on behalf of the employee.

OCC makes matching contributions to the participant's account equal to 50% of deferrals (excluding "catch-up" deposits) up to the first 6% of eligible compensation that is deferred. OCC's expenses for the matching contributions to the 401(k) plan for the years ended December 31, 2021, 2020 and 2019 were \$3.7 million, \$3.7 million and \$3.1 million, respectively. Beginning in 2022, OCC will make matching contributions to the participant's account equal to 50% of deferrals (excluding "catch-up" deposits) up to the first 12% of eligible compensation that is deferred.

The 401(k) plan also contains a profit-sharing component for individuals not eligible to earn future benefit service in the Retirement Plan, as discussed above. Profit sharing contributions accrued for the 401(k) plan were \$14.1 million, \$6.9 million and \$6.3 million in 2021, 2020 and 2019, respectively. OCC's Board approved doubling the 2021 profit sharing contribution from \$7.0 million to \$14.1 million. OCC will be eliminating the Profit sharing contributions after 2021.

#### **NOTE 15. POSTRETIREMENT BENEFITS OTHER THAN PENSIONS**

OCC has a postretirement welfare plan covering employees who meet specified age and service requirements. Retiree contributions to medical payments vary by age and years of service at retirement. The plan is a defined dollar benefit plan in which OCC's obligation is limited to a maximum amount per participant per year set by OCC at the time a participant retires.

During November 2014, the Board of Directors approved amendments to the postretirement welfare plan, including (1) eliminating the Medical Executive Retirement Plan, (2) eliminating the retiree life insurance coverage, (3) reducing the post-cap level amount, and (4) eliminating benefits for all participants retiring after December 31, 2014.

## Financials

Net periodic benefit (income) cost consisted of the following:

YEARS ENDED DECEMBER 31, (IN THOUSANDS)	2021	2020	2019
Interest cost	\$ 146	\$ 206	\$ 277
Expected return on assets	(200)	(300)	(382)
<b>Amortization:</b>			
Prior service cost	(1,754)	(1,754)	(1,754)
Actuarial loss	799	839	848
Total net periodic benefit (income) cost	(1,009)	(1,009)	(1,011)
Net benefit (income) cost	\$ (1,009)	\$ (1,009)	\$ (1,011)

Other changes in plan assets and benefit obligations recognized in other comprehensive income include:

YEARS ENDED DECEMBER 31, (IN THOUSANDS)	2021	2020	2019
Amortization of net actuarial (loss)	\$ (799)	\$ (839)	\$ (848)
Amortization of net prior service credit	1,754	1,754	1,754
Net actuarial loss for the period	117	(431)	131
Total recognized in other comprehensive income	1,072	484	1,037
Total recognized in net benefit cost and other comprehensive income	\$ 63	\$ (525)	\$ 26

Net actuarial losses of \$1,072,000 recorded in accumulated other comprehensive loss are expected to be amortized as a component of net periodic benefit cost during 2022.

Plan assets, which are comprised of registered mutual funds and money market funds, are required to be reported and disclosed at fair value in the financial statements. At December 31, 2021, registered mutual funds totaled \$10.1 million and money market funds totaled \$149,000. At December 31, 2020, registered mutual funds totaled \$10.7 million and money market funds totaled \$152,000. See Note 16 for discussion about OCC's fair value policy. The shares of the underlying mutual funds are valued using quoted market prices in an active market, and therefore Level 1 within the fair value hierarchy as of December 31, 2021 and 2020. There have been no changes in the valuation methodologies and there were no transfers between Levels 1 and 2 within the fair value hierarchy for the years ended December 31, 2021 and 2020.

The primary investment objective for the plan is to maintain the plan's funded status. The plan's current target investment mix is 100% fixed income.

The actual asset allocation is as follows:

YEARS ENDED DECEMBER 31,	2021	2020
Fixed income funds	99%	99%
Domestic equity funds	1%	1%
Total	100%	100%

## Financials

The plan's benefit obligation, plan assets and funded statuses are as follows:

YEARS ENDED DECEMBER 31, (IN THOUSANDS)	2021	2020
<b>Change in benefit obligation:</b>		
Benefit obligation		
at beginning of year	\$ 6,955	\$ 7,082
Interest cost	146	206
Actuarial loss / (gain)	(305)	270
Gross benefits paid	(536)	(603)
Benefit obligation		
at end of year	\$ 6,260	\$ 6,955
<b>Change in plan assets:</b>		
Fair value of plan assets		
at beginning of year	\$ 10,831	\$ 10,313
Actual return on plan assets	(222)	1,001
Employer contributions	132	120
Gross benefits paid	(536)	(603)
Fair value of plan assets		
at end of year	\$ 10,205	\$ 10,831
<b>Funded status end of year:</b>		
Fair value of plan assets	\$ 10,205	\$ 10,831
Benefit obligation	6,260	6,955
Funded status	\$ 3,945	\$ 3,876
<b>Amounts recognized in the statements of financial condition:</b>		
Noncurrent asset	\$ 3,945	\$ 3,876
Net amount recognized	\$ 3,945	\$ 3,876
<b>Amounts recognized in accumulated other comprehensive loss consist of:</b>		
Net actuarial loss	\$ 12,519	\$ 13,201
Net prior service (credit)	(23,329)	(25,083)
Net amount recognized	\$ (10,810)	\$ (11,882)

Medicare-eligible retirees must purchase both Medicare supplement and prescription drug coverage in the individual marketplace, and OCC will reimburse both coverages up to the Medicare-eligible retirees' cap amount.

The primary assumptions used to determine the accumulated benefit obligation and benefit costs are summarized below:

YEARS ENDED DECEMBER 31,	2021	2020	2019
<b>Accumulated benefit obligation:</b>			
Discount rate	2.70%	2.20%	3.10%
Health care cost trend rate	5.00%	5.00%	5.25%
Ultimate rate	5.00%	5.00%	5.00%
Years to ultimate rate	0	0	1
<b>Benefit costs:</b>			
Discount rate	2.20%	3.10%	4.15%
Expected long-term rate of return	1.90%	3.00%	3.95%
Health care cost trend rate	5.00%	5.00%	5.25%
Ultimate rate	5.00%	5.00%	5.00%
Years to ultimate rate	0	0	1

A one percentage point increase in the assumed health care cost trend rate for each year would not have a material effect on the accumulated postretirement benefit obligation or net periodic benefit cost.

In October 2020, the Society of Actuaries ("SOA") released an updated mortality improvement scale called MP-2020, which reflected one additional year of U.S. population mortality improvement data from the Social Security Administration ("SSA") and updated long-term improvement rates. The additional data shows a very small year-over-year increase in mortality. As new mortality tables and projection scales have been released by the SOA, OCC has reviewed the tables and adopted them as they were deemed the best estimate of anticipated future plan experience. This change in mortality assumption did not have a material impact to the financial statements at December 31, 2021.

OCC's expected cash outflows for future benefit payments are as follows:

(IN THOUSANDS)	
2022	\$ 595
2023	534
2024	507
2025	481
2026	455
2027-2031	1,971

#### NOTE 16. FAIR VALUE MEASUREMENTS

OCC follows applicable accounting guidance for measuring all financial assets and liabilities that are recognized or disclosed at fair value in the financial statements on a recurring or nonrecurring basis.

Level 1 measurements consist of quoted prices in active markets for identical assets or liabilities. Level 2 measurements include significant other observable inputs, such as quoted prices for similar assets or liabilities in active markets; identical assets or liabilities in inactive markets; observable inputs, such as interest rates and yield curves; and other market-corroborated inputs. Level 3 measurements include significant unobservable inputs, supported by little or no market activity.

OCC uses Level 1 and 2 measurements to determine fair value. Level 1 measurements consist of registered mutual funds that publish a daily Net Asset Value. Level 2 measurements include U.S. and Canadian Government securities, which are generally valued using inputs from pricing services and are not quoted on active markets. There were no transfers between Level 1 and Level 2 during 2021 or 2020.

The SERP and executive deferred compensation plan assets comprise the full amount within the money market fund and registered mutual funds disclosed in the following table.

Assets measured at fair value on a recurring basis are summarized below:

DECEMBER 31, 2021 (IN THOUSANDS)	TOTAL	LEVEL 1	LEVEL 2
U.S. Government securities	\$ 5,390,539	\$ —	\$ 5,390,539
Canadian Government securities	232,012	—	232,012
<b>Other assets:</b>			
Money Market funds	728	728	—
Registered mutual funds	45,079	45,079	—
<b>Total</b>	<b>\$ 5,668,358</b>	<b>\$ 45,807</b>	<b>\$ 5,622,551</b>

DECEMBER 31, 2020 (IN THOUSANDS)	TOTAL	LEVEL 1	LEVEL 2
U.S. Government securities	\$ 4,243,797	\$ —	\$ 4,243,797
Canadian Government securities	173,455	—	173,455
<b>Other assets:</b>			
Money Market funds	519	519	—
Registered mutual funds	45,166	45,166	—
<b>Total</b>	<b>\$ 4,462,937</b>	<b>\$ 45,685</b>	<b>\$ 4,417,252</b>

Reverse repurchase agreements are recorded at carrying value and as such, are not included in the table above. Reverse repurchase agreements are generally valued based on inputs with reasonable levels of price transparency and the carrying value approximates fair value due to the short maturities of the investments.

#### NOTE 17. CONTINGENCIES

In the normal course of business, OCC may be subject to various lawsuits, claims, and other legal proceedings, including tax audits. At December 31, 2021, there is no outstanding litigation against OCC that would have a material adverse effect on the financial statements.

**NOTE 18. CAPITAL MANAGEMENT POLICY**

On January 24, 2020, the SEC approved OCC's Capital Management Policy. The Capital Management Policy provides the principles used to quantify, monitor, and manage OCC's Equity such that OCC maintains sufficient liquid net assets funded by equity, as required by SEC rule, to cover general business losses and continue operations and services as a going concern if losses materialize under a range of scenarios. The Capital Management Policy also includes OCC's plan to replenish its capital in the event it falls close to or below target capital levels.

**NOTE 19. SUBSEQUENT EVENTS**

OCC has evaluated events subsequent to December 31, 2021 to assess the need for potential recognition or disclosure. These events have been evaluated through February 24, 2022, the date of report issuance.

**LINES OF CREDIT** - OCC renewed a 364-day, \$250 million tranche of the committed repurchase facility with one of its pension counterparties, effective on January 27, 2022.

# Report of Independent Registered Public Accounting Firm

TO THE SHAREHOLDERS AND THE BOARD OF DIRECTORS OF THE OPTIONS CLEARING CORPORATION:

## OPINION ON THE FINANCIAL STATEMENTS

We have audited the accompanying statements of financial condition of The Options Clearing Corporation (the "Corporation") as of December 31, 2021 and 2020, the related statements of income and comprehensive income, shareholders' equity, and cash flows, for each of the three years in the period ended December 31, 2021, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2021, in conformity with accounting principles generally accepted in the United States of America.

## BASIS FOR OPINION

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company

is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

## CRITICAL AUDIT MATTERS

Critical audit matters arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. We determined that there are no critical audit matters.

*DELOITTE & TOUCHE LLP*

Chicago, Illinois  
February 24, 2022

WE HAVE SERVED AS THE  
CORPORATION'S AUDITOR SINCE 1972.