

CLEAR THE PATH

The OCC logo consists of the letters "OCC" in a bold, teal, sans-serif font, centered within a white square. The background of the entire page is a photograph of two people, a woman with blonde hair and a man with glasses, looking at a computer monitor in an office setting. The woman is pointing at the screen, and the man is looking on attentively.

OCC

2018 ANNUAL REPORT

FOR A MORE STA

We provide unbiased investor education.

WEAREOCC

Innovation & Agility

We lead
and embrace
change.

OUR MISSION

We promote stability and market integrity through effective and efficient clearance, settlement and risk management services while providing thought leadership and education to market participants and the public about the prudent use of products we clear.

BLE TOMORROW



OUR BACKGROUND

Founded in 1973, OCC is the largest clearing organization in the world for equity derivatives. Operating under the jurisdiction of the U.S. Securities and Exchange Commission (SEC) and the U.S. Commodity Futures Trading Commission (CFTC), OCC issues and clears U.S.-listed options and futures on a number of underlying financial assets including common stocks and stock indexes. OCC's clearing membership consists of approximately 100 of the largest U.S. broker-dealers, U.S. futures commission merchants and non-U.S. securities firms representing both professional traders and public customers. The stockholder exchanges share equal ownership of OCC. This ownership, along with a significant clearing member and public director presence on the Board of Directors, ensures a continuing commitment to servicing the needs of OCC's participant exchanges, clearing members and their customers. OCC provides clearing services for options, financial and commodity futures, security futures, securities lending transactions and over-the-counter index options.

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and Chief Executive Officer 4

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Chief Operating Officer, and the
Chief Administrative Officer 8

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PARTICIPANT EXCHANGES

BOX Options Exchange LLC
Boston, MA

Cboe Exchange, Inc.
Chicago, IL

Cboe BZX Options Exchange
Lenexa, KS

Cboe C2 Exchange, Inc.
Chicago, IL

Cboe EDGX Options Exchange
Lenexa, KS

MIAX Options Exchange
Princeton, NJ

MIAX PEARL, LLC
Princeton, NJ

Nasdaq BX Options
Philadelphia, PA

Nasdaq GEMX
Philadelphia, PA

Nasdaq ISE
Philadelphia, PA

Nasdaq MRX
Philadelphia, PA

Nasdaq Options Market
Philadelphia, PA

Nasdaq PHLX LLC
Philadelphia, PA

NYSE American Options
New York, NY

NYSE Arca Options
Chicago, IL

FUTURES MARKETS

Cboe Futures Exchange, LLC
Chicago, IL

Nasdaq Futures, Inc.
Philadelphia, PA

OneChicago, LLC
Chicago, IL

ALTERNATE TRADING SYSTEMS (Securities Lending)

Automated Equity Finance Markets, Inc.
New York, NY

YEAR IN REVIEW

OPTIONS VOLUME

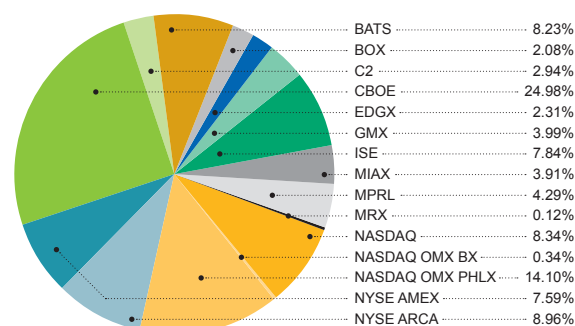
BATS TOTAL CONTRACTS	422,706,669		
Equity	422,562,991	99.97%	
Index	143,678	0.03%	
<hr/>			
BOX TOTAL CONTRACTS	106,794,504		
Equity	106,794,504	100.00%	
<hr/>			
C2 TOTAL CONTRACTS	150,923,570		
Equity	148,794,563	98.59%	
Index	2,129,007	1.41%	
<hr/>			
CBOE TOTAL CONTRACTS	1,283,269,272		
Equity	725,578,248	56.54%	
Index	557,691,024	43.46%	
<hr/>			
EDGX TOTAL CONTRACTS	118,429,304		
Equity	118,429,304	100.00%	
<hr/>			
GMX TOTAL CONTRACTS	205,043,832		
Equity	204,882,241	99.92%	
Index	161,591	0.08%	
<hr/>			
ISE TOTAL CONTRACTS	402,504,406		
Equity	401,439,333	99.74%	
Index	1,065,073	0.26%	
<hr/>			
MIAX TOTAL CONTRACTS	200,711,418		
Equity	200,711,418	100.00%	
<hr/>			
MPRL TOTAL CONTRACTS	220,609,083		
Equity	220,609,083	100.00%	

FUTURES VOLUME

CFE TOTAL CONTRACTS	75,609,251		
Index/Other Futures	75,609,251	100.00%	
<hr/>			
NFX TOTAL CONTRACTS	22,212,808		
Index/Other Futures	22,212,808	100.00%	
<hr/>			
ONE TOTAL CONTRACTS	7,066,292		
Single Stock Futures	7,066,292	100.00%	
<hr/>			
OCC TOTAL FUTURES CONTRACTS	104,888,351		
Single Stock Futures	7,066,292	6.74%	
Index/Other Futures	97,822,059	93.26%	

MRX TOTAL CONTRACTS	5,982,457		
Equity	5,982,457	100.00%	
<hr/>			
NASDAQ TOTAL CONTRACTS	428,650,957		
Equity	428,650,957	100.00%	
<hr/>			
NASDAQ OMX BX TOTAL CONTRACTS	17,424,846		
Equity	17,424,846	100.00%	
<hr/>			
NASDAQ OMX PHLX TOTAL CONTRACTS	724,170,578		
Equity	720,656,415	99.51%	
Index/Other	3,514,163	0.49%	
<hr/>			
NYSE AMEX TOTAL CONTRACTS	389,866,979		
Equity	389,866,036	100.00%	
Index	943	0.00%	
<hr/>			
NYSE ARCA TOTAL CONTRACTS	460,113,644		
Equity	460,099,946	100.00%	
Index	13,698	0.00%	
<hr/>			
OCC TOTAL OPTIONS CONTRACTS	5,137,201,519		
Equity	4,572,482,342	89.01%	
Index	564,719,177	10.99%	

OPTIONS EXCHANGE MARKET SHARE



Message from
the Executive
Chairman and
Chief Executive
Officer

CRAIG S. DONOHUE



On behalf of the Board of Directors and my OCC colleagues, I am pleased to share with you our 2018 annual report. In this report, you will learn about the work we are doing to support OCC's mission as a Systemically Important Financial Market Utility (SIFMU) and to provide high quality and efficient clearing, settlement and risk management services to the users of the U.S. equity options and futures markets.

This report also includes commentary from two prominent OCC stakeholders and market participants: Nandini Sukumar, Chief Executive Officer of the World Federation of Exchanges, and Gary Franklin, Vice President, Options Trading and Strategies, Raymond James Financial.

In 2018, we enhanced OCC's compliance-related and financial resiliency, furthered our efforts to modernize our technology, strengthened our governance structure, and continued in our role as an advocate for the industry in Washington, D.C. This progress builds upon the solid foundation we have put in place since 2014 to shape and strengthen a culture of innovation and collaboration designed to ensure confidence in the financial markets and the broader economy, and to make OCC a destination for the best talent.

OCC's 2018 total cleared volume increased 21 percent to 5.24 billion contracts, the highest cleared contract volume in our history. We experienced tremendous growth in the clearance and settlement of exchange-listed and equity options, ETF options, and index options. OCC's securities lending CCP activity increased 17.2 percent in 2018 with over 1.37 million new transactions.

This success on behalf of our industry does not happen without the tremendous support of our Board of Directors, the leadership provided by John Davidson, Scot Warren and our Management Committee, and our hard-working colleagues in Chicago, Dallas and Washington, D.C. OCC's ability to consistently support record volume numbers demonstrates that we continue to deliver on our key responsibilities to our clearing firms, participant exchanges and the investing public, and underscores OCC's important role as the foundation for secure markets.

Enhancing Our Resiliency

Since 2014, OCC has focused significant attention and effort on enhancing our resiliency and securing our foundation by improving our risk and control environment. We made great progress in enhancing our compliance posture as part of our longer-term efforts as a SIFMU.

In July, the first phase of OCC's new Financial Safeguards Framework (FSF) was approved by the U.S. Securities and Exchange Commission (SEC). This new framework includes an improved methodology to determine the size of our clearing fund, driven by enhanced stress-testing capabilities that include historical market activity as well as extreme yet plausible scenarios while lessening potential liquidity strains on our clearing firms. This improved methodology resulted in OCC returning more than \$3 billion to our clearing firms. The FSF includes a "Cover Two" approach that allows OCC to cover the concurrent default of its two largest clearing firms. This approach exceeds U.S. regulatory standards and better aligns OCC with other systemically important derivative clearing houses. We also launched a new risk-based allocation for clearing fund contribution requirements that improves transparency and incentivizes clearing members to manage margin risk.

In August, OCC became the first clearing house whose primary supervisory agency is the SEC to receive approval of its Recovery Tools and Recovery and Orderly Wind-Down Plan. This plan allows OCC to successfully manage extreme market disruptions and establishes improved assessment powers as well as new tools to extinguish losses.

In terms of financial resiliency, OCC's funding and operations are designed to support our role in reducing systemic risk across global financial markets. OCC's capital plan, which had been in effect since 2015,

Our Renaissance Initiative... is an ambitious, multi-year investment to comprehensively redevelop and modernize OCC's risk management, clearing and data systems to better serve market participants.

reinforced our overarching goal to remain a world-class clearing service for the financial industry by ensuring that we maintain the capital necessary to cover operational risks. While we are disappointed with the disapproval of OCC's capital plan by the SEC, we are moving forward with alternate means, as described elsewhere in this annual report by John Davidson, Scot Warren, and Amy Shelly, to ensure that we continue to maintain a target capital level aligned with regulatory expectations.

In late 2018, we launched our Renaissance Initiative, perhaps the most important project undertaken by OCC in the last 20 years. It is an ambitious, multi-year investment to comprehensively redevelop and modernize OCC's risk management, clearing and data systems to better serve market participants. The goals of this project, under the leadership of John Davidson, Scot Warren and Chief Information Officer Dave Hoag, are to enhance OCC's resiliency, improve our compliance posture, and help us operate in a more effective and efficient manner so we can drive industry growth. The Renaissance Initiative also will make OCC a more agile organization that can deliver transformational change in terms of business capabilities that will allow us to better serve the users of our markets.

Strengthening Our Governance and Management Structure

Even as we continue to enhance our resiliency and modernize our technology, OCC is only as good as its people. In 2018, we continued to attract to our company capable individuals with the experience and vision that we seek to make sure OCC is providing the best risk management, clearance and settlement services in the world.

We have been fortunate to attract a Board of Directors that brings significant expertise in risk management, technology, operations, compliance, regulatory policy and audit. In 2018, our Board of Directors was strengthened with the addition of Elizabeth King, who serves as Chief Regulatory Officer of the Intercontinental Exchange and General Counsel of NYSE Group. In addition, the following directors were re-elected to the OCC Board of Directors in 2018: Thomas A. Frank, Executive Vice President/CIO, Interactive Brokers, LLC; Stephen Luparello, General Counsel, Citadel Securities; Christine L. Show, Managing Director/Global Head of Listed Derivative Operations, SG Americas Securities, LLC; Thomas Cardello, Chief Executive Officer, Venice Financial Management, LLC; and Alice Patricia White, retired economist. In early January 2019, Chris Isaacson, Chief Operating Officer of Cboe Global Markets Inc., joined the OCC Board of Directors.

We also have assembled an impressive and accomplished senior leadership team that is collaborating with our colleagues in Chicago, Dallas and Washington, D.C. to drive the important initiatives we are undertaking. John Davidson and Scot Warren have been at the forefront of leading OCC's recent successes as we work to enhance our resiliency and secure our foundation, improve our risk and control environment and complete our comprehensive compliance plan.

Recognizing the critical roles John and Scot have played to help OCC achieve these results and the importance of leveraging their skills and experience as we continue to pursue our key business initiatives, our Board of Directors unanimously accepted my recommendation in December 2018 to promote John to Chief Executive Officer and Scot to Executive Vice President and Chief Operating Officer. I, along with the Board of Directors, am very confident in John and Scot's abilities to continue the progress and momentum that has been created over the past four years, and I look forward to continuing to work with them as Executive Chairman.

Advocating For Our Industry

OCC is very proud of its leadership role in working with policymakers on behalf of the U.S. equity options and futures industry and the users of these markets. OCC and the U.S. Securities Markets Coalition engage in regular outreach to congressional and regulatory officials and staff to educate them on options market trends and developments, as well as to discuss the potential impacts of various regulatory and tax proposals on investors who use the markets we clear.

We were pleased that those efforts were successful when H.R. 5749, the Options Markets Stability Act, was passed unanimously by the U.S. House of Representatives on July 10. The legislation requires the appropriate U.S. federal banking agencies to increase the risk sensitivity of the capital treatment of centrally-cleared options. While the measure was not considered by the Senate and therefore did not become law in 2018, federal banking agencies published proposed rules in December that would, among other things, address this concern.

Our commitment to supporting the industry is also highlighted by our educational work through The Options Industry Council (OIC), an industry resource managed by OCC. The development of unbiased content has made a significant contribution to the

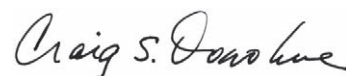
continued education of the users of the U.S. exchange-listed options markets. More than 84,000 individual options investors participated in OIC's robust 2018 digital and live instructional programming while OIC's team of professionals delivered compelling options educational content to prominent industry partners such as Fidelity Investments, Charles Schwab & Co., Investment Wealth Institute, CFA Institute, and Financial Planning Association. The OIC also partnered with Greenwich Associates and Burton-Taylor on two studies focusing on institutional use of options, and options demand in Europe, respectively.

In Closing

Along with the accomplishments described here, OCC launched a new brand identity last year, a tangible representation of redefining our role as the foundation for secure markets. Our rebranding was not only a change in our logo, but a change to reflect our sincere rally cry to clear the path toward a new level of excellence at OCC and for our industry.

We are transforming how we do business at OCC in ways that will allow us to continue to seamlessly clear record numbers of contracts each day. We will continue to enhance our resiliency in all facets of our business and embrace the excitement of undertaking our Renaissance Initiative, which will further support our ability to grow and adapt with the markets.

OCC's success in 2018 is a function of many factors coming together and yet much more is in front of us. We are confident that for 2019 and the years to follow, our story will continue to be one of positive change and continued support for the markets we clear in our role as the foundation for secure markets.



Craig S. Donohue
Executive Chairman and Chief Executive Officer

Message from
the President and
Chief Operating
Officer, and the
Chief Administrative
Officer

JOHN P. DAVIDSON
SCOT E. WARREN



On behalf of our colleagues in Chicago, Dallas and Washington, D.C., we are pleased to report that in 2018, OCC continued to provide world-class risk management, clearance and settlement services to the users of the U.S. equity options and futures markets. We did this while also furthering our culture, compliance posture, and technology transformation to better serve our stakeholders and the users of the markets we serve.

2018 Highlights

OCC is always focused on flawless execution and in delivering operational and capital efficiencies to our participating exchanges and clearing firms in our role as a Systemically Important Financial Market Utility (SIFMU). In 2018, we cleared 5.24 billion total contracts, which was up 21 percent from 2017 and the highest industry total since 2011. This reflects the stability and integrity of our services. Cleared exchange-listed options volume grew 22.6 percent from 2017 to 5.14 billion contracts, and we experienced strong growth in exchange-listed options, equity options, ETF options, index options, and OCC's securities lending transaction activity.

Since 2014, our focus has been on executing the first phase of our transformation strategy; enhancing our resiliency and securing our foundation. In our role as a SIFMU, OCC had to transform to meet the increased demands of a new regulatory environment. We needed to solidify our financial and capital resources, and we had to focus on developing and retaining a strong leadership team.

Due to the substantial changes we implemented in 2018, OCC now has a clearing fund that is based on a wide range of stress test scenarios. With this change we also expanded our coverage to allow OCC to withstand the simultaneous default of our two largest clearing firms, rather than our single largest. This goes above and beyond U.S. regulatory requirements and positions OCC well for the future.

Capital Plan

Subsequent to our year-end, on February 13, 2019, the Securities and Exchange Commission disapproved OCC's Capital Plan. It is vital for OCC, as a SIFMU and the sole provider of clearance and settlement services for the U.S. listed options market, to remain appropriately capitalized at all times. The Commission's disapproval of the Capital Plan relates to OCC's capital available to cover operational risks. It does not affect

OCC is always focused on flawless execution and in delivering operational and capital efficiencies to our participating exchanges and clearing firms in our role as a Systemically Important Financial Market Utility (SIFMU).

OCC's financial resources available to protect against a clearing member default. Those resources remain over \$8.5 billion, in addition to margin collateral holdings at OCC. OCC's Capital Plan served a critical purpose in ensuring that OCC was properly capitalized. In 2014, OCC had only \$25 million in capital. Today, in accordance with regulatory obligations, OCC maintains sufficient capital with liquid net assets funded by equity above its target level of \$247 million, reflecting the ability to adequately fund our business operations and to have the financial capacity to absorb unexpected operational losses. This is in keeping with the critical role that we provide to the U.S. listed equity options markets and our designation as a SIFMU.

As a result of the SEC's order, OCC, with the support of our Board of Directors, took the following actions:

- Reaffirmed the target capital requirement of \$247 million;
- Retained amounts that otherwise would have been issued as refunds and dividends for 2018; and,
- Raised clearing fees by one half of one cent from \$0.05 to \$0.055. The revised fee schedule, which took effect April 1, 2019, is: 1-999 contracts, \$0.055; 1,000 + contracts, \$55.

Separately, OCC's Stockholder Exchanges agreed to allow OCC to retain in the aggregate \$40 million of their initial \$150 million capital contribution to be repaid at a later date, provided that such repayment does not cause OCC's liquid net assets funded by equity to fall below the \$247 million target capital level.

Because of these actions, we are currently operating and expect to continue operating with the same level of target capital that we maintained prior to the Commission's decision. To address the impact of the Commission's order, we are working with our Board, industry participants and our regulators to develop a viable plan to replenish OCC's capital, as required by regulation, in the unlikely event of operational losses. As we discuss below, the Commission's disapproval does not affect the investments we are making to modernizing our technology infrastructure. It also will not affect our Corporate Plan and Strategy.

Technology

OCC has established operational and technology goals and we have worked diligently on further establishing the groundwork necessary to ultimately replace ENCORE, our two-decade old clearing and risk management platform. We are proud to say we made exceptional strides with the launch late in 2018

The Renaissance Initiative, when completed, will enhance the capabilities of our risk, clearing and data systems.

of our Renaissance Initiative, which is our program to replace Encore. Although we must still rely on our current system for the near future, we made measurable progress in 2018 toward the eventual launch of a more flexible architecture that separates the clearing and risk management functions and that is cost-effective, nimble and readily adaptable to market demands.

The Renaissance Initiative, when completed, will enhance the capabilities of our risk, clearing and data systems. For risk management, the internally developed risk platform elements of the Renaissance Initiative build upon the program already underway at OCC, with many features operating in cloud infrastructure. This will provide an improved environment for intra-day risk management, intra-day computations, pricing and re-evaluation. It will enhance the efficiency and speed of margin, stress-testing, and back-testing capabilities and will increase transparency and insight for our clearing firms into exposures via ad hoc queries and intra-day analysis.

OCC will use a combined approach for its new clearing system, pairing internal work with the adoption of software developed by third parties. The benefits to OCC and our clearing firms include enhancements to ad hoc reporting with new filtering functionality, control mechanisms throughout systems, application programming interfaces that will make it easier to procure and submit data to and from the system, speed and agility in supporting new products and following industry standards for our futures processing.

The development of our new data platform, which will be independent from the risk and clearing systems, will comprehensively address OCC's historical data limitations. The Renaissance Initiative will build a proprietary data model to support OCC's business that is separate and distinct from our current technology solution, and provide self-service capability for data discovery, search and historical analysis.

OCC's most important function is to provide stability and market integrity through effective and efficient clearance, settlement and risk management services.

Technology is at the heart of OCC, and therefore we must ensure that we maintain stringent cybersecurity measures. During 2018, our investment in information security, led by our Security Services team, continued to prove extremely beneficial to OCC and market participants. Our tools and capabilities are growing in sophistication and responsiveness, and we will continue to enhance our information security defenses, which are critical to OCC as it works to deliver on its responsibilities as a SIFMU.

OCC's most important function is to provide stability and market integrity through effective and efficient clearance, settlement and risk management services. Along with the phenomenal year of trading activity in options and futures, we also continued to support product innovation by our participating exchanges as they launched new products. In 2018, we supported the launch of 168 new products to help grow the equity options and futures markets.

Our People

To design better solutions and deliver stronger results, it takes people working together in a collaborative and cooperative environment. On Memorial Day weekend in 2018, our Chicago colleagues moved into new office

space that fosters a culture of increased collaboration, teamwork, and accountability. Just as their Dallas colleagues experienced in 2017 with their move into a new office environment, our Chicago colleagues are interacting and achieving successful outcomes together. The users of our services see the benefit from the progress we made in 2018.

In 2018, we meaningfully enhanced our risk management, our processes and procedures, our legal framework and our information security, and we supported innovation for the continued evolution of the markets. Our overall performance was well received by market participants: 88 percent of our clearing firms and 85 percent of our participating exchanges said they were satisfied or very satisfied with the level of service they received from OCC last year. Over 90 percent of our exchanges and clearing firms said they were satisfied with key interactions with various OCC departments, including Member Services, Collateral Services, National Operations, External Testing, and Risk Management. These high satisfaction levels reflect why OCC was named Best Clearing House by *Markets Media* and Best Clearing House – The Americas by *FOW*.

While we appreciate this recognition, we know we must do more to clear the path for continued growth for the equity options and futures markets. We are working to make OCC more effective, efficient and agile in its capabilities in order to help drive more growth in options, futures and stock lending in 2019 and beyond.



John P. Davidson
President and
Chief Operating Officer



Scot E. Warren
Chief Administrative Officer



Clear the path with efficiency and collaboration

The World Federation of Exchanges is the global industry group for exchanges and clearing houses, representing over 250 market-infrastructures ranging from those that operate the largest financial centers to those that run frontier markets. It seeks to ensure regulatory outcomes that foster well-functioning capital markets and reinforce systemic ability in addition to developing markets.

"OCC's role as a central counterparty is crucial to market efficiency. Working with the WFE, OCC ensures that the way we manage risk as an industry is effective. OCC is an advocate for our industry and a partner in the development of tomorrow's markets. Our strong collaboration ensures that our markets are more resilient and stable by building market integrity and fostering trust."

**NANDINI SUKUMAR
CHIEF EXECUTIVE OFFICER,
WORLD FEDERATION OF EXCHANGES**



Clear the path with investor education

Raymond James Financial, Inc. is a diversified holding company providing financial services to individuals, corporations and municipalities through its subsidiary companies engaged primarily in investment and financial planning, in addition to capital markets and asset management. Through its three broker/dealer subsidiaries, Raymond James Financial has approximately 7,800 financial advisors throughout the United States, Canada and overseas with \$725 billion in total client assets.

"Client recognition of the benefits and versatility of options strategies bodes well for the future growth of the options industry. The Options Industry Council, supported and managed by OCC, is an invaluable resource for the financial services community. As a member of OIC's Roundtable, Raymond James appreciates the breadth of OIC's unbiased and relevant educational content. Our data shows that new users are seeking information and entering into the options market with proper strategies."

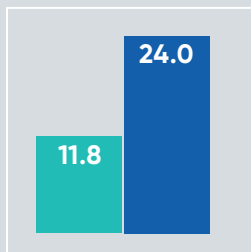
GARY FRANKLIN
VICE PRESIDENT,
OPTIONS TRADING AND STRATEGIES
AT RAYMOND JAMES FINANCIAL

2018 PERFORMANCE HIGHLIGHTS

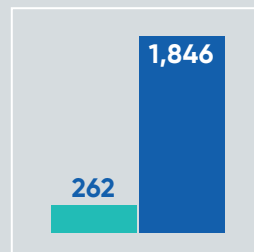
5.2b+

contracts cleared

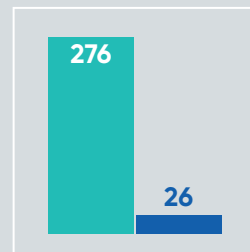
■ EQUITY ■ INDEX (Futures not depicted)



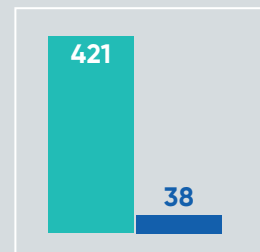
Average Contracts Per Cleared Trade



Average Premium Per Contract (in dollars)



Average Month-End Open Interest (in millions)



Contracts Exercised (in millions)



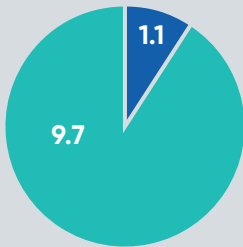
MARGIN HELD
AT YEAR END



CLEARING FUND
HELD AT YEAR END

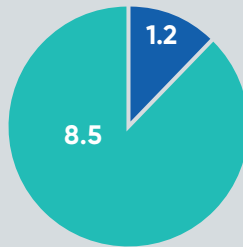


AVERAGE FEE PER
CONTRACT SIDE



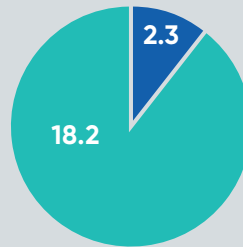
Average Daily Call
Volume (in millions)

+



Average Daily Put
Volume (in millions)

=



Average Daily Contract
Volume (in millions)

We make a difference in the communities in which we live and work



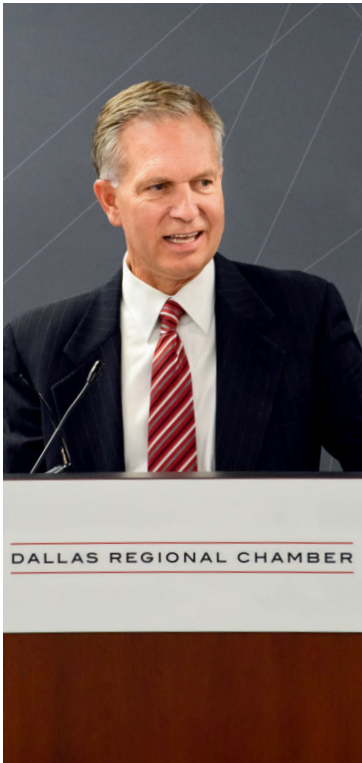
CHICAGO

In late August, Chicago colleagues celebrated Charity Week – dedicated to helping inspire and inform colleagues on ways they can get involved and further support OCC's 2018 Chicago charity, i.c.stars. (top)

Amy Shelly served as one of the first female co-chairs of the Trading Tech Program for the Boy Scouts of America. (center)

Rahm Emanuel, Mayor of Chicago, surprised OCC colleagues at the December Town Hall meeting. (bottom)





“As one of the most vibrant and diverse economies in the country, we have seen more than 120 companies relocate their headquarters to the Dallas Region, hundreds of other companies have expanded operations, and more than 750,000 new jobs have been created. OCC has been an important member of our community from the moment they arrived in 2003 and as our market continues to grow and thrive, we are excited they are working alongside so many other great companies and contributing to that growth.”

Dale Petroskey, President and CEO,
Dallas Regional Chamber (left)

DALLAS

OCC colleagues volunteered at a food kitchen in support of Metrocrest Services, a Texas-based organization that assists families and individuals coping with crisis situations or requiring support to live independently.



WASHINGTON, D.C.

John Davidson, Dan Busby, Michael Meagher and Jim Kustusich attended an event with Congressman Raja Krishnamoorthi on behalf of our industry.



BOARD OF DIRECTORS

as of December 31, 2018



CRAIG S. DONOHUE
Executive Chairman and
Chief Executive Officer
OCC



ANDREJ BOLKOVIC
Chief Executive Officer
ABN AMRO Clearing



THOMAS R. CARDELLO
Chief Executive Officer
Venice Financial
Management, LLC



MARK F. DEHNERT
Managing Director
Goldman Sachs & Co.



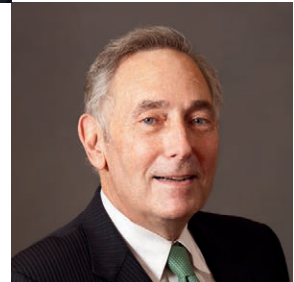
KURT M. ECKERT
Partner
Wolverine Trading



THOMAS W. FARLEY
President
NYSE Group
Served until May 25, 2018



THOMAS A. FRANK
Executive Vice President
and CIO
Interactive Brokers LLC



MEYER S. FRUCHER
Vice Chairman
Nasdaq, Inc.



DAVID S. GOONE
Chief Strategy Officer
Intercontinental Exchange, Inc.



RACHELLE KELLER
Managing Director and Chief
Operating Officer for Prime,
Futures and Securities Services
Citi
Served until July 27, 2018



ELIZABETH K. KING
 Chief Regulatory Officer,
 Intercontinental Exchange, Inc.
 General Counsel and Corporate
 Secretary, NYSE Group, Inc.
*Commenced service
 May 25, 2018*



SUSAN E. LESTER
 Financial Executive



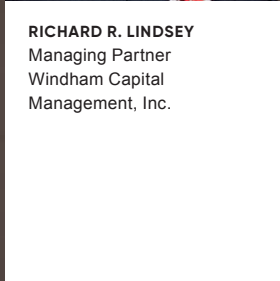
RICHARD R. LINDSEY
 Managing Partner
 Windham Capital
 Management, Inc.



ROBERT R. LITTERMAN
 Chairman, Risk Committee
 Kepos Capital, LP



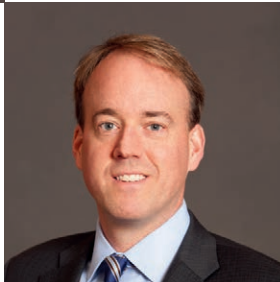
STEPHEN LUPARELLO
 Managing Director and
 General Counsel
 Citadel Securities



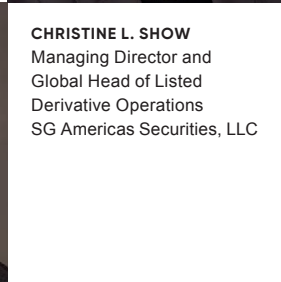
CHRISTINE L. SHOW
 Managing Director and
 Global Head of Listed
 Derivative Operations
 SG Americas Securities, LLC



EDWARD T. TILLY
 Chairman, President and Chief
 Executive Officer
 Cboe Global Markets, Inc.



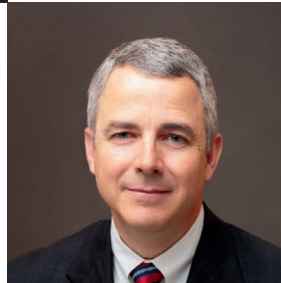
JONATHAN B. WERTS
 Managing Director,
 Head of Midwest, Bank of
 America Merrill Lynch



ALICE PATRICIA WHITE
 Economist



THOMAS A. WITTMAN
 Executive Vice President,
 Head of Global Trading and
 Market Services
 Nasdaq, Inc.



WILLIAM T. YATES
 Treasurer
 TD Ameritrade

BOARD COMMITTEES AND SENIOR OFFICERS

as of December 31, 2018

Board Committees

Audit Committee

Susan E. Lester (Chair)
Kurt M. Eckert
Elizabeth K. King
Richard R. Lindsey
Stephen Luparello
Christine L. Show
Alice Patricia White
William T. Yates

Compensation & Performance Committee

Richard R. Lindsey (Chair)
Mark F. Dehnert
Craig S. Donohue
Meyer S. Frucher
David S. Goone
Robert R. Litterman
Edward T. Tilly
Jonathan B. Werts

Governance & Nominating Committee

Alice Patricia White (Chair)
Meyer S. Frucher
Elizabeth K. King
Susan E. Lester
Richard R. Lindsey
Christine L. Show
William T. Yates

Risk Committee

Richard R. Lindsey (Chair)
Thomas R. Cardello
Mark F. Dehnert
Craig S. Donohue
Thomas A. Frank
Robert R. Litterman
Edward T. Tilly
Alice Patricia White

Technology Committee

Thomas R. Cardello (Chair)
Andrej Bolkovic
Craig S. Donohue
Thomas A. Frank
Thomas A. Wittman

Term Expirations (Member Directors & Public Directors)

April 2019

Kurt M. Eckert
Susan E. Lester
Robert R. Litterman
Jonathan B. Werts
William T. Yates

April 2020

Andrej Bolkovic
Mark F. Dehnert
Richard R. Lindsey

April 2021

Thomas R. Cardello
Thomas A. Frank
Stephen Luparello
Christine L. Show
Alice Patricia White

Senior Officers

Craig S. Donohue
Executive Chairman
and Chief Executive Officer

John P. Davidson
President and Chief
Operating Officer

Scot E. Warren
Chief Administrative Officer

John J. Fennell
Executive Vice President
and Chief Risk Officer

James M. Kustusch
Executive Vice President,
Strategic Clearing Initiatives

Dale A. Michaels
Executive Vice President,
Financial Risk Management

Joseph P. Adamczyk
Senior Vice President and
Chief Compliance Officer

Julie W. Bauer
Senior Vice President,
Government Relations

Daniel T. Busby
Senior Vice President,
Operations

Chip J. Dempsey
Senior Vice President and
Chief Commercial Officer

David A. Hoag
Senior Vice President and
Chief Information Officer

Joseph P. Kamnik
Senior Vice President and
Chief Regulatory Counsel

Mark J. Morrison
Senior Vice President and
Chief Security Officer

Hugo A. Mugica
Senior Vice President and
Chief Audit Executive

David P. Prospero
Senior Vice President,
Communications and OIC

Tracy A. Raben
Senior Vice President and
Chief Human Resources Officer

Amy C. Shelly
Senior Vice President and
Chief Financial Officer

Vishal Thakkar
Senior Vice President,
Enterprise Risk Management

Message from the Chief Financial Officer

AMY C. SHELLY



The options market in 2018 had a particularly strong year. Heightened market activity led to greater-than-anticipated cleared contract volume of more than 20 million contracts cleared each day, which is critical to OCC's financial operations.

We remain focused on delivering operational excellence to our participating exchanges, clearing firms, and the users of our markets. Our 2018 regulatory approvals allowed us to employ rigorous stress testing to size our clearing fund, while also operating under a set of standards that align OCC with other globally-important derivatives clearing houses. As a result of our clearing fund resizing, we were able to return \$3 billion in capital to our clearing members.

Additionally, OCC continued to manage costs in a prudent and fiscally responsible manner. Investing in OCC's technology and people is essential to the success of the organization and to our ability to meet our requirements as a systemically important financial market utility (SIFMU). Effectively managing our cost structure means that we can better serve the users of the U.S. equity options and futures markets.

OCC benefited from decisions made in Washington, D.C., where the Federal Reserve voted to implement four increases in the federal funds rate. While higher rates have varying effects throughout the economy and the financial markets, including on clearing firms, OCC's overnight investments were able to earn a higher rate of return.

We fortified our financial posture by successfully renewing our bank credit facility at \$2 billion. While doing so, we included a series of new banks in the facility, which expanded our business relationships and provided an added measure of risk mitigation for OCC. We also enhanced the pre-funded financial resources available to OCC by requiring a minimum of \$3 billion in cash in the clearing fund, which is held at the Chicago Federal Reserve Bank. Additionally, we renewed our innovative \$1 billion lending commitment with CalPERS, the largest U.S. pension fund, in what continues to be an exceedingly productive relationship, and we are pleased to have this unique arrangement with a non-bank partner. The financial soundness of CalPERS means that market participants have yet another reason to be assured of OCC's ability to meet its promise to clear and settle listed options and futures trades each market day.

As noted elsewhere in this report, in February 2019 the SEC disapproved OCC's capital plan. It is important to note that this disapproval relates specifically to the capital provided by OCC's shareholders in 2015 and the agreement to provide additional funds to OCC if necessary to cover operational risks. The decision does not affect our financial resources available to protect against a clearing member default. Those resources remain over \$8.5 billion, in addition to margin collateral holdings at OCC. Today, OCC maintains sufficient capital above its capital base target of \$247 million, reflecting the ability to adequately fund our business operations and to have the financial capacity to absorb unexpected operational losses.

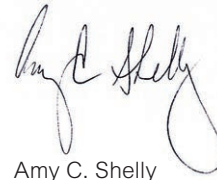
As a result of the SEC's actions, in February 2019 S&P placed OCC on a Credit Watch Negative with respect to its AA+ rating and will evaluate OCC in three months to review progress toward the development of a plan to help ensure that it remains adequately capitalized at all

times and in compliance with all applicable regulations. While the S&P report said, "We continue to view OCC as a highly creditworthy and trusted central risk manager," this action by S&P serves as a reminder of OCC's need to take immediate action on this important matter.

At the start of 2018, we were preparing to strengthen our compliance, our internal controls and our financial standing, all of which we did. As cleared volume levels exceeded our expectations, our resources expanded, placing us in position to accelerate certain components of the work we have been doing to prepare OCC for the future. This includes our uncompromising focus on operational excellence and on delivering greater capital efficiencies to our clearing firms.

As we look ahead to 2019, OCC continues to be in an incredibly strong position to perform its functions as a SIFMU. In our role as a central counterparty, we must ensure that the relationships we have are backed by mutual faith and trust, yet these relationships also must be supported by financial integrity. In the past year, we built on OCC's already firm position as the foundation for secure markets.

Investors, regulators and clearing firms demand stability and market integrity from a company like OCC. Whether markets are calm or volatile, participants must be able to rely on OCC, without exception. In 2018, we fulfilled the fiduciary responsibility we have to the users of these markets. We did not waver. We were decisive, prudent and efficient, just as we will continue to be in 2019 and beyond.



Amy C. Shelly
Chief Financial Officer

FINANCIAL SECTION

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- 50 BANKS AND DEPOSITORY
- 51 ROUNDTABLE MEMBERS



STATEMENTS OF FINANCIAL CONDITION

December 31 (in thousands)	2018	2017
Assets		
Current Assets:		
Cash and cash equivalents Note 2	\$ 393,675	\$ 350,866
Accounts receivable	54,898	42,070
Exchange billing receivable Note 12	109,159	95,888
Due from participant exchanges Note 12	184	166
Other current assets	22,480	25,033
Total Current Assets	580,396	514,023
Property and equipment – net Note 2	38,713	18,887
Clearing fund deposits Notes 6, 16	9,457,879	15,194,322
Other assets Notes 10, 16	46,572	45,051
Deferred income taxes Note 13	8,270	12,329
Total Assets	\$ 10,131,830	\$ 15,784,612
Liabilities and shareholders' equity		
Current Liabilities:		
Accounts payable and other	\$ 50,418	\$ 30,491
SEC transaction fees payable Note 12	27,857	33,844
Dividend payable	—	32,512
Refundable clearing fees Note 9	—	78,716
Exchange billing payable Note 12	109,159	95,888
Payable to shareholders	116,050	—
Other accrued liabilities	64,250	20,791
Total Current Liabilities	367,734	292,242
Clearing fund deposits Notes 6, 16	9,457,879	15,194,322
Other liabilities Notes 14, 15	38,745	50,973
Total Liabilities	9,864,358	15,537,537
Shareholders' Equity: Note 7		
Common stock	500	500
Paid-in capital	37,827	147,827
Retained earnings	261,438	127,474
Accumulated other comprehensive loss Notes 14, 15 (net of tax benefit of \$17,816 in 2018 and \$18,551 in 2017)	(32,293)	(28,726)
Total Shareholders' Equity	267,472	247,075
Total Liabilities and Shareholders' Equity	\$ 10,131,830	\$ 15,784,612

See Notes to the Financial Statements

STATEMENTS OF INCOME AND COMPREHENSIVE INCOME

For the years ended December 31 (in thousands)	2018	2017	2016
Revenues			
Clearing fees <small>Note 9</small>	\$ 455,283	\$ 295,468	\$ 260,691
Data service fees	4,795	4,901	4,855
Exercise fees	4,548	3,749	3,684
Other	3,212	285	322
Total Revenues	467,838	304,403	269,552
Expenses			
Employee costs	150,278	120,219	103,423
Information technology	58,426	47,742	38,285
Professional fees and outside services	69,871	83,241	54,708
General and administrative	49,044	33,553	33,987
Rental, office and equipment	10,473	7,245	6,674
Depreciation and amortization	12,330	6,064	5,915
Loss on sale, property and equipment	23	54	2,706
Total Expenses	350,445	298,118	245,698
Total Operating Income	117,393	6,285	23,854
Non-Operating Income (Expense)			
Investment Income <small>Notes 8, 10</small>	60,467	35,780	11,070
Interest Income <small>Note 6</small>	97,297	19,436	2,364
Distribution of interest earned on clearing fund <small>Note 6</small>	(91,792)	—	—
Total Non-Operating Income (Expense):	65,972	55,216	13,434
Income Before Income Taxes	183,365	61,501	37,288
Provision for Income Taxes <small>Note 13</small>	49,640	28,989	11,674
Net Income	133,725	32,512	25,614
Other comprehensive income, net of tax			
Pension and postretirement benefit plan adjustments, net of tax of \$735 in 2018, \$(494) in 2017 and \$536 in 2016	2,722	(807)	882
Comprehensive Income	\$ 136,447	\$ 31,705	\$ 26,496

See Notes to the Financial Statements

STATEMENTS OF SHAREHOLDERS' EQUITY

(in thousands)	Common Stock	Paid-in-Capital	Accumulated Other Comprehensive Loss	Treasury Stock	Retained Earnings	Total
Balance - December 31, 2015	\$ 600	\$ 148,060	\$ (28,801)	\$ (333)	\$ 127,474	\$ 247,000
Net income / loss					25,614	25,614
Dividends declared					(25,614)	(25,614)
Retirement of treasury stock	(100)	(233)		333		
Amounts included in other						
comprehensive income, net of tax:						
Changes in unamortized gain			1,973			1,973
Changes in unamortized prior service (cost)			(1,091)			(1,091)
Subtotal			882			882
Balance - December 31, 2016	500	147,827	(27,919)	—	127,474	247,882
Net income / loss					32,512	32,512
Dividends declared					(32,512)	(32,512)
Amounts included in other						
comprehensive income, net of tax:						
Changes in unamortized gain			281			281
Changes in unamortized prior service (cost)			(1,088)			(1,088)
Subtotal			(807)			(807)
Balance - December 31, 2017	500	147,827	(28,726)	—	127,474	247,075
Net income / loss					133,725	133,725
Distribution to shareholders		(110,000)			(6,050)	(116,050)
ASU No. 2018-02 adoption			(6,289)		6,289	—
Amounts included in other						
comprehensive income, net of tax:						
Changes in unamortized gain			4,103			4,103
Changes in unamortized prior service (cost)			(1,381)			(1,381)
Subtotal			2,722			2,722
Balance - December 31, 2018	\$ 500	\$ 37,827	\$ (32,293)	—	\$ 261,438	\$ 267,472

See Notes to the Financial Statements

STATEMENTS OF CASH FLOWS

December 31 (in thousands)	2018	2017	2016
Cash flows from / (used in) operating activities			
Net income	\$ 133,725	\$ 32,512	\$ 25,614
Adjustments to reconcile net income to net cash flows from / (used in) operating activities:			
Unrealized (gains) losses on investments	2,585	(2,014)	(493)
Depreciation and amortization	12,330	6,064	5,915
Loss on sale, property and equipment	23	54	2,706
Deferred income taxes	3,323	16,284	16,484
Changes in assets and liabilities:			
Accounts receivable and other receivables	(26,117)	(5,087)	7,567
Other current assets	8,443	9,236	228
Other assets	(2,160)	(2,248)	(236)
Purchases of investments included in other assets	(1,925)	(44,530)	(11,790)
Sales of investments included in other assets	(21)	42,411	9,324
Accounts payable and other liabilities	61,900	6,020	(21,764)
Refundable clearing fees	(78,716)	32,124	(96,133)
Net Cash Flows From / (Used In) Operating Activities	113,390	90,826	(62,578)
Cash flows (used in) / from investing activities			
Capital expenditures	(32,179)	(14,137)	(112)
Sale of assets	—	—	2,351
Net Cash Flows (Used In) / From Investing Activities	(32,179)	(14,137)	2,239
Cash flows (used in) / from financing activities			
Issuance of notes	—	1,000	1,000
Borrowings on revolving line of credit	60,700	35,000	115,083
Repayments on revolving line of credit	(60,700)	(35,000)	(115,083)
Proceeds from liquidity facility repurchase agreements	60,000	360,000	210,000
Payments for liquidity facility repurchase agreements	(60,000)	(360,000)	(210,000)
Payments for debt issuance costs	(5,890)	(6,756)	(5,871)
Dividends paid	(32,512)	(25,614)	(19,691)
Net Cash Flows (Used In) / From Financing Activities	(38,402)	(31,370)	(24,562)
Net increase / (decrease) in cash and cash equivalents	42,809	45,319	(84,901)
Cash and cash equivalents, beginning of year	350,866	305,547	390,448
Cash and cash equivalents, end of year	\$ 393,675	\$ 350,866	\$ 305,547
Noncash financing activities			
Distribution to shareholders	(116,050)	—	—
Total Noncash Financing Activities	(116,050)	—	—
Supplemental disclosure of cash flow information:			
Cash paid for income taxes	\$ 15,469	\$ 11,236	\$ 5,984
Cash paid for interest	283	66	34

See Notes to the Financial Statements

NOTES TO THE FINANCIAL STATEMENTS

As of December 31, 2018 and 2017, and for the years ended
December 31, 2018, 2017 and 2016

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, security 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; debt securities and precious metals. OCC is headquartered in Chicago, Illinois and has offices in Texas and Washington DC.

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 2018 and 2017, cash equivalents are comprised of investments in reverse repurchase agreements with major banking institutions, 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, 2018 and 2017, 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 a useful life of five years. No internal costs were capitalized in 2018, 2017 or 2016. Amortization expense related to computer software was \$5.1 million, \$4.8 million and \$5.2 million for 2018, 2017 and 2016, respectively.

Property and equipment consisted of the following:

As of December 31, (in thousands)	2018	2017
Leasehold improvements	\$ 27,606	\$ 12,362
Equipment, furniture and other	17,818	10,653
Software	131,436	138,109
Hardware leased	2,178	142
Software leased	6,137	—
Total property and equipment	185,175	161,266
Accumulated depreciation and amortization	(146,462)	(142,379)
Property and equipment - net	\$ 38,713	\$ 18,887

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, 2018 and 2017, OCC determined that no assets were impaired, and no impairment charges were recorded in the financial statements.

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. OCC's revenues primarily consist of clearing fee revenues, which include per contract charges for clearing services, and are billed on a monthly basis. 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 item exercised and are also billed on a monthly basis. Investment and interest income is recorded on an accrual basis when earned.

NEW ACCOUNTING PRONOUNCEMENTS In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2014-09, *Revenue from Contracts with Customers, Topic 606*. The new revenue recognition standard provides a five step analysis of transactions to determine when and how revenue is recognized. The core principle is that a company should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects what the entity expects to be owed for those goods or services. ASU 2015-14, *Revenue from Contracts with Customers, Topic 606*, deferred the effective date to annual periods beginning after December 15, 2018 for nonpublic companies. OCC has evaluated the effect of adopting this new accounting guidance and has determined it will not have a material impact on the Corporation's financial statements.

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. This ASU is effective for annual periods beginning after December 15, 2019 for nonpublic companies. The impact on OCC's operations is being evaluated, but it is believed that this ASU will have a material impact on OCC's Statements of Financial Condition.

NOTES TO THE FINANCIAL STATEMENTS

In March 2017, the FASB issued ASU 2017-07, *Compensation - Retirement Benefits (Topic 715)*. This ASU requires an employer to report the service cost component in the same line item or items as other compensation costs arising from services rendered by the pertinent employees during the period. The other components are required to be presented in the income statement separately from the service cost component and outside a subtotal of income from operations. For nonpublic entities, this update was effective beginning after December 15, 2018. OCC is evaluating the impact on its financial statements and disclosures.

In February 2018, the FASB issued ASU No. 2018-02, *Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*, which amends ASC 220, *Income Statement - Reporting Comprehensive Income*. Included in the provisions of tax reform is a reduction of the corporate income tax rate from 35 percent to 21 percent. GAAP requires that deferred taxes are remeasured to the new corporate tax rate in the period legislation is enacted. The deferred tax adjustment is recorded in the provision for income taxes, including items for which the tax effects were originally recorded in OCI. This treatment results in the items in OCI not reflecting the appropriate tax rate, which are referred to as stranded tax effects. This ASU allows a reclassification from accumulated OCI to retained earnings for stranded tax effects resulting from tax reform. The stranded tax effects reclassified from OCI to retained earnings were \$6.3 million.

In November 2016, the FASB issued ASU 2016-18, *Statement of Cash Flows (Topic 230)*, which amends ASC 230 to add and clarify guidance on the classification and presentation of restricted cash in the statement of cash flows. OCC is currently 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, 2018, and 2017, the amount of margin required by OCC to support its guarantee was \$55.7 billion and \$65.7 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 2018 or 2017 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 and clearing fund 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. OCC also maintains two liquidity facilities to support potential liquidity needs in the event of a Clearing Member default, as described in Note 11. One facility is a syndicated line of credit with major domestic and foreign banks and the other is a repurchase facility with a large pension fund.

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 may then use 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 (i.e. "specific deposits"), other securities in lieu of margin deposits or by maintaining specified margin deposits. Margin deposits are also required for futures and 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"), specified money market fund shares 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, 2018 and 2017, margin deposits exceeded OCC's required margin.

The fair values of securities in lieu of margin deposits and margin deposits at December 31, 2018 and 2017 were as follows (foreign securities are converted to U.S. dollars using the year-end exchange rate):

As of December 31, (in thousands)	2018	2017
Valued securities	\$ 52,541,696	\$ 54,105,324
Specific deposits	19,922,389	27,736,177
Government securities	15,863,089	11,874,983
Cash and cash equivalents	4,756,692	6,984,221
Bank letters of credit	959,000	883,000
Total	\$ 94,042,866	\$ 101,583,705

NOTES TO THE FINANCIAL STATEMENTS

VALUED SECURITIES Valued securities are traded on U.S. securities exchanges or in the NASDAQ National Market System and are principally valued using the composite closing price. Common stock, ETFs, and 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, 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 reduce the calculated Clearing Member's daily margin requirement. Specific deposits are also generally traded on U.S. securities exchanges or in the NASDAQ National Market System 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 remitted to Clearing Members. For daily margin purposes, OCC haircuts the market value of (i) U.S. and Canadian Government securities not included in margin calculations, (ii) GSE debt securities, and (iii) money market fund shares 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%. 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 AND MONEY MARKET FUNDS 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. No more than 50% of a Clearing Member's margin on deposit may include letters of credit, and no more than 20% may include letters of credit issued by any one institution. Letters of credit are valued at their commitment amount.

ESCROW DEPOSITS OCC has an Escrow Deposit Program, allows a customer of a Clearing Member to pledge cash and/or fully-paid for securities held at OCC approved escrow banks. Prior to 2017, the escrow banks issued escrow instructions to OCC and concurrently made certain representations and agreements with OCC, including the banks' agreement to segregate acceptable forms of collateral, to deliver securities or pay certain amounts from the deposit in the event an exercise notice is assigned to the short position. OCC's agreements with the escrow banks require the maintenance of eligible collateral, subject to OCC's restrictions, to cover obligations related to short positions in equity and index puts and calls.

OCC implemented a restructured Escrow Deposit Program ("Program") and all escrow deposits were required to be migrated to this new Program effective November 30, 2017. The newly restructured Escrow Deposit Program requires security escrow deposits to be pledged to OCC by the escrow banks via the Depository Trust and Clearing Corporation and cash escrow deposits to be held in a tri-party account between OCC, the escrow bank and the customer. Both the security and cash escrow deposits must be viewable by OCC, clearing members (or the customer) and the escrow bank. Eligible collateral was also expanded to include U.S. Treasury Securities with greater than one year maturity. Additionally, the Escrow Deposit Program no longer supports short positions in an equity call option; these options can be covered by collateralizing with a specific deposit.

An escrow deposit is considered a deposit in lieu of margin against short equity or index call or put option positions; therefore, the covered short position is not subject to margining by OCC. OCC has specified collateral restrictions for escrow deposits. Prior to 2017, escrow deposits for a short position in an equity call option consisted of the underlying security for which the equity option was written. Escrow deposits for a short position in an equity or an index put option consisted of cash or short-term U.S. Government securities. Escrow deposits related to a short position in an index call option consisted of cash, short-term U.S. Government securities, common stocks that are listed on a national securities exchange or the NASDAQ Stock Market, or any combination of these assets.

With the restructured Escrow Deposit program, escrow deposits on a short position in an equity call option are no longer eligible. Escrow deposits for a short position in an equity or an index put option may consist of cash or U.S. Government securities. Escrow deposits related to a short position in an index call option may consist of cash, U.S. Government securities, common stocks that are listed on a national securities exchange or the NASDAQ Stock Market, or any combination of these assets.

As of December 31, 2018 and 2017, deposits were held for 148,000 and 381,000 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 \$17.8 billion and \$21.2 billion. The fair value of the collateral held under the restructured Program was \$17.8 billion for December 31, 2018 and \$21.1 billion for December 31, 2017, respectively.

CROSS-MARGIN ARRANGEMENTS OCC also maintains cross-margining arrangements with certain U.S. commodities clearing organizations. Under the terms of these arrangements, an OCC Clearing Member that is also a Clearing Member of a commodities clearing organization participating in the cross-margining arrangement, or that has an affiliate that is a Clearing Member of the commodities 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 for purposes of calculating margin requirements. Margin deposits on the combined positions are held jointly by OCC and the participating commodities 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 commodities clearing organization. In the event that either OCC or participating commodities clearing organization suffers a loss in liquidating positions in a cross-margin account, the loss is to be shared between OCC and the participating commodities clearing organization. Margin deposits for these cross-margin accounts may be in the form of cash, valued securities, U.S. Government securities, U.S. GSE debt 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 \$449.2 million and \$363.4 million at December 31, 2018 and 2017, respectively.

Note 6. Clearing Fund Deposits

OCC calculates the required fund based upon algorithms intended to simulate potential losses in the event of a simultaneous default of its two largest Clearing Members, banks or securities or commodities clearing organizations. 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, 2018, the weightings were: total risk 70%, open interest 15% and volume 15%. As of December 31, 2017, the weightings were: total risk 35%, open interest 50% and volume 15%.

NOTES TO THE FINANCIAL STATEMENTS

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 deposits in nonsegregated accounts may be invested at an approved bank, and any interest or gain received or loss incurred on invested funds is recorded in the Statements of Income and Comprehensive Income. Segregated funds cannot be invested by OCC.

During 2016, OCC obtained approval to open an account at the Federal Reserve Bank of Chicago. As of December 31, 2018 and 2017, the balance held at the Federal Reserve Bank of Chicago totaled \$5.1 billion and \$2.3 billion, respectively. Interest earned is recorded as Interest Income on the Statements of Income and Comprehensive Income. Beginning March 1, 2018, with the SEC's approval of OCC's Financial Safeguards, clearing members are required to maintain a minimum of \$3 billion in cash in the clearing fund. The 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 as Distribution of interest earned on clearing fund. 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, 2018 and 2017 are as follows (Canadian Government securities are converted to U.S. dollars using the year-end exchange rate):

As of December 31, (in thousands)	2018	2017
U.S. Government securities	\$ 4,022,193	\$ 12,567,142
Cash and cash equivalents	5,303,545	2,510,380
Canadian Government securities	132,141	116,800
Total	\$ 9,457,879	\$ 15,194,322

Note 7. Shareholders' Equity

OCC has Class A and Class B common stock, each with a \$10 par value, 25,000 shares authorized, issued and outstanding at December 31, 2018 and 2017. At December 31, 2015, OCC had Class A and Class B common stock with 60,000 shares authorized, 30,000 shares issued and 25,000 shares outstanding. OCC also has Class C common stock, with a \$1,000 par value, 300,000 shares authorized, and no shares issued or outstanding as of December 31, 2018 or 2017.

The Class B common stock is issuable in five series of 5,000 shares each. Only Class B common stock is entitled to receive dividends. In the event of liquidation of OCC, holders of Class A common stock, Class B common stock and Class C 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 \$1,000,000. Subsequently, an amount equal to OCC's shareholders' equity at December 31, 1998 of \$22,902,094 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 \$1,000,000. In 2002, OCC amended its by-laws to provide that exchanges would qualify for participation in OCC by purchasing a \$1,000,000 interest bearing promissory note. Five of OCC's participant exchanges were shareholders and ten participant exchanges were noteholders as of December 31, 2018 and 2017, respectively. These interest bearing notes are recorded in Accounts Payable in the Statements of Financial Condition and were \$10.0 million at December 31, 2018 and 2017, respectively.

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 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 \$1,000,000. 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 note holder 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 and clearing fund deposits, averaged \$4.0 billion and \$4.3 billion during 2018 and 2017, respectively. The maximum amount outstanding was \$11.1 billion during 2018 and \$8.1 billion during 2017. Amounts outstanding and included in cash and cash equivalents in the Statements of Financial Condition at December 31, 2018 was \$365 million. Amounts were outstanding and included in cash and cash equivalents in the Statements of Financial Condition at December 31, 2018 and 2017. Clearing fund deposit amounts invested at December 31, 2018 were \$70 million and were included within clearing fund deposits in the Statements of Financial Condition. No clearing fund deposit amounts were invested at December 31, 2017. Margin deposits had amounts outstanding at December 31, 2018 and 2017 of \$4.2 billion and \$6.0 billion, respectively. Interest income earned on these reverse repurchase agreements totaled \$60.3 million, \$32.6 million and \$9.0 million for the years ending December 31, 2018, 2017 and 2016. 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 Plan (Note 18). Annually, the Board will determine and declare a refund to Clearing Members to the extent OCC meets its regulatory capital requirements in that year. In prior years, refunds were declared in an aggregate amount equal to 50% of the distributable earnings before taxes, which allowed for OCC to retain capital if required. Distributable

NOTES TO THE FINANCIAL STATEMENTS

earnings before taxes was established at 25% above operating expenses. In 2018, the Board of Directors elected to retain the capital above the 25% operating margin as well as taxes related to the capital retention, to be used for future capital expenditures. During 2017 and 2016, OCC did not retain capital from earnings. Subsequent to the refund declaration, any distributable earnings after taxes remaining will be distributed to stockholders in the form of a dividend. Refunds were \$78.7 million and \$46.6 million for the years ended December 31, 2017 and 2016, respectively. No refund was recognized for the year ended December 31, 2018 due to the disapproval of the Capital Plan by the SEC as of February 13, 2019 (see Note 18). During 2016, OCC released a portion of its uncertain tax position related to New York State revenue sourcing and in 2017, released the remainder (see Note 13). The uncertain tax position was related to tax years 2009-2014, prior to the implementation of the Capital Plan. Due to this timing, OCC's Board of Directors approved an increase to the refund to Clearing Members by the amount released of \$3.9 million in 2017 and \$4.7 million in 2016. Clearing fees are recorded net of refunds in the Statements of Income and Comprehensive Income.

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)	2018	2017
SERP Note 14	\$ 30,020	\$ 29,523
Executive deferred compensation plan Note 11	7,790	9,076
Other assets	8,762	6,452
Total other assets	\$ 46,572	\$ 45,051

SERP investments are recorded at fair value and changes in fair value are recorded as Investment income in the Statements of Income and Comprehensive Income. The amount recorded as Investment income/(loss) for SERP investments for the years ended December 31, 2018, 2017 and 2016 was (\$746,000), \$2.0 million and \$1.6 million, respectively. The change in net unrealized gains/(losses) on these trading securities still

held at the reporting date was \$1.3 million, \$2.2 million and \$1.6 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 in the Statements of Income and Comprehensive Income. In addition, changes in the investments' fair value result in charges recorded as Employee costs 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, 2018, 2017 and 2016 was (\$291,000), \$1.2 million and \$428,000 respectively. The change in net unrealized gains/(losses) on these trading securities still held at the reporting date was (\$530,000), \$1.0 million and \$250,000 respectively.

Note 11. Commitments

LEASES OCC leases office space, as well as data processing and other equipment. Rental expense under these leases for the years ended December 31, 2018, 2017 and 2016 was \$52.5 million, \$39.8 million and \$31.4 million, respectively.

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, 2018 are as follows:

(in thousands)	Operating Leases	Capital Leases
2019	\$ 15,278	\$ 3,704
2020	12,955	2,536
2021	9,500	1,789
2022	7,282	758
2023	7,282	757
Thereafter	50,474	\$ 757
Total minimum lease payments	\$ 102,771	10,301
Amount representing interest	N/A	(584)
Present value of minimum lease payments	N/A	\$ 9,717

EMPLOYEE COSTS OCC entered into employment agreements with certain senior officers. The aggregate commitment for future salaries and deferred compensation payments at December 31, 2018 and 2017, excluding bonuses, was approximately \$1.6 million and \$3.1 million, respectively.

Effective January 1, 2006, OCC implemented the Executive Deferred Compensation Plan (“Plan”) for senior officers. At December 31, 2018, the Plan was funded in the amount of \$3.0 million. The Plan was not funded at December 31, 2017. Amounts contributed to the Plan prior to 2014 became vested and payable on the fifth anniversary of the date it is credited to the participants’ account provided the participant remains continuously employed by OCC at the vesting date. All contributions made in 2014 and thereafter will vest and become payable on the third anniversary. The Plan investments, consisting primarily of mutual funds, are designated as trading under applicable accounting guidance.

Additionally, retention payments were credited to the Plan for certain employees. These payments vest in intervals over the next two years and were funded to the participant’s accounts in the amount of \$600,000 in 2018.

LINES OF CREDIT OCC maintains two liquidity facilities which are available to enable OCC to meet Clearing Member default or suspension obligations or to cover certain other bankruptcy losses. One facility is a 364-day syndicated, committed, line of credit with major domestic and foreign banks in the amount of \$2.0 billion at December 31, 2018, for which commitment fees are paid to the participating banks. OCC maintained a similar \$2.0 billion, committed line of credit at December 31, 2017. The other facility is a \$1.0 billion committed, liquidity facility with the California Public Employees’ Retirement System (“CalPERS”). Under this facility, OCC entered into a Master Repurchase Agreement with CalPERS and has the ability to sell U.S. Government securities with an agreement to repurchase those securities within thirty days. In 2018 and 2017, OCC renewed the liquidity facility and laddered the maturities with \$500 million renewing in January with the remaining \$500 million renewing in September. Each of these \$500 million tranches has a term of 364 days and commitment fees and interest are paid on a quarterly basis. No amounts were outstanding as of December 31, 2018 or 2017 under either 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, 2018 and 2017 were \$109.2 million and \$95.9 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, 2018, the Section 31 fees yet to be collected from Clearing Members was \$8.6 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.

In 1992, OCC and its participant options exchanges formed an industry organization named The Options Industry Council (“OIC”). The total amounts expended by OCC on behalf of OIC, before reimbursement from the participant exchanges, for the years ended December 31, 2018, 2017 and 2016 were \$5.4 million, \$5.9 million and \$5.3 million, respectively. In 2018, a decision was made to no longer collect from the exchanges their share of OIC expenditures. The exchanges’ share of OIC expenditures was \$200,000 for the year ended December 31, 2017 and \$360,000 for December 31, 2016. At December 31, 2018 and 2017, the amounts due from participant exchanges for OIC and other related expenditures were \$40,000.

OCC is also a party to clearing and settlement services agreements for certain commodity contracts with CBOE Futures Exchange, LLC, NASDAQ Futures, Inc., and One Chicago LLC, each of which is a designated contract market and an affiliated futures market as defined in OCC’s by-laws.

NOTES TO THE FINANCIAL STATEMENTS

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)	2018	2017	2016
Federal income tax			
at the statutory rate	\$ 38,507	\$ 21,525	\$ 13,051
Permanent tax differences	3,777	799	721
State income tax effect	9,133	1,949	1,508
Rate changes	(1,034)	6,567	2,846
Uncertain tax position	—	(2,646)	(3,872)
Other	(743)	795	(2,580)
Provision for income taxes	\$ 49,640	\$ 28,989	\$ 11,674

The components of OCC's income tax provision (benefit) for the years ended December 31, 2018, 2017 and 2016 are as follows (in thousands):

	2018	2017	2016
Current Income Tax (Benefit)			
Federal	\$ 35,473	\$ 14,540	\$ (49)
State and Local	10,844	(1,835)	(4,761)
Deferred Income Tax			
Federal	3,037	15,232	13,009
State and Local	286	1,052	3,475
Provision for Income Taxes	\$ 49,640	\$ 28,989	\$ 11,674

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act (the "Tax Act"). The Tax Act makes broad and complex changes to the U.S. tax code, including, but not limited to, (1) reducing the U.S. federal corporate tax rate from 35 percent to 21 percent; (2) eliminating the corporate alternative minimum tax (AMT); (3) creating a new limitation on deductible interest expense; (4) bonus depreciation that will allow for full expensing of qualified property; and (5) changing rules related to uses and limitations of net operating loss carryforwards created in tax years beginning after December 31, 2017.

OCC's accounting for the following elements of the Tax Act is complete as of December 31, 2018. For certain deferred tax assets and deferred tax liabilities, OCC has recorded a complete net adjustment to deferred income tax benefit of \$1.0 million for the year ended December 31, 2018. A net adjustment to deferred income tax expense of \$6.6 million was recorded for the year ended December 31, 2017. No additional adjustments were required in 2018.

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. During 2017, OCC released penalties of \$348,000 and interest of \$472,000. As of December 31, 2018, no liability for interest or penalties has been recognized. OCC released its remaining unrecognized tax benefits related to New York State revenue sourcing during 2017.

OCC has no other uncertain tax positions as of December 31, 2018. 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 2015-2017 and various state returns for the years 2014-2017 remain open.

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)	2018	2017
Compensation and employee benefits and prepaid expenses	\$ (2,888)	\$ 370
Accelerated depreciation and amortization	(3,042)	(197)
Deferred rent	2,483	—
Pension, postretirement and deferred compensation	11,069	11,826
Other items	648	330
Total	\$ 8,270	\$ 12,329

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 and SERP.

In 2016, OCC offered a lump sum payout to certain former employees with deferred vested balances. The lump sum payouts, totaling \$4.2 million, were made in December 2016, using Retirement Plan assets.

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)	2018	2017	2016
Interest cost	\$ 6,274	\$ 6,778	\$ 7,408
Expected return on assets	(4,972)	(4,728)	(4,517)
Amortization:			
Actuarial loss	1,877	1,786	1,704
Net periodic benefit cost	\$ 3,179	\$ 3,836	\$ 4,595

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

Years ended December 31, (in thousands)	2018	2017	2016
Amortization of net actuarial (loss)	\$ (1,877)	\$ (1,786)	\$ (1,704)
Net actuarial loss / (gain) for the period	(2,434)	2,872	(868)
Total recognized in other comprehensive income	(\$4,311)	1,086	(2,572)
Total recognized in net benefit cost and other comprehensive income	\$ (1,132)	\$ 4,922	\$ 2,023

A net actuarial loss of \$1.8 million recorded in Accumulated other comprehensive loss is amortized as a component of net periodic benefit cost during 2019.

NOTES TO THE FINANCIAL STATEMENTS

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

As of December 31, (in thousands)	2018	2017
Change in benefit obligation:		
Benefit obligation at beginning of year	\$ 178,500	\$ 171,643
Interest cost	6,274	6,778
Actuarial loss/(gain)	(12,099)	8,565
Gross benefits paid	(8,787)	(8,486)
Benefit obligation at end of year	\$ 163,888	\$ 178,500
Change in plan assets:		
Fair value of plan assets at beginning of year	\$ 137,268	\$ 108,629
Actual return on plan assets	(4,693)	10,421
Employer contributions	10,532	26,704
Gross benefits paid	(8,787)	(8,486)
Fair value of plan assets at end of year	\$ 134,320	\$ 137,268
Funded status end of year:		
Fair value on plan assets - overfunded	\$ 134,320	\$ 137,268
Fair value on plan assets - underfunded	—	—
Benefit obligation - overfunded	133,940	145,803
Benefit obligation - underfunded	29,948	32,697
Funded status	\$ (29,568)	\$ (41,232)
Amounts recognized in the statements of financial condition:		
Noncurrent asset	\$ 380	\$ —
Current liability	(2,057)	(2,007)
Noncurrent liability	(27,891)	(39,225)
Total	\$ (29,568)	\$ (41,232)
Amounts recognized in accumulated other comprehensive loss consist of:		
Net actuarial loss	\$ 57,223	\$ 61,534
Net amount recognized	\$ 57,223	\$ 61,534

Gross benefits paid from the SERP were \$2.0 million for the years ended December 31, 2018 and 2017. Assets set aside for SERP are described in Note 10.

The accumulated benefit obligation for the Retirement Plan was \$133.9 million and \$145.8 million at December 31, 2018 and 2017, respectively.

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

December 31,	Retirement Plan		SERP	
	2018	2017	2018	2017
Accumulated benefit obligation:				
Discount rate	4.25%	3.60%	4.20%	3.55%
Benefit costs:				
Discount rate	3.60%	4.05%	3.55%	3.95%
Expected return on assets	3.60%	4.05%	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 2018 and 2017, the Society of Actuaries released updated mortality improvement scales to the 2014 table, which generally resulted in decreases in life expectancy for plan participants. There was no material impact to either plan from the implementation of the new mortality scales.

OCC's expected cash outlay for employer contributions for both plans in 2019 is \$2.0 million, and future expected cash outlays for benefit payments are as follows:

(in thousands)	
2019	\$ 9,419
2020	9,818
2021	10,148
2022	10,417
2023	10,705
2024-2028	54,471

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, \$133.5 million and \$136.6 million at December 31, 2018 and 2017, and money market funds, \$715,000 and \$700,000 at December 31, 2018 and 2017, 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, 2018 and 2017. 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, 2018 and 2017.

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 salary that is deferred. OCC's expenses for the matching contributions to the 401(k) plan for the years ended December 31, 2018, 2017 and 2016 were \$2.7 million, \$1.4 million and \$2.0 million, respectively.

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 \$5.8 million, \$3.8 million and \$4.5 million in 2018, 2017 and 2016, respectively.

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.

Net periodic benefit cost consisted of the following:

Years ended December 31, (in thousands)	2018	2017	2016
Interest cost	\$ 259	\$ 300	\$ 330
Expected return on assets	(634)	(598)	(551)
Amortization:			
Prior service cost	(1,754)	(1,754)	(1,754)
Actuarial loss	854	909	881
Total net periodic benefit (income) cost	(1,275)	(1,143)	(1,094)
Net benefit (income) cost	\$ (1,275)	\$ (1,143)	\$ (1,094)

NOTES TO THE FINANCIAL STATEMENTS

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

Years ended December 31, (in thousands)	2018	2017	2016
Amortization of net actuarial (loss)	\$ (854)	\$ (909)	\$ (881)
Amortization of net prior service credit	1,754	1,754	1,754
Net actuarial loss for the period	(46)	(630)	281
Total recognized in other comprehensive income	854	215	1,154
Total recognized in net benefit cost and other comprehensive income	\$ (421)	\$ (928)	\$ 60

Net actuarial losses of \$908,000 recorded in accumulated other comprehensive loss are expected to be amortized as a component of net periodic benefit cost during 2019.

Plan assets, which are comprised of registered mutual funds, \$8.5 million and \$10.1 million at December 31, 2018 and 2017, and money market funds, \$1.5 million and \$300,000 at December 31, 2018 and 2017, 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 valued using quoted market prices in an active market, and therefore Level 1 within the fair value hierarchy as of December 31, 2018 and 2017. 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, 2018 and 2017.

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,	2018	2017
Fixed income funds	85%	44%
Domestic equity funds	15%	33%
International equity funds	0%	23%
Total	100%	100%

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

Years ended December 31, (in thousands)	2018	2017
Change in benefit obligation:		
Benefit obligation at beginning of year	\$ 7,938	\$ 8,148
Interest cost	259	300
Actuarial loss (gain)	(448)	291
Gross benefits paid	(815)	(801)
Benefit obligation at end of year	\$ 6,934	\$ 7,938
Change in plan assets:		
Fair value of plan assets at beginning of year	\$ 10,942	\$ 10,391
Actual return on plan assets	232	1,519
Employer contributions	(325)	(167)
Gross benefits paid	(815)	(801)
Fair value of plan assets at end of year	\$ 10,034	\$ 10,942
Funded status end of year:		
Fair value of plan assets	\$ 10,034	\$ 10,942
Benefit obligation	6,934	7,938
Funded status	\$ 3,100	\$ 3,004
Amounts recognized in the statements of financial condition:		
Noncurrent asset	\$ 3,100	\$ 3,004
Net amount recognized	\$ 3,100	\$ 3,004
Amounts recognized in accumulated other comprehensive loss consist of:		
Net actuarial loss	\$ 15,188	\$ 16,088
Net prior service (credit)	(28,591)	(30,345)
Net amount recognized	\$ (13,403)	\$ (14,257)

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,	2018	2017	2016
Accumulated benefit obligation:			
Discount rate	4.15%	3.45%	3.80%
Health care cost trend rate	5.50%	5.50%	5.75%
Ultimate rate	5.00%	5.00%	5.00%
Years to ultimate rate	1	2	3
Benefit costs:			
Discount rate	3.45%	3.80%	4.00%
Expected long-term rate of return	6.00%	6.00%	6.00%
Health care cost trend rate	5.50%	5.75%	6.00%
Ultimate rate	5.00%	5.00%	5.00%
Years to ultimate rate	2	3	4

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 2018 and 2017, the Society of Actuaries released updated mortality improvement scales, which generally resulted in decreases in life expectancy for plan participants. OCC used the new mortality scales to value the postretirement welfare plan liability at December 31, 2018 and 2017 and there was no material impact to the financial statements.

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

(in thousands)	
2019	\$ 741
2020	661
2021	610
2022	586
2023	528
2024-2028	2,290

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 2018 or 2017.

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.

NOTES TO THE FINANCIAL STATEMENTS

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

December 31, 2018 (in thousands)	Total	Level 1	Level 2
U.S. Government securities	\$ 4,022,193	\$ —	\$ 4,022,193
Canadian Government securities	132,141	—	132,141
Other assets:			
Money Market funds	2,217	2,217	—
Registered mutual funds	36,316	36,316	—
Total	\$ 4,192,867	\$ 38,533	\$ 4,154,334

December 31, 2017 (in thousands)	Total	Level 1	Level 2
U.S. Government securities	\$12,567,142	\$ —	\$12,567,142
Canadian Government securities	116,800	—	116,800
Other assets:			
Money Market funds	2,046	2,046	—
Registered mutual funds	37,147	37,147	—
Total	\$12,723,135	\$ 39,193	\$12,683,942

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. In addition, as a regulated entity, OCC is subject to examination by the SEC and CFTC. In connection with these regulatory and legal matters, OCC has accrued \$15 million as of December 31, 2018. Actual settlement amounts may exceed amounts accrued and such amounts could be material.

Note 18. Capital Plan

In 2015, the SEC initially approved OCC's Capital Plan (the Capital Plan). Under the Capital Plan OCC's shareholders contributed \$150 million of equity capital, they agreed to provide additional equity capital of \$117 million (and up to \$200 million) if OCC's equity capital fell close to or below certain thresholds as defined in the Capital Plan. The Capital Plan specified the manner in which OCC's pre-tax operating income would be allocated between refunds to Clearing Members and dividends to shareholders. The SEC's approval was remanded by the U.S. Court of Appeals for the District of Columbia Circuit on August 8, 2017. On February 13, 2019, the SEC disapproved the Capital Plan. As a result of the disapproval, OCC is not providing a refund to clearing firms or declaring a dividend to shareholders under the Capital Plan for the year ended December 31, 2018. Furthermore, on February 28, 2019 OCC returned \$110 million of the shareholders' equity capital. The shareholders agreed to leave \$40 million of the \$150 million contributed under the Capital Plan with OCC. The remaining \$40 million of equity capital will be returned as soon as practical and at the request of the shareholders' only if the request would not cause OCC to fall below its target capital requirement, currently \$247 million, nor cause OCC not to hold sufficient liquid assets to cover known cash needs.

Note 19. Subsequent Events

OCC has evaluated events subsequent to December 31, 2018 to assess the need for potential recognition or disclosure. These events have been evaluated through March 22, 2019, the date of report issuance.

LINES OF CREDIT - On January 4, 2019, OCC renewed \$500 million of its pre-funded committed repurchase facility with CalPERS.

CAPITAL PLAN - On February 13, 2019, the SEC disapproved OCC's Capital Plan.

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, 2018 and 2017, 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, 2018, 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 Corporation as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Corporation's management. Our responsibility is to express an opinion on the Corporation'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 Corporation 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 Corporation 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 Corporation'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.



Deloitte & Touche LLP
Chicago, IL
March 22, 2019

We have served as the Corporation's auditor since 1972.

CLEARING MEMBERS

as of December 31, 2018

A

ABN AMRO Clearing Chicago LLC
ABN AMRO Securities (USA) LLC
ADM Investor Services, Inc.
Advantage Futures LLC
American Enterprise Investment Services, Inc.
Amherst Pierpont Securities LLC
Apex Clearing Corporation
Archipelago Securities, L.L.C.

B

Barclays Capital Inc.
BB&T Securities, LLC
BBS Securities Inc.
BMO Capital Markets Corp.
BMO Nesbitt Burns, Inc.
BNP Paribas Securities Corp.
Broadridge Business Process Outsourcing, LLC

C

C.L. King & Associates, Inc.
Canaccord Genuity Corp.
Cantor Fitzgerald & Co.
CF Secured, LLC
Charles Schwab & Co., Inc.
CIBC World Markets Corp.
CIBC World Markets Inc.
Citadel Clearing LLC
Citadel Securities LLC
Citi Order Routing and Execution, LLC
Citigroup Global Markets Inc.
COR Clearing LLC
Cowen Execution Services LLC
Credit Suisse Securities (USA) LLC

D

Daiwa Capital Markets America Inc.
Dash Financial Technologies LLC
Davenport & Company LLC
Deutsche Bank Securities Inc.

E

E D & F Man Capital Markets Inc.
E*TRADE Securities LLC

G

Goldman Sachs & Co. LLC

H

Hilltop Securities Inc.
HSBC Securities (USA) Inc.

I

ICAP Corporates LLC
Industrial and Commercial Bank of China Financial Services LLC
ING Financial Markets LLC
Ingalls & Snyder LLC
Instinet, LLC
Interactive Brokers LLC
INTL FCStone Financial Inc.
ITG Inc.

J

J.P. Morgan Securities LLC
Janney Montgomery Scott LLC
Jefferies LLC
Jump Trading, LLC

L

Lakeshore Securities, L.P.
Lek Securities Corporation
LPL Financial LLC

M

Merrill Lynch Professional Clearing Corp.
Merrill Lynch, Pierce, Fenner & Smith Inc.
Mirae Asset Securities (USA), Inc.
Mizuho Securities USA LLC
Morgan Stanley & Co. LLC
Morgan Stanley Smith Barney LLC
MUFG Securities Americas Inc.

N

Nasdaq Execution Services, LLC
National Bank Financial Inc.
National Bank of Canada Financial Inc.
National Financial Services LLC
Natixis Securities Americas LLC
NatWest Markets Securities Inc.
Nomura Securities International, Inc.

O

Oppenheimer & Co. Inc.

P

Pershing LLC
Phillip Capital Inc.

Q

Questrade Inc.

R

R.J. O'Brien & Associates, LLC
Raymond James & Associates, Inc.
RBC Capital Markets, LLC
RBC Dominion Securities Inc.
Robert W. Baird & Co. Incorporated
Robinhood Securities, LLC

S

Safra Securities LLC
Sanford C. Bernstein & Co., LLC
Scotia Capital (USA) Inc.
Scotia Capital Inc.
SG Americas Securities, LLC
Stephens Inc.
Stifel, Nicolaus & Company, Incorporated
StockCross Financial Services, Inc.
Straits Financial LLC

T

TD Ameritrade Clearing, Inc.
TD Prime Services LLC
TD Waterhouse Canada Inc.
Timber Hill LLC
TradeStation Securities, Inc.
Tradition Securities and Derivatives Inc.

U

UBS Financial Services Inc.
UBS Securities LLC

V

Vanguard Marketing Corporation
Virtu Americas LLC
Virtu Financial BD LLC
Vision Financial Markets LLC
Volant Execution, LLC

W

Wedbush Securities Inc.
Wells Fargo Clearing Services, LLC
Wells Fargo Securities, LLC
Wolverine Execution Services, LLC

X

X-Change Financial Access, LLC

Z

Ziv Investment Company

BANKS AND DEPOSITORY

as of December 31, 2018

CLEARING BANKS

Bank of America
Bank of Montreal
Bank of New York Mellon
BMO Harris Bank, National Association
Brown Brothers Harriman and Co.
Citibank, N.A.
JPMorgan Chase Bank, National Association
U.S. Bank National Association

APPROVED DEPOSITORY

The Depository Trust Company

LETTER OF CREDIT BANKS

(U.S. Institutions)

Bank of America, National Association
Bank of New York Mellon
BMO Harris Bank, National Association
JPMorgan Chase Bank, National Association
PNC Bank, National Association
U.S. Bank National Association
Wells Fargo Bank, National Association

(non-U.S. Institutions)

Australia and New Zealand Banking Group Limited
National Australia Bank Limited

ESCROW DEPOSIT BANKS

Bank of America, National Association
Bank of New York Mellon
BMO Harris Bank, National Association
Citibank, N.A.
Fifth Third Bank
JPMorgan Chase Bank, National Association
MUFG Union Bank, National Association
Northern Trust Company
PNC Bank, National Association
State Street Bank and Trust Company
U.S. Bank National Association
UMB Bank, National Association
Wells Fargo Bank, National Association

GOVERNMENT SECURITY BANKS

(U.S. Institutions)

Bank of New York Mellon
BMO Harris Bank, National Association
MUFG Union Bank, National Association
U.S. Bank National Association

(Non-U.S. Institutions)

Bank of Montreal

OPERATIONS ROUNDTABLE MEMBERS

as of December 31, 2018

CLEARING MEMBERS

Stephen F. Cody

Head of Cross Asset BO
SG Americas Securities, LLC

Craig Guadagno

Director
Merrill Lynch, Pierce, Fenner & Smith Inc.
Merrill Lynch Professional Clearing Corp.

Maria Mancusi

Chief Operations Officer
ABN AMRO Clearing Chicago, LLC

Ian Miller

Senior Vice President –
Futures, Clearing and Collateral
Citigroup Global Markets, Inc.

Lizabeth Miller

Director of FMSG Operations
TD Ameritrade Clearing, Inc.

Joseph Pozzi

Vice President, Listed Derivatives Operations
Goldman Sachs & Co. LLC

Ester Prior

Executive Director
Morgan Stanley & Co. LLC

Angela Randall

Managing Director, Operational Services
Charles Schwab & Co., Inc.

Wilson Reilly

Senior Director
National Financial Services LLC

Nicholas Ruggieri

Associate Director –
Head of Equities and Options
BMO Capital Markets Corp.

John Scott

Director
Wells Fargo Securities, LLC

Brad Sowers

Director, Clearing Operations
Wolverine Executive Services, LLC

Brian Sussman

Vice President,
Head of Global Clearing Operations
Interactive Brokers LLC

Zhenxing Tang

Vice President
Pershing LLC

EXCHANGES

Randy Foster

Senior Vice President, Business
Systems Development
Miami International Holdings, Inc.

Jeromy Hiserote

Operations Manager, U.S. Options
Cboe Global Markets

Charles M. Hullihan

Manager, Market Structure and Functionality
Cboe Global Markets

Helen Kitching

Operations Supervisor
OneChicago LLC

Kim L. Koppien

Manager, Operations
Intercontinental Exchange/NYSE Options

Katrina Lukacs

Head of Market Operations – Options
Nasdaq, Inc.

Patty Schuler

Vice President
Business Development
BOX Exchange LLC

THE OPTIONS INDUSTRY COUNCIL ROUNDTABLE MEMBERS

as of December 31, 2018

CLEARING MEMBERS

Robert Douglas Bodnar

Executive Director
Morgan Stanley & Co.
Served until Nov. 15, 2018

Jeff Chiappetta

Vice President, Trading Services
Charles Schwab

Gary Franklin

Vice President
Options Trading and Strategies
Raymond James Financial

Christopher Larkin

Senior Vice President
E*TRADE Securities LLC

Frank A. Magnani

Global Prime Brokerage and
Institutional Sales
Interactive Brokers LLC

Aaron Rowe

Vice President
Electronic Option Sales
Bank of America Merrill Lynch

EXCHANGES

John Black

Senior Product Manager
Nasdaq, Inc.

Eric Frait

Senior Vice President,
Options Advancement and Strategy
Cboe Global Markets, Inc.
Served until Dec. 18, 2018

Thomas Kennelly

Lead, Trading Operations
Miami International Holdings

Patty Schuler

Vice President
Business Development
BOX Exchange LLC

Christopher Twomey

Director, NYSE Options
New York Stock Exchange

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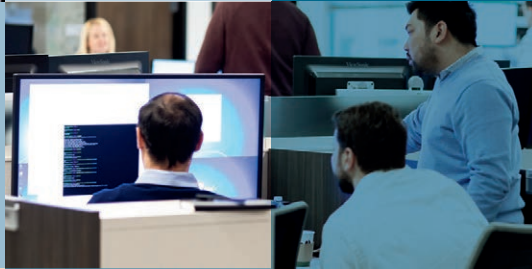
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Suite 630
Washington, D.C. 20001
202 971 7230





OCC was named Best Clearinghouse by *Markets Media* in April and Clearing House of the Year: The Americas by *FOW* in December.

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