ENDURING MOMENTUM

2018 ANNUAL REPORT

ODYSSEY GROUP®

A FAIRFAX Company

CONTENTS

Odyssey Group

ENDURING MOMENTUM

Unlike billiard balls colliding chaotically after an impact, the balls in Newton's cradle react to force in a steady, orderly fashion. The same can be said for Odyssey Group.

Despite the challenging dynamics and events that occurred during 2018, Odyssey Group has weathered the market forces exceptionally well by staying true to its core values of discipline, diversification and service.

Our underwriters understand that for every action, there can be an equal and opposite reaction. They know Odyssey's enduring strength and stability were not created overnight. They have witnessed both the benefit of remaining patient and the momentum generated by our business model.

As predictable as the swing of a pendulum, Odyssey Group will continue to meet clients' (re)insurance needs around the world today, tomorrow and for many years to come.

LETTER FROM THE CEO

Dear Friends, Business Partners and Colleagues,

Nothing frustrates *momentum* in the (re)insurance business more than underwriting losses. If it happens one year, ok… but two years in a row, without any meaningful correction… that's a problem. Doubt kicks in, you become introspective, questioning your risk appetite, your people and your process. The drama in London that drew widespread attention last fall is a prime example of the second-guessing and instability that's created by repeated underwriting losses.

Fortunately for Odyssey, 2018 was another fantastic year. Once again we bucked the market trend by delivering an underwriting profit, something we have been doing consistently for many years. In fact, over the last five years, our average combined ratio was 90.2%, and over the last ten it was 92.5%.

What separates us from the pack is the continuity of our team, the consistency of our underwriting approach and our steady engagement with the market. While many around us have changed ownership, strategy or risk appetite over the last two decades, we have steadily marched forward, judiciously growing our portfolio, expanding our capabilities, enhancing our processes and improving our service. The *Enduring Momentum* we have created in our business is a testament to our disciplined underwriting culture, the power of our three diverse and distinctive underwriting platforms: OdysseyRe, Hudson and Newline, strong enterprise risk management and an unwavering commitment to delivering quality service.

2018 was another difficult year for our industry, and yet the Odyssey Group ran to a combined ratio of 93.6%, generating $175 million of underwriting profit. Extraordinary current year loss activity, both Cat and non-Cat, added 7 points to the combined ratio, but this was more than offset by 12 points of prior year favorable development. Strong reserving, an essential companion of disciplined underwriting, has been a hallmark of our operation, with favorable reserve development contributing to earnings in each of the last 11 years.

"The *Enduring Momentum* we have created in our business is a testament to our disciplined underwriting culture..."

Odyssey Group's net income dropped from $325 million in 2017 to $224 million in 2018. While underwriting profits more than trebled year on year, our investment returns suffered from rising interest rates and falling equity markets. Our total equity was unchanged for the year at $4 billion as our income gain was offset by unrealized investment losses, foreign exchange adjustments and dividends paid to our parent, Fairfax.

During 2018, gross premiums written expanded 20% to $3.3 billion, with solid growth recorded across each of our 3 platforms and in 26 of our 35 business units around the world. Over the last two years, our top line has expanded 40% from $2.4 billion to $3.3 billion, while total assets have increased $1.7 billion to $11.9 billion and float has increased by $570 million. It's worth highlighting that our growth in assets and float the last two years occurred despite the fact that we have paid out more than $3.4 billion in claims over the same period. Paying claims promptly is our number one priority and key to our value proposition to clients. Needless to say, the last two years have been very active from a claims perspective and we've had plenty of opportunity to show our worth.

Our underwriting success in 2017 was driven by a 91.9% combined ratio in our Hudson and Newline insurance operations. In 2018, it was our reinsurance business, OdysseyRe, that "carried the ball," generating a market-shattering combined ratio of 89.9%. Our results over the last two years are a convincing display of the value of our portfolio diversification.

We have 19 reinsurance business units in OdysseyRe spread across five regions: North America, Latin America & Caribbean, London, EMEA and AsiaPac. All but two of our business units generated underwriting profits in 2018, and the two that didn't came close with combined ratios of 100.5% and 100.2%. Even in our U.S. Property treaty unit we managed to deliver a 94.2% combined ratio despite the impact of the California Wildfires and Hurricanes Florence and Michael. In AsiaPac, we were also able to generate an underwriting profit while absorbing significant losses from Typhoons Jebi and Trami.

As our reinsurance bottom line improved significantly last year, our gross premiums written increased as well with 13 of our 19 reinsurance business units expanding in 2018. The strongest growth came from the U.S., EMEA and AsiaPac in Property, Crop, Motor, A&H and Cyber.

Newline, our London-based insurance operation, had another fantastic year in 2018 delivering a 92.1% combined ratio and solid premium growth of nearly 10%. Newline, an international casualty specialist with operating hubs in London, Cologne, Singapore and Melbourne, has delivered an underwriting profit in each of the last six years. The international casualty arena has been incredibly competitive for more than a decade, but with rates finally starting to rise in the majority of our seven business units, Newline is well-positioned for future profitable growth.

Hudson, our U.S. specialty insurance arm, celebrated its 100-year anniversary in 2018. In 2017, Hudson passed the billion dollar premium threshold and in 2018, the top line propelled to $1.4 billion. Over the last two years, Hudson has expanded more than 50%! Every one of Hudson's nine business units experienced growth in 2018, and we expect this to continue in 2019 thanks to rising rates and new business opportunities. While results deteriorated in 2018, Hudson still managed to eke out an underwriting profit with a 99.5% combined ratio. Exceptional loss activity in our Crop, Commercial Auto and Liability business units weighed on the combined ratio, but the fundamentals in these three business units are improving and we expect better results going forward.

In the pages that follow, you will find an operational and financial review of the Odyssey Group, as well as separate, more detailed narratives for each of our three operating platforms. We hope you find this information helpful and I invite you to learn more by visiting **odysseygroup.com**, from which the OdysseyRe, Hudson and Newline websites can be accessed.

Fortunately, our success in 2018 again enables us to advance our philanthropic endeavors. Our culture of giving is vital to who we are and core to our mission as a Company. Each year we donate a portion of our profits to charitable organizations, and I'm pleased to announce that we have earmarked an additional $2.5 million for the Odyssey Group Foundation and its business affiliates. Since 2007, we have pledged over $45 million, donating to more than 300 charities around the world with a particular emphasis on disaster relief, education, healthcare and cancer research.

As we reflect on another outstanding year, we would like to take this opportunity to thank you, our valued clients and business partners, for your business and loyal support. We exist to serve you and recognize that our prosperity is wholly dependent on providing value in addressing your (re)insurance needs.

To Prem Watsa, Andy Barnard and Paul Rivett, we are forever grateful for your leadership, guidance and unwavering support. The decentralized structure of Fairfax that you have created and the entrepreneurial culture that you have promoted have been key to our *Enduring Momentum* and long-term success.

To my 1,016 colleagues around the world, congratulations on another great year. It's my privilege to represent Odyssey and an honor to work with each and every one of you. There are no limits to what we can achieve if we continue to work together for the benefit of our clients, business partners and Fairfax. We are on a roll, let's keep the *momentum* going!

Brian D. Young
President & Chief Executive Officer

"PAYING CLAIMS PROMPTLY IS OUR NUMBER ONE PRIORITY AND KEY TO OUR VALUE PROPOSITION TO CLIENTS."

"WHAT SEPARATES US FROM THE PACK IS THE CONTINUITY OF OUR TEAM, THE CONSISTENCY OF OUR UNDERWRITING APPROACH AND OUR STEADY ENGAGEMENT WITH THE MARKET."

OUR MISSION

We are an underwriting company that aspires to be a world-class reinsurer and specialty insurer, providing excellent security and high-quality service to our clients.

We seek to maintain a global business focus that emphasizes patient, profitable growth and ultimately supports Fairfax Financial Holdings' goal to achieve a 15% annual return over the long term.

We aim to meet this financial objective by:

- Maximizing underwriting profitability and growing invested assets
- Responding to clients' needs with local resources
- Delivering exceptional service to clients and colleagues alike
- Expanding our global reach through product and territorial diversification
- Possessing superior underwriting, claims and actuarial expertise
- Adapting to changing market conditions while maintaining a consistent, disciplined underwriting approach
- Investing in our employees and providing opportunities for growth within the organization to preserve our culture for the long term
- Embracing Fairfax Financial Holdings' values and guiding principles

We recognize that our prosperity and good fortune are dependent on our underwriting prowess and our clients' success; and when we succeed, those in the communities in which our employees live and work will benefit too.

AT A GLANCE

Odyssey Group Holdings, Inc. and its subsidiaries, collectively referred to as Odyssey Group, is one of the world's leading providers of reinsurance and specialty insurance, with total assets of $11.9 billion and $4 billion in total equity as of December 31, 2018.

Reinsurance is available around the world through OdysseyRe, while specialty insurance is offered by Hudson Insurance Group in the U.S. and by Newline Group internationally.

Odyssey Group Holdings, Inc. is wholly-owned by Fairfax Financial Holdings Limited, a financial services holding company with total assets of $64.4 billion and $17.4 billion in total equity as of December 31, 2018. Fairfax is traded on the Toronto Stock Exchange under the symbol FFH.

Odyssey Group is rated 'A' (Excellent) by A.M. Best Company and 'A-' (Strong) by Standard & Poor's.

A
(EXCELLENT)
A.M. BEST

A-
(STRONG)
STANDARD & POOR'S

NET INCOME: $223.8

COMBINED RATIO: 93.6%

GROSS PREMIUMS WRITTEN: $3,328.6

TOTAL EQUITY: $4,015.8

STATUTORY SURPLUS: $3,297.0

U.S. $ in millions

FINANCIAL HIGHLIGHTS

ODYSSEY GROUP HOLDINGS, INC.

(U.S. $ in millions)

	2018	2017	2016
Gross premiums written	$3,328.6	$2,783.1	$2,380.7
Net premiums written	2,897.8	2,495.9	2,100.2
Net premiums earned	2,755.4	2,333.4	2,074.1
Net investment income	209.2	191.8	215.1
Operating income before income taxes[a]	364.4	240.2	367.2
Net realized investment (losses) gains	(117.4)	378.1	(201.9)
Income before income taxes	247.0	618.3	165.3
Net income	223.8	325.3	160.9
Total assets	11,870.1	11,207.6	10,182.5
Total equity	4,015.8	4,012.5	3,833.2
Underwriting income	175.1	55.2	229.5
Combined ratio	93.6%	97.6%	88.9%

[a] Represents income before income taxes excluding net realized investment gains and losses.

GROSS PREMIUMS WRITTEN BY DIVISION

(U.S. $ in millions)

	2018	2017	2016
North America	$881.6	$774.6	$654.6
Latin America	112.6	102.5	104.8
EuroAsia	620.8	533.6	460.2
London Market	309.1	288.0	244.3
U.S. Insurance	1,404.5	1,084.4	916.8
Total gross premiums written	$3,328.6	$2,783.1	$2,380.7

OPERATIONS OVERVIEW

Odyssey Group is a globally diversified underwriter of property and casualty reinsurance and specialty insurance that operates through five Divisions: North America, Latin America, EuroAsia, London Market and U.S. Insurance.

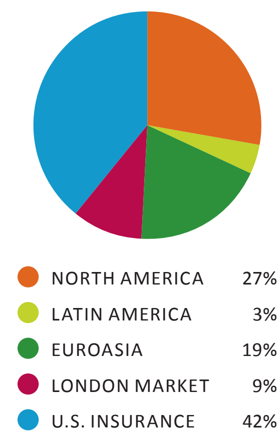
$3.3 BILLION
2018 GROSS PREMUIMS WRITTEN

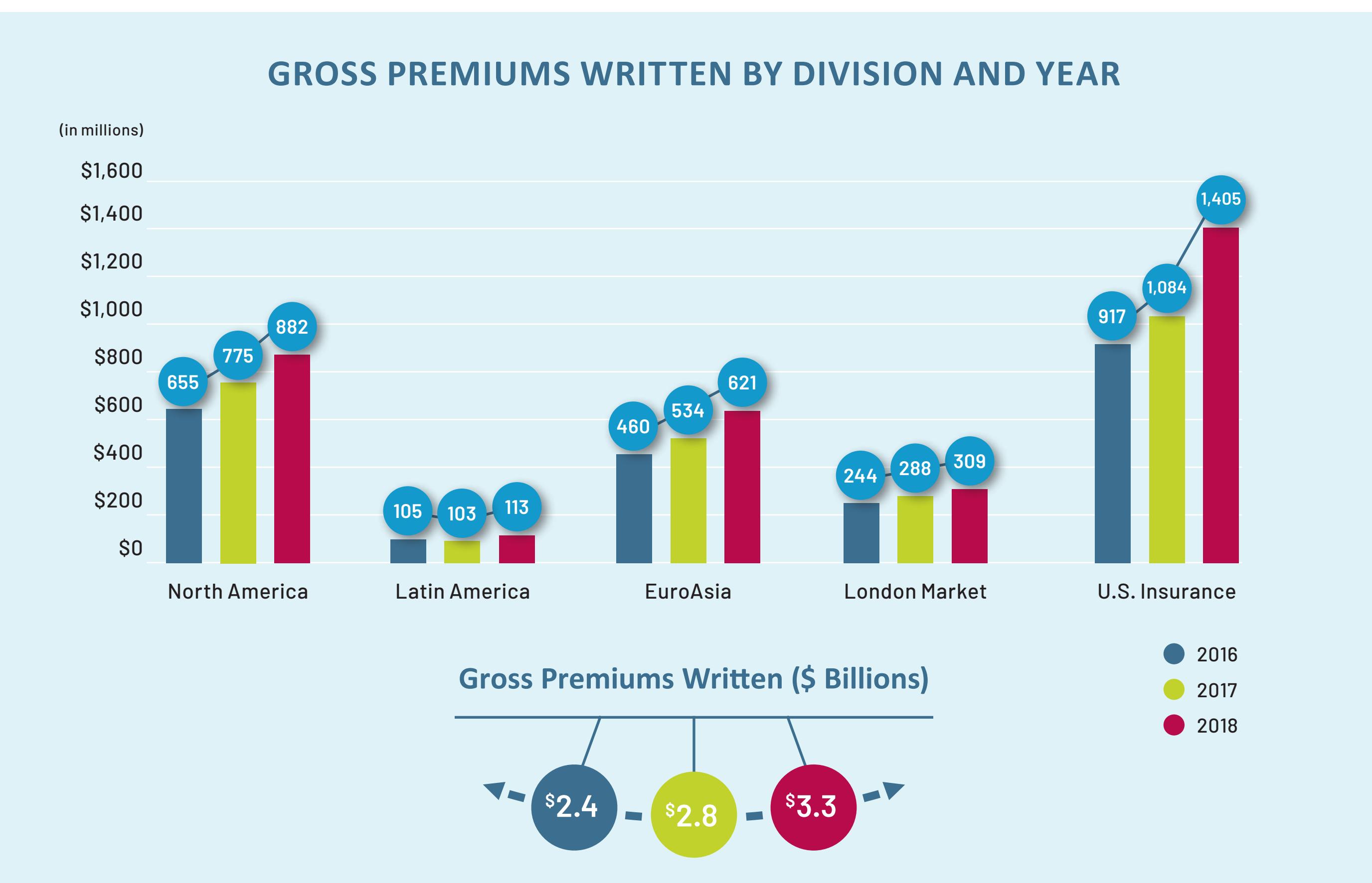
DIVERSIFICATION

Diversification is a critical focus of our business strategy as it provides portfolio stability. With our global network, we are able to rapidly respond to business opportunities as they emerge around the world. We have 35 discrete business units organized along different product, territorial and distribution lines, with 19 of these focused on reinsurance and 16 dedicated to insurance markets.

PROPERTY

Property accounted for 27% of gross premiums written compared to 31% in 2017. Our property portfolio is heavily weighted to reinsurance where margins remain more attractive, tail risk is more limited and we can respond to changing market conditions more rapidly. Catastrophe business, which represents 31% of our property book, was impacted in 2018 by losses from the California Wildfires, Hurricane Michael and Typhoon Jebi. While we have seen improvement in rates and terms in loss-affected areas following the catastrophe events of 2017 and 2018, we will need to see further price increases globally before we consider deploying significantly more capacity.





WRITING BUSINESS IN MORE THAN 100 TERRITORIES THROUGH A NETWORK OF 36 OFFICES LOCATED IN 13 COUNTRIES.

CASUALTY

Casualty represented 30% of our gross premiums written compared to 31% in 2017. Casualty insurance currently represents 72% of our total casualty portfolio. The book of business is very diverse in terms of product mix and geographic scope. While the casualty reinsurance market remains difficult, we are fortunate to have a core base of quality clients with whom we have partnered for many years. We remain attuned to new opportunities, and are an attractive partner for willing buyers due to our expertise and lead market capabilities, particularly in specialty casualty. We have more appetite for casualty insurance today because we not only have control over pricing, risk selection and claims handling, but we can use reinsurance to reduce volatility.

SPECIALTY

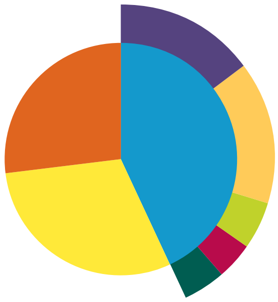
Other specialty lines, including Crop, Surety, Credit, Marine, Aerospace, Motor, Accident & Health and Affinity & Special Risks, represented 43% of gross premiums written compared to 38% in 2017. Crop, Motor and Accident & Health were significant premium drivers and we expect specialty lines will continue to be a growth area for us. The pricing environment in many specialty lines tends to be more local, and with our global reach, we have been able to respond to opportunities as they have arisen. Specialty lines are generally less volatile and capital-intensive, making further expansion attractive, especially in the face of tougher trading conditions in standard property and casualty lines.

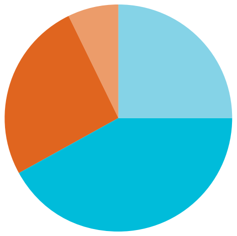
REINSURANCE

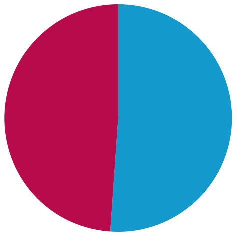
Underwritten primarily through our flagship company, Odyssey Reinsurance Company, we write a global reinsurance portfolio of $1.7 billion through a branch and representative office network of 14 offices in 10 countries. In 2018 we saw growth across all regions and most product lines. Our reinsurance results were excellent despite higher than expected losses from catastrophes. We produced a net combined ratio of 89.9% in 2018, compared to 101.9% in 2017.

INSURANCE

Specialty insurance is underwritten in the U.S. through Hudson Insurance Group and outside the U.S. through Newline Group. Global gross premiums written generated by our insurance operations were $1.6 billion, and the net combined ratio was 98.4% in 2018, compared to 91.9% in 2017. We expect our insurance portfolio to continue to be a key driver of Odyssey's growth and profitability.







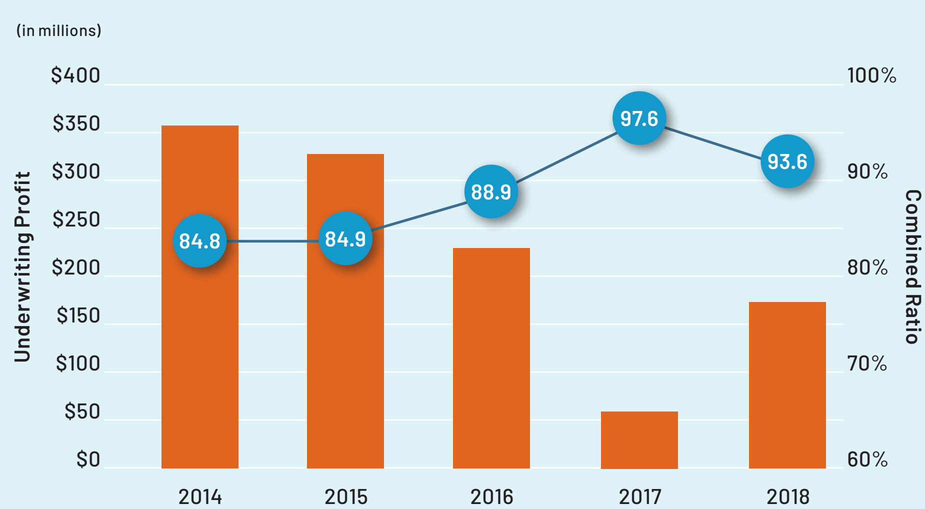
2018 UNDERWRITING RESULT

Odyssey Group reported a net combined ratio of 93.6% for 2018, which was 4 points lower than 2017, mostly driven by reduced Cat activity. This result was based on disciplined underwriting throughout the Group and a focus on growing only where profitable.

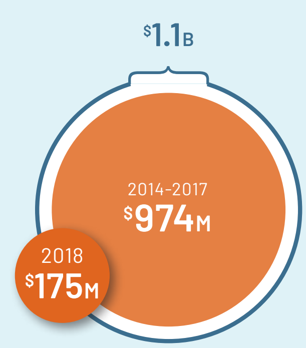
Reserve releases in 2018 were $340 million, which reduced the combined ratio by 12.3 points, compared to 12.4 points the previous year. Favorable development was recorded in all operating Divisions. Decreases in non-Cat loss reserves represented 51% of the releases in 2018, compared to 64% in 2017.

Property Cat losses for 2018 were $94 million greater than expectations, impacting the combined ratio by 3.4 points, compared to 2017 when property Cat losses were $228 million greater than expectations, impacting the combined ratio by 9.8 points.

UNDERWRITING PROFIT AND COMBINED RATIO HISTORY



2014 – 2018 Underwriting Profit



ODYSSEY GROUP FOUNDATION

The Odyssey Group Foundation provides funding to charitable organizations active in communities in which our employees live and work, as well as those dedicated to worldwide disaster relief efforts.

The Foundation's "Good Works" encompasses cancer research and healthcare, education, human services and disaster relief, which includes help to rebuild homes, schools and hospitals and provide medical supplies, improve access to food and water, assist with community mobilization and enable economic recovery.

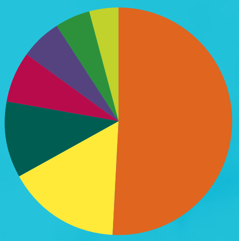
Since its inception in 2007, the Foundation and its business affiliates have pledged over $45 million to more than 300 charities around the world.

"WE HAVE SEEN FIRST-HAND HOW OUR CHARITABLE CONTRIBUTIONS HAVE MADE A DIFFERENCE IN CANCER RESEARCH, HEALTHCARE AND DISASTER RELIEF. WE ARE VERY PROUD TO SUPPORT THESE AND MANY OTHER CHARITABLE ORGANIZATIONS AROUND THE WORLD."

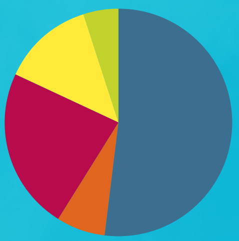
*- **Alane Carey,** Executive Vice President of Odyssey Group and Grants Review Officer for the Foundation*

THE ODYSSEY GROUP FOUNDATION'S CONTRIBUTIONS AT WORK:

REINSURANCE



PROPERTY	51%
CASUALTY	16%
MOTOR/AUTO	11%
ACCIDENT & HEALTH	7%
SURETY & TRADE CREDIT	6%
MARINE & AVIATION	5%
AGRICULTURE	4%



NORTH AMERICA	52%
LATIN AMERICA	7%
EMEA	23%
ASIAPACIFIC	13%
LONDON	5%

PRODUCT OFFERING

TREATY

Property (Assumed & Retro)
Casualty
Surety & Trade Credit
Marine & Aviation
Motor/Auto
Accident & Health
Agriculture
Terrorism
Cyber Liability

FACULTATIVE

Casualty (U.S. and Latin America Only)
Property (Latin America Only)
Terrorism
Energy

OdysseyRe

OdysseyRe prides itself on its consistent, long-term underwriting approach, well-defined risk appetite and commitment to providing quality service. Our reinsurance operations include a global network of 14 branch and representative offices across five regions:

- North America
- Latin America
- Europe, Middle East and Africa (EMEA)
- AsiaPacific
- London

Each region is comprised of talented, dedicated teams of underwriters, actuaries, auditors, claims professionals and catastrophe modelers.

Reinsurance is primarily underwritten through our flagship company, Odyssey Reinsurance Company, with Odyssey Re Europe S.A. available under special circumstances as needed.

In 2018, gross premiums written for reinsurance grew by 14% from 2017. All of our regions and most product lines contributed to this growth, with Accident & Health, Motor/Auto and Property as the primary drivers.

Our reinsurance results were excellent despite Cat losses from the California Wildfires, Hurricane Michael and Typhoon Jebi, as well as continued deterioration from Irma. We produced a net combined ratio of 89.9% compared to 101.9% in the prior year. Our risk appetite and diversified underwriting strategy served us well, as did favorable prior year development in many lines.

While market conditions remain challenging, we strive to be a credible source of guidance and market leadership. We are committed to investing in both talent and technology so that we can continue to meet our clients' unique reinsurance needs for many years to come.

89.9%
2018 COMBINED RATIO

$1.7 BILLION
2018 GROSS PREMUIMS WRITTEN

OFFICE LOCATIONS

STAMFORD
300 First Stamford Place
Stamford, CT 06902
USA
+1 203 977 8000

BEIJING
+86 10 8800 3999

CHICAGO
+1 312 596 0226

LONDON
+44 020 7090 1800

MEXICO CITY
+52 55 5662 8660

MIAMI
+1 305 722 8401

MONTREAL
+1 514 228 7560

NEW YORK
+1 212 978 2700

PARIS
+33 1 49 26 1000

SÃO PAULO
+55 11 3512 6922

SINGAPORE
+65 6438 3806

STOCKHOLM
+46 8 598 115 00

TOKYO
+81 3 3261 2570

TORONTO
+1 416 862 0162

REINSURANCE

Global Regions

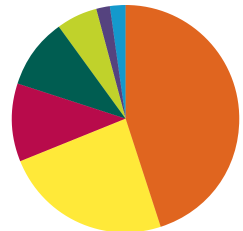
Brian D. Quinn
Chief Executive Officer

North America

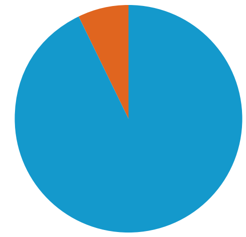
OdysseyRe's North America team offers treaty and facultative reinsurance to clients in the U.S. and Canada. Treaty facilities are based in Stamford, with additional offices in Toronto and Montreal. Casualty facultative underwriters operate from New York and Chicago.

$881.6 MILLION

2018 GROSS PREMIUMS WRITTEN



PROPERTY	45%
CASUALTY	24%
ACCIDENT & HEALTH	11%
MOTOR/AUTO	10%
FACULTATIVE CASUALTY	6%
SURETY	2%
MARINE	2%



U.S.	93%
CANADA	7%

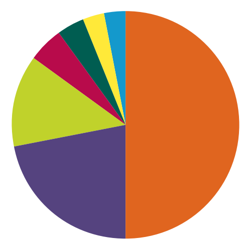
Philippe E. Mallier
Chief Executive Officer

Latin America

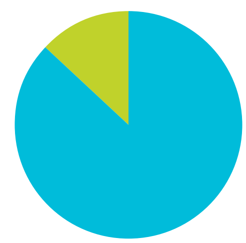
OdysseyRe provides treaty and facultative reinsurance to clients located in all countries throughout Latin America and the Caribbean. Underwriters are based in Mexico City, Miami and São Paulo, Brazil.

$112.6 MILLION

2018 GROSS PREMIUMS WRITTEN



PROPERTY	50%
SURETY	22%
CROP	13%
ACCIDENT & HEALTH	5%
MOTOR/AUTO	4%
CASUALTY	3%
MARINE	3%



TREATY	87%
FACULTATIVE	13%

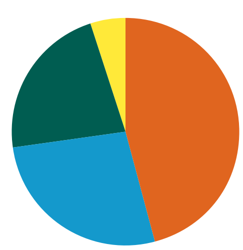
Carl A. Overy
Chief Executive Officer

London

OdysseyRe's London branch provides treaty solutions to reinsurance clients in the London Market, including Lloyd's. Its remit is global in scope allowing access to business where we have particular expertise.

$87.3 MILLION

2018 GROSS PREMIUMS WRITTEN



PROPERTY	46%
MARINE & AEROSPACE	27%
MOTOR/AUTO	22%
CASUALTY	5%

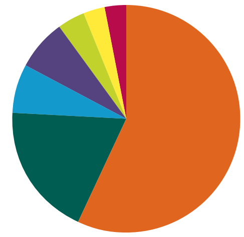
Isabelle Dubots-Lafitte
Chief Executive Officer

EMEA

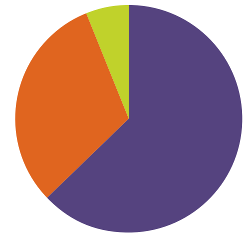
OdysseyRe offers treaty reinsurance in Continental Europe, the Middle East and Africa (EMEA) from its offices in Paris and Stockholm. The Paris-based underwriting team is responsible for writing property and casualty treaties in EMEA, while the Stockholm office services the Nordic, Russian and Baltic markets.

$394.4
MILLION

2018
GROSS PREMIUMS
WRITTEN



PROPERTY	57%
MOTOR/AUTO	19%
MARINE & AEROSPACE	7%
CREDIT & BOND	7%
CROP	4%
CASUALTY	3%
ACCIDENT & HEALTH	3%



EUROPE	63%
MIDDLE EAST	31%
AFRICA	6%

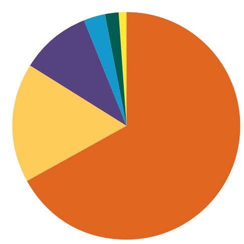
Lucien Pietropoli
Chief Executive Officer

AsiaPacific

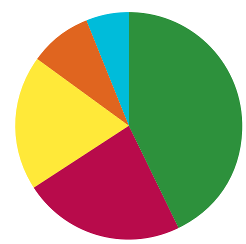
OdysseyRe's AsiaPacific team underwrites treaty reinsurance from Singapore, with the support of two representative offices in Beijing and Tokyo. Its geographical focus includes China, Japan, South Korea, Indonesia, Hong Kong, India, South East Asia, Australia and New Zealand.

$226.5
MILLION

2018
GROSS PREMIUMS
WRITTEN



PROPERTY	67%
CROP	17%
CREDIT & BOND	10%
MARINE & AEROSPACE	3%
MOTOR/AUTO	2%
CASUALTY	1%



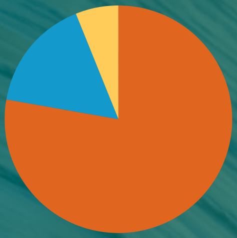
CHINA	43%
JAPAN	23%
SOUTH EAST ASIA/PACIFIC	19%
INDIA	9%
SOUTH KOREA	6%

GLOBAL REACH. IMMEASURABLE EXPERTISE.

With the right people in the right places, OdysseyRe consistently delivers exceptional service, excellent security and innovative reinsurance solutions to our clients and business partners around the world.

INSURANCE

U.S. Only



- HUDSON INSURANCE COMPANY 78%
- HUDSON SPECIALTY INSURANCE COMPANY 16%
- HUDSON EXCESS INSURANCE COMPANY 6%

- CROP 32%
- COMMERCIAL AUTO 22%
- SPECIALTY LIABILITY 15%
- PROFESSIONAL LINES 11%
- GENERAL LIABILITY & PACKAGE 11%
- SURETY 5%
- SPECIALTY PROPERTY & ENERGY 4%

PRODUCTS

Commercial Auto
Commercial Excess & Umbrella
Commercial Primary Casualty
Crop
General Liability & Package
Management Liability
Medical Malpractice
Personal Umbrella
Professional Liability
Specialty Property & Energy
Subcontractor Default Insurance
Surety

Hudson Insurance Group is a market-leading specialty insurer that operates in the United States and offers a wide range of property and casualty products to corporations, professional firms and individuals through a vast network of retail and wholesale brokers, MGUs and program administrators.

From its headquarters in New York and offices across the U.S. and in Vancouver, Canada, Hudson offers primary and excess insurance on an admitted basis through Hudson Insurance Company and on a non-admitted basis through Hudson Specialty Insurance Company and Hudson Excess Insurance Company.

Its nine business units include Commercial Auto, Crop, Financial Products, General Liability & Package, Healthcare Liability, Non-Medical Professional Liability, Specialty Property & Energy, Surety and Tribal.

In 2018, Hudson celebrated its 100th anniversary, which was made even more memorable as we reached a record $1.4 billion in gross premiums written. This represents an increase of 30% compared to gross premiums written of $1.1 billion in 2017. We experienced growth across most lines, though it was predominantly driven by our Crop, Commercial Auto, Liability & Package and Tribal businesses.

Our underwriting performance was positive despite current year extraordinary losses. Crop was impacted by drought in Texas, Hurricane Michael and reduced commodity prices. Commercial Auto was impacted by a larger frequency of severe claims.

However, our results benefitted from favorable prior year development, principally from liability lines of business. For the year, we produced a net combined ratio of 99.5% compared to 91.8% in 2017.

We continue to see the benefit from the investments made to expand into niche products and specialized services. Our newest business, Subcontractor Default Insurance, launched in March 2018, generated gross premiums written of $9 million in less than 12 months. Our third-party administrator, Napa River Insurance Services, grew its client base significantly and increased staff accordingly across the safety and risk management team, as well as its claims team, which has tripled in size since 2017.

Our efforts to build underwriting operations from the ground-up, acquire niche businesses and partner with key distributors has fueled our growth and ultimately created the Hudson you know today. We are proud of our history and will continue to invest in talent and technology to ensure our future sustainability. As Hudson enters its second century of operation, we are excited by the many new ways we can deliver innovative specialty insurance products and services to our valued clients.

Christopher L. Gallagher
Chief Executive Officer
Hudson Insurance Group

99.5%
2018 COMBINED RATIO

$1.4 BILLION
2018 GROSS PREMUIMS WRITTEN

OFFICE LOCATIONS

NEW YORK
100 William Street
New York, NY 10038
USA
+1 212 978 2800

ATLANTA
+1 678 331 4200

AVON
+1 203 977 6400

CALABASAS
+1 818 206 1500

CHICAGO
+1 312 596 0222

CORONA
+1 951 278 5648

FORT WASHINGTON
+1 212 978 2714

INDIANAPOLIS
+1 317 582 0073

KANSAS CITY
+1 816 778 0708

LAKE MARY
+1 407 710 1880

MINEOLA
+1 212 384 0100

MORRISTOWN
+1 212 384 0125

NAPA
+1 707 225 3300

OVERLAND PARK
+1 913 345 1515

SAN FRANCISCO
+1 415 423 1333

SCOTTSDALE
+1 480 566 6601

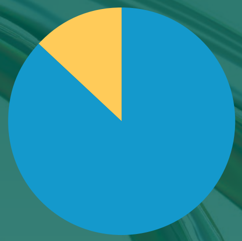
STAMFORD
+1 203 977 8000

VANCOUVER
+1 604 449 5360

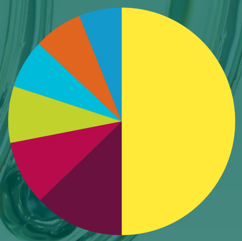
WESTLAKE
+1 440 925 1995

INSURANCE

International



NEWLINE SYNDICATE AT LLOYD'S	87%
NEWLINE INSURANCE COMPANY LIMITED	13%



LIABILITY	50%
MEDICAL MALPRACTICE	13%
FINANCIAL INSTITUTIONS	9%
PROFESSIONAL LIABILITY	8%
DIRECTORS & OFFICERS	7%
AFFINITY & SPECIAL RISKS	7%
SPACE, CARGO & SPECIE	6%

PRODUCTS

Affinity & Special Risks
Cargo & Specie
Crime
Directors & Officers
Liability
Medical Malpractice
Professional Liability
Space

Newline Group®

Carl A. Overy
Chief Executive Officer
Newline Group

Newline Group offers a suite of specialty casualty insurance products in more than 80 countries around the world. Our territorial focus is predominantly the U.K., Continental Europe, Australia, Asia Pacific and Canada.

Headquartered in London, Newline Group operates through two underwriting platforms, Newline Syndicate 1218 and Newline Insurance Company Limited. Newline Syndicate 1218 transacts business at its underwriting box at Lloyd's and through its service companies that act as "coverholders" around the world, providing local, customized service from its offices in Singapore, Melbourne, Malaysia and Toronto. Newline also participates in Lloyd's Insurance Company (China) Limited's platform in Shanghai.

With a branch office in Cologne and a regional office in Leeds, Newline Insurance Company Limited provides casualty insurance throughout the European Community and facultative reinsurance in most jurisdictions around the world.

Our product offerings include Public Liability, Employers Liability, Products Liability, Commercial Crime, Bankers Blanket Bond, Professional Liability, Directors & Officers Liability, Medical Malpractice, Satellite, Cargo, Specie and Affinity & Special Risks.

Newline delivered excellent results in 2018, with gross premiums written of $221.7 million and a net combined ratio of 92.1%. This compares to gross premiums written of $205.1 million and a net combined ratio of 92.4% in 2017. We saw continued growth in Liability, and our Directors & Officers and Affinity & Special Risks portfolios expanded as well. In addition, we were encouraged by improving terms and conditions across all Financial and Professional Lines as well as Cargo. Our performance across the year benefitted from favourable loss emergence together with negligible exposure to the catastrophe events of 2018.

Highlights from 2018 include the establishment of a new service company, Newline Canada Insurance Limited, which is based in Toronto and offers a suite of specialty insurance products primarily focused on small- and mid-sized clients. Our business in Cologne continues to grow and now enters its third year of operation. We are seeing the benefits of being closer to our distribution partners and our clients, which will provide further opportunites for growth.

Moving forward, we anticipate continued improvement of terms and conditions across Cargo and most casualty classes. We also expect our footprint to expand as our newer operations in Toronto and Cologne become more established.

92.1%
2018 COMBINED RATIO

$221.7 MILLION
2018 GROSS PREMUIMS WRITTEN

OFFICE LOCATIONS

LONDON
Corn Exchange
55 Mark Lane
London EC3R 7NE
England
+44 020 7090 1700

COLOGNE
+49 221 9669 4510

LABUAN
+65 6212 1290

LEEDS
+44 0113 350 8734

MELBOURNE
+61 03 9999 1901

SINGAPORE
+65 6212 1290

SHANGHAI
Newline Underwriting Division at Lloyd's
+86 021 6162 8278

TORONTO
+1 416 572 4729

EXECUTIVE LEADERSHIP

ODYSSEY GROUP HOLDINGS, INC.

BOARD OF DIRECTORS

[1] Compensation Committee

[2] Audit Committee

Andrew A. Barnard [1]
Chairman of the Board, President and Chief Operating Officer
Fairfax Insurance Group

Brandon W. Sweitzer [1] [2]
Dean, School of Risk Management
St. John's University School of Risk Management

Peter S. Clarke [2]
Vice President and Chief Operating Officer
Fairfax Financial Holdings Limited

Brian D. Young
President and Chief Executive Officer
Odyssey Group Holdings, Inc.

David J. Bonham [2]
Vice President and Chief Financial Officer
Fairfax Financial Holdings Limited

Paul C. Rivett
President
Fairfax Financial Holdings Limited

OFFICERS

Brian D. Young
President and Chief Executive Officer

Michael G. Wacek
Executive Vice President and Chief Risk Officer

Elizabeth A. Sander
Executive Vice President and Chief Actuary

Jan Christiansen
Executive Vice President and Chief Financial Officer

Peter H. Lovell
Senior Vice President, General Counsel and Corporate Secretary

EXECUTIVE TEAM

Alane R. Carey
Executive Vice President Director of Global Marketing

Philippe E. Mallier
Chief Executive Officer
Latin America

Brian D. Quinn
Chief Executive Officer
North America

Isabelle Dubots-Lafitte
Chief Executive Officer
Europe, Middle East & Africa

Carl A. Overy
Chief Executive Officer
London Market

Jeffrey M. Rubin
Senior Vice President Director of Global Claims

Christopher L. Gallagher
Chief Executive Officer
U.S. Insurance

Lucien Pietropoli
Chief Executive Officer
AsiaPacific

Report of Independent Auditors

To the Board of Directors of Odyssey Group Holdings, Inc.:

We have audited the accompanying consolidated financial statements of Odyssey Group Holdings, Inc. (formerly known as Odyssey Re Holdings Corp.) and its subsidiaries, which comprise the consolidated balance sheets as of December 31, 2018 and 2017, and the related consolidated statements of operations, comprehensive income, shareholders' equity and cash flows for each of the three years in the period ended December 31, 2018.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on the consolidated financial statements based on our audits. We conducted our audits 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 consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the Company's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Odyssey Group Holdings, Inc. (formerly known as Odyssey Re Holdings Corp.) and its subsidiaries as of December 31, 2018 and 2017, and the results of their operations and their cash flows for the three years in the period ended December 31, 2018 in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Accounting principles generally accepted in the United States of America require that information about incurred and paid claims development that precedes the current reporting period and the historical claims payout percentages included in Note 6 from page 57 to 63 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Financial Accounting Standards Board (FASB) who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

/s/ PricewaterhouseCoopers LLP

New York, New York
March 1, 2019

PricewaterhouseCoopers LLP, 300 Madison Avenue, New York, NY 10017
T: (646) 471 3000, F: (646) 471 8320, www.pwc.com/us

ODYSSEY GROUP HOLDINGS, INC.

CONSOLIDATED BALANCE SHEETS

	December 31, 2018	December 31, 2017
	(In thousands, except share and per share amounts)	
ASSETS		
Investments and cash:		
Fixed income securities, available for sale, at fair value (amortized cost $74,648 and $621,394, respectively)	$ 76,654	$ 651,083
Fixed income securities, held for trading, at fair value (amortized cost $4,445,491 and $1,251,075, respectively)	4,432,603	1,289,610
Preferred stocks, held for trading, at fair value (cost $31,395 and $32,307, respectively)	24,125	31,983
Equity securities:		
Common stocks, available for sale, at fair value (cost $106,367 and $108,200, respectively)	111,665	166,911
Common stocks, held for trading and fair value options, at fair value (cost $1,028,168 and $913,429, respectively)	785,330	872,027
Common stocks, at equity	816,322	809,638
Short-term investments, held for trading, at fair value (amortized cost $484,549 and $2,095,823, respectively)	531,957	2,095,823
Cash and cash equivalents	786,019	1,710,485
Cash and cash equivalents held as collateral	28,381	230,074
Other invested assets	1,182,069	881,879
Total investments and cash	8,775,125	8,739,513
Accrued investment income	24,232	21,039
Premiums receivable	1,089,758	850,272
Reinsurance recoverable on paid losses	159,611	29,680
Reinsurance recoverable on unpaid losses	927,035	866,985
Prepaid reinsurance premiums	121,465	79,439
Funds held by reinsureds	163,372	145,618
Deferred acquisition costs	230,335	201,994
Federal and foreign income taxes receivable	232,863	144,357
Other assets	146,346	128,745
Total assets	$ 11,870,142	$ 11,207,642
LIABILITIES		
Unpaid losses and loss adjustment expenses	$ 5,728,203	$ 5,463,595
Unearned premiums	1,077,182	909,078
Reinsurance balances payable	277,902	171,048
Funds held under reinsurance contracts	78,223	89,906
Debt obligations	89,900	89,857
Other liabilities	602,962	471,625
Total liabilities	7,854,372	7,195,109
Commitments and Contingencies (Note 11)		
SHAREHOLDERS' EQUITY		
Non-controlling interest - preferred shares of subsidiaries	29,299	29,299
Common shares, $10.00 par value; 60,000 shares authorized; 49,170 shares issued and outstanding	492	492
Additional paid-in capital	1,725,992	1,738,968
Accumulated other comprehensive (loss) income, net of deferred income taxes	(68,729)	37,222
Retained earnings	2,328,716	2,206,552
Total shareholders' equity	4,015,770	4,012,533
Total liabilities and shareholders' equity	$ 11,870,142	$ 11,207,642

See accompanying notes to consolidated financial statements.

ODYSSEY GROUP HOLDINGS, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS

	Years Ended December 31,		
	2018	2017	2016
		(In thousands)	
REVENUES			
Gross premiums written	$ 3,328,628	$ 2,783,105	$ 2,380,747
Ceded premiums written	430,808	287,218	280,570
Net premiums written	2,897,820	2,495,887	2,100,177
Increase in net unearned premiums	(142,391)	(162,486)	(26,081)
Net premiums earned	2,755,429	2,333,401	2,074,096
Net investment income	209,226	191,790	215,073
Net realized investment (losses) gains:			
Realized investment (losses) gains	(117,106)	390,367	(185,688)
Other-than-temporary impairment losses	(299)	(12,286)	(16,227)
Total net realized investment (losses) gains	(117,405)	378,081	(201,915)
Total revenues	2,847,250	2,903,272	2,087,254
EXPENSES			
Losses and loss adjustment expenses	1,715,745	1,539,522	1,171,825
Acquisition costs	588,740	492,482	431,417
Other underwriting expenses	275,868	246,181	241,329
Other expenses, net	15,811	3,526	74,559
Interest expense	4,132	3,260	2,801
Total expenses	2,600,296	2,284,971	1,921,931
Income before income tax	246,954	618,301	165,323
Federal and foreign income tax provision (benefit):			
Current	51,071	144,491	28,508
Deferred	(27,892)	148,556	(24,093)
Total federal and foreign income tax provision	23,179	293,047	4,415
Net income	$ 223,775	$ 325,254	$ 160,908

See accompanying notes to consolidated financial statements.

ODYSSEY GROUP HOLDINGS, INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Years Ended December 31,		
	2018	2017	2016
		(In thousands)	
Net income	$ 223,775	$ 325,254	$ 160,908
OTHER COMPREHENSIVE (LOSS) INCOME, BEFORE TAX			
Unrealized net (depreciation) appreciation on securities arising during the year	(64,946)	56,831	(53,043)
Reclassification adjustment for net realized investment gains included in net income	(17,956)	(100,845)	(48,910)
Foreign currency translation adjustments	(62,689)	528	(24,166)
Benefit plan liabilities	11,411	(13,180)	(2,440)
Other comprehensive loss, before tax	(134,180)	(56,666)	(128,559)
TAX BENEFIT (PROVISION)			
Unrealized net depreciation (appreciation) on securities arising during the year	13,690	(20,025)	18,546
Reclassification adjustment for net realized investment gains included in net income	3,771	35,296	17,118
Foreign currency translation adjustments	13,164	(185)	8,458
Benefit plan liabilities	(2,396)	4,613	854
Total tax benefit	28,229	19,699	44,976
Other comprehensive loss, net of tax	(105,951)	(36,967)	(83,583)
Comprehensive income	$ 117,824	$ 288,287	$ 77,325

See accompanying notes to consolidated financial statements.

ODYSSEY GROUP HOLDINGS, INC.

CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

	Years Ended December 31,		
	2018	2017	2016
	(In thousands, except common share amounts)		
NON-CONTROLLING INTEREST - PREFERRED SHARES OF SUBSIDIARIES			
Balance, beginning and end of year	$ 29,299	$ 29,299	$ 29,299
COMMON SHARES (par value)			
Balance, beginning and end of year	492	492	492
ADDITIONAL PAID-IN CAPITAL			
Balance, beginning of year	1,738,968	1,746,290	1,747,017
Net change due to stock option exercises and restricted share awards	(12,976)	(7,322)	(727)
Balance, end of year	1,725,992	1,738,968	1,746,290
ACCUMULATED OTHER COMPREHENSIVE (LOSS) INCOME NET OF DEFERRED INCOME TAXES			
Balance, beginning of year	37,222	67,581	151,164
Unrealized depreciation on securities, net of reclassification adjustments	(65,441)	(28,743)	(66,289)
Foreign currency translation adjustments	(49,525)	343	(15,708)
Benefit plan liabilities	9,015	(8,567)	(1,586)
U.S. tax reform deferred income tax reclassification	—	6,608	—
Balance, end of year	(68,729)	37,222	67,581
RETAINED EARNINGS			
Balance, beginning of year	2,206,552	1,989,517	2,030,220
Net income	223,775	325,254	160,908
Dividends to preferred shareholders and non-controlling interest	(1,611)	(1,611)	(1,611)
Dividends to common shareholder	(100,000)	(100,000)	(200,000)
U.S. tax reform deferred income tax reclassification	—	(6,608)	—
Balance, end of year	2,328,716	2,206,552	1,989,517
TOTAL SHAREHOLDERS' EQUITY	$ 4,015,770	$ 4,012,533	$ 3,833,179
COMMON SHARES OUTSTANDING			
Balance, beginning and end of year	49,170	49,170	49,170

See accompanying notes to consolidated financial statements.

ODYSSEY GROUP HOLDINGS, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years Ended December 31,		
	2018	2017	2016
		(In thousands)	
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income	$ 223,775	$ 325,254	$ 160,908
Adjustments to reconcile net income to net cash provided by operating activities:			
Increase in premiums receivable and funds held, net of reinsurance	(302,471)	(71,061)	(26,572)
Increase in unearned premiums and prepaid reinsurance premiums, net	139,269	159,249	26,792
Increase in unpaid losses and loss adjustment expenses, net of reinsurance	292,180	200,386	10,496
(Increase) decrease in current and deferred federal and foreign income taxes, net	(60,301)	277,366	(148,440)
Increase in deferred acquisition costs	(28,766)	(33,549)	(11,419)
Change in other assets and liabilities, net	129,996	(55,752)	41,937
Net realized investment losses (gains)	117,405	(378,081)	201,915
Bond discount amortization, net	(27,982)	(10,803)	(4,183)
Amortization of compensation plans	17,234	15,021	14,655
Net cash provided by operating activities	500,339	428,030	266,089
CASH FLOWS FROM INVESTING ACTIVITIES			
Maturities of fixed income securities, available for sale	530,941	147,492	63,890
Sales of fixed income securities, available for sale	43,750	158,332	501,833
Purchases of fixed income securities, available for sale	(13,983)	(15,179)	(5,330)
Sales of equity securities, available for sale	5,771	275,373	584
Purchases of equity securities, available for sale	(29,584)	(362,353)	(95,254)
Net settlements of other invested assets	244,245	485,327	(9,944)
Purchases of other invested assets	(486,805)	(308,411)	(112,762)
Net change in cash and cash equivalents held as collateral	194,860	(36,676)	(11,280)
Sales of trading securities	5,063,733	4,272,564	5,345,260
Purchases of trading securities	(6,854,273)	(3,930,490)	(5,748,858)
Net purchases of fixed assets	(15,323)	(10,769)	(10,680)
Net cash (used in) provided by investing activities	(1,316,668)	675,210	(82,541)
CASH FLOWS FROM FINANCING ACTIVITIES			
Purchases of restricted shares	(29,492)	(22,696)	(15,382)
Dividends paid to preferred shareholders	(1,611)	(1,611)	(1,611)
Dividends paid to common shareholder	(50,001)	(1)	(2)
Net cash used in financing activities	(81,104)	(24,308)	(16,995)
Effect of exchange rate changes on cash and cash equivalents	(27,033)	26,692	(21,959)
(Decrease) increase in cash and cash equivalents	(924,466)	1,105,624	144,594
Cash and cash equivalents, beginning of year	1,710,485	604,861	460,267
Cash and cash equivalents, end of year	$ 786,019	$ 1,710,485	$ 604,861
Supplemental disclosures of cash flow information:			
Interest paid	$ 4,068	$ 3,193	$ 2,741
Income taxes paid	$ 83,367	$ 17,991	$ 152,842
Non-cash activity:			
Dividends paid to common shareholder	$ 49,999	$ 99,999	$ 199,998

See accompanying notes to consolidated financial statements.

ODYSSEY GROUP HOLDINGS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Organization

Odyssey Group Holdings, Inc., formerly known as Odyssey Re Holdings Corp., a Delaware corporation (together with its subsidiaries, the "Company", or "OGHI" on a stand-alone basis), is an underwriter of reinsurance, providing a full range of property and casualty products on a worldwide basis, and an underwriter of specialty insurance, primarily in the United States and through the Lloyd's of London ("Lloyd's") marketplace. OGHI owns all of the common shares of Odyssey Reinsurance Company ("ORC"), its principal operating subsidiary, which is domiciled in the state of Connecticut. ORC directly or indirectly owns all of the common shares of the following subsidiaries:

Hudson Insurance Company ("Hudson") and its subsidiaries:

Hudson Specialty Insurance Company ("Hudson Specialty");

Hudson Excess Insurance Company ("Hudson Excess");

Greystone Insurance Company ("Greystone"), formerly known as Clearwater Select Insurance Company;

Newline Holdings U.K. Limited and its subsidiaries (collectively, "Newline"):

Newline Underwriting Management Limited, which manages Newline Syndicate (1218), a member of Lloyd's;

Newline Insurance Company Limited ("NICL");

Newline Corporate Name Limited ("NCNL"), which provides capital for and receives distributed earnings from Newline Syndicate (1218); and

Newline Verwaltungs AG ("NV").

Odyssey Re Europe Holdings S.A.S. ("OREH"):

Odyssey Re Europe S.A. ("ORESA").

Fairfax Financial Holdings Limited ("Fairfax"), a publicly traded financial services holding company based in Canada, ultimately owns 100% of the common shares of OGHI and 100% of the non-controlling interest - preferred shares of OGHI's subsidiaries. OGHI's direct 100% owner is Odyssey US Holdings Inc. ("OUSHI"), all of the common shares of which are ultimately owned by Fairfax.

Dividends and returns of capital from the Company are expected to be the source of funds for servicing OUSHI's debt obligations owed to various Fairfax entities.

2. Summary of Significant Accounting Policies

(a) *Basis of Presentation*. The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”). The consolidated financial statements include the accounts of the Company and its subsidiaries. Intercompany transactions have been eliminated.

The preparation of consolidated financial statements in conformity with GAAP requires the Company to make estimates and assumptions that could differ materially from actual results affecting the reported amounts of assets, liabilities, revenues and expenses and disclosures of contingent assets and liabilities. The Company considers its accounting policies that are most dependent on the application of estimates and assumptions as critical accounting estimates, which are defined as estimates that are both: i) important to the portrayal of the Company’s financial condition and results of operations and ii) require the Company to exercise significant judgment. These estimates, by necessity, are based on assumptions about numerous factors.

The Company reviews its critical accounting estimates and assumptions on a quarterly basis, including: the estimate of reinsurance premiums and premium related amounts; establishing deferred acquisition costs; goodwill and intangible impairment evaluations; an evaluation of the adequacy of reserves for unpaid losses and loss adjustment expenses; review of its reinsurance and retrocession agreements; estimates related to income taxes, including an analysis of the recoverability of deferred income tax assets; and an evaluation of its investment portfolio, including a review for other-than-temporary declines in estimated fair value.

(b) *Investments*. The majority of the Company’s investments in fixed income securities and common stocks are categorized as “available for sale” or “held for trading” and are recorded at their estimated fair value based on quoted market prices (see Note 3). Most investments in common stocks of affiliates are carried at the Company’s proportionate share of the equity of those affiliates. Short-term investments, which are classified as “held for trading” and which have a maturity of one year or less from the date of purchase, are carried at fair value. The Company considers all highly liquid debt instruments purchased with an original maturity of three months or less to be cash equivalents. Cash equivalents include certificates of deposits totaling $19.5 million and $17.7 million as of December 31, 2018 and 2017, respectively. Investments in limited partnerships, investment funds, mortgage loans and real estate have been reported in other invested assets. Other invested assets also include trust accounts relating to the Company’s benefit plans and derivative securities, all of which are carried at fair value. The Company routinely evaluates the carrying value of its investments in common stocks of affiliates and in partnerships and investment funds. In the case of limited partnerships and investment funds, the carrying value is generally established on the basis of the net valuation criteria as determined by the managers of the investments. Such valuations could differ significantly from the values that would have been available had markets existed for the securities. Investment transactions are recorded on their trade date, with balances pending settlement reflected in the consolidated balance sheets as a component of other assets or other liabilities.

Investment income, which is reported net of applicable investment expenses, is recorded as earned. Realized investment gains or losses are determined on the basis of average cost. The Company records, in investment income, its proportionate share of income or loss, including realized gains or losses, for those securities for which the equity method of accounting is utilized, which include most common stocks of affiliates, limited partnerships and investment funds. Due to the timing of when financial information is reported by equity investees and received by the Company, results attributable to these investments are generally reported by the Company on a one month or one quarter lag. Unrealized appreciation and depreciation related to trading securities is recorded as realized investment gains or losses in the consolidated statements of operations.

The net amount of unrealized appreciation or depreciation on the Company’s available for sale investments, net of applicable deferred income taxes, is reflected in shareholders’ equity in accumulated other comprehensive income. A decline in the fair value of an available for sale investment below its cost or amortized cost that is deemed other-than-temporary is recorded as a realized investment loss in the consolidated statements of operations, resulting in a new cost or amortized cost basis for the investment. Other-than-temporary declines in the carrying values of investments recorded in accordance with the equity method of accounting are recorded in net investment income in the consolidated statements of operations.

(c) *Revenue Recognition*. Reinsurance assumed premiums written and related costs are based upon reports received from ceding companies. When reinsurance assumed premiums written have not been reported by the ceding company they are estimated, at the individual contract level, based on historical patterns and experience from the ceding company and judgment of the Company. Subsequent adjustments to premiums written, based on actual results or revised estimates from the ceding company, are recorded in the period in which they become known. Reinsurance assumed premiums written related to proportional treaty business are established on a basis that is consistent with the coverage periods under the terms of the underlying insurance contracts. Reinsurance assumed premiums written related to excess of loss and facultative reinsurance business are recorded over the coverage term of the contracts, which is generally one year. Unearned premium reserves are established for the portion of reinsurance assumed premiums written that are to be recognized over the remaining contract period. Unearned premium reserves related to proportional treaty contracts are computed based on reports received from ceding companies, which show premiums written but not yet earned. Premium adjustments made over the life of the contract are recognized as earned premiums based on the applicable contract period. Insurance premiums written are based upon the effective date of the underlying policy and are generally earned on a pro rata basis over the policy period, which is usually one year. A reserve for uncollectible premiums is established when deemed necessary. The Company has established a reserve for potentially uncollectible premium receivable balances of $8.4 million and $10.7 million as of December 31, 2018 and 2017, respectively, which has been netted against premiums receivable.

The cost of reinsurance purchased by the Company (reinsurance premiums ceded) is reported as prepaid reinsurance premiums and amortized over the contract period in proportion to the amount of reinsurance protection provided. The ultimate amount of premiums, including adjustments, is recognized as premiums ceded, and amortized over the applicable contract period. Premiums earned are reported net of reinsurance ceded premiums earned in the consolidated statements of operations. Amounts paid by the Company for retroactive reinsurance that meet the conditions for reinsurance accounting are reported as reinsurance receivables to the extent those amounts do not exceed the associated liabilities. If the liabilities exceed the amounts paid, reinsurance receivables are increased to reflect the difference, and the resulting gain is deferred and amortized over the estimated settlement period. If the amounts paid for retroactive reinsurance exceed the liabilities, the related liabilities are increased or the reinsurance receivable is reduced, or both, at the time the reinsurance contract is effective, and the excess is charged to net income. Changes in the estimated amount of liabilities relating to the underlying reinsured contracts are recognized in net income in the period of the changes. Assumed and ceded reinstatement premiums represent additional premiums related to reinsurance coverages, principally catastrophe excess of loss contracts, which are paid when the incurred loss limits have been utilized under the reinsurance contract and such limits are reinstated. Premiums written and earned premiums related to a loss event are estimated and accrued as earned. The accrual is adjusted based upon any change to the ultimate losses incurred under the contract.

Leasing revenue is generally recognized ratably over the term of the leases. All of the Company's leasing revenue are generated from operating leases. Assets held for leases consist of land and buildings with estimated useful lives of 30 to 40 years and are valued at $130.2 million.

(d) *Deferred Acquisition Costs*. Acquisition costs, which are reported net of costs recovered under ceded contracts, consist of commissions and brokerage expenses incurred on insurance and reinsurance business written, and premium taxes on direct insurance written, and are deferred and amortized over the period in which the related premiums are earned. Commission adjustments are accrued based on changes in premiums and losses recorded by the Company in the period in which they become known. Deferred acquisition costs are limited to their estimated realizable value based on the related unearned premium, which considers anticipated losses and loss adjustment expenses and estimated remaining costs of servicing the business, all based on historical experience. The realizable value of the Company's deferred acquisition costs is determined without consideration of investment income.

Included in acquisition costs in the consolidated statements of operations are amortized deferred acquisition costs of $569.8 million, $483.6 million and $418.2 million for the years ended December 31, 2018, 2017 and 2016, respectively.

(e) *Goodwill and Intangible Assets*. The Company accounts for goodwill and intangible assets as permitted or required by GAAP. A purchase price paid that is in excess of net assets arising from a business combination is recorded as an asset ("goodwill") and is not amortized. Intangible assets with finite lives are amortized over the estimated useful life of the asset. Intangible assets with indefinite useful lives are not amortized. Goodwill and intangible assets are analyzed for impairment on a quarterly basis to determine if the carrying amount may not be recoverable. If the goodwill or intangible asset is impaired, it is written down to its realizable value with a corresponding expense reflected in the consolidated statements of operations. For the year ended December 31, 2018, the Company did not impair any goodwill or intangible assets. For the year ended December 31, 2017, the Company impaired $0.3 million of intangible assets with finite lives related to its acquisition of an agency producing surety business. For the year ended December 31, 2016, the Company impaired $6.8 million of goodwill related to its acquisition of an agency producing financial products.

The following table reflects the carrying amount of goodwill, intangible assets with indefinite lives and intangible assets with finite lives as of December 31, 2018 and 2017 (in thousands):

		Intangible Assets		
	Goodwill	Indefinite Lives	Finite Lives	Total
Balance, January 1, 2017	$ 52,257	$ 5,813	$ 6,723	$ 64,793
Amortization during 2017	—	—	(3,674)	(3,674)
Impairment during 2017	—	—	(329)	(329)
Balance, December 31, 2017	52,257	5,813	2,720	60,790
Acquired during 2018	11	—	11,416	11,427
Amortization during 2018	—	—	(2,581)	(2,581)
Balance, December 31, 2018	$ 52,268	$ 5,813	$ 11,555	$ 69,636

The following table provides the estimated amortization expense related to intangible assets for the succeeding years (in thousands):

	Years Ended December 31,					
	2019	2020	2021	2022	2023	2024 and thereafter
Amortization of intangible assets	$ 2,132	$ 1,712	$ 1,712	$ 1,712	$ 1,712	$ 2,573

(f) *Unpaid losses and loss adjustment expenses*. The reserves for losses and loss adjustment expenses are estimates of amounts needed to pay reported and unreported claims and related loss adjustment expenses. The estimates are based on assumptions related to the ultimate cost to settle such claims. The inherent uncertainties of estimating reserves are greater for reinsurers than for primary insurers due to the diversity of development patterns among different types of reinsurance contracts and the necessary reliance on ceding companies for information regarding reported claims. As a result, there can be no assurance that the ultimate liability will not exceed amounts reserved, with a resulting adverse effect on the Company.

The reserves for unpaid losses and loss adjustment expenses are based on the Company's evaluations of reported claims and individual case estimates received from ceding companies for reinsurance business or the estimates advised by the Company's claims adjusters for insurance business. The Company utilizes generally accepted actuarial methodologies to determine reserves for losses and loss adjustment expenses on the basis of historical experience and other estimates. The reserves are reviewed continually during the year and changes in estimates in losses and loss adjustment expenses are reflected as an expense in the consolidated statements of operations in the period the adjustment is made. Reinsurance recoverables on unpaid losses and loss adjustment expenses are reported as assets. A reserve for uncollectible reinsurance recoverables is established based on an evaluation of each reinsurer or retrocessionaire and historical experience. The Company uses tabular reserving for workers' compensation indemnity loss reserves, which are considered to be fixed and determinable, and discounts such reserves using an interest rate of 3.5% and the Life Table for Total Population: United States, 2009.

(g) *Deposit Assets and Liabilities*. The Company may enter into assumed and ceded reinsurance contracts that contain certain loss limiting provisions and, as a result, do not meet the risk transfer provisions of GAAP. These contracts are deemed as either transferring only significant timing risk or only significant underwriting risk or transferring neither significant timing nor underwriting risk and are accounted for using the deposit accounting method, under which revenues and expenses from reinsurance contracts are not recognized as written premium and incurred losses. Instead, the profits or losses from these contracts are recognized net, as other income or other expense, over the contract or contractual settlement periods.

For such contracts, the Company initially records the amount of consideration paid as a deposit asset or received as a deposit liability. Revenue or expense is recognized over the term of the contract, with any deferred amount recorded as a component of assets or liabilities until such time it is earned. The ultimate asset or liability under these contracts is estimated, and the asset or liability initially established, which represents the consideration transferred, is increased or decreased over the term of the contract. The change during the period is recorded in the Company's consolidated statements of operations, with increases and decreases in the ultimate asset or liability shown in other expense, net. As of December 31, 2018 and 2017, the Company had reflected $5.2 million and $5.9 million in other assets and $0.4 million and $0.5 million in other liabilities, respectively, related to deposit contracts. In cases where cedants retain the consideration on a funds held basis, the Company records those assets in other assets, and records the related investment income on the assets in the Company's consolidated statements of operations as investment income.

(h) *Income Taxes*. The Company records deferred income taxes to provide for the net tax effect of temporary differences between the carrying values of assets and liabilities in the Company's consolidated financial statements and their tax bases. Such differences relate principally to deferred acquisition costs, unearned premiums, unpaid losses and loss adjustment expenses, investments and tax credits. Deferred tax assets are reduced by a valuation allowance when the Company believes it is more likely than not that all or a portion of deferred taxes will not be realized. As of December 31, 2018 and 2017, a valuation allowance was not required.

The Company has elected to recognize accrued interest and penalties associated with uncertain tax positions as part of the income tax provision.

(i) *Derivatives*. The Company utilizes derivative instruments to manage against potential adverse changes in the value of its assets and liabilities. Derivatives include total return swaps, interest rate swaps, forward currency contracts, U.S. Treasury bond forward contracts, CPI-linked derivative contracts, credit default swaps, call options and warrants and other equity and credit derivatives. In addition, the Company holds options on certain securities within its fixed income portfolio that allow the Company to extend the maturity date on fixed income securities or convert fixed income securities to equity securities. The Company categorizes these investments as trading securities, and changes in fair value are recorded as realized investment gains or losses in the consolidated statements of operations. All derivative instruments are recognized as either assets or liabilities on the consolidated balance sheets and are measured at their fair value. Gains or losses from changes in the derivative values are reported based on how the derivative is used and whether it qualifies for hedge accounting. For derivative instruments that do not qualify for hedge accounting, changes in fair value are included in realized investment gains and losses in the consolidated statements of operations. Margin balances required by counterparties in support of derivative positions are included in fixed income securities and short-term investments.

(j) *Foreign Currency*. Foreign currency transaction gains or losses resulting from a change in exchange rates between the currency in which a transaction is denominated, or the original currency, and the functional currency are reflected in the consolidated statements of operations in the period in which they occur. The Company translates the financial statements of its foreign subsidiaries and branches that have functional currencies other than the U.S. dollar into U.S. dollars by translating balance sheet accounts at the balance sheet date exchange rate and income statement accounts at the rate at which the transaction occurs or the average exchange rate for each quarter. Translation gains or losses are recorded, net of deferred income taxes, as a component of accumulated other comprehensive income.

The following table presents the foreign exchange effects, net of the effects of foreign currency forward contracts purchased as an economic hedge against foreign exchange rate volatility and of tax, on specific line items in the Company's financial statements for the years ended December 31, 2018, 2017 and 2016 (in thousands):

	2018	2017	2016
Statements of operations:			
Realized investment gains (losses):			
Foreign currency forward contracts gains (losses)	$ 58,841	$ (35,407)	$ 4,330
Other investment (losses) gains	(24,139)	35,187	41,940
Total realized investment gains (losses)	34,702	(220)	46,270
Net investment (loss) income	(4,214)	868	1,240
Other income (expenses), net	1,575	18,552	(52,084)
Income (loss) before income tax	32,063	19,200	(4,574)
Total federal and foreign income tax provision (benefit)	6,734	6,720	(1,600)
Net income (loss)	25,329	12,480	(2,974)
Other comprehensive (loss) income:			
Other comprehensive (loss) income before income tax	(62,689)	528	(24,166)
Federal and foreign income tax (benefit) provision before income tax	(13,164)	185	(8,458)
Other comprehensive (loss) income, net of tax	(49,525)	343	(15,708)
Total effects on comprehensive (loss) income and shareholders' equity	$ (24,196)	$ 12,823	$ (18,682)

(k) *Stock-Based Compensation Plans*. The Company reflects awards of restricted common stock of Fairfax to employees as a reduction to additional paid-in-capital when the shares are purchased. The award value is amortized through compensation expense over the related vesting periods.

(l) *Claims Payments*. Payments of claims by the Company, as reinsurer, to a broker on behalf of a reinsured company are recorded in the Company's financial statements as paid losses at the time the cash is disbursed and are treated as paid to the reinsured. Premiums due to the Company from the reinsured are recorded as receivables from the reinsured until the cash is received by the Company, either directly from the reinsured or from the broker.

(m) *Funds Held Balances*. "Funds held under reinsurance contracts" represents amounts due to reinsurers arising from the Company's receipt of a deposit from a reinsurer, or the withholding of a portion of the premiums due, in accordance with contractual terms, as a guarantee that the reinsurer will meet its loss and other obligations. Interest generally accrues on withheld funds in accordance with contract terms. "Funds held by reinsured" represents amount due from a ceding company that withholds, in accordance with the contractual terms, a portion of the premium due the Company as a guarantee that the Company will meet its loss and other obligations.

(n) *Fixed Assets*. Fixed assets, with a net book value of $32.7 million and $28.2 million as of December 31, 2018 and 2017, respectively, are recorded at amortized cost and are included in other assets. Depreciation and amortization are generally computed on a straight-line basis over the following estimated useful lives:

Leasehold improvements	10 years or term of lease, if shorter
Electronic data processing equipment and furniture	5 years
Personal computers and software	3 years

Depreciation and amortization expense for the years ended December 31, 2018, 2017 and 2016 was $11.4 million, $9.4 million and $9.8 million, respectively.

(o) *Contingent Liabilities*. Amounts are accrued for the resolution of claims that have either been asserted or are deemed probable of assertion if, in the opinion of the Company, it is both probable that a liability has been incurred and the amount of the liability can be reasonably estimated. In many cases it is not possible to determine whether a liability has been incurred or to estimate the ultimate or minimum amount of that liability until years after the contingency arises, in which case no accrual is made until that time. As of December 31, 2018 and 2017, no contingent liabilities have been recorded (see Note 11).

(p) *Recent Accounting Pronouncements.* The Financial Accounting Standards Board ("FASB") is the organization responsible for establishing and improving GAAP.

In January 2016, the FASB issued Accounting Standards Update ("ASU") 2016-01, "Financial Instruments - Recognition and Measurement of Financial Assets and Financial Liabilities." ASU 2016-01 generally requires that equity investments (excluding those investments for which the equity method of accounting is utilized) be measured at fair value with changes in fair value recognized in net income. Under existing GAAP, changes in fair value of available-for-sale equity investments are recorded in other comprehensive income. ASU 2016-01 is effective for the Company in 2019, with the cumulative effect of the adoption made to the balance sheet as of January 1, 2019. The adoption will result in a reclassification of the related accumulated unrealized appreciation currently included in accumulated other comprehensive income to retained earnings, with no impact on the Company's shareholders' equity. If ASU 2016-01 had been adopted as of December 31, 2018, the required reclassification would have decreased other comprehensive income and increased retained earnings by approximately $5.8 million.

In February 2016 and July 2018, the FASB issued ASU 2016-02 and ASU 2018-11, respectively, both entitled "Leases", requiring a lessee i) to recognize in the statement of financial position a liability to make lease payments and a right-of-use asset representing its right to use the underlying asset for the lease term, and ii) to make additional qualitative and quantitative disclosures about its leases. Under ASU 2016-02, the new guidance was required to be applied retroactively with previously issued financial statements restated. Under the additional transition guidance provided by ASU 2018-11, entities may elect to recognize a cumulative-effect adjustment to the opening balance of retained earnings in the year of adoption. Consequently, if the transition option available under ASU 2018-11 is elected, an entity's reporting for the comparative periods prior to adoption presented in the consolidated financial statements would continue to be in accordance with current lease guidance. ASU 2016-02 and ASU-2018-11 are effective for the Company in 2020, with early adoption permitted. If ASU 2016-02 and ASU 2018-11 had been adopted as of December 31, 2018, the Company would have been required to establish a right-of-use asset and a lease obligation of $86.7 million.

In June 2016, the FASB issued ASU 2016-13, "Financial Instruments - Credit Losses," which provides for the recognition and measurement at the reporting date of all expected credit losses for financial assets that are not accounted for at fair value through net income, including investments in available-for-sale debt securities and loans, premiums receivable and reinsurance recoverable. The updated guidance amends the current other-than-temporary impairment model for available-for-sale debt securities by requiring the recognition of impairments relating to credit losses through an allowance account and limits the amount of credit loss to the difference between a security's amortized cost basis and its fair value. This guidance also applies a new current expected credit loss model for determining credit-related impairments for financial instruments measured at amortized cost. ASU 2016-13 is effective for the Company in 2021, with early adoption permitted. The Company is evaluating the effect this standard will have on its consolidated financial statements, although such effect is not expected to be significant.

In November 2016, the FASB issued ASU 2016-18, "Statement of Cash Flows (Topic 230): Restricted Cash." ASU 2016-18 requires that the statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts described as restricted cash or restricted cash equivalents. Disclosure will be required to reconcile such total to amounts on the balance sheet and to describe the nature of the restrictions. ASU 2016-18 is effective for the Company in 2019, with early adoption permitted. The Company is evaluating the effect this standard will have on its consolidated financial statements, although such effect is not expected to be significant.

In March 2017, the FASB issued ASU 2017-07, "Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost." ASU 2017-07 requires that the service cost component of net periodic benefit costs be reported within the same line items of the statements of operations as other compensation costs are reported. Other components of net periodic benefit costs should be reported separately. Disclosure is required to state within which line items of the statements of operations each component is reported. ASU 2017-07 is effective for the Company in 2019. As there is no change in the total cost reported, the adoption of ASU 2017-07 will not have a material impact on the Company's consolidated financial statements.

In March 2017, the FASB issued ASU 2017-08, "Receivables - Nonrefundable Fees and Other Costs (Subtopic 310-20): Premium Amortization on Purchased Callable Debt Securities." ASU 2017-08 requires that the premium on callable debt securities be amortized through the earliest call date rather than through the maturity date of the callable security. ASU 2017-08 is effective for the Company in 2020. The Company does not expect the adoption of ASU 2017-08 to have a material impact on its consolidated financial statements.

In August 2018, the FASB issued ASU 2018-13, "Changes to the Disclosure Requirements for Fair Value Measurement." ASU 2018-13 is effective for the Company in 2020. Implementation is on a prospective or retroactive basis, depending on the specific disclosure element. Early adoption is permitted. The Company does not expect the adoption of ASU 2018-13 to have a material impact on the Company's consolidated financial statements.

In August 2018, the FASB issued ASU 2018-15, "Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract." ASU 2018-15 requires that implementation costs of a cloud computing arrangement that is a service contract must be capitalized and expensed in accordance with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software. In addition, any capitalized implementation costs should be amortized over the term of the hosting arrangement. ASU 2018-15 is effective for the Company in 2021. Early adoption is permitted. The Company does not expect the adoption of ASU 2018-15 to have a material impact on the Company's consolidated financial statements.

(q) *Subsequent Events*. The Company has evaluated the significance of events occurring subsequent to December 31, 2018 with respect to disclosing the nature and expected impact of such events as of March 1, 2019, the date these consolidated financial statements were available to be issued.

3. Fair Value Measurements

The Company accounts for a significant portion of its financial instruments at fair value as permitted or required by GAAP.

Fair Value Hierarchy

The assets and liabilities recorded at fair value in the consolidated balance sheets are measured and classified in a three level hierarchy for disclosure purposes based on the observability of inputs available in the marketplace used to measure fair values. The fair value hierarchy gives the highest priority to quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). When the inputs used to measure fair value fall within different levels of the hierarchy, the level within which the fair value measurement is categorized is based on the lowest level input that is significant to the fair value measurement in its entirety. Gains and losses for assets and liabilities categorized within the Level 3 table below, therefore, may include changes in fair value that are attributable to both observable inputs (Levels 1 and 2) and unobservable inputs (Level 3). Financial assets and liabilities recorded in the consolidated balance sheets are categorized based on the inputs to the valuation techniques as follows:

Level 1: Level 1 financial instruments are financial assets and liabilities for which the values are based on unadjusted quoted prices for identical assets or liabilities in an active market that the Company has the ability to access. Market price data generally is obtained from exchange markets. The Company does not adjust the quoted price for such instruments. The majority of the Company's Level 1 investments are common stocks that are actively traded in a public market and short-term investments and cash equivalents, for which the cost basis approximates fair value.

Level 2: Level 2 financial instruments are financial assets and liabilities for which the values are based on quoted prices in markets that are not active, or model inputs that are observable either directly or indirectly for substantially the full term of the asset or liability. Level 2 inputs include the following:

a) Quoted prices for similar assets or liabilities in active markets;

b) Quoted prices for identical or similar assets or liabilities in non-active markets;

c) Pricing models, the inputs for which are observable for substantially the full term of the asset or liability; and

d) Pricing models, the inputs for which are derived principally from, or corroborated by, observable market data through correlation or other means, for substantially the full term of the asset or liability.

Assets and liabilities measured at fair value on a recurring basis and classified as Level 2 include government and corporate fixed income securities, which are priced using publicly traded over-the-counter prices and broker-dealer quotes. Observable inputs such as benchmark yields, reported trades, broker-dealer quotes, issuer spreads and bids are available for these investments. Also included in Level 2 are inactively traded convertible corporate debentures that are valued using a pricing model that includes observable inputs such as credit spreads and discount rates in the calculation.

Level 3: Level 3 financial instruments are financial assets and liabilities for which the values are based on prices or valuation techniques that require inputs that are both unobservable and significant to the overall fair value measurement. These measurements include circumstances in which there is little, if any, market activity for the asset or liability. In certain cases, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, the level in the fair value hierarchy within which the fair value measurement is categorized is based on the lowest level input that is significant to the fair value measurement in its entirety. Therefore, these inputs reflect the Company's own assumptions about the methodology and valuation techniques that a market participant would use in pricing the asset or liability.

For the years ended December 31, 2018 and 2016, no securities were transferred into or out of Level 3. For the year ended December 31, 2017, the Company transferred $79.2 million of Level 2 securities to Level 3 after determining that the valuation technique required unobservable inputs.

During the years ended December 31, 2018, 2017 and 2016, the Company purchased $83.4 million, $159.0 million and $258.1 million, respectively, of investments that are classified as Level 3. As of December 31, 2018 and 2017, the Company held $470.0 million and $518.9 million, respectively, of investments that are classified as Level 3. Level 3 investments include CPI-linked derivative contracts, and certain loans, bonds, preferred stocks and common stocks.

A review of fair value hierarchy classifications is conducted on a quarterly basis. Changes in the observability of valuation inputs may result in a reclassification for certain financial assets or liabilities. Reclassifications impacting Level 3 of the fair value hierarchy are generally reported as transfers in or out of the Level 3 category as of the beginning of the period in which the reclassifications occur. The Company has determined, after carefully considering the impact of recent economic conditions and liquidity in the credit markets on the Company's portfolio, that it should not re-classify any of its investments from Level 1 or Level 2 to Level 3 for the years ended December 31, 2018 or 2016. There were no transfers of securities between Level 1 and Level 2 during the years ended December 31, 2018 and 2017. For the year ended December 31, 2016, $0.9 million common stock – held for trading and fair value option was transferred from Level 1 to Level 2.

The Company is responsible for determining the fair value of its investment portfolio by utilizing market driven fair value measurements obtained from active markets, where available, by considering other observable and unobservable inputs and by employing valuation techniques that make use of current market data. For the majority of the Company's investment portfolio, the Company uses quoted prices and other information from independent pricing sources to determine fair values.

The following tables present the fair value hierarchy for those assets and liabilities measured at fair value on a recurring basis as of December 31, 2018 and 2017 (in thousands):

	Fair Value Measurements as of December 31, 2018			
	Reported Fair Value	Level 1	Level 2	Level 3
Fixed income securities, available for sale:				
United States government, government agencies and authorities	$ 617	$ —	$ 617	$ —
States, municipalities and political subdivisions	39,062	—	39,062	—
Corporate	36,975	1,968	35,007	—
Total fixed income securities, available for sale	76,654	1,968	74,686	—
Fixed income securities, held for trading:				
United States government, government agencies and authorities	2,583,063	—	2,583,063	—
States, municipalities and political subdivisions	54,635	—	54,635	—
Foreign governments	624,229	—	624,229	—
Corporate	1,170,676	—	788,364	382,312
Total fixed income securities, held for trading	4,432,603	—	4,050,291	382,312
Preferred stocks, held for trading	24,125	1,109	—	23,016
Common stocks, available for sale	100,012	96,345	3,667	—
Common stocks, held for trading and fair value options	459,088	419,610	18,330	21,148
Short-term investments, held for trading	531,957	447,349	84,608	—
Cash equivalents	258,386	258,386	—	—
Derivatives	61,399	—	58,284	3,115
Other investments	55,305	—	14,875	40,430
Total assets measured at fair value	$ 5,999,529	$ 1,224,767	$ 4,304,741	$ 470,021
Derivative liabilities	$ 30,236	$ —	$ 30,236	$ —
Total liabilities measured at fair value	$ 30,236	$ —	$ 30,236	$ —

	Fair Value Measurements as of December 31, 2017			
	Reported Fair Value	Level 1	Level 2	Level 3
Fixed income securities, available for sale:				
United States government, government agencies and authorities	$ 5,894	$ —	$ 5,894	$ —
States, municipalities and political subdivisions	590,633	—	590,633	—
Corporate	54,556	1,170	53,386	—
Total fixed income securities, available for sale	651,083	1,170	649,913	—
Fixed income securities, held for trading:				
United States government, government agencies and authorities	184,013	—	184,013	—
States, municipalities and political subdivisions	382,975	—	382,975	—
Foreign governments	267,772	—	267,772	—
Corporate	454,850	—	26,556	428,294
Total fixed income securities, held for trading	1,289,610	—	861,316	428,294
Preferred stocks, held for trading	31,983	1,199	—	30,784
Common stocks, available for sale	152,169	147,909	4,260	—
Common stocks, held for trading and fair value options	514,584	435,912	30,469	48,203
Short-term investments, held for trading	2,095,823	2,061,247	34,576	—
Cash equivalents	1,541,866	1,541,866	—	—
Derivatives	48,321	—	36,731	11,590
Other investments	13,812	—	13,812	—
Total assets measured at fair value	$ 6,339,251	$ 4,189,303	$ 1,631,077	$ 518,871
Derivative liabilities	$ 60,952	$ —	$ 60,952	$ —
Total liabilities measured at fair value	$ 60,952	$ —	$ 60,952	$ —

In accordance with ASU 2015-17, "Fair Value Measurement (Topic 820): Disclosure for Investments in Certain Entities That Calculate Net Asset Value (NAV) per Share (or Its Equivalent)," investments that are measured at fair value using the NAV per share (or its equivalent) as a practical expedient, have not been classified in the fair value hierarchy. As of December 31, 2018 and 2017, $1,003.0 million and $965.5 million, respectively, of investments, reported as equity securities and other invested assets are not included within the fair value hierarchy tables.

The following table provides a summary of changes in the fair value of Level 3 financial assets for the years ended December 31, 2018 and 2017 (in thousands):

	Fixed Income Securities	Other Invested Assets	Equity Securities
Balance, January 1, 2017	$ 221,198	$ 13,614	$ 53,936
Change in value related to securities sold	8,480	(8,164)	—
Change in value related to securities held	81,871	—	(5,441)
Purchases / advances	122,410	6,140	30,492
Settlements / paydowns	(84,865)	—	—
Transfers from Level 2 to Level 3	79,200	—	—
Balance, December 31, 2017	428,294	11,590	78,987
Change in value related to securities sold	(2,634)	(670)	10,693
Change in value related to securities held	(63,953)	2,768	(17,451)
Purchases / advances	48,916	34,470	—
Settlements / paydowns	(28,311)	(4,613)	(28,065)
Balance, December 31, 2018	$ 382,312	$ 43,545	$ 44,164

The following tables present changes in value included in net income related to Level 3 assets for the years ended December 31, 2018, 2017, and 2016 (in thousands):

Year ended December 31, 2018	Net Investment Income (Losses)	Net Realized Capital Gains (Losses)	Currency Translation	Total
Fixed income securities	$ (1,458)	$ (64,078)	$ (1,051)	$ (66,587)
Other invested assets	—	2,023	75	2,098
Equity securities	—	(6,630)	(128)	(6,758)
Total changes in value included in net loss	$ (1,458)	$ (68,685)	$ (1,104)	$ (71,247)
Year ended December 31, 2017				
Fixed income securities	$ 865	$ 89,489	$ (3)	$ 90,351
Other invested assets	—	(8,164)	—	(8,164)
Equity securities	—	(5,696)	255	(5,441)
Total changes in value included in net income	$ 865	$ 75,629	$ 252	$ 76,746
Year ended December 31, 2016				
Fixed income securities	$ (2,842)	$ (20,691)	$ (2,616)	$ (26,149)
Other invested assets	—	(48,695)	—	(48,695)
Equity securities	—	9,118	(259)	8,859
Total changes in value included in net loss	$ (2,842)	$ (60,268)	$ (2,875)	$ (65,985)

The Company uses valuation techniques to establish the fair value of Level 3 investments. The following table provides information on the valuation techniques, significant unobservable inputs and ranges for each major category of Level 3 assets measured at fair value on a recurring basis at December 31, 2018 and 2017 (in thousands):

Valuation Technique/Asset Type	As of December 31, 2018	As of December 31, 2017	Significant Unobservable Inputs	Range 2018	Range 2017
Market Approach					
Fixed income securities, held for trading	$ 260,956	$ 306,938	Risk premium for credit risk	2.6%-5.7%	1.6%-4.0%
	121,356	121,356	Net Asset Valuation for secured loans and Comparable transactions	60%-100%	60%-100%
Preferred stocks, held for trading	20,516	28,284	Risk premium for credit risk	5.1%-5.7%	3.5%-3.6%
	2,500	2,500	Transaction price	—	—
CPI-linked derivatives (1)	3,115	6,382	Broker quotes		
Warrants	—	5,209	Volatility	—	30.7%-31.2%
Total valued using market approach	408,443	470,669			
Income Approach					
Common stocks, held for trading	—	17,499	EV/EBITDA multiple	—	7.5x
Market Price to Book Value					
Common stocks, fair value option	21,148	30,703	Time lag in receiving book value of comparable companies		
Par Value					
Other investments	40,430	—	Yield to Maturity	5.0%	—
Total - Level 3	$ 470,021	$ 518,871			

(1) Valued using broker-dealer quotes that use market observable inputs except for the inflation volatility input, which is not market observable.

Fair Value Option

The fair value option ("FVO") allows companies to irrevocably elect fair value as the initial and subsequent measurement attribute for certain financial assets and liabilities. Changes in the fair value of assets and liabilities for which the election is made are recognized in net income as they occur. The FVO election is permitted on an instrument-by-instrument basis at initial recognition of an asset or liability or upon the occurrence of an event that gives rise to a new basis of accounting for that instrument.

The Company elected the FVO for its investment in Advent Capital (Holdings) PLC ("Advent") as, at the time of the election, Advent was publicly traded and its trading price was believed to be a better indicator of its value than an amount computed under the equity method. Fairfax and its subsidiaries currently own 100% of Advent's common stock, of which the Company holds 17.0%. For 2018, following the placement of Advent into run-off, the Company began using Advent's book value as the best approximation of its fair value. Prior to 2018, in order to determine the fair value of Advent, the Company evaluated observable price-to-book multiples of peer companies and applied such to Advent's most recently available book value per share. As of December 31, 2018 and 2017, the Company's interest in Advent was recorded at fair value of $21.1 million and $30.7 million, respectively, in common stocks held for trading and fair value options, with related changes in fair value recognized as a realized investment gain or loss in the period in which they occurred. The change in Advent's fair value resulted in the recognition of realized investment losses of $9.6 million and $8.6 million for the years ended December 31, 2018 and 2017, respectively, and a realized investment gain of $5.8 million for the year ended December 31, 2016. The value of the Company's interest in Advent as of December 31, 2018, calculated in accordance with the equity method of accounting, would have been $24.3 million.

The Company owns Classes A, C, E, G, H, J, K and Q common shares of HWIC Asia Fund ("HWIC Asia"), which is 100% owned by Fairfax and of which the Company owns 30.1% as of December 31, 2018. At the time of the purchase of each class of shares, the Company elected the FVO for these investments, as HWIC Asia is a multi-class investment company that reports its investments at fair value and provides a Net Asset Value on a monthly basis.

The carrying value of the Company's investment in the various HWIC Asia common share issues as of December 31, 2018 and 2017, which is included in common stocks held for trading and fair value option on the balance sheet, and the changes in fair value for each issue for the years then ended, are summarized below (in thousands):

	HWIC Asia Class A	HWIC Asia Class C	HWIC Asia Class E	HWIC Asia Class G	HWIC Asia Class H	HWIC Asia Class J	HWIC Asia Class K	HWIC Asia Class Q	Total
Fair value as of January 1, 2017	$ —	$ 35,400	$ —	$ 76,073	$ 112,249	$ 44,177	$ —	$ 19,669	$ 287,568
Purchases	4,189	—	—	—	—	—	—	—	4,189
Change in fair value	396	1,482	—	11,462	49,929	(541)	—	754	63,482
Currency translation adjustment	—	—	—	—	163	1,113	—	928	2,204
Fair value as of December 31, 2017	4,585	36,882	—	87,535	162,341	44,749	—	21,351	357,443
Purchases (sales)	1,000	—	272	500	(22,565)	—	33,578	—	12,785
Change in fair value	(1,482)	(12,226)	(227)	(3,587)	(22,885)	1,803	(2,606)	(1,051)	(42,261)
Currency translation adjustment	—	—	—	—	(113)	(775)	(223)	(614)	(1,725)
Fair value as of December 31, 2018	$ 4,103	$ 24,656	$ 45	$ 84,448	$ 116,778	$ 45,777	$ 30,749	$ 19,686	$ 326,242

HWIC Asia's fair value decreased by $10.0 million for the year ended December 31, 2016.

The Company did not elect the FVO for its other affiliated investments, as these affiliated investments were ultimately 100% owned by Fairfax and its subsidiaries, and fair values were deemed to be not readily obtainable.

As of December 31, 2018 and 2017, respectively, the Company has not elected the FVO for any of its liabilities.

4. Investments and Cash

A summary of the Company's available for sale investment portfolio as of December 31, 2018 and 2017, is as follows (in thousands):

2018	Cost or Amortized Cost	Gross Unrealized Appreciation	Gross Unrealized Depreciation	Fair Value
Fixed income securities:				
United States government, government agencies and authorities	$ 567	$ 50	$ —	$ 617
States, municipalities and political subdivisions	37,106	1,956	—	39,062
Corporate	36,975	—	—	36,975
Total fixed income securities	74,648	2,006	—	76,654
Common stocks	106,367	13,101	7,803	111,665
Total	$ 181,015	$ 15,107	$ 7,803	$ 188,319

2017	Cost or Amortized Cost	Gross Unrealized Appreciation	Gross Unrealized Depreciation	Fair Value
Fixed income securities:				
United States government, government agencies and authorities	$ 5,225	$ 669	$ —	$ 5,894
States, municipalities and political subdivisions	560,973	29,716	56	590,633
Corporate	55,196	—	640	54,556
Total fixed income securities	621,394	30,385	696	651,083
Common stocks	108,200	58,711	—	166,911
Total	$ 729,594	$ 89,096	$ 696	$ 817,994

Common stocks accounted for under the equity method of accounting were carried at $816.3 million and $809.6 million as of December 31, 2018 and 2017, respectively. Common stocks at equity had gross unrealized appreciation of $14.9 million and $6.8 million and gross unrealized depreciation of $20.5 million and $9.6 million as of December 31, 2018 and 2017, respectively. Other invested assets were carried at $1,182.1 million and $881.9 million as of December 31, 2018 and 2017, respectively, reflecting no gross unrealized appreciation or depreciation.

A summary of the Company's held for trading and fair value option portfolios as of December 31, 2018 and 2017 is as follows (in thousands):

	2018 Fair Value	2017 Fair Value
Fixed income securities:		
United States government, government agencies and authorities	$ 2,583,063	$ 184,013
States, municipalities and political subdivisions	54,635	382,975
Foreign governments	624,229	267,772
Corporate	1,170,676	454,850
Total fixed income securities	4,432,603	1,289,610
Preferred stocks	24,125	31,983
Common stocks	785,330	872,027
Short-term investments	531,957	2,095,823
Cash and cash equivalents	786,019	1,710,485
Cash and cash equivalents held as collateral	28,381	230,074
Total	$ 6,588,415	$ 6,230,002

(a) Fixed Income Maturity Schedule

The amortized cost and fair value of fixed income securities as of December 31, 2018, by contractual maturity, are shown below (in thousands):

	At December 31, 2018					
	Available for Sale			Held for Trading		
	Cost or Amortized Cost	Fair Value	% of Total Fair Value	Cost or Amortized Cost	Fair Value	% of Total Fair Value
Due in one year or less	$ 9,240	$ 9,240	12.0%	$1,923,405	$1,923,130	43.4%
Due after one year through five years	27,843	27,846	36.3	2,138,611	2,120,217	47.8
Due after five years through ten years	15,845	16,598	21.7	106,741	111,312	2.5
Due after ten years	21,720	22,970	30.0	276,734	277,944	6.3
Total fixed income securities	$ 74,648	$ 76,654	100.0%	$4,445,491	$4,432,603	100.0%

Actual maturities may differ from the contractual maturities shown in the previous table due to the existence of call options. In the case of securities containing call options, the actual maturity will be the same as the contractual maturity if the issuer elects not to exercise its call option. Total securities subject to call options represent approximately 13.5% of the total fair value.

(b) Net Investment Income and Realized Investment Gains (Losses)

The following table sets forth the sources and components of net investment income for the years ended December 31, 2018, 2017 and 2016 (in thousands):

	2018	2017	2016
Interest on fixed income securities	$ 112,428	$ 103,052	$ 189,520
Dividends on preferred stocks	1,495	60	6,112
Dividends on common stocks	16,396	20,831	25,954
Net income of common stocks, at equity	21,300	46,679	22,890
Interest on cash and short-term investments	26,816	20,984	6,049
Net income from other invested assets	65,666	26,020	24,489
Gross investment income	244,101	217,626	275,014
Less: investment expenses	34,875	25,836	59,941
Net investment income	$ 209,226	$ 191,790	$ 215,073

The following table summarizes the Company's net realized investment gains and losses for the years ended December 31, 2018, 2017 and 2016 (in thousands):

	2018	2017	2016
Available for sale:			
From sales	$ 12,106	$ 114,085	$ 58,547
Other-than-temporary impairments	(299)	(12,286)	(16,227)
Total available for sale	11,807	101,799	42,320
Held for trading:			
From sales and settlements	49,431	(1,912)	(264,734)
From mark to market adjustments	(178,643)	278,194	20,499
Total held for trading	(129,212)	276,282	(244,235)
Total net realized investment (losses) gains	$ (117,405)	$ 378,081	$ (201,915)

The following table sets forth the components of net realized investment gains and losses on the Company's available for sale securities for the years ended December 31, 2018, 2017 and 2016 (in thousands):

	2018	2017	2016
Fixed income securities:			
Realized investment gains	$ 18,805	$ 67,281	$ 68,081
Realized investment losses	(6,526)	(1,523)	(9,905)
Other-than-temporary impairments	(56)	—	—
Net realized investment gains	12,223	65,758	58,176
Equity securities:			
Realized investment gains	—	20,052	724
Realized investment losses	(173)	—	(353)
Other-than-temporary impairments	(243)	(12,286)	(16,227)
Net realized investment (losses) gains	(416)	7,766	(15,856)
Common stocks, at equity:			
Realized investment gains	—	30,854	—
Realized investment losses	—	(2,579)	—
Net realized investment gains	—	28,275	—
Total available for sale securities:			
Realized investment gains	18,805	118,187	68,805
Realized investment losses	(6,699)	(4,102)	(10,258)
Other-than-temporary impairments	(299)	(12,286)	(16,227)
Net realized investment gains	$ 11,807	$ 101,799	$ 42,320

For those fixed income securities that were determined to be other-than-temporarily impaired, the Company determined that such impairments were related to credit, requiring the recognition of an impairment charge to income, and not related to other factors (e.g., interest rates and market conditions) which would have required charges to other comprehensive income.

The net realized investment gains or losses on disposal of held for trading securities in the table below represent the total gains or losses from the purchase dates of the investments and have been reported in net realized investment gains in the consolidated statements of operations. The change in fair value presented below consists of two components: (i) the reversal of the gain or loss recognized in previous years on securities sold and (ii) the change in fair value resulting from mark-to-market adjustments on contracts still outstanding. The following table sets forth the total net realized investment gains and losses on held for trading securities for the years ended December 31, 2018, 2017 and 2016 (in thousands):

	2018	2017	2016
Fixed income securities:			
Net realized investment (losses) gains on disposal	$ (13,227)	$ 13,551	$ 75,991
Change in fair value	(50,425)	105,547	47,776
Net realized investment (losses) gains	(63,652)	119,098	123,767
Preferred stock:			
Net realized investment gains (losses) on disposal	—	410	(41,989)
Change in fair value	(7,141)	(301)	34,719
Net realized investment (losses) gains	(7,141)	109	(7,270)
Equity securities:			
Net realized investment gains (losses) on disposal	62,577	84,714	(20,756)
Change in fair value	(206,038)	60,434	(15,490)
Net realized investment (losses) gains	(143,461)	145,148	(36,246)
Derivative securities:			
Net realized investment losses on disposal/ settlement	(32,456)	(95,186)	(327,402)
Change in fair value	48,221	(20,215)	(79,779)
Net realized investment gains (losses)	15,765	(115,401)	(407,181)
Other securities:			
Net realized investment gains (losses) on disposal	32,537	(5,401)	49,422
Change in fair value	36,740	132,729	33,273
Net realized investment gains	69,277	127,328	82,695
Total held for trading securities:			
Net realized investment gains (losses) on disposal	49,431	(1,912)	(264,734)
Change in fair value	(178,643)	278,194	20,499
Net realized investment (losses) gains	$ (129,212)	$ 276,282	$ (244,235)

(c) Unrealized (Depreciation) Appreciation

The following table sets forth the changes in net unrealized (depreciation) appreciation of investments, and the related tax effect, reflected in accumulated other comprehensive income for the years ended December 31, 2018, 2017 and 2016 (in thousands):

	2018	2017	2016
Fixed income securities	$ (27,720)	$ (77,126)	$ (88,131)
Equity securities	(55,290)	33,160	(13,578)
Other	108	(48)	(244)
Decrease in unrealized net appreciation of investments	(82,902)	(44,014)	(101,953)
Deferred income tax benefit on disposal	17,461	15,271	35,664
Change in net unrealized depreciation of investments included in other comprehensive (loss) income	$ (65,441)	$ (28,743)	$ (66,289)

On a quarterly basis, the Company reviews its investment portfolio classified as available for sale for declines in value and specifically evaluates securities with fair values that have declined to less than 80% of their cost or amortized cost at the time of review. Declines in the fair value of investments that are determined to be temporary are recorded as unrealized depreciation, net of tax, in accumulated other comprehensive income. If the Company determines that a decline relating to credit issues is "other-than-temporary," the cost or amortized cost of the investment will be written down to the fair value, and a realized loss will be recorded in the Company's consolidated statements of operations. If the Company determines that a decline related to other factors (e.g., interest rates or market conditions) is "other-than-temporary," the cost or amortized cost of the investment will be written down to the fair value within other comprehensive income.

In assessing the value of the Company's debt and equity securities that are classified as available for sale and possible impairments of such securities, the Company reviews (i) the issuer's current financial position and disclosures related thereto, (ii) general and specific market and industry developments, (iii) the timely payment by the issuer of its principal, interest and other obligations, (iv) the outlook and expected financial performance of the issuer, (v) current and historical valuation parameters for the issuer and similar companies, (vi) relevant forecasts, analyses and recommendations by research analysts, rating agencies and investment advisors, and (vii) other information the Company may consider relevant. Generally, a change in the market or interest rate environment would not, of itself, result in an impairment of an investment. In addition, the Company considers its ability and intent to hold the security to recovery when evaluating possible impairments.

The facts and circumstances involved in making a decision regarding an other-than-temporary impairment are those that exist at that time. Should the facts and circumstances change such that an other-than-temporary impairment is considered appropriate, the Company will recognize the impairment by reducing the cost, amortized cost or carrying value of the investment to its fair value, and recording the loss in its consolidated statements of operations. Upon the disposition of a security where an "other-than-temporary" impairment has been taken, the Company will record a gain or loss based on the adjusted cost or carrying value of the investment.

The following table reflects the fair value and gross unrealized depreciation of the Company's fixed income securities and common stocks, at fair value classified as available for sale, aggregated by investment category for individual securities that have been in a continuous unrealized depreciation position for less than 12 months, as of December 31, 2018 and 2017 (in thousands):

	Fair Value	Gross Unrealized Depreciation	Number of Securities
December 31, 2018			
Common stock securities:			
Industrial and miscellaneous	$ 71,395	$ 7,803	2
Total common stock securities	71,395	7,803	2
Total temporarily impaired securities	$ 71,395	$ 7,803	2

	Fair Value	Gross Unrealized Depreciation	Number of Securities
December 31, 2017			
Fixed income securities:			
States, municipalities and political subdivisions	$ —	$ 56	1
Corporate	11,000	640	1
Total fixed income securities	11,000	696	2
Total temporarily impaired securities	$ 11,000	$ 696	2

The Company did not own any fixed income or common stocks, at fair value classified as available for sale, that have been in a continuous unrealized loss position for more than 12 months as of December 31, 2018 or 2017.

The Company believes the gross unrealized depreciation for securities classified as available for sale is temporary in nature and has not recorded a realized investment loss related to these securities. Given the size of the Company's investment portfolio and capital position, the Company believes it is likely that it will not be required to sell or liquidate these securities before the fair value recovers the gross unrealized depreciation.

(d) Common Stocks, at Equity

The following table sets forth the components of common stocks, at equity, as of December 31, 2018 and 2017 (in thousands):

	Carrying Value		Goodwill and Other included in Carrying Value		Quoted Market Value		Relative Economic Ownership
	2018	2017	2018	2017	2018	2017	2018
Grivalia Properties Real Estate Investment Company	$ 198,791	$ 201,691	$ 2,710	$ 2,847	$ 174,609	$ 201,845	18.8%
Recipe Unlimited Corporation	134,678	134,887	93,160	87,467	136,678	126,992	11.7%
Fairfax India Holdings Corp	132,479	137,217	—	—	129,388	151,679	6.6%
Fairfax Africa Holdings Corp.	125,206	106,822	2,779	—	93,976	144,162	18.8%
Apple Bidco Limited	71,998	73,752	(653)	(653)	n/a	n/a	16.9%
Zenith National Insurance Corp.	39,212	37,084	3,928	3,928	n/a	n/a	6.1%
Boat Rocker Media Inc.	25,215	28,356	14,607	15,923	n/a	n/a	27.3%
Sigma Companies International Corp.	22,083	21,705	—	—	n/a	n/a	41.9%
2018296 Alberta ULC	18,525	18,298	—	—	n/a	n/a	27.3%
Davos Brands LLC	17,679	18,298	12,824	12,824	n/a	n/a	14.3%
Farmers Edge Inc.	14,446	16,940	14,446	15,747	n/a	n/a	7.1%
Peak Achievement Athletics Inc.	11,910	14,588	469	469	n/a	n/a	3.8%
Toys "R" Us (Canada) Ltd.	4,100	—	—	—	n/a	n/a	25.0%
Total common stocks, at equity	$ 816,322	$ 809,638	$ 144,270	$ 138,552			

During 2017, the Company and Fairfax purchased additional common shares of Grivalia Properties Real Estate Investment Company ("Grivalia"), resulting in Grivalia becoming an affiliate of the Company and a change in the accounting for the Company's investment in Grivalia to the equity method. Prior to 2017, the Company's investment in Grivalia was reported as a common stock, held for trading, at fair value.

Zenith National Insurance Corp., Toys "R" Us (Canada) Ltd. and 2018296 Alberta ULC are wholly-owned subsidiaries of Fairfax, while Fairfax is the controlling or largest shareholder of Grivalia (52.7%), Fairfax India Holdings Corp. (33.7%), Recipe Limited Corporation (43.7%), Fairfax Africa Holdings Corp. (58.7%), Apple Bidco Limited (67.8%), Boat Rocker Media Inc. (58.2%), Sigma Companies International Corp. (81.1%), Davos Brands LLC (35.7%), Farmers Edge Inc. (49.2%) and Peak Achievement Athletics Inc. (42.6%).

(e) *Other Invested Assets*

The following table shows the components of other invested assets as of December 31, 2018 and 2017 (in thousands):

	2018	2017
Investment funds and partnerships, at fair value	$ 665,143	$ 568,586
Investment funds and partnerships, at equity	176,911	186,567
Real estate	136,891	39,912
Affiliate loans	99,873	19,155
Derivatives, at fair value	61,399	48,322
Mortgage loans	20,837	—
Benefit plan funds, at fair value	14,874	13,812
Other	6,141	5,525
Total other invested assets	$ 1,182,069	$ 881,879

The Company's investment funds and partnership investments may be subject to restrictions on redemptions or sales, which are determined by the governing documents thereof, and may limit the Company's ability to liquidate these investments in the short term. Due to a time lag in reporting by a majority of investment fund and partnership fund managers, valuations for these investments are recorded by the Company on a one month or one quarter lag. For the years ended December 31, 2018, 2017 and 2016, the Company recognized net investment income of $38.5 million, $15.8 million and $20.0 million, respectively, from its investment funds and partnership investments. For the years ended December 31, 2018, 2017 and 2016, the Company recognized net realized investment gains of $73.8 million, $145.6 million and $67.7 million, respectively, from its investment funds and partnerships that are held as trading securities. With respect to the Company's $842.1 million in investments in investment funds and partnerships, the Company has commitments that may require additional funding of up to $87.4 million.

The Company's investments in real estate consists of land of $43.7 million and $25.0 million and buildings of $94.4 million and $15.1 million less accumulated depreciation of $1.2 million and $0.2 million, as of December 31, 2018 and 2017, respectively.

The Company's investments in mortgage loans consists of loans collateralized by commercial property in various locations in Canada as of December 31, 2018.

(f) *Derivative Investments*

The Company has utilized CPI-linked derivative contracts, total return swaps, forward currency contracts, U.S. Treasury bond forward contracts and various other contracts, to manage against adverse changes in the values of assets and liabilities. These products are typically not directly linked to specific assets or liabilities on the consolidated balance sheets or a forecasted transaction. The following tables set forth the Company's derivative positions, which are included in other invested assets or other liabilities in the consolidated balance sheets, as of December 31, 2018 and 2017, respectively (in thousands):

As of December 31, 2018	Exposure/ Notional Amount	Cost	Fair Value Asset	Fair Value Liability
CPI-linked derivative contracts	$34,359,534	$ 229,779	$ 3,115	$ —
Forward currency contracts	1,077,687	—	42,965	11,896
Option contracts	437,500	7,519	7,431	—
Long total return swaps	135,147	—	2,396	17,732
Short total return swaps	134,586	—	5,492	—
U.S. Treasury bond forward contracts	10,175	—	—	608
Total		$ 237,298	$ 61,399	$ 30,236

As of December 31, 2017	Exposure/ Notional Amount	Cost	Fair Value Asset	Fair Value Liability
CPI-linked derivative contracts	$35,399,630	$ 229,779	$ 6,382	$ —
Forward currency contracts	829,519	—	28,502	47,757
U.S. Treasury bond forward contracts	230,875	—	—	6,905
Long total return swaps	230,820	—	6,546	4,159
Short total return swaps	120,136	—	1,493	2,131
Warrants	117,913	12,074	5,399	—
Total		$ 241,853	$ 48,322	$ 60,952

The Company held long position common stock total return swaps, with a total notional value of $135.1 million and $230.8 million as of December 31, 2018 and 2017, respectively, as replications of investments in publicly-listed common stocks. The common stock total return swaps, which are carried at fair value, are recorded in other invested assets or other liabilities based on the positive or negative value of the underlying contracts as of the financial statement date. Changes in the fair value of common stock total return swaps are recorded as realized investment gains or losses in the consolidated statements of operations in the period in which they occur.

As of December 31, 2018 and 2017, the Company held short position common stock total return swaps with a notional value of $134.6 million and $120.1 million, respectively. The common stock total return swaps are recorded at fair value in other invested assets or other liabilities based on the positive or negative value of the underlying contracts as of the financial statement date. Changes in the fair value of the swaps are recorded as realized investment gains or losses in the consolidated statements of operations in the period in which they occur.

As a result of fundamental changes to the macroeconomic outlook for the U.S. during the fourth quarter of 2016 and the ensuing potential for a significant increase in market interest rates, the Company reduced its exposure to interest rate risk by selling certain U.S. state and municipal bonds and long dated U.S. Treasury bonds. To further reduce its exposure to interest rate risk (specifically exposure to U.S. state and municipal bonds and any remaining long dated U.S. Treasury bonds held in its fixed income portfolio), the Company began entering into, and continues to hold, forward contracts to sell long dated U.S. Treasury bonds. These contracts have an average term to maturity of less than one year and may be renewed at market rates. The U.S. Treasury bond forward contracts are recorded at fair value in other invested assets or in other liabilities based on the positive or negative value of the underlying contracts as of the financial statement date, with the related changes in fair value recognized as realized investment gains or losses in the consolidated statements of operations in the period in which they occur.

As an economic hedge against the potential adverse impact on the Company of decreasing price levels in the economy, the Company has purchased derivative contracts referenced to consumer price indices ("CPI") in various geographic regions in which the Company operates. These contracts had a remaining average life of 3.1 years and 4.1 years as of December 31, 2018 and 2017, respectively. As the remaining life of a contract declines, the fair value of the contract (excluding the impact of CPI changes) will generally decline. The initial premium paid for the contracts is recorded as a derivative asset and subsequently adjusted for changes in the unrealized fair value of the contracts at each balance sheet date. Changes in the unrealized fair value of the contracts are recorded as realized gains or losses on investments in the Company's consolidated statements of operations with a corresponding adjustment to the carrying value of the derivative asset. In the event of a sale, expiration or early settlement of one of the Company's CPI-linked derivative contracts, the Company would receive the fair value of that contract on the date of the transaction. The Company's maximum potential cash loss is limited to the premiums already paid to enter into the derivative contracts.

The Company has entered into forward currency contracts to manage its foreign currency exchange rate risk on a macro basis. Under a forward currency contract, the Company and the counterparty are obligated to purchase or sell an underlying currency at a specified price and time. Forward currency contracts are recorded at fair value in other invested assets or other liabilities based on the positive or negative value of the underlying contracts as of the financial statement date, with the related changes in fair value recognized as realized investment gains or losses in the consolidated statements of operations in the period in which they occur.

The Company has investments in call options, which are contracts that grant the holder the right (but not the obligation) to purchase a financial instrument at a specified price within a specific time period. Call options, which are included in other invested assets, are recorded at fair value, with changes in the fair value recognized as realized investment gains or losses in the consolidated statement of operations in the period in which they occur.

The Company had investments in warrants, which are contracts that grant the holder the right, but not the obligation, to purchase an underlying financial instrument at a given price and time or at a series of prices and times. Warrants, which were included in other invested assets, are recorded at fair value, with the related changes in fair value recognized as realized investment gains or losses in the consolidated statements of operations in the period in which they occur.

Pursuant to the agreements governing various derivative contracts, the fair value of collateral deposited by the Company with the contracts' counterparties totaled $38.3 million and $51.2 million as of December 31, 2018 and 2017, respectively, while the fair value of collateral deposited by various counterparties for the benefit of the Company was $7.8 million and $8.8 million as of December 31, 2018 and 2017, respectively.

Counterparties to the derivative instruments expose the Company to credit risk in the event of non-performance. The Company believes this risk is low, given the diversification of the placement of the contracts among various highly rated counterparties. The credit risk exposure is reflected in the fair value of the derivative instruments.

The net realized investment gains or losses on disposal of derivatives in the table below represent the total gains or losses for the years ended December 31, 2018, 2017 and 2016 from the purchase dates of the investments and have been reported in net realized investment gains in the consolidated statements of operations; the change in fair value presented consists of two components: (i) the reversal of the gain or loss recognized in previous years on securities sold and (ii) the change in fair value resulting from mark-to-market adjustments on contracts still outstanding (in thousands):

	2018	2017	2016
CPI-linked derivative contracts:			
Change in fair value	$ (3,267)	$ (7,233)	$ (48,695)
Net realized investment losses	(3,267)	(7,233)	(48,695)
Forward currency contracts:			
Net realized investment gains (losses) on disposal	8,636	(8,241)	23,037
Change in fair value	50,205	(27,166)	(18,707)
Net realized investment gains (losses)	58,841	(35,407)	4,330
U.S. Treasury bond forward contracts:			
Net realized investment gains (losses) on disposal	388	(35,950)	33,143
Change in fair value	6,297	6,961	(13,866)
Net realized investment gains (losses)	6,685	(28,989)	19,277
Long total return swaps:			
Net realized investment (losses) gains on disposal	(16,258)	6,469	1,674
Change in fair value	(17,722)	(367)	5,282
Net realized investment (losses) gains	(33,980)	6,102	6,956
Short total return swaps:			
Net realized investment losses on disposal	(14,451)	(53,848)	(308,629)
Change in fair value	6,130	7,605	(80,359)
Net realized investment losses	(8,321)	(46,243)	(388,988)
Warrants:			
Net realized investment losses on disposal	(10,771)	—	—
Change in fair value	6,665	(6,638)	—
Net realized investment losses	(4,106)	(6,638)	—
Call options:			
Net realized investment gains on disposal	—	3,007	—
Change in fair value	(87)	—	—
Net realized investment (losses) gains	(87)	3,007	—
Other:			
Net realized investment losses on disposal	—	(6,623)	(76,627)
Change in fair value	—	6,623	76,566
Net realized investment losses	—	—	(61)
Total derivatives:			
Net realized investment losses on disposal	(32,456)	(95,186)	(327,402)
Change in fair value	48,221	(20,215)	(79,779)
Net realized investment gains (losses)	$ 15,765	$ (115,401)	$ (407,181)

(g) Assets on Deposit

The Company is required to maintain assets on deposit with various regulatory authorities to support its insurance and reinsurance operations. These requirements are generally promulgated in the statutes and regulations of the individual jurisdictions. The assets on deposit are available to settle insurance and reinsurance liabilities. For certain reinsurance contracts, derivative contracts and affiliate guarantees, the Company utilizes trust funds to collateralize its obligations or potential obligations to the ceding companies and counterparties. As of December 31, 2018, restricted assets supporting these deposits and trust fund requirements totaled $1.0 billion, as depicted in the following table (in thousands):

	Restricted Assets Relating to:				
	Fixed Income Securities	Cash Cash Equivalents Short-term Investments	Common Stocks	Partnerships	Total
U.S. regulatory requirements	$ 84,622	$ —	$ —	$ —	$ 84,622
Foreign regulatory/Lloyd's requirements	194,196	60,563	20,036	—	274,795
Derivative collateral requirements	38,295	—	—	—	38,295
Reinsurance collateral requirements	381,590	46,289	109,857	19,372	557,108
Guarantee collateral requirements	33,457	1,954	—	—	35,411
Total	$ 732,160	$ 108,806	$ 129,893	$ 19,372	$ 990,231

5. Accumulated Other Comprehensive Income

The following table shows the components of the change in accumulated other comprehensive income, net of deferred income taxes, for the years ended December 31, 2018, 2017 and 2016 (in thousands):

	2018	2017	2016
Beginning balance of unrealized net appreciation on securities prior to U.S. tax reform adjustment	$ 58,115	$ 86,858	$ 153,147
Beginning balance adjustment for U.S. tax reform	12,531	—	—
Beginning balance of unrealized net appreciation on securities after U.S. tax reform adjustment	70,646	86,858	153,147
Ending balance of unrealized net appreciation on securities	5,205	58,115	86,858
Current period change in unrealized net depreciation on securities	(65,441)	(28,743)	(66,289)
Beginning balance of foreign currency translation adjustments prior to U.S. tax reform adjustment	11,197	10,854	26,562
Beginning balance adjustment for U.S. tax reform	2,412	—	—
Beginning balance of foreign currency translation adjustments after U.S. tax reform adjustment	13,609	10,854	26,562
Ending balance of foreign currency translation adjustments	(35,916)	11,197	10,854
Current period change in foreign currency translation adjustments	(49,525)	343	(15,708)
Beginning balance of benefit plan liabilities prior to U.S. tax reform adjustment	(38,698)	(30,131)	(28,545)
Beginning balance adjustment for U.S. tax reform	(8,335)	—	—
Beginning balance of benefit plan liabilities after U.S. tax reform adjustment	(47,033)	(30,131)	(28,545)
Ending balance of benefit plan liabilities	(38,018)	(38,698)	(30,131)
Current period change in benefit plan liabilities	9,015	(8,567)	(1,586)
Other comprehensive loss	$ (105,951)	$ (36,967)	$ (83,583)
Beginning balance of accumulated other comprehensive income	$ 37,222	$ 67,581	$ 151,164
Other comprehensive loss	(105,951)	(36,967)	(83,583)
U.S. tax reform deferred income tax reclassification	—	6,608	—
Ending balance of accumulated other comprehensive (loss) income	$ (68,729)	$ 37,222	$ 67,581

In February 2018, the FASB issued ASU 2018-02, "Income Statement – Reporting Comprehensive Income (Topic 220)." This ASU allows the effect of remeasuring deferred tax assets and liabilities related to the Tax Cuts and Jobs Act of 2017 with respect to items with accumulated other comprehensive income to be reclassified to retained earnings. The amount of the reclassification is the difference between the amount initially charged or credited directly to other comprehensive income at the previously enacted U.S. federal corporate income tax rate that remains in accumulated other comprehensive income and the amount that would have been charged or credited using the newly enacted 21 percent rate. The Company implemented this ASU in its 2017 consolidated financial statements; the effect of the reclassification was to increase accumulated other comprehensive income and decrease retained earnings by $6.6 million.

The following table shows the components of accumulated other comprehensive income and the related deferred income taxes on each component, as of December 31, 2018 and 2017 (in thousands):

	2018	2017
Gross:		
Unrealized appreciation on securities	$ 6,543	$ 89,445
Foreign currency translation adjustments	(45,463)	17,227
Benefit plan liabilities	(48,125)	(59,537)
Total accumulated other comprehensive (loss) income, gross of deferred income taxes	$ (87,045)	$ 47,135
Deferred taxes:		
Unrealized depreciation on securities	$ (1,338)	$ (18,799)
Foreign currency translation adjustments	9,547	(3,618)
Benefit plan liabilities	10,107	12,504
Total deferred taxes on accumulated other comprehensive income (loss)	$ 18,316	$ (9,913)

The following table shows the changes in the balances of each component of accumulated other comprehensive income (loss), for the years ended December 31, 2018, 2017 and 2016 (in thousands):

	Unrealized Gains and Losses on Securities	Foreign Currency Items	Benefit Plan Items	Total
Balance, January 1, 2016	$ 153,147	$ 26,562	$ (28,545)	$ 151,164
Amounts arising during the period	(34,497)	(24,229)	(3,017)	(61,743)
Reclassification adjustment included in net (loss) income	(31,792)	8,521	1,431	(21,840)
Net other comprehensive loss	(66,289)	(15,708)	(1,586)	(83,583)
Balance, December 31, 2016	86,858	10,854	(30,131)	67,581
Amounts arising during the period	36,806	11,116	(10,000)	37,922
Reclassification adjustment included in net (loss) income	(65,549)	(10,773)	1,433	(74,889)
Net other comprehensive (loss) income	(28,743)	343	(8,567)	(36,967)
Adjustment for U.S. Tax Reform	12,531	2,412	(8,335)	6,608
Balance, December 31, 2017	70,646	13,609	(47,033)	37,222
Amounts arising during the period	(51,256)	(51,137)	6,204	(96,189)
Reclassification adjustment included in net (loss) income	(14,185)	1,612	2,811	(9,762)
Net other comprehensive (loss) income	(65,441)	(49,525)	9,015	(105,951)
Balance, December 31, 2018	$ 5,205	$ (35,916)	$ (38,018)	$ (68,729)

The following table shows the significant amounts reclassified out of each component of accumulated other comprehensive income for the years ended of December 31, 2018, 2017 and 2016 (in thousands):

Details about Accumulated Other Comprehensive Income Components	Amount Reclassified from Accumulated Other Comprehensive Income (a) 2018	2017	2016	Affected Line Item in the Consolidated Statement of Operations Where Net Income is Presented
Unrealized net depreciation of securities:				
	$ 17,956	$ 100,845	$ 48,910	Net realized investment gains
	(3,771)	(35,296)	(17,118)	Total federal and foreign income tax benefit
	$ 14,185	$ 65,549	$ 31,792	Net income (loss)
Foreign currency translations:				
	$ (2,041)	$ 16,574	$ (13,109)	Net realized investment (losses) gains
	429	(5,801)	4,588	Total federal and foreign income tax provision (benefit)
	$ (1,612)	$ 10,773	$ (8,521)	Net (loss) gain
Amortization of benefit plan items:				
Net actuarial loss	$ (3,563)	$ (2,242)	$ (2,239)	Other underwriting expenses (b)
Prior service costs	5	37	37	Other underwriting expenses (b)
	(3,558)	(2,205)	(2,202)	Loss before federal and foreign income tax benefit
	747	772	771	Total federal and foreign income tax provision
	$ (2,811)	$ (1,433)	$ (1,431)	Net loss
Total reclassifications	$ 9,762	$ 74,889	$ 21,840	

(a) Amounts in parentheses indicate decreases to the indicated line item of the consolidated statements of operations.

(b) These accumulated other comprehensive income components are included in the computation of net periodic benefit plan costs (see Note 14 for additional details).

6. Unpaid Losses and Loss Adjustment Expenses

Estimates of reserves for unpaid losses and loss adjustment expenses, which relate to loss events that have occurred on or before the balance sheet date, are contingent on many assumptions that may or may not occur in the future. The estimates reflect assumptions regarding initial expectations of losses and patterns of loss reporting, both for claims with higher frequency and lower severity as well as for claims with lower frequency and higher severity associated with individual large loss events, such as earthquakes, windstorms, and floods. The eventual outcome of these loss events may be different from the assumptions underlying the Company's reserve estimates. When the business environment and loss trends diverge from expected trends, the Company may have to adjust its reserves accordingly, potentially resulting in adverse or favorable effects to the Company's financial results. The Company believes that the recorded estimate represents the best estimate of unpaid losses and loss adjustment expenses based on the information available as of December 31, 2018. The estimate is reviewed on a quarterly basis and the ultimate liability may be greater or less than the amounts provided, for which any adjustments will be reflected in the periods in which they become known.

The Company's estimate of ultimate loss is determined based on a review of the results of several commonly accepted actuarial projection methodologies incorporating the quantitative and qualitative information described above. The specific methodologies the Company utilizes in its loss reserve review process include, but may not be limited to (i) incurred and paid loss development methods, (ii) incurred and paid Bornhuetter Ferguson ("BF") methods and (iii) loss ratio methods. The incurred and paid loss development methods utilize loss development patterns derived from historical loss emergence trends usually based on cedant/insured claim information to determine ultimate loss. These methods assume that the ratio of losses in one period to losses in an earlier period will remain constant in the future. Loss ratio methods multiply expected loss ratios, derived from aggregated analyses of internally developed pricing trends, by earned premium to determine ultimate loss. The incurred and paid BF methods are a blend of the loss development and loss ratio methods. These methods utilize both loss development patterns, as well as expected loss ratios, to determine ultimate loss. When using the BF methods, the initial treaty year ultimate loss is based predominantly on expected loss ratios. As loss experience matures, the estimate of ultimate loss using this methodology is based predominantly on loss development patterns. The Company generally does not utilize methodologies that are dependent on claim counts reported, claim counts settled or claim counts open. Due to the nature of the Company's business, this information is not routinely provided for every treaty/program. Consequently, actuarial methods utilizing this information generally cannot be relied upon by the Company in its loss reserve estimation process. As a result, for much of the Company's business, the separate analysis of frequency and severity of loss activity underlying overall loss emergence trends is not practical. Generally, the Company relies on BF and loss ratio methods for estimating ultimate loss liabilities for more recent treaty years. These methodologies, at least in part, apply a loss ratio, determined from aggregated analyses of internally developed pricing trends across reserve cells, to premium earned on that business. Adjustments to premium estimates generate appropriate adjustments to ultimate loss estimates in the quarter in which they occur, using the BF and loss ratio methods. To estimate losses for more mature treaty years, the Company generally relies on the incurred loss development methodology, which does not rely on premium estimates. In addition, the Company may use other methods to estimate liabilities for specific types of claims. For property catastrophe losses, the Company may utilize vendor catastrophe models to estimate ultimate loss soon after a loss occurs, where loss information is not yet reported to the Company from cedants/insureds. Incurred but not reported reserves are determined by subtracting the total of paid loss and case reserves including additional case reserves from ultimate loss.

The Company completes comprehensive loss reserve reviews, which include a reassessment of loss development and expected loss ratio assumptions, on an annual basis. The Company completed this year's annual review in the fourth quarter of 2018. The results of these reviews are reflected in the period in which they are completed. Quarterly, the Company compares actual loss emergence to expectations established by the comprehensive loss reserve review process. In the event that loss trends diverge from expected trends, the Company may have to adjust its reserves for losses and loss adjustment expenses ("LAE") accordingly. Any adjustments will be reflected in the periods in which they become known, potentially resulting in adverse or favorable effects to our financial results. The Company believes that the recorded estimate represents the best estimate of unpaid losses and LAE based on the information available at December 31, 2018. The Company's most significant assumptions underlying its estimate of losses and LAE reserves are as follows: (i) that historical loss emergence trends are indicative of future loss development trends; (ii) that internally developed pricing trends provide a reasonable basis for determining loss ratio expectations for recent underwriting years; and (iii) that no provision is made for extraordinary future emergence of new classes of loss or types of loss that are not sufficiently represented in its historical database or that are not yet quantifiable if not in its database.

U.S. Casualty Reinsurance

The following tables present i) incurred loss and allocated loss adjustment expenses (net of reinsurance), ii) total incurred but not reported ("IBNR") liabilities plus expected development on reported loss and iii) cumulative paid loss and allocated loss adjustment expenses (net of reinsurance) for the U.S. Casualty Reinsurance line of business for the year ended and as of December 31, 2018 (in thousands):

	Incurred Loss and Allocated Loss Adjustment Expenses, Net of Reinsurance For the Years Ended December 31,						As of December 31, 2018
Accident Year	**2013 (unaudited)**	**2014 (unaudited)**	**2015 (unaudited)**	**2016 (unaudited)**	**2017 (unaudited)**	**2018**	**Total of IBNR Liabilities Plus Expected Development on Reported Losses**
2013	$ 173,475	$ 179,282	$ 185,531	$ 188,566	$ 185,102	$ 171,977	$ 47,623
2014	—	186,478	192,000	194,204	194,920	190,283	68,913
2015	—	—	192,427	190,234	193,610	196,147	72,940
2016	—	—	—	202,231	206,349	209,386	86,149
2017	—	—	—	—	225,702	230,950	138,327
2018	—	—	—	—	—	259,565	190,539
					Total incurred loss and loss adjustment expenses	$ 1,258,308	

	Cumulative Paid Loss and Allocated Loss Adjustment Expenses, Net of Reinsurance For the Years Ended December 31,					
Accident Year	**2013 (unaudited)**	**2014 (unaudited)**	**2015 (unaudited)**	**2016 (unaudited)**	**2017 (unaudited)**	**2018**
2013	$ 9,984	$ 17,035	$ 46,501	$ 70,275	$ 89,405	$ 102,698
2014	—	13,175	31,159	52,671	75,105	92,812
2015	—	—	11,710	29,654	56,614	79,814
2016	—	—	—	18,189	44,284	68,958
2017	—	—	—	—	20,463	42,549
2018	—	—	—	—	—	31,578
					Total paid loss and loss adjustment expenses	418,409
					Total incurred loss and loss adjustment expenses	1,258,308
					Outstanding liabilities for loss and allocated loss adjustment expenses for accident years prior to 2013	317,364
					Liabilities for loss and allocated loss adjustment expenses, net of reinsurance	$ 1,157,263

	Average Annual Percentage Payout of Incurred Loss and Allocated Loss Adjustment Expenses by Age, Net of Reinsurance					
In Year:	1	2	3	4	5	6
Average of each year	8.4%	8.1%	12.8%	11.1%	10.0%	9.4%

U.S. Property Reinsurance

The following tables present i) incurred loss and allocated loss adjustment expenses (net of reinsurance), ii) total IBNR liabilities plus expected development on reported loss and iii) cumulative paid loss and allocated loss adjustment expenses (net of reinsurance) for the U.S. Property Reinsurance line of business for the year ended and as of December 31, 2018 (in thousands):

	Incurred Loss and Allocated Loss Adjustment Expenses, Net of Reinsurance For the Years Ended December 31,						As of December 31, 2018
Accident Year	**2013 (unaudited)**	**2014 (unaudited)**	**2015 (unaudited)**	**2016 (unaudited)**	**2017 (unaudited)**	**2018**	**Total of IBNR Liabilities Plus Expected Development on Reported Losses**
2013	$ 228,551	$ 227,495	$ 215,505	$ 204,527	$ 197,149	$ 196,987	$ 1,532
2014	—	155,687	154,915	141,365	138,129	137,587	1,345
2015	—	—	147,224	142,206	134,285	133,765	2,622
2016	—	—	—	141,628	137,728	136,690	7,144
2017	—	—	—	—	318,837	275,398	16,723
2018	—	—	—	—	—	314,964	185,917
				Total incurred loss and loss adjustment expenses		$ 1,195,391	

	Cumulative Paid Loss and Allocated Loss Adjustment Expenses, Net of Reinsurance For the Years Ended December 31,					
Accident Year	**2013 (unaudited)**	**2014 (unaudited)**	**2015 (unaudited)**	**2016 (unaudited)**	**2017 (unaudited)**	**2018**
2013	$ 90,254	$ 149,693	$ 177,151	$ 188,531	$ 190,908	$ 191,500
2014	—	53,366	96,611	124,154	132,480	134,507
2015	—	—	65,507	100,427	116,884	125,285
2016	—	—	—	48,509	117,928	122,071
2017	—	—	—	—	93,193	236,758
2018	—	—	—	—	—	78,189
				Total paid loss and loss adjustment expenses		888,310
				Total incurred loss and loss adjustment expenses		1,195,391
Outstanding liabilities for loss and allocated loss adjustment expenses for accident years prior to 2013						8,998
			Liabilities for loss and allocated loss adjustment expenses, net of reinsurance			$ 316,079

	Average Annual Percentage Payout of Incurred Loss and Allocated Loss Adjustment Expenses by Age, Net of Reinsurance					
In Year:	1	2	3	4	5	6
Average of each year	35.9%	43.8%	9.6%	6.0%	2.0%	0.0%

Non-U.S. Casualty Reinsurance

The following tables present i) incurred loss and allocated loss adjustment expenses (net of reinsurance), ii) total IBNR liabilities plus expected development on reported loss and iii) cumulative paid loss and allocated loss adjustment expenses (net of reinsurance) for the Non-U.S. Casualty Reinsurance line of business for the year ended and as of December 31, 2018 (in thousands):

	Incurred Loss and Allocated Loss Adjustment Expenses, Net of Reinsurance For the Years Ended December 31,						As of December 31, 2018
Accident Year	2013 (unaudited)	2014 (unaudited)	2015 (unaudited)	2016 (unaudited)	2017 (unaudited)	2018	Total of IBNR Liabilities Plus Expected Development on Reported Losses
2013	$ 97,521	$ 95,200	$ 96,136	$ 95,800	$ 84,295	$ 80,658	$ 20,060
2014	—	86,093	87,538	92,910	98,499	97,190	32,133
2015	—	—	84,179	85,159	103,918	102,892	35,735
2016	—	—	—	91,993	98,499	104,331	38,113
2017	—	—	—	—	122,881	126,079	62,809
2018	—	—	—	—	—	137,907	100,081
					Total incurred loss and loss adjustment expenses	$ 649,057	

	Cumulative Paid Loss and Allocated Loss Adjustment Expenses, Net of Reinsurance For the Years Ended December 31,					
Accident Year	2013 (unaudited)	2014 (unaudited)	2015 (unaudited)	2016 (unaudited)	2017 (unaudited)	2018
2013	$ 13,131	$ 23,028	$ 28,121	$ 31,966	$ 36,288	$ 39,134
2014	—	9,434	20,585	26,668	31,738	35,888
2015	—	—	8,480	18,275	25,142	29,187
2016	—	—	—	8,733	23,283	30,122
2017	—	—	—	—	11,022	25,625
2018	—	—	—	—	—	14,087
					Total paid loss and loss adjustment expenses	174,043
					Total incurred loss and loss adjustment expenses	649,057
					Outstanding liabilities for loss and allocated loss adjustment expenses for accident years prior to 2013	351,789
					Liabilities for loss and allocated loss adjustment expenses, net of reinsurance	$ 826,803

	Average Annual Percentage Payout of Incurred Loss and Allocated Loss Adjustment Expenses by Age, Net of Reinsurance					
In Year:	1	2	3	4	5	6
Average of each year	10.0%	11.7%	6.9%	4.5%	7.5%	7.9%

Non-U.S. Property Reinsurance

The following tables present i) incurred loss and allocated loss adjustment expenses (net of reinsurance), ii) total IBNR liabilities plus expected development on reported loss and iii) cumulative paid loss and allocated loss adjustment expenses (net of reinsurance) for the Non-U.S. Property Reinsurance line of business for the year ended and as of December 31, 2018 (in thousands):

	Incurred Loss and Allocated Loss Adjustment Expenses, Net of Reinsurance For the Years Ended December 31,						As of December 31, 2018
Accident Year	2013 (unaudited)	2014 (unaudited)	2015 (unaudited)	2016 (unaudited)	2017 (unaudited)	2018	Total of IBNR Liabilities Plus Expected Development on Reported Losses
2013	$ 393,481	$ 326,973	$ 306,362	$ 295,180	$ 280,945	$ 275,751	$ 5,083
2014	—	390,301	331,084	306,912	287,891	280,875	9,532
2015	—	—	394,745	298,307	253,938	245,200	19,044
2016	—	—	—	378,789	353,333	336,811	35,780
2017	—	—	—	—	438,555	357,498	76,346
2018	—	—	—	—	—	412,985	177,481
					Total incurred loss and loss adjustment expenses	$ 1,909,120	

	Cumulative Paid Loss and Allocated Loss Adjustment Expenses, Net of Reinsurance For the Years Ended December 31,					
Accident Year	2013 (unaudited)	2014 (unaudited)	2015 (unaudited)	2016 (unaudited)	2017 (unaudited)	2018
2013	$ 60,835	$ 162,658	$ 220,232	$ 242,312	$ 253,247	$ 259,597
2014	—	84,168	186,629	231,818	246,345	254,456
2015	—	—	68,131	160,618	189,346	203,240
2016	—	—	—	78,492	196,495	240,718
2017	—	—	—	—	87,883	215,878
2018	—	—	—	—	—	60,879
					Total paid loss and loss adjustment expenses	1,234,768
					Total incurred loss and loss adjustment expenses	1,909,120
					Outstanding liabilities for loss and allocated loss adjustment expenses for accident years prior to 2013	104,525
					Liabilities for loss and allocated loss adjustment expenses, net of reinsurance	$ 778,877

	Average Annual Percentage Payout of Incurred Loss and Allocated Loss Adjustment Expenses by Age, Net of Reinsurance					
In Year:	1	2	3	4	5	6
Average of each year	23.1%	38.6%	15.8%	8.8%	4.9%	2.9%

U.S. Casualty Insurance

The following tables present i) incurred loss and allocated loss adjustment expenses (net of reinsurance), ii) total IBNR liabilities plus expected development on reported loss, iii) cumulative number of reported loss (determined by the number of events, not claimants, regardless of whether or not any payments were ultimately made) and iv) cumulative paid loss and allocated loss adjustment expenses (net of reinsurance) for the U.S. Casualty Insurance line of business for the year ended and as of December 31, 2018 (in thousands):

	Incurred Loss and Allocated Loss Adjustment Expenses , Net of Reinsurance						As of December 31, 2018	
	For the Years Ended December 31,							
Accident Year	2013 (unaudited)	2014 (unaudited)	2015 (unaudited)	2016 (unaudited)	2017 (unaudited)	2018	Total of IBNR Liabilities Plus Expected Development on Reported Losses	Cumulative Number of Reported Claims
2013	$ 244,726	$ 241,873	$ 238,051	$ 217,364	$ 207,109	$ 206,216	$ 10,457	23,067
2014	—	294,177	275,305	269,942	259,288	252,427	25,092	29,583
2015	—	—	287,419	286,650	278,209	258,870	30,691	27,503
2016	—	—	—	278,509	278,025	263,819	66,349	18,219
2017	—	—	—	—	341,698	356,730	174,508	15,595
2018	—	—	—	—	—	458,328	306,165	14,326
					Total incurred loss and loss adjustment expenses	$ 1,796,390		

	Cumulative Paid Loss and Allocated Loss Adjustment Expenses, Net of Reinsurance					
	For the Years Ended December 31,					
Accident Year	2013 (unaudited)	2014 (unaudited)	2015 (unaudited)	2016 (unaudited)	2017 (unaudited)	2018
2013	$ 51,986	$ 86,527	$ 128,490	$ 162,146	$ 174,795	$ 186,538
2014	—	59,690	94,896	143,152	177,765	209,941
2015	—	—	66,555	103,030	154,993	196,107
2016	—	—	—	59,657	100,615	154,153
2017	—	—	—	—	60,032	118,611
2018	—	—	—	—	—	74,198
					Total paid loss and loss adjustment expenses	939,548
					Total incurred loss and loss adjustment expenses	1,796,390
					Outstanding liabilities for loss and allocated loss adjustment expenses for accident years prior to 2013	24,822
					Liabilities for loss and allocated loss adjustment expenses, net of reinsurance	$ 881,664

	Average Annual Percentage Payout of Incurred Loss and Allocated Loss Adjustment Expenses by Age, Net of Reinsurance					
In Year:	1	2	3	4	5	6
Average of each year	20.7%	16.9%	21.5%	15.5%	9.2%	6.6%

U.S. Property Insurance

The following tables present i) incurred loss and allocated loss adjustment expenses (net of reinsurance), ii) total IBNR liabilities plus expected development on reported loss, iii) cumulative number of reported loss (determined by the number of events, not claimants, regardless of whether or not any payments were ultimately made) and iv) cumulative paid loss and allocated loss adjustment expenses (net of reinsurance) for the U.S. Property Insurance line of business for the year ended and as of December 31, 2018 (in thousands):

	Incurred Loss and Allocated Loss Adjustment Expenses , Net of Reinsurance						As of December 31, 2018	
	For the Years Ended December 31,							
Accident Year	2013 (unaudited)	2014 (unaudited)	2015 (unaudited)	2016 (unaudited)	2017 (unaudited)	2018	Total of IBNR Liabilities Plus Expected Development on Reported Losses	Cumulative Number of Reported Claims
2013	$ 212,167	$ 203,970	$ 197,496	$ 197,124	$ 196,391	$ 196,374	$ 3	10,604
2014	—	227,198	233,124	232,178	231,401	230,867	18	12,399
2015	—	—	187,266	197,486	195,061	194,253	213	11,332
2016	—	—	—	221,585	209,572	205,659	523	11,563
2017	—	—	—	—	230,670	224,065	5,234	15,587
2018	—	—	—	—	—	289,059	106,029	18,055
				Total incurred loss and loss adjustment expenses		$1,340,277		

	Cumulative Paid Loss and Allocated Loss Adjustment Expenses, Net of Reinsurance					
	For the Years Ended December 31,					
Accident Year	2013 (unaudited)	2014 (unaudited)	2015 (unaudited)	2016 (unaudited)	2017 (unaudited)	2018
2013	$ 101,466	$ 190,056	$ 192,033	$ 194,391	$ 195,998	$ 196,122
2014	—	80,295	221,162	228,772	230,614	230,488
2015	—	—	77,398	181,585	193,617	193,539
2016	—	—	—	75,333	199,384	203,238
2017	—	—	—	—	77,377	208,714
2018	—	—	—	—	—	113,119
Total paid loss and loss adjustment expenses						1,145,220
Total incurred loss and loss adjustment expenses						1,340,277
Outstanding liabilities for loss and allocated loss adjustment expenses for accident years prior to 2013						429
Liabilities for loss and allocated loss adjustment expenses, net of reinsurance						$ 195,486

	Average Annual Percentage Payout of Incurred Loss and Allocated Loss Adjustment Expenses by Age, Net of Reinsurance					
In Year:	1	2	3	4	5	6
Average of each year	39.2%	56.0%	3.6%	0.7%	0.3%	0.0%

Non-U.S. Casualty Insurance

The following tables present i) incurred loss and allocated loss adjustment expenses (net of reinsurance) and ii) total IBNR liabilities plus expected development on reported loss and iii) cumulative paid loss and allocated loss adjustment expenses (net of reinsurance) for the Non-U.S. Casualty Insurance line of business for the year ended and as of December 31, 2018 (in thousands):

	Incurred Loss and Allocated Loss Adjustment Expenses , Net of Reinsurance For the Years Ended December 31,						As of December 31, 2018
Accident Year	2013 (unaudited)	2014 (unaudited)	2015 (unaudited)	2016 (unaudited)	2017 (unaudited)	2018	Total of IBNR Liabilities Plus Expected Development on Reported Losses
2013	$ 85,602	$ 82,127	$ 82,531	$ 83,780	$ 82,181	$ 86,126	$ 25,847
2014	—	86,045	87,342	85,787	83,280	77,193	23,792
2015	—	—	86,053	84,689	83,112	75,657	32,771
2016	—	—	—	80,613	77,205	80,111	45,093
2017	—	—	—	—	90,998	92,579	70,206
2018	—	—	—	—	—	103,988	90,802
Total incurred loss and loss adjustment expenses						$ 515,654	

	Cumulative Paid Loss and Allocated Loss Adjustment Expenses, Net of Reinsurance For the Years Ended December 31,					
Accident Year	2013 (unaudited)	2014 (unaudited)	2015 (unaudited)	2016 (unaudited)	2017 (unaudited)	2018
2013	$ 5,683	$ 9,210	$ 17,040	$ 25,228	$ 34,998	$ 41,112
2014	—	5,013	11,990	19,725	32,143	37,394
2015	—	—	3,843	8,828	19,028	26,185
2016	—	—	—	3,399	10,611	18,244
2017	—	—	—	—	4,119	12,683
2018	—	—	—	—	—	5,072
Total paid loss and loss adjustment expenses						140,690
Total incurred loss and loss adjustment expenses						515,654
Outstanding liabilities for loss and allocated loss adjustment expenses for accident years prior to 2013						233,501
Liabilities for loss and allocated loss adjustment expenses, net of reinsurance						$ 608,465

	Average Annual Percentage Payout of Incurred Loss and Allocated Loss Adjustment Expenses by Age, Net of Reinsurance					
In Year:	1	2	3	4	5	6
Average of each year	5.3%	7.7%	10.2%	11.8%	9.4%	3.4%

The reconciliation of the net incurred and paid claims development tables (preceding) to the liability for unpaid losses and loss adjustment expenses in the consolidated statement of financial position as of December 31, 2018 is as follows (in thousands):

	December 31, 2018
Net unpaid loss and allocated loss adjustment expenses:	
U.S. Casualty Reinsurance	$ 1,157,263
U.S. Property Reinsurance	316,079
Non-U.S. Casualty Reinsurance	826,803
Non-U.S. Property Reinsurance	778,877
U.S. Casualty Insurance	881,664
U.S. Property Insurance	195,486
Non-U.S. Casualty Insurance	608,465
Unallocated loss adjustment expenses	71,749
Workers' compensation discount	(36,979)
Other	149,945
Effect of foreign exchange rates	(148,184)
Total unpaid loss and allocated loss adjustment expenses, net of reinsurance	4,801,168
Reinsurance recoverable on unpaid losses and loss adjustment expenses:	
U.S. Casualty Reinsurance	18,670
U.S. Property Reinsurance	142,839
Non-U.S. Casualty Reinsurance	84
Non-U.S. Property Reinsurance	152,246
U.S. Casualty Insurance	225,454
U.S. Property Insurance	131,249
Non-U.S. Casualty Insurance	222,624
Unallocated loss adjustment expenses	300
Effect of foreign exchange rates	(11,237)
Other	44,806
Total reinsurance recoverable on unpaid losses	927,035
Total gross unpaid loss and loss adjustment expenses	$ 5,728,203

The following table sets forth the activity in the liability for unpaid losses and loss adjustment expenses for the years ended December 31, 2018, 2017 and 2016 (in thousands):

	2018	2017	2016
Gross unpaid losses and loss adjustment expenses, beginning of year	$ 5,463,595	$ 4,876,848	$ 5,002,422
Less: Ceded unpaid losses and loss adjustment expenses, beginning of year	866,985	658,607	690,884
Net unpaid losses and loss adjustment expenses, beginning of year	4,596,610	4,218,241	4,311,538
Add: Net incurred losses and loss adjustment expenses related to:			
Current year	2,061,397	1,827,571	1,438,311
Prior years	(345,652)	(288,049)	(266,486)
Total net incurred losses and loss adjustment expenses	1,715,745	1,539,522	1,171,825
Less: Net paid losses and loss adjustment expenses related to:			
Current year	399,891	376,331	264,582
Prior years	1,033,807	953,050	972,915
Total net paid losses and loss adjustment expenses	1,433,698	1,329,381	1,237,497
Effect of exchange rate changes	(77,489)	168,228	(27,625)
Net unpaid losses and loss adjustment expenses, end of year	4,801,168	4,596,610	4,218,241
Add: Ceded unpaid losses and loss adjustment expenses, end of year	927,035	866,985	658,607
Gross unpaid losses and loss adjustment expenses, end of year	$ 5,728,203	$ 5,463,595	$ 4,876,848

Net incurred losses and loss adjustment expenses related to the current year were $2,061.4 million, $1,827.6 million and $1,438.3 million for the years ended December 31, 2018, 2017 and 2016, respectively. The increase in incurred losses and loss adjustment expenses for the year ended December 31, 2018 was principally attributable to increased losses associated with premium growth partially offset by a reduction in current year catastrophe losses. The increase in incurred losses and loss adjustment expenses for the year ended December 31, 2017 was principally attributable to an increase in current year catastrophe losses and increased losses associated with premium growth. For the years ended December 31, 2018, 2017 and 2016, current year property catastrophe losses were $257.4 million, $406.0 million and $190.3 million, respectively. For the year ended December 31, 2018, current year catastrophe losses included $35.0 million related to the Northern California Wildfires, $30.9 million related to Hurricane Michael, $28.1 million related to Typhoon Jebi, and $15.0 million related to the Southern California Wildfires. For the year ended December 31, 2017, current year property catastrophe losses included $105.9 million related to Hurricane Maria, $75.7 million related to Hurricane Irma, $54.1 million related to Hurricane Harvey, $25.0 million related to the Northern California Wildfires, and $25.0 million related to the Southern California Wildfires. For the year ended December 31, 2016, current year property catastrophe losses included $30.8 million related to Hurricane Matthew.

Net incurred losses and loss adjustment expenses related to prior years included reductions in loss estimates of $345.7 million, $288.0 million and $266.5 million for the years ended December 31, 2018, 2017 and 2016, respectively. The reductions in prior years' incurred losses and loss adjustment expenses were attributable to decreased loss estimates due to loss emergence lower than expectations in most regions and lines of business.

Net paid losses and loss adjustment expenses related to the current year were $399.9 million, $376.3 million and $264.6 million for the years ended December 31, 2018, 2017 and 2016, respectively. The increase in paid losses and loss adjustment expenses for the year ended December 31, 2018 was principally attributable to increased losses associated with premium growth partially offset by a reduction in current year catastrophe losses.

The increase in paid losses and loss adjustment expenses for the year ended December 31, 2017 was principally due to increased current year catastrophe losses.

The effects of exchange rate changes on net unpaid losses and loss adjustment expenses resulted in a decrease of $77.5 million for the year ended December 31, 2018, an increase of $168.2 million for the year ended December 31, 2017, and a decrease of $27.6 million for the year ended December 31, 2016, and were attributable to Non-U.S. Reinsurance and Non-U.S. Insurance.

Ceded unpaid losses and loss adjustment expenses were $927.0 million, $867.0 million and $658.6 million as of December 31, 2018, 2017 and 2016, respectively. The increase in ceded unpaid losses and loss adjustment expenses for the year ended December 31, 2018 was principally attributable to an increase in ceded unpaid reinsurance recoverables on catastrophe losses. The increase in ceded unpaid losses and loss adjustment expenses for the year ended December 31, 2017 was principally attributable to an increase in ceded unpaid reinsurance recoverables as a result of Hurricanes Irma and Maria, and the Northern California Wildfires.

The Company uses tabular reserving for workers' compensation indemnity loss reserves, which are considered to be fixed and determinable, and discounts such reserves using an interest rate of 3.5%. Workers' compensation indemnity loss reserves have been discounted using the Life Table for Total Population: United States, 2009. Reserves reported at the discounted value were $52.4 million and $53.4 million as of December 31, 2018 and 2017, respectively. The amount of case reserve discount was $16.8 million and $17.5 million as of December 31, 2018 and 2017, respectively. The amount of incurred but not reported reserve discount was $20.2 million and $20.5 million as of December 31, 2018 and 2017, respectively.

The Company is not materially exposed to asbestos and environmentally-related liabilities and does not establish a specific reserve for such exposures.

7. Reinsurance and Retrocessions

The Company utilizes reinsurance and retrocessional agreements to reduce and spread the risk of loss on its insurance and reinsurance business and to limit exposure to multiple claims arising from a single occurrence. The Company is subject to accumulation risk with respect to catastrophic events involving multiple treaties, facultative certificates and insurance policies. To protect against these risks, the Company purchases catastrophe excess of loss protection. The retention, the level of capacity purchased, the geographical scope of the coverage and the costs vary from year to year. Additionally, the Company purchases specific protections related to the insurance business underwritten in both the U.S. and abroad.

There is credit risk with respect to reinsurance, which would result in the Company recording a charge to earnings in the event that such reinsuring companies are unable, at some later date, to meet their obligations under the reinsurance agreements in force. Reinsurance recoverables are recorded as assets and a reserve for uncollectible reinsurance recoverables is established based on the Company's evaluation of each reinsurer's or retrocessionaire's ability to meet its obligations under the agreements. Premiums written and earned are stated net of reinsurance ceded in the consolidated statements of operations. Direct, reinsurance assumed, reinsurance ceded and net amounts for the years ended December 31, 2018, 2017 and 2016 follow (in thousands):

	Year Ended December 31,		
	2018	2017	2016
Premiums Written			
Direct	$ 1,626,198	$ 1,289,551	$ 1,086,119
Add: assumed	1,702,430	1,493,554	1,294,628
Less: ceded	430,808	287,218	280,570
Net	$ 2,897,820	$ 2,495,887	$ 2,100,177
Premiums Earned			
Direct	$ 1,491,083	$ 1,195,849	$ 1,070,553
Add: assumed	1,652,231	1,420,639	1,303,878
Less: ceded	387,885	283,087	300,335
Net	$ 2,755,429	$ 2,333,401	$ 2,074,096

The total amount of reinsurance recoverable on paid and unpaid losses as of December 31, 2018 and 2017 was $1,086.6 million and $896.7 million, respectively. The reserve for uncollectible reinsurance recoverable was $14.0 million and $13.1 million, as of December 31, 2018 and 2017, respectively, and has been netted against reinsurance recoverables on loss payments in the consolidated balance sheets.

In accordance with the terms of certain reinsurance agreements, the Company has recorded interest expense associated with its ceded reinsurance agreements of less than $0.1 million for each of the years ended December 31, 2018, 2017 and 2016.

8. Reinsurance Recoverables

The Company's ten largest reinsurers represent 78.4% of its total reinsurance recoverables as of December 31, 2018. Amounts due from all other reinsurers are diversified, with no other individual reinsurer representing more than $20.0 million, or 1.9%, of reinsurance recoverables as of December 31, 2018, and the average balance is less than $1.6 million. The Company held total collateral of $373.6 million as of December 31, 2018, representing 34.4% of total reinsurance recoverables. The following table shows the total amount as of December 31, 2018 that is recoverable from each of the Company's ten largest reinsurers for paid and unpaid losses, the amount of collateral held and each reinsurer's A.M. Best rating (in thousands):

Reinsurer	Reinsurance Recoverable	% of Total	Collateral	A.M. Best Rating
Markel CatCo Reinsurance Ltd.	$ 251,328	23.1%	$ 251,328	NR
Federal Crop Insurance Corporation	245,990	22.7	—	NR
Lloyd's Syndicates (excluding Brit PLC Syndicate 2987)	130,157	12.0	4,050	A
CRC Reinsurance Limited	51,492	4.7	51,271	NR
Chubb Tempest Reinsurance Ltd.	34,750	3.2	27,318	A++
Berkley Insurance Company	34,142	3.1	—	A+
National Indemnity Company	29,076	2.7	—	A++
Markel Global Reinsurance Company	27,283	2.5	—	A
Hannover Rueck SE	27,188	2.5	328	A+
Brit (Lloyds Syndicate 2987)	21,006	1.9	—	A
Sub-total	852,412	78.4	334,295	
All other	234,234	21.6	39,258	
Total	$ 1,086,646	100.0%	$ 373,553	

Several individual reinsurers are part of the same corporate group. The following table shows the five largest aggregate amounts that are recoverable from all individual entities that form part of the same corporate group as of December 31, 2018 and the amount of collateral held from each group (in thousands):

Reinsurer	Reinsurance Recoverable	% of Total	Collateral
Markel Corporation	$ 296,514	27.3%	$ 251,813
Federal Crop Insurance Corporation	245,990	22.6	—
Lloyd's Syndicates (excluding Brit PLC Syndicate 2987)	130,157	12.0	4,050
Fairfax Financial Holdings Ltd.	91,260	8.4	52,824
Chubb	35,184	3.2	27,318
Sub-total	799,105	73.5	336,005
All other	287,541	26.5	37,548
Total	$ 1,086,646	100.0%	$ 373,553

Reinsurance recoverables were $896.7 million and collateral was $265.1 million, or 29.6% of the reinsurance recoverable balance, as of December 31, 2017.

The Company is the beneficiary of letters of credit, cash and other forms of collateral to secure certain amounts due from its reinsurers. Collateral held by the Company as of December 31, 2018 was comprised of the following forms (in thousands):

Form of Collateral	Collateral	% of Recoverables
Trust agreements	$ 274,230	25.3%
Funds withheld from reinsurers	62,944	5.8
Letters of credit	36,379	3.3
Total	$ 373,553	34.4%

Each reinsurance contract between the Company and the reinsurer describes the losses that are covered under the contract and terms upon which payments are to be made. The Company generally has the ability to utilize collateral to settle unpaid balances due under its reinsurance contracts when it determines that the reinsurer has not met its contractual obligations. Letters of credit are for the sole benefit of the Company to support the obligations of the reinsurer, providing the Company with the unconditional ability, in its sole discretion, to draw upon the letters of credit in support of any unpaid amounts due under the relevant contracts. Cash and investments supporting funds withheld from reinsurers are included in the Company's invested assets. Funds withheld from reinsurers are typically used to automatically offset payments due to the Company in accordance with the terms of the relevant reinsurance contracts. Amounts held under trust agreements are typically comprised of cash and investment grade fixed income securities and are not included in the Company's invested assets. The ability of the Company to draw upon funds held under trust agreements to satisfy any unpaid amounts due under the relevant reinsurance contracts is typically unconditional and at the sole discretion of the Company.

9. Debt Obligations, Common Shares and Non-Controlling Interest – Preferred Shares of Subsidiaries

Debt Obligations

The amortized cost by component of the Company's debt obligations as of December 31, 2018 and 2017 were as follows (in thousands):

	December 31, 2018	December 31, 2017
Series A Floating Rate Senior Debentures due 2021	$ 49,944	$ 49,917
Series C Floating Rate Senior Debentures due 2021	39,956	39,940
Total debt obligations	$ 89,900	$ 89,857

On November 28, 2006, the Company completed the private sale of a $40.0 million aggregate principal amount of floating rate senior debentures, Series C, due December 15, 2021 (the "Series C Notes"). Interest on the Series C Notes accrues at a rate per annum equal to the three-month London Interbank Offer Rate ("LIBOR"), reset quarterly, plus 2.50%, and is payable quarterly in arrears on March 15, June 15, September 15 and December 15 of each year. The Company has the option to redeem the Series C Notes at par, plus accrued and unpaid interest, in whole or in part on any interest payment date. For the years ended December 31, 2018 and 2017, the average annual interest rate on the Series C Notes was 4.65% and 3.69%, respectively.

On February 22, 2006, the Company issued a $50.0 million aggregate principal amount of floating rate senior debenture Series A, due March 15, 2021 (the "Series A Notes"), pursuant to a private placement offering. Interest on the Series A Notes is due quarterly in arrears on March 15, June 15, September 15 and December 15 of each year at an interest rate equal to the three-month LIBOR, reset quarterly, plus 2.20%. The Series A Notes are callable by the Company on any interest payment date at their par value, plus accrued and unpaid interest. For the years ended December 31, 2018 and 2017, the average annual interest rate on Series A Notes was 4.35% and 3.39%, respectively.

As of December 31, 2018 and 2017, the estimated fair value of the Company's debt obligations was $92.3 million and $92.9 million, respectively. The estimated fair value is based on quoted market prices of the Company's debt, where available, for debt similar to the Company's, and discounted cash flow calculations.

Common Shares

The Company did not issue any common shares during the years ended December 31, 2018, 2017 and 2016.

The Company declared and paid $100.0 million in common share dividends during each of the years ended December 31, 2018 and 2017. The Company declared and paid $200.0 million in common share dividends during the year ended December 31, 2016.

Non-Controlling Interest – Preferred Shares of Subsidiaries

TIG Insurance Company ("TIG"), a Fairfax affiliate, holds all 23,807 shares of Hudson's 5.5% Series A preferred stock with a liquidation preference of $1,000 per share and an aggregate book value of $23.8 million, and all 5,492 shares of Greystone's 5.5% Series A preferred stock, with a liquidation preference of $1,000 per share and an aggregate book value of $5.5 million. The shares are not redeemable by Hudson or Greystone prior to January 1, 2031. On or after January 1, 2031, the shares are redeemable, in whole or in part, by Hudson or Greystone. On October 4, 2018, Greystone's Board of Directors declared a preferred dividend to TIG in the amount of $0.3 million, which was paid on October 22, 2018. On December 6, 2018, Hudson's Board of Directors declared a preferred dividend to TIG in the amount of $1.3 million, which was paid on December 21, 2018. On October 3, 2017, Greystone's Board of Directors declared a preferred dividend to TIG in the amount of $0.3 million and Hudson's Board of Directors declared a preferred dividend to TIG in the amount of $1.3 million. Both dividends were paid on October 20, 2017. On October 6, 2016, Greystone's Board of Directors declared a preferred dividend to TIG in the amount of $0.3 million and Hudson's Board of Directors declared a preferred dividend to TIG in the amount of $1.3 million. Both dividends were paid on October 20, 2016. The aggregate amount of the preferred shares of Hudson and Greystone owned by TIG is presented on the balance sheet as non-controlling interest – preferred shares of subsidiaries in the amount of $29.3 million.

10. Federal and Foreign Income Taxes

The components of the federal and foreign income tax provision included in the consolidated statements of operations for the years ended December 31, 2018, 2017 and 2016 are as follows (in thousands):

	2018	2017	2016
Current:			
United States	$ 19,516	$ 98,131	$ 5,593
Foreign	31,555	46,360	22,915
Total current income tax provision	51,071	144,491	28,508
Deferred:			
United States	(28,134)	158,583	(19,766)
Foreign	242	(10,027)	(4,327)
Total deferred income tax (benefit) provision	(27,892)	148,556	(24,093)
Total federal and foreign income tax provision	$ 23,179	$ 293,047	$ 4,415

Deferred federal and foreign income taxes reflect the tax impact of temporary differences between the amount of assets and liabilities for financial reporting purposes and such amounts as measured by tax laws and regulations. Components of federal and foreign income tax assets and liabilities as of December 31, 2018 and 2017 are as follows (in thousands):

	2018	2017
Unpaid losses and loss adjustment expenses	$ 44,322	$ 50,867
Unearned premiums	36,388	31,291
Reserve for potentially uncollectible balances	3,170	3,111
Pension and benefit accruals	25,538	23,640
Investments	142,456	98,593
Foreign tax credit	19,381	35,112
Other	3,966	—
Total deferred tax assets	275,221	242,614
Deferred acquisition costs	44,139	38,684
Foreign deferred items	9,913	10,155
Subsidiary net operating loss	4,653	4,653
Other	—	500
Total deferred tax liabilities	58,705	53,992
Net deferred tax assets	216,516	188,622
Deferred income taxes on accumulated other comprehensive income (loss)	18,316	(9,909)
Deferred federal and foreign income tax asset	234,832	178,713
Current federal and foreign income tax payable	(1,969)	(34,356)
Federal and foreign income taxes receivable	$ 232,863	$ 144,357

The following table reconciles federal and foreign income taxes at the statutory federal income tax rate to the Company's tax provision and effective tax rate for the years ended December 31, 2018, 2018 and 2016 (in thousands):

	2018		2017		2016	
	Amount	% of Pre-tax Income	Amount	% of Pre-tax Income	Amount	% of Pre-tax Income
Income before income tax	$246,954		$618,301		$165,323	
Income tax provision computed at the U.S. statutory tax rate on income	$ 51,860	21.0%	$216,405	35.0%	$ 57,863	35.0%
(Decrease) increase in income tax resulting from:						
Dividend received deduction	(1,499)	(0.6)	(3,013)	(0.5)	(3,259)	(2.0)
Tax-exempt income	(3,325)	(1.3)	(14,135)	(2.3)	(23,353)	(14.1)
Proration recovery of tax preferred income	831	0.3	2,140	0.3	—	—
Foreign tax expense	380	0.2	(176)	(0.0)	—	—
State tax expense	1,226	0.5	(364)	(0.1)	—	—
True-up of prior year taxes	(7,434)	(3.0)	(430)	(0.1)	—	—
Write-off of subsidiary NOL DTL	—	—	—	—	(32,999)	(20.0)
U.S. tax reform - tax rate adjustment	(22,156)	(9.0)	95,074	15.4	—	—
U.S. tax reform - mandatory deemed repatriation	—	—	(6,643)	(1.1)	—	—
Other, net	3,296	1.3	4,189	0.8	6,163	3.7
Total federal and foreign income tax provision	$ 23,179	9.4%	$293,047	47.4%	$ 4,415	2.6%

Pre-tax income (loss) generated in the United States was $132.0 million, $463.7 million and $(3.3) million for the years ended December 31, 2018, 2017 and 2016, respectively. Foreign pre-tax income was $115.0 million, $154.6 million and $168.6 million for the years ended December 31, 2018, 2017 and 2016, respectively.

The Company has claimed the benefit of a foreign tax credit in the tax years ended December 31, 2018, 2017 and 2016.

During 2016, the Company released the deferred tax liability relating to a contingent contractual obligation to a former subsidiary of the Company as a result of the Company's utilization of the former subsidiary's net operating losses in years prior to the sale of the former subsidiary, pursuant to tax sharing agreements in effect for those years, following the determination that such liability will not be realized.

The Company is included in the United States tax group of Fairfax (US) Inc. ("Fairfax (US)"). The method of allocation among the companies is subject to a written agreement. Tax payments are made to, or refunds received from, Fairfax (US) in amounts equal to the amounts as if separate income tax returns were filed with federal taxing authorities.

The United States Tax Cuts and Jobs Act (the "Act") was signed into law on December 22, 2017. The Act reduces the U.S. federal corporate tax rate from 35% to 21% and requires companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred. The Act also includes the following provisions for tax years beginning after December 31, 2017: repeal of the alternative minimum tax regime, changes to loss reserve discounting, a new minimum base erosion and anti-abuse tax ("BEAT") on certain payments to foreign affiliates and a US tax on foreign earnings for certain global intangible low-taxed income ("GILTI"), as well as a number of other provisions expected to have an immaterial impact on the Company. As of December 31, 2018, the Company completed the estimates of the impact of the Act, as discussed below.

Pursuant to Accounting Standards Codification ("ASC") 740 "Income Taxes", deferred tax assets ("DTAs") and deferred tax liabilities ("DTLs") as of December 31, 2017, were measured using the new enacted tax rate of 21% that is expected to apply to taxable income in the periods in which the DTAs and DTLs are expected to be settled or realized. The impact of the federal rate change was determined as of December 31, 2017. Any difference between the impact measured as of that date and the date of enactment was considered not material to the financial statements. Changes in DTAs and DTLs resulting from changes in tax law or tax rates are recognized in continuing operations, including DTAs and DTLs related to accumulated other comprehensive income. The remeasurement of deferred taxes due to the change in tax rate resulted in a reduction of net deferred tax assets of $95.1 million, as of December 31, 2017. The Company recorded a benefit of $22.2 million in 2018 for the effects of the change in tax rates on certain return-to-provision adjustments reflected on the 2017 filed US corporate income tax return. See Note 5 for discussion of the effects on accumulated other comprehensive income and the application of ASU 2018-02.

For tax years beginning before January 1, 2018, the Act requires that U.S. companies include in income the impacts of a mandatory deemed repatriation of post-1986 undistributed foreign earnings ("transition tax" or "toll charge"). As of December 31, 2017, the Company estimated that income on previously untaxed foreign earnings would be $36.8 million. The amount estimated as of December 31, 2017 noted above was finalized with the filing of the 2017 income tax return during 2018, which included $32.4 million in taxable income related to mandatory deemed repatriation. The effects of the $4.4 million adjustment to the transition tax estimate had no material impact due to the Company utilizing foreign tax credits to reduce the transition tax liability to zero . As a result of the transition tax, as of December 31, 2017 the Company recognized a reduction in net deferred tax liability of $37.6 million related to previously deferred earnings of the Newline Group as well as a reduction in its foreign tax credits of $31.3 million related to foreign tax credits that no longer have value due to the mandatory repatriation. In accordance with Staff Accounting Bulletin No. 118 (SAB 118), for the year ended December 31, 2018 the estimate has been updated and the Company has recognized a reduction in net deferred tax liability of $43.9 million related to previously deferred earnings of the Newline Group as well as a reduction in its foreign tax credits of $36.7 million. The net $0.9 million adjustment to the SAB 118 estimate in foreign deferred tax attributes results in an effective tax rate benefit of 0.4%.

The effects of the Act related to loss reserve discounting have been computed for the years ended December 31, 2018 and 2017. Due to special transition rules, the changes to loss reserve discounting are spread ratably over

8 years. The Company will recognize a benefit of $9.4 million ratably from years ending December 31, 2018 to December 31, 2025.

The tax effects included in these consolidated financial statements represent the Company's best estimate based upon the information available, as of December 31, 2018. The finalization during 2019 of proposed regulations issued by the U.S. tax authorities during 2018 could potentially affect the estimates of the tax impacts related to BEAT and GILTI as of December 31, 2018. The Company will recognize the charges, if any, related to BEAT or GILTI in the period in which it is included on the Company's income tax return. The Company has, therefore, not included impacts from BEAT or GILTI in measuring its current or deferred taxes as of December 31, 2018 or 2017.

The Company paid federal and foreign income taxes of $83.4 million, $18.0 million and $152.8 million for the years ended December 31, 2018, 2017 and 2016, respectively. As of December 31, 2018, the Company had a current tax payable of $2.0 million, which included $6.4 million receivable from Fairfax (US) and a net payable of $8.4 million to various foreign governments. As of December 31, 2017, the Company had a current tax payable of $34.4 million, which included $6.4 million payable to Fairfax (US) and a net payable of $28.0 million to various foreign governments. The Company files income tax returns with various federal, state and foreign jurisdictions.

The Company's U.S. federal income tax returns for tax years prior to 2017 are closed. The Internal Revenue Service ("IRS") is expected to complete their audit of the Company's 2017 returns during 2019. Effective for 2017 and 2018 tax years, the Company participates in the IRS's Compliance Assurance Program ("CAP"). Under CAP, the IRS begins their examination of the tax year before the income tax return is filed. The goal of CAP is to expedite the exam process and reduce the level of uncertainty regarding a taxpayer's filing positions by examining significant transactions and events as they occur. The IRS has not proposed any material adjustments as part of the Company's ongoing examinations. Income tax returns filed with various state and foreign jurisdictions remain open to examination in accordance with individual statutes.

The Company has elected to recognize accrued interest and penalties associated with uncertain tax positions as part of the income tax provision. The Company does not have any material unrecognized tax benefits and has not recognized any accrued interest or penalties associated with uncertain tax positions.

For federal income tax return purposes, the Company has foreign tax credit carryovers of $19.4 million, of which $13.9 million and $4.2 million expire in 2027 and 2028, respectively.

11. Commitments and Contingencies

(a) *Contingencies*

The Company participates in Lloyd’s through its 100% ownership of the capital provider for Newline Syndicate (1218), for which the Company directly or indirectly provides 100% of the capacity. The results of Newline Syndicate (1218) are consolidated in the financial statements of the Company. In support of Newline Syndicate (1218)’s capacity at Lloyd’s, the Company has pledged securities and cash with a fair value of $291.7 million as of December 31, 2018 in a deposit trust account in favor of the Society and Council of Lloyd’s. The securities may be substituted with other securities at the discretion of the Company, subject to approval by Lloyd’s. The securities are carried at fair value and are included in investments and cash in the Company’s consolidated balance sheets. Interest earned on the securities is included in investment income. The pledge of assets in support of Newline Syndicate (1218) provides the Company with the ability to participate in writing business through Lloyd’s, which remains an important part of the Company’s business. The pledged assets effectively secure the contingent obligations of Newline Syndicate (1218) should it not meet its obligations. The Company’s contingent liability to the Society and Council of Lloyd’s is limited to the aggregate amount of the pledged assets. The Company has the ability to remove funds at Lloyd’s annually, subject to certain minimum amounts required to support outstanding liabilities as determined under risk-based capital models and approved by Lloyd’s. The funds used to support outstanding liabilities are adjusted annually and the obligations of the Company to support these liabilities will continue until they are settled or the liabilities are reinsured by a third party approved by Lloyd’s. The Company expects to continue to actively operate Newline Syndicate (1218) and support its requirements at Lloyd’s. The Company believes that Newline Syndicate (1218) maintains sufficient liquidity and financial resources to support its ultimate liabilities and the Company does not anticipate that the pledged assets will be utilized.

ORC agreed to guarantee the performance of all the insurance and reinsurance contract obligations of Compagnie Transcontinentale de Réassurance (“CTR”), a subsidiary of Fairfax, in the event CTR became insolvent and CTR was not otherwise indemnified under its guarantee agreement with a Fairfax affiliate. Fairfax has agreed to indemnify ORC for all its obligations incurred under its guarantee. The Company’s potential exposure in connection with this agreement stems from CTR’s remaining gross reserves, which are estimated to be $54.7 million as of December 31, 2018. The Company believes that the financial resources of the Fairfax subsidiaries that have assumed CTR’s liabilities provide adequate protection to satisfy the obligations that are subject to this guarantee. The Company does not expect to make payments under this guarantee and does not consider its potential exposure under this guarantee to be material to its consolidated financial position.

ORC has agreed to guarantee the payment of all of the insurance contract obligations (the “Subject Contracts”), whether incurred before or after the agreement, of Falcon Insurance Company (Hong Kong) Limited (“Falcon”), a subsidiary of Fairfax Asia, in the event Falcon becomes insolvent. The guarantee by ORC was made to assist Falcon in writing business through access to ORC’s financial strength ratings and capital resources. ORC is paid a fee for this guarantee of one quarter of one percent of all gross premiums earned associated with the Subject Contracts on a quarterly basis. For each of the years ended December 31, 2018, 2017 and 2016, Falcon paid $0.1 million to ORC in connection with this guarantee. ORC’s potential exposure in connection with this agreement is estimated to be $125.6 million, based on Falcon’s loss reserves at December 31, 2018. Fairfax has agreed to indemnify ORC for any obligation under this guarantee. The Company believes that the financial resources of Falcon provide adequate protection to support its liabilities in the ordinary course of business. The Company anticipates that Falcon will meet all of its obligations in the normal course of business and does not expect to make any payments under this guarantee. The Company does not consider its potential exposure under this guarantee to be material to its consolidated financial position.

During 2015, in consideration for an appropriate fee, ORC agreed to guarantee the payment of certain obligations of TIG with respect to a certain contract of reinsurance of asbestos, pollution and health hazard claims (the “APH contract”) entered into by TIG with an unrelated third party. The guarantee was made to enable TIG to access ORC’s financial strength ratings and capital resources for securing the APH Contract. ORC’s maximum exposure in connection with this guarantee is $350.0 million; as of December 31, 2018, the Company’s estimated exposure under the guarantee is $63.5 million, based on TIG’s loss reserves for the APH Contract at December 31, 2018. The Company i) believes that the financial resources of TIG provide adequate protection to support is liabilities in the ordinary course of business; ii) anticipates that TIG will meet all of its obligations in the normal course of business and iii) does not expect to make any payments under this guarantee.

The Company and its subsidiaries are involved from time to time in ordinary litigation and arbitration proceedings as part of the Company's business operations. In the Company's opinion, the outcome of these suits, individually or collectively, is not likely to result in judgments that would be material to the financial condition or results of operations of the Company.

(b) *Commitments*

The Company and its subsidiaries lease office space and furniture and equipment under long-term operating leases expiring through the year 2033. Minimum annual rentals follow (in thousands):

	Amount
2019	$ 11,289
2020	11,184
2021	10,692
2022	9,929
2023	9,459
2024 and thereafter	55,639
Total	$ 108,192

The Company leases certain office and retail space held as an investment under various operating leases. Lease income for the years ended December 31, 2018 and 2017 was $5.6 million and $1.1 million, respectively. There was no lease income for the year ended December 31, 2016. Future rental income from these leases are as follows (in thousands):

	Amount
2019	$ 4,428
2020	4,156
2021	3,107
2022	2,277
2023	1,685
2024 and thereafter	6,633
Total	$ 22,286

Rental expense, before sublease income under these operating leases, was $12.2 million, $11.9 million and $12.1 million for the years ended December 31, 2018, 2017 and 2016, respectively. The Company recovered $0.1 million for each of the years ended December 31, 2018, 2017 and 2016.

12. Statutory Information and Dividend Restrictions

ORC, the Company's principal operating subsidiary, is subject to state regulatory restrictions that limit the maximum amount of dividends payable. In any 12-month period, ORC may pay dividends equal to the greater of (i) 10% of statutory capital and surplus as of the prior year end or (ii) net income for such prior year, without prior approval of the Insurance Commissioner of the State of Connecticut (the "Connecticut Commissioner"). Connecticut law further provides that (i) ORC must report to the Connecticut Commissioner, for informational purposes, all dividends and other distributions within five business days after the declaration thereof and at least ten days prior to payment and (ii) ORC may not pay any dividend or distribution in excess of its earned surplus, defined as the insurer's "unassigned funds surplus" reduced by 25% of unrealized appreciation in value or revaluation of assets or unrealized profits on investments, as reflected in its most recent statutory annual statement on file with the Connecticut Commissioner, without the Connecticut Commissioner's approval. The maximum ordinary dividend capacity available during 2019, without prior approval, is $329.7 million. ORC declared and paid to OGHI dividends of $150.0 million, $100.0 million and $200.0 million during the years ended December 31, 2018, 2017 and 2016, respectively. Hudson declared and paid dividends on its preferred shares owned by TIG of $1.3 million during each of the years ended December 31, 2018, 2017 and 2016. Greystone declared and paid dividends on its preferred shares owned by TIG of $0.3 million during each of the years ended December 31, 2018, 2017 and 2016.

The following is the consolidated statutory basis net income and policyholders' surplus of ORC and its subsidiaries, for each of the years ended and as of December 31, 2018, 2017 and 2016 (in thousands):

	2018	2017	2016
Net income	$ 302,562	$ 64,095	$ 145,455
Policyholders' surplus	3,336,595	3,285,326	3,223,232

13. Related Party Transactions

The Company has entered into various reinsurance arrangements with Fairfax and its affiliates. The amounts included in or deducted from income, expense, assets and liabilities in the accompanying consolidated financial statements with respect to reinsurance assumed and ceded from and to affiliates as of and for the years ended December 31, 2018, 2017 and 2016, follow (in thousands):

	2018	2017	2016
Assumed:			
Premiums written	$ 75,672	$ 57,691	$ 25,267
Premiums earned	81,975	53,713	23,148
Losses and loss adjustment expenses	59,295	43,705	8,278
Acquisition costs	14,749	9,523	1,722
Reinsurance payable on paid losses	6,873	1,223	667
Reinsurance balances receivable	22,033	13,956	4,604
Unpaid losses and loss adjustment expenses	158,833	147,010	57,896
Unearned premiums	22,751	22,871	8,826
Ceded:			
Premiums written	$ 44,805	$ 43,283	$ 32,661
Premiums earned	41,883	37,309	32,566
Losses and loss adjustment expenses	12,989	29,132	22,066
Acquisition costs	7,020	5,574	3,253
Ceded reinsurance balances payable	4,316	1,817	2,705
Reinsurance recoverables on paid losses	950	3,143	1,299
Reinsurance recoverables on unpaid losses	99,673	110,186	99,585
Unearned premiums	18,489	15,651	10,588

The Company's subsidiaries have entered into investment management agreements with Fairfax and its wholly-owned subsidiary, Hamblin Watsa Investment Counsel Ltd. These agreements generally provide for an annual base fee, calculated and paid quarterly based upon each subsidiary's average invested assets for the preceding three months, and an incentive fee, which is payable if realized gains on equity investments exceed certain benchmarks. These agreements may be terminated by either party on 30 days' notice. For the years ended December 31, 2018, 2017 and 2016, total fees, including incentive fees, of $22.4 million, $13.5 million and $21.5 million, respectively, are included in the consolidated statements of operations.

Included in other expenses, net, for the years ended December 31, 2018, 2017 and 2016, are charitable contribution expenses of $2.5 million, $6.0 million and $1.6 million, respectively, primarily representing amounts to be funded by OGHI to the Odyssey Group Foundation, a not-for-profit entity through which the Company provides funding to charitable organizations active in the communities in which the Company operates.

Due to expense sharing and investment management agreements with Fairfax and its affiliates, the Company has accrued, on its consolidated balance sheet, amounts receivable from affiliates of $2.4 million and $3.6 million as of December 31, 2018 and 2017, respectively, and amounts payable to affiliates of $9.4 million and $5.2 million as of December 31, 2018 and 2017, respectively.

On December 6, 2016, the Company loaned to 9938982 Canada Inc., $50.1 million, the proceeds of which were used to fund a debtor in possession loan to a Canadian retail company. The loan to 9938982 Canada Inc. bore interest at 8.0% per annum and was repaid on February 28, 2017.

During 2017, the Company loaned an affiliate, Farmers Edge Inc. ("Farmers Edge"), $19.2 million. The loans to Farmers Edge bore interest at 7% per annum and came due on January 31, 2018. Under the same loan agreement, the Company loaned Farmers Edge an additional $4.3 million during January 2018. On February 1, 2018, the Company exchanged its $23.4 million loan to Farmers Edge for a new $19.9 million loan and $3.9 million of warrants. The new loan bears interest at a rate of 5% per annum until January 1, 2019 and then at 10% per annum until the maturity date of March 31, 2019. On August 17, 2018 and November 15, 2018, the Company loaned Farmers Edge an additional $6.4 million and $8.2 million and purchased warrants for $2.4 million and $2.8 million. These loans bear interest at a rate of 5% per annum until January 1, 2019 and then at 12% per annum until the maturity date of January 7, 2019.

On January 22, 2018, the Company loaned an affiliate, Exco Resources Inc., $59.4 million in the form of a senior secured debtor-in-possession revolving credit facility loan. The notes bear interest at 4.9% per annum on Tranche A and 5.9% per annum on Tranche B and has a maturity date of January 22, 2019, with a maturity extension clause until July 22, 2019.

On August 10, 2018 and October 29, 2018, the Company loaned to Fairfax (US), $50.0 million and $50.0 million, respectively, at interest rates of 2.42% and 2.55% per annum, respectively. The loans were repaid on September 28, 2018 and December 19, 2018, respectively. On July 17, 2017, September 15, 2017 and October 11, 2017, the Company loaned to Fairfax (US), $150.0 million, $50.0 million and $150.0 million, respectively, at interest rates of 1.22%, 1.29% and 1.27% per annum, respectively. The July 17, 2017 loan was repaid on September 13, 2017. The September 15, 2017 and October 11, 2017 loans were repaid on December 28, 2017.

In the ordinary course of the Company's investment activities, the Company makes investments in investment funds, limited partnerships and other investment vehicles in which Fairfax or its affiliates may also be investors.

14. Employee Benefits

The Company provides its employees with benefits through various plans as described below.

Defined Benefit Pension Plan

The Company maintains a qualified, non-contributory, defined benefit pension plan (the "Pension Plan") covering substantially all employees in the United States hired prior to August 1, 2011 who have reached age twenty-one. Employer contributions to the Pension Plan are in accordance with the minimum funding requirements of the Employee Retirement Income Security Act of 1974, as amended.

The amortization period for unamortized pension costs and credits, including prior service costs, if any, and actuarial gains and losses, is based on the remaining service period for those employees expected to receive pension benefits. Actuarial gains and losses result when actual experience differs from that assumed or when actuarial assumptions are changed.

The following tables set forth the Pension Plan's unfunded status and accrued pension cost recognized in the Company's consolidated financial statements as of December 31, 2018 and 2017 (in thousands):

	2018	2017
Change in projected benefit obligation:		
Benefit obligation at beginning of year	$ 207,314	$ 179,299
Service cost	9,739	9,003
Interest cost	7,607	7,438
Actuarial (gain) loss	(18,546)	17,676
Benefits paid	(10,666)	(6,102)
Benefit obligation at end of year	195,448	207,314
Change in Plan assets:		
Fair value of Pension Plan assets at beginning of year	142,969	130,263
Actual (depreciation) appreciation on Pension Plan assets	(12,920)	8,508
Actual contributions during the year	7,800	10,300
Benefits paid	(10,666)	(6,102)
Fair value of Pension Plan assets at end of year	127,183	142,969
Funded status and accrued pension cost	$ (68,265)	$ (64,345)

The net amount reported in the consolidated balance sheets related to the accrued pension cost for the Pension Plan of $68.3 million and $64.3 million, as of December 31, 2018 and 2017, respectively, is included in other liabilities. The unamortized amount of accumulated other comprehensive loss related to the Pension Plan is $43.5 million and $43.6 million, before taxes, as of December 31, 2018 and 2017, respectively.

As of December 31, 2018 and 2017, the fair value and percentage of fair value of the total Pension Plan assets by type of investment are as follows (in thousands):

	As of December 31,			
	2018		2017	
Equity securities	$ 95,587	75.2%	$ 94,482	66.1%
Mutual funds - fixed income securities	24,556	19.3	38,721	27.1
Money market	7,039	5.5	9,766	6.8
Fair value of Plan assets	$ 127,182	100.0%	$ 142,969	100.0%

The Pension Plan seeks to maximize the economic value of its investments by applying a long-term, value-oriented approach to optimize the total investment returns of the Pension Plan's invested assets. Assets are transferred and allocated among various investment vehicles, when appropriate. The long-term rate of return assumption is based on this flexibility to adjust to market conditions. The actual return on assets has historically been in line with the Company's assumptions of expected returns. During the years ended December 31, 2018 and 2016, the Company contributed $7.8 million to the Pension Plan. The Company contributed $10.3 million to the Pension Plan during the year ended December 31, 2017. The Company currently expects to make a contribution to the Pension Plan of $7.8 million during 2019.

The Company accounts for its Pension Plan assets at fair value as required by GAAP. The Company has categorized its Pension Plan assets, based on the priority of the inputs to the valuation technique, into a three-level fair value hierarchy, using the three-level hierarchy approach described in Note 3.

Quoted market prices are used for determining the fair value of the Company's Pension Plan assets. The majority of these Pension Plan assets are common stocks and mutual funds that are actively traded in a public market. The Pension Plan's money market account, for which the cost basis approximates fair value, is also classified as a Level 1 investment. As of December 31, 2017, all of the Pension Plan's assets were categorized as Level 1 assets.

The Company's Level 3 Pension Plan assets are valued by a third party, providing a net asset value, by using valuation techniques that include unobservable inputs. Generally, hedge funds invest in securities that trade in active markets, and as a result, their net asset values reflect their fair values. As of December 31, 2018, the Pension Plan investments that are classified as Level 3 had a fair value of $12.9 million. For the year ended December 31, 2018, there was a decrease in the market value of $1.6 million for the Pension Plan investments that are classified as Level 3.

The following table presents a summary of changes in the fair value of investments that are classified as Level 3:

	Hedge Fund
Balance, January 1, 2018	$ —
Purchases	14,500
Unrealized investment loss related to securities held	(1,562)
Balance, December 31, 2018	$ 12,938

The following table presents the targeted asset allocation percentages for the Pension Plan's assets by type:

	Targeted Asset Allocation %
Equities	80.00
Mutual funds - fixed income securities	20.00
Total target asset allocations	100.00

The weighted average assumptions used to calculate the benefit obligation as of December 31, 2018 and 2017 are as follows:

	2018	2017
Discount rate	4.25%	3.75%
Rate of compensation increase	3.60%	3.80%

The discount rate represents the Company's estimate of the interest rate at which the Pension Plan's benefits could be effectively settled. The discount rates are used in the measurement of the expected and accumulated Pension Plan benefit obligations and the service and interest cost components of net periodic Pension Plan benefit cost.

The net periodic benefit cost included in the Company's consolidated statements of operations for the years ended December 31, 2018, 2017 and 2016 is comprised of the following (in thousands):

	2018	2017	2016
Net Periodic Benefit Cost:			
Service cost	$ 9,739	$ 9,003	$ 8,819
Interest cost	7,607	7,438	6,935
Return on Plan assets	(8,483)	(7,709)	(6,582)
Recognized actuarial loss	2,933	1,252	1,504
Net periodic benefit cost	$ 11,796	$ 9,984	$ 10,676
Change in accumulated other comprehensive loss:			
Beginning balance	$ 43,612	$ 27,987	$ 28,729
Actuarial loss and return on plan assets arising during the year	2,857	16,877	762
Amortization of actuarial gain recognized in net periodic costs	(2,933)	(1,252)	(1,504)
Accumulated other comprehensive loss at end of year	$ 43,536	$ 43,612	$ 27,987

The Company estimates that the net periodic benefit cost for the Pension Plan will be $12.0 million for the year ended December 31, 2019. The Company does not expect any refunds of Pension Plan assets during the year ended December 31, 2019.

The weighted average assumptions used to calculate the net periodic benefit cost for the years ended December 31, 2018, 2017 and 2016 are as follows:

	2018	2017	2016
Discount rate	3.75%	4.25%	4.50%
Rate of compensation increase	3.80%	3.80%	3.80%
Expected long term rate of return on Pension Plan assets	6.00%	6.00%	6.00%

The accumulated benefit obligation for the Pension Plan was $171.0 million and $178.4 million as of the December 31, 2018 and 2017 measurement dates, respectively.

The Pension Plan's expected future benefit payments for the next 10 years are shown below (in thousands):

Year	Amount
2019	$ 8,722
2020	9,893
2021	10,341
2022	10,863
2023	11,151
2024 – 2028	68,581

The amortization of actuarial losses and of prior service costs (currently reflected in accumulated other comprehensive income) as components of net periodic cost are expected to be $2.7 million and $0.0 million, respectively, for the year ended December 31, 2019.

Excess Benefit Plans

The Company maintains two non-qualified excess benefit plans (the "Excess Plans") that provide more highly compensated officers and employees in the United States hired prior to August 1, 2011 with defined retirement benefits in excess of qualified plan limits imposed by federal tax law. The following tables set forth the combined amounts recognized for the Excess Plans in the Company's consolidated financial statements as of December 31, 2018 and 2017 (in thousands):

	2018	2017
Change in projected benefit obligation:		
Benefit obligation at beginning of year	$ 27,974	$ 26,600
Service cost	1,410	1,378
Interest cost	1,011	1,105
Actuarial (gain) loss	(3,078)	23
Benefits paid	(484)	(1,132)
Benefit obligation at end of year	26,833	27,974
Change in Excess Plans' assets:		
Fair value of Excess Plans' assets at beginning of year	—	—
Actual contributions during the year	484	1,132
Benefits paid	(484)	(1,132)
Fair value of Excess Plans' assets at end of year	—	—
Funded status and accrued pension cost	$ (26,833)	$ (27,974)

The net amount reported in the consolidated balance sheets related to the accrued pension cost for the Excess Plans of $26.8 million and $28.0 million, as of December 31, 2018 and 2017, respectively, is included in other liabilities. The unamortized amount of accumulated other comprehensive loss related to the Excess Plan is $1.9 million and $5.2 million, before taxes, as of December 31, 2018 and 2017, respectively.

The weighted average assumptions used to calculate the benefit obligation as of December 31, 2018 and 2017 are as follows:

	2018	2017
Discount rate	4.25%	3.75%
Rate of compensation increase	3.60%	3.80%

The discount rate represents the Company's estimate of the interest rate at which the Excess Plans' benefits could be effectively settled. The discount rates are used in the measurement of the expected and accumulated Excess Plans' benefit obligations and the service and interest cost components of net periodic Excess Plans' benefit cost.

Net periodic benefit cost included in the Company's consolidated statements of operations for the years ended December 31, 2018, 2017 and 2016 is comprised of the following (in thousands):

	2018	2017	2016
Net Periodic Benefit Cost:			
Service cost	$ 1,410	$ 1,378	$ 1,232
Interest cost	1,011	1,105	1,046
Recognized net actuarial loss	279	309	242
Recognized prior service cost	(5)	(37)	(37)
Net periodic benefit cost	$ 2,695	$ 2,755	$ 2,483
Change in accumulated other comprehensive loss:			
Beginning balance	$ 5,270	$ 5,519	$ 4,740
Actuarial (gain) loss arising during the year	(3,077)	23	985
Amortization of actuarial gain recognized in net periodic costs	(279)	(309)	(243)
Amortization of prior service costs recognized in net periodic costs	5	37	37
Accumulated other comprehensive loss at end of year	$ 1,919	$ 5,270	$ 5,519

The weighted average assumptions used to calculate the net periodic benefit cost for the years ended December 31, 2018, 2017 and 2016 are as follows:

	2018	2017	2016
Discount rate	3.75%	4.25%	4.50%
Rate of compensation increase	3.80%	3.80%	3.80%

The accumulated benefit obligation for the Excess Plans was $22.3 million and $21.6 million as of December 31, 2018 and 2017, respectively.

The Excess Plans' expected benefit payments for the next 10 years are shown below (in thousands):

Year	Amount
2019	$ 2,011
2020	2,189
2021	3,138
2022	3,051
2023	2,743
2024 – 2028	13,754

The amortization of actuarial losses and of prior service costs (currently reflected in accumulated other comprehensive income) as components of net periodic costs are expected to be less than $0.1 million and $0.0 million, respectively, for the year ended December 31, 2019.

The Company expects to contribute $2.0 million to the Excess Plans during the year ended December 31, 2019, which represents the amount necessary to fund the 2019 expected benefit payments.

Postretirement Benefit Plan

The Company provides certain health care and life insurance ("postretirement") benefits for retired employees in the United States. Substantially all employees in the United States hired prior to August 1, 2011 may become eligible for these benefits if they reach retirement age while working for the Company. The Company's cost for providing postretirement benefits other than pensions is accounted for in accordance with ASC 715, "Compensation – Retirement Benefits." The following tables set forth the amounts recognized for the postretirement benefit plan in the Company's consolidated financial statements as of December 31, 2018 and 2017 (in thousands):

	2018	2017
Change in accumulated post retirement obligation:		
Accumulated postretirement obligation at beginning of year	$ 80,956	$ 75,431
Service cost	4,007	4,638
Interest cost	3,010	3,176
Actuarial gain	(7,631)	(1,515)
Benefits paid	(1,382)	(848)
Participant contributions	120	74
Retiree Drug Subsidy receipts	103	—
Accumulated post retirement obligation at end of year	79,183	80,956
Funded status and accrued prepaid pension cost	$ (79,183)	$ (80,956)

The net amount reported in the consolidated balance sheets related to the accrued benefit cost for the postretirement plan of $79.2 million and $81.0 million, as of December 31, 2018 and 2017, respectively, is included in other liabilities. The unamortized amount of accumulated other comprehensive loss related to the postretirement plan is $2.7 million and $10.7 million, before taxes, as of December 31, 2018 and 2017, respectively.

The weighted average assumptions used to calculate the benefit obligation as of December 31, 2018 and 2017 are as follows:

	2018	2017
Discount rate	4.25%	3.75%
Rate of compensation increase	3.80%	3.80%

The discount rate represents the Company's estimate of the interest rate at which the postretirement benefit plan benefits could be effectively settled. The discount rates are used in the measurement of the expected and accumulated postretirement benefit obligations and the service and interest cost of net periodic postretirement benefit cost.

Net periodic benefit cost included in the Company's consolidated statements of operations for the years ended December 31, 2018, 2017 and 2016 is comprised of the following (in thousands):

	2018	2017	2016
Net Periodic Benefit Cost:			
Service cost	$ 4,007	$ 4,638	$ 4,181
Interest cost	3,010	3,176	2,947
Recognized actuarial loss	351	681	492
Net periodic benefit cost	$ 7,368	$ 8,495	$ 7,620
Change in accumulated other comprehensive loss:			
Beginning balance	$ 10,655	$ 12,851	$ 10,447
Actuarial (gain) loss arising during the year	(7,631)	(1,515)	2,896
Amortization of actuarial gain recognized in net periodic costs	(351)	(681)	(492)
Accumulated other comprehensive loss at end of year	$ 2,673	$ 10,655	$ 12,851

The weighted average assumptions used to calculate the net periodic benefit cost for the years ended December 31, 2018, 2017 and 2016 are as follows:

	2018	2017	2016
Discount rate	3.75%	4.25%	4.50%
Rate of compensation increase	3.80%	3.80%	3.80%

The postretirement plan's expected benefit payments for the next 10 years are shown below (in thousands):

Year	Amount
2019	$ 1,770
2020	2,112
2021	2,455
2022	2,847
2023	3,123
2024 – 2028	20,448

For the year ended December 31, 2019, there will be no amortization of actuarial losses and of prior service costs (currently reflected in accumulated other comprehensive income) as components of net periodic costs.

The annual assumed rate of increase in the per capita cost of covered benefits (i.e., health care cost trend rate) is assumed to be 5.96% in 2019, gradually decreasing to 4.50% in 2038 and remaining constant thereafter. The health care cost trend rate assumption has a significant effect on the amounts reported. For example, increasing the assumed health care cost trend rates by one percentage point in each year would increase the accumulated postretirement benefit obligation by $15.1 million (19.12% of the benefit obligation as of December 31, 2018) and the service and interest cost components of net periodic postretirement benefit costs by $1.7 million for the year ended December 31, 2018. Decreasing the assumed health care cost trend rates by one percentage point in each year would decrease the accumulated postretirement benefit obligation and the service and interest cost components of net periodic postretirement benefit cost for the year ended December 31, 2018 by $12.1 million and $1.3 million, respectively.

Other Plans

The Company also maintains a defined contribution profit sharing plan for all eligible employees. Each year, the Board of Directors may authorize payment of an amount equal to a percentage of each participant's basic annual earnings based on the results of the Company for that year. These amounts are credited to the employees' accounts maintained by a third party, which has contracted to provide benefits under the plan. No contributions were authorized for the years ended December 31, 2018, 2017 or 2016.

The Company maintains a qualified deferred compensation plan pursuant to Section 401(k) of the Internal Revenue Code of 1986, as amended. Employees may contribute up to 50% of base salary on a pre-tax basis, subject to annual maximum contributions set by law ($19,000 in 2019 plus an additional $6,000 if an employee is age 50 or older). The Company contributes an amount equal to 100% of each employee's pre-tax contribution up to certain limits. The maximum matching contribution is 4.0% of annual base salary, with certain government-mandated restrictions on contributions to highly compensated employees. The Company also maintains a non-qualified deferred compensation plan to allow for contributions in excess of qualified plan limitations. The Company's contributions to both of these plans, which totaled $3.1 million, $3.7 million, and $3.1 million for the years ended December 31, 2018, 2017 and 2016, respectively, are included primarily in other underwriting expenses in the consolidated statements of operations.

All employees in the United States hired on or after August 1, 2011 are eligible for an annual profit sharing contribution, subject to the profit sharing plan limitations. The Company makes this contribution regardless of whether or not elective deferrals were made during the year. The profit sharing contribution is paid each January and uses the prior year's 401(k) compensation (base pay, short-term disability earnings and any overtime earnings) to determine the actual contribution for each employee. These profit sharing contributions are calculated as a percentage of earnings at the end of each year and allocated to participant accounts in January of the following year.

The profit sharing contribution percentages are based upon each employee's years of service as follows:

Years of Service	Percent
Less than or equal to 5 years	6%
More than 5 years but less than or equal to 15	7%
More than 15 years	8%

The profit sharing contribution amounts vest based upon the following vesting schedule:

Years of Service	Percent
Less than 2 years	0%
2 years but less than 3	20%
3 years but less than 4	40%
4 years but less than 5	60%
5 years but less than 6	80%
6 years or more	100%

15. Stock-Based Compensation Plans

Fairfax Restricted Share Plan and Share Option Plan

In 1999, Fairfax established the Fairfax Financial 1999 Restricted Share Plan (the "Fairfax Restricted Share Plan") and the Share Option Plan (the "Option Plan") (collectively, the "Fairfax Plans"), in which the Company participates. The Fairfax Plans generally provide officers, key employees and directors who were employed by or provided services to the Company with awards of restricted shares or stock options (with a grant price of zero) of Fairfax common stock (collectively, "Restricted Share Awards"). The Restricted Share Awards generally vest over five years. The Company had 314,204 Restricted Share Awards outstanding as of December 31, 2018.

The fair value of the Restricted Share Awards is estimated on the date of grant based on the market price of Fairfax's stock and is amortized to compensation expense on a straight-line basis over the related vesting periods. The Company purchases Fairfax common stock on the open market to cover the grant of a Restricted Share Award and reflects such purchase as a reduction in the Company's additional paid-in capital. As of December 31, 2018, there was $70.1 million of unrecognized compensation cost related to unvested Restricted Share Awards granted from the Fairfax Plans that was netted against additional paid-in capital, which is expected to be recognized over a remaining weighted-average vesting period of 2.5 years. The total fair values of the Restricted Share Awards granted for the years ended December 31, 2018, 2017 and 2016 were $18.8 million, $28.9 million and $14.2 million, respectively. As of December 31, 2018, the aggregate fair value of the Restricted Share Awards outstanding was $76.7 million. For the years ended December 31, 2018, 2017 and 2016, the Company recognized expense related to the Fairfax Plans of $17.2 million, $14.7 million and $14.2 million, respectively.

The following table summarizes activity for the Fairfax Plans for the year ended December 31, 2018:

	Shares / Options	Weighted-Average Value at Grant Date
Awards outstanding as of December 31, 2017	273,990	$ 463.55
Granted	36,928	509.54
Vested	(43,844)	378.45
Forfeited	(2,734)	481.40
Unallocated	49,864	458.92
Awards outstanding as of December 31, 2018	314,204	$ 479.94
Vested and exercisable as of December 31, 2018	7,256	$ 363.98

Employee Share Purchase Plans

Under the terms of the Odyssey Re Holdings Corp. (Non-Qualified) 2010 Employee Share Purchase Plan (the "2010 ESPP"), eligible employees are given the election to purchase Fairfax common shares in an amount up to 10% of their annual base salary. The Company matches these contributions by purchasing, on the employee's behalf, a number of Fairfax's common shares equal in value to 30% of the employee's contribution. In the event that the Company achieves a net combined ratio in any calendar year that is less than the lesser of i) 100% or ii) the average of the reported net combined ratios of the ten (10) most recent calendar years prior to the current calendar year, additional shares are purchased by the Company for the employee's benefit, in an amount equal in value to 20% of the employee's contribution during that year. During the year ended December 31, 2018, the Company purchased 13,404 Fairfax common shares on behalf of employees pursuant to the 2010 ESPP, at an average purchase price of $522.71. The compensation expense recognized by the Company for purchases of Fairfax's common shares under the 2010 ESPP was $1.5 million, $1.9 million and $2.7 million for the years ended December 31, 2018, 2017 and 2016, respectively.

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