

RENAISSANCERE HOLDINGS LTD

Form ARS

March 29, 2018

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**2017 Annual Report**

**RenaissanceRe**

**Holdings Ltd.**

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**Table of Contents****Financial Highlights****Financial Highlights for RenaissanceRe Holdings Ltd. and Subsidiaries**

(In thousands of United States dollars, except per share amounts and percentages)

	2017	2016	2015
Gross premiums written	\$ 2,797,540	2,374,576	2,011,310
Net (loss) income (attributable) available to RenaissanceRe common shareholders	\$ (244,770)	480,581	408,811
Operating (loss) income (attributable) available to RenaissanceRe common shareholders (1)	\$ (332,300)	342,253	474,389
Total assets	\$ 15,226,131	12,352,082	11,555,287
Total shareholders' equity	\$ 4,391,375	4,866,577	4,732,184

**Per common share amounts**

Net (loss) income (attributable) available to RenaissanceRe common shareholders per common share - diluted	\$ (6.15)	11.43	9.28
Operating (loss) income (attributable) available to RenaissanceRe common shareholders per common share - diluted (1)	\$ (8.35)	8.10	10.78
Book value per common share	\$ 99.72	108.45	99.13
Tangible book value per common share (1)	\$ 93.23	101.87	92.54
Tangible book value per common share plus accumulated dividends (1)	\$ 111.23	118.59	108.02
Dividends per common share	\$ 1.28	1.24	1.20

**Ratios**

Return on average common equity	% (5.7)	11.0	9.8
Operating return on average common equity (1)	% (7.7)	7.9	11.3
Net claims and claim expense ratio	% 108.4	37.8	32.0
Underwriting expense ratio	% 29.5	34.7	32.7
Combined ratio	% 137.9	72.5	64.7

(1) Represents a non-GAAP financial measure, which is reconciled in the Comments on Regulation G on pages 9 and 10.

**Financial Strength Ratings <sup>(1)</sup>**

	A.M. Best	S&P	Moody's	Fitch
Renaissance Reinsurance Ltd. (2)	A+	A+	A1	A+
	A	A+	A3	

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DaVinci Reinsurance Ltd. (2)

Renaissance Reinsurance U.S. Inc. (2)

A+

A+

RenaissanceRe Specialty U.S. Ltd. (2)

A+

A+

Renaissance Reinsurance of Europe Unlimited Company (2)

A+

A+

Top Layer Reinsurance Ltd. (2)

A+

AA

RenaissanceRe Syndicate 1458

Lloyd's Overall Market Rating<sup>(3)</sup>

A

A+

AA-

RenaissanceRe Holdings Ltd. (4)

Very Strong

Very Strong

(1) As of March 1, 2018.

(2) The A.M. Best, S&P, Moody's and Fitch ratings for these companies set forth in the table above reflect the insurer's financial strength rating and in addition the S&P ratings also reflect the insurer's issuer credit rating.

(3) The A.M. Best, S&P and Fitch ratings for the Lloyd's Overall Market Rating represent its financial strength rating.

(4) The A.M. Best rating for RenaissanceRe Holdings Ltd. refers to the Enterprise Risk Management (ERM) A.M. Best score within A.M. Best's credit ratings methodology. The S&P rating for RenaissanceRe Holdings Ltd. represents the rating on its ERM practices.

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**Letter to Shareholders**

By Kevin O' Donnell

President and Chief Executive Officer

While the value chain may change over time, the role we play quantifying risk and efficiently accumulating capital will always be needed, because it is essential to social well-being and economic prosperity.

**Dear Shareholders,**

RenaissanceRe was formed in 1993 to address an identified market need, with differentiated capabilities in underwriting, service, responsiveness, and a unique ability to match capital to risk. We started with a handful of underwriters in one office and an idea to transform the property catastrophe market.

Fast forward 25 years, we have grown and changed in many ways. We now write business from six offices over three continents. Although a recognized leader in property catastrophe since our founding, we have moved successfully into casualty and specialty, with approximately 50% of our gross premiums written now coming from this business. In many ways, however, we are still very much unchanged. We continue to differentiate ourselves on the same capabilities that we always have: technical knowledge, service, responsiveness, innovation, and an industry leading ability to match attractive risk to efficient capital.

This letter has two parts. Part I covers our performance in 2017, and the qualities and efforts that helped us achieve those results. Part II is more forward looking, and concentrates on the social value proposition of reinsurance.

**I. Our Performance in 2017**

Understanding and managing volatility is critical in the reinsurance business because, when catastrophic losses occur, our customers need to know we will be there to promptly pay their claims. In 2017, the insurance industry experienced record-breaking insured losses, which could exceed \$140 billion. Our customers, however, had the benefit of our strong enterprise risk management, ratings and capital to ease their minds. I am very proud of the leadership our team demonstrated against this backdrop, paying our customers' claims rapidly, executing our gross-to-net strategy, and being a first call market for new business. This leadership, coupled with our distinctive value proposition and consistent strategy, allowed us to grow substantially in 2017. I remain confident that in 2018, these advantages will allow us to continue to grow our business while always remaining focused on maximizing shareholder value.

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RenaissanceRe Holdings Ltd. 2017 Annual Report

**Financial Performance**

In 2017, we reported a net loss attributable to RenaissanceRe common shareholders of \$244.8 million and an operating loss attributable to RenaissanceRe common shareholders of \$332.3 million. Our book value per common share decreased by 8.0% and our tangible book value per common share plus change in accumulated dividends decreased by 7.2%. For the full year, our return on average common equity was negative 5.7% and our operating return on average common equity was negative 7.7%.

In 2017, we repurchased about \$190 million of our common shares prior to the catastrophe losses in the third quarter. Over the past three years, we consistently demonstrated good stewardship of our shareholders' capital, returning over \$900 million in share buybacks and common share dividends and paying over \$2 billion in claims during the same time period.

We also continued to see the benefit of our long-term strategic decision to increase both underwriting and operating leverage. The choices we made, such as diversifying into casualty business, acquiring Platinum, aggressively implementing our gross-to-net strategy and developing RenaissanceRe Syndicate 1458 at Lloyd's allowed us to grow gross premiums written by 80% over the last 5 years, while only increasing shareholders' equity by 25% during the same period and keeping operating and corporate expenses essentially flat.

**Superior Customer Relationships**

I have often said that our value proposition extends beyond price.

Our business requires us to provide a differentiated offering to customers. I believe that value was demonstrated again during the second half of 2017. We experienced three hurricanes—Harvey, Irma and Maria—along with the Mexico City Earthquake and the wildfires in California. As each of these major hurricanes developed, our underwriters, along with our team of scientists at WeatherPredict, closely monitored the storms, their potential for strengthening, and the most likely track they would take. Throughout this process, we reached out to our customers and brokers most likely to be affected.

After each major loss event, we made good on our promise to rapidly pay claims, which helps our customers and assists in the recovery process. The speed and skill of our people and systems in responding to these losses are testament to our focus on developing superior customer relationships and decades of experience in helping clients and communities manage through natural catastrophes.

**Superior Risk Management**

I am proud that we have built a portfolio able to withstand the challenges and maximize the opportunities presented by the 2017 markets. Tested by record-breaking natural catastrophes, our gross-to-net strategy performed well in 2017 as our integrated system allowed us to access the most efficient capital available, whether our own, third-party or retrocessional. For the large loss events, we ceded over two-thirds of our gross losses to the retrocessional market, shared them with third parties or offset them with reinstatement premiums.

This year's loss experience reminds us that ours is a volatile business. Vendor models alone are no substitute for good underwriting. That is why we combine commercially available models and third-party expertise with our own proprietary research and expectations about the frequency of losses and other factors to inform our independent view of risk. This approach helps us aspire to be the world's best underwriter, which we believe results in superior shareholder value.

Ultimately, our shareholders and managed partner capital bear the financial burden of paying losses. So, I believe it will be helpful if I share with you how we evaluate our performance after a large event. First, we think of losses in two broad categories – risks that we knowingly accepted and those that we did not. Looking at the losses of 2017, earthquakes, wildfires, and hurricanes are the types of risk that we knowingly took. Then, after an occurrence, we analyze each account to determine if we were paid appropriately for each risk we assumed, which I believe we were.

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### Letter to Shareholders (continued)

As an owner, how should you think about losses? This is a difficult question because much of the risk we take will only experience losses once every 25 to 50 years on average. So thinking about loss over a short period of time such as one year, similar to other industries, does not necessarily make sense. One needs to think about our performance over a longer time period encompassing multiple loss cycles. To put this in perspective, when we model risk, we generally do so over a 40,000-year period.

Using models, we have a disciplined process to estimate over long periods how often certain events should occur. Taking many of these risks and combining them in a single portfolio gives us the ability to manage them and hopefully reduce the one-year and one-event volatility associated with these risks.

There are some differences between property and casualty business, however. For property, we know everything we can know at the time we write a deal. History and experience play little role. Our casualty business (including specialty), however, differs in that it exhibits much lower volatility, with a narrower dispersion between good and bad years, and much more frequent feedback. In casualty we can glean relevant information from both how the deal developed before we wrote it, and also from how the losses develop against expected reserves after we wrote it. This is a very different skill from underwriting property catastrophe, and I am proud of the talent and tools we have developed to become a leader in the casualty business, just as we are in property.

We derive multiple benefits from writing casualty business. Our value proposition to our customers is enhanced because we can provide them a greater range of protection and help them manage their volatility more broadly.

On the risk side, writing casualty benefits our portfolio in two ways. First, due to its diversifying nature, casualty business allows us to use our capital more efficiently, as we have been able to write this business without needing to add significant capital. Of course, over time the reserve pool associated with this risk will grow and become a driver of capital, but not just

yet. Second, casualty business brings float, which is money paid to us up front as premium that we hold for several years before returning it in the form of loss payments. However, much of the earnings from this business is only realized over time. This is beneficial because this asset leverage will eventually be a meaningful earner and should reduce volatility over the long term. With property, which does not benefit from significant float due to its short tail nature, investment income is not a significant driver of returns.

### **Superior Capital Management**

We enjoyed a number of successes in 2017 with respect to capital management. For example, we raised in excess of \$1 billion in our various managed vehicles, including \$250 million of equity capital raised into DaVinci and \$700 million in Upsilon. This capital raise from existing and new investors allowed us to replenish all of the capital lost in the third quarter catastrophe events and gave us and our customers confidence to trade forward the rest of the year.

At the end of 2017, we advanced two important transactions that affirm our innovative reputation in the reinsurance business. First, we entered into a joint venture in the life reinsurance space with Reinsurance Group of America



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(RGA) called Langhorne Re, which secured \$780 million of equity capital commitments, including a minority investment by us. We are privileged to have RGA as a partner and believe that our combined strengths will serve Langhorne Re's customers well. Third party capital is particularly suited for this type of risk, and we are delighted to bring our partnership skills and third party skills to this new pool of risks.

Second, we entered into an agreement to invest in Catalina Holdings (Bermuda) Ltd. (Catalina), a property and casualty runoff (re)insurance company. Our investment in Catalina should enhance the suite of solutions we can offer to our clients over time, while providing us the opportunity to team up on future transactions.

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## **II. Social Value Proposition of Reinsurance**

In the past, I have written about the critical role that capital plays in the reinsurance business. This year, I thought it would be helpful to extend this analysis to the importance of capital to society overall and our part as a reinsurer in mediating the process of capital accumulation. I'll explore how this relates to our efforts to close the insurance protection gap, our place in the insurance value chain, and the role of insurtech and information asymmetry.

As previously mentioned, RenaissanceRe brings a distinctive value proposition to our customers. There is another, equally important facet to this value proposition—the value we offer society, or what we think of as our social value proposition. Insurance is the transfer of an unknown future loss for a known present premium. In order to accept this risk, insurers must be able to accurately quantify potential losses and efficiently accumulate the appropriate amount of capital, not too much and not too little, in order to pay those losses. It is difficult to overstate how crucial the proper functioning of this mechanism is to the development of a flourishing economy.

Using natural catastrophe risk as an example (although this analysis applies to most types of insurance), societies have three choices for how they can prepare for potential future losses. First, they can decrease the size of the loss through mitigation. Second, they can use ex-ante risk financing, including savings and insurance, to pre-fund future losses. Finally, they can rely on ex-post funding after a disaster, including loans, government bailouts, charity, or unintended self-insurance. Societies need sufficient capital to rebuild and recover after large natural disasters. Consequently, each society must make trade-offs between building better (mitigation), accumulating capital (saving) or waiting for a disaster to happen and then paying for it (borrowing).

In fact, there are ideal trade-offs between these three choices, which economists refer to as Pareto optimal, that maximize economic prosperity over the long term for a given allocation of resources. Too little mitigation, for example, would result in unacceptably high loss of life and property. Too much mitigation, on the other hand, would be unreasonably expensive and result in decreased economic prosperity.

Similarly, too little savings would result in insufficient resources to rebuild after a disaster, which would cause economic dislocation. Too much savings, however, would mean less capital is available for other social goods. Finally, there will always be uninsured loss, but borrowing after the fact to pay for natural disasters (which is what governments often do) results in permanent economic harm.

To provide an example, a homeowner should mitigate their house until it becomes cheaper to buy homeowner's insurance, at which point they should buy insurance until it is more efficient to rely on borrowing. Insurance and reinsurance mediate this trade-off between mitigation, saving and borrowing. Reinsurance is ultimately a means for society to quantify the potential impact of and accumulate sufficient capital for losses from future natural catastrophes, and is in fact the most efficient mechanism for doing so, achieving a Pareto optimal level of savings at the least economic cost due to its superior ability to diversify risk.

### **Insurance Protection Gap**

In 2017, we saw many examples of the importance of preparing for natural catastrophes, and the consequences of failing to have sufficient resources after a large disaster. This difference between economic losses and insurance recoveries is known as the insurance protection gap and may approach \$200 billion in 2017. We have seen this

protection gap many times in recent years, for example in the low take-up rate for flood and earthquake insurance in the United States. Looking internationally, however, and especially at developing countries, the insurance protection gap can be even greater, with uninsured losses in countries such as Haiti running as high as 98% of economic losses over the last decade.

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### Letter to Shareholders (continued)

At RenaissanceRe, we help close the insurance protection gap for natural catastrophe risk in many ways. We bring our ability to diversify risk and efficiently accumulate capital – our social value proposition – to public/private partnerships to help make risk transfer more affordable, and to ensure that capital is available to help families and businesses after a disaster.

For example, we have organized a series of Risk Mitigation Leadership Forums, focused on promoting improved understanding of, preparation for and recovery from natural disasters and other severe risks, hosting over 4,000 attendees. Relatedly, we are proud to be partnered with the Lloyd’s Disaster Risk Facility, which develops new solutions to help developing economies reduce underinsurance and improve their resilience against the economic impact of natural catastrophes. We are also a member of the Insurance Development Forum, a public/private partnership combining the insurance industry with international organizations such as the United Nations and the World Bank. Our efforts are contributing to an improved global understanding and quantification of disaster risk in developing countries, to support and enable decisions on its mitigation, adaption and transfer.

### **Our place in the insurance value chain**

RenaissanceRe’s social value proposition means we occupy a critical link on the insurance value chain. While the value chain may change over time, the role we play quantifying risk and efficiently accumulating capital will always be needed, because it is essential to social well-being and economic prosperity.

Of course, insurance companies need to diversify risk and accumulate capital, but these are only two of the multitude of tasks they regularly perform. These tasks, however, are at the core of what reinsurers exist to do. Insurance companies are focused on many activities related to issuing a large number of small policies to consumers and businesses in one of the most highly regulated and closely scrutinized industries in the world. Consequently, it is often a competitive advantage for an insurer to concentrate on a limited number of lines of business in a restricted geographic area, and to be more focused on driving operating efficiencies. For example,

there are many insurers who only write residential policies in Florida. Unfortunately, this narrow scope limits their ability to both effectively quantify and diversify their risk.

Fortunately, quantifying and diversifying risk is the competitive advantage of reinsurers. Our value proposition derives from the fact we are more efficient than any other mechanism at accumulating the optimal level of capital to pay for natural catastrophe losses, while doing so in a way that maximizes economic prosperity over the long term. So while the insurance value chain will evolve over time, the need for the link we currently occupy will always exist, and we should always have a competitive advantage in fulfilling it.

Our market is always changing, and competitors on the insurance value chain come and go. As we become more differentiated, however, I believe our value proposition expands. Being aligned with our investors and partners has always been an important aspect of this value proposition. It is no different with our customers. They want to work with long-term reinsurance partners who bring them a broad range of property and casualty coverages, consistent exposure-based pricing, strong ratings and large line sizes. Our value proposition encompasses all these needs, but in an increasingly unique way that is strongly aligned with the customer, helping them to grow their business as opposed

to competing against them for it.

### **Insuretech and Information Asymmetry**

I am very excited by the possibilities evolving technology brings to our industry. In many ways, we were the first insuretech reinsurer, as we revolutionized how property catastrophe reinsurance was underwritten almost 25 years ago by harnessing newly available computational power to run the stochastic simulations necessary to model risk and construct portfolios. Since then, we have always been on the cutting edge of using technology to better quantify risk and efficiently allocate capital.

Going forward, maximizing shareholder value requires that we continually innovate. I addressed this topic more broadly in my letter last year, where I discussed the *Four Vectors of Influence*, and especially the need for increased efficiency

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### **RenaissanceRe Holdings Ltd. 2017 Annual Report**

and the transformative role of technology. One reason I am so excited is that I believe technology will eventually enable us to work directly with accumulators of risk – large, sophisticated organizations that will seek more efficient risk transfer products. So while I believe that technology will continue to make us better at what we do, just as it did 25 years ago, I do not believe it will replace what we do nor diminish the importance of our value proposition.

Another area where insurtech has the potential to improve our business is in reducing information asymmetry. Put simply, this is when the insured knows more about a risk than the insurer. Information asymmetry leads to imbalances in supply and demand, making insurance more expensive and increasing the size of the insurance protection gap. Big data, sensors, drones, smartphones, high-speed internet and other technologies will all play a role in reducing the amount of information asymmetry. Reinsurers should benefit the most from this technology, as we bear the ultimate risk in many cases and therefore derive the most utility from better understanding it.

I am equally excited about the potential for artificial intelligence, and the role algorithms will play in gleaning useful information from the mountain of big data available. There will be many possibilities to more directly assess risk rather than relying on proxies. A good example of this is insurers will be able to charge a driver based on their actual driving behavior, such as acceleration and deceleration rates. Being rated based on your skill at an activity due to observation of your actual behavior, likely by an app on your smart phone, will be imminently fairer than relying on readily available but potentially unrelated proxies, such as credit scores. While such data may correlate with driving behavior, it also may penalize some of the most fragile in our economy.

### **Expanding our Footprint**

We expanded our footprint again in 2017, opening a new office in Zurich, Switzerland, a major hub for reinsurance. I have spoken before about the value of having a flexible platform, and our office in Switzerland further enhances our ability to transact with customers where and how they desire in a manner consistent with our focused growth philosophy.

### **Board Evolution**

In 2017, we were proud to welcome Duncan P. Hennes and Dr. Valerie Rahmani to our Board of Directors. We also celebrated the accomplishments of outgoing members Ralph B. Levy and William F. Hagerty IV for their many years of distinguished service.

Ralph's leadership and advice during his 10 years as a director helped RenaissanceRe to navigate through market cycles, important regulatory developments and organizational changes. Bill's wise counsel during his tenure was invaluable during a pivotal period for the Company. We thank them for their contributions to RenaissanceRe's success and look forward to working with Duncan and Val.

### **In Closing**

Heading into our 25th year, I am confident in our strategy and optimistic about our prospects. For the industry, 2017 was a challenging year. But with challenges come opportunities. I believe our strong execution in the aftermath of the

catastrophes coupled with our distinctive value proposition and well-capitalized balance sheets will enable us to continue to succeed in 2018.

Sincerely,

**Kevin J. O Donnell**

President and Chief Executive Officer

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**Message from the Chair**

RenaissanceRe's mission is to produce superior returns over time by being a trusted, long-term partner to our customers for assessing and managing risk, delivering responsive solutions, and keeping our promises. The importance of this mission to our customers and investors, and to the communities we serve resonates with extra clarity in high catastrophe years such as 2017. This year's letter to you from our President and Chief Executive Officer, Kevin O'Donnell, highlights RenaissanceRe's successful efforts to navigate the challenges and explore the new opportunities that periods like this present.

Periods of elevated industry loss also pose challenges for our Board of Directors as we fulfill our oversight obligations to review, test and support management's efforts to execute its strategy and manage risk in the context of large catastrophes. The RenaissanceRe Board sees its fiduciary oversight in even a record setting loss year as part of a continuum from the past and extending into the future. Kevin's letter and many of his prior communications to you summarize how management's investments and preparation in prior years readied RenaissanceRe for 2017. These plans include the execution of our gross-to-net strategy as a component of the Company's commitment to efficient and prudent portfolio construction, and investments in and the deployment of new and enhanced models and risk management tools. In low loss years these efforts may have lower visibility, but management's commitment to risk management across market and natural disaster cycles, and the Board's oversight of those processes, are a constant at RenaissanceRe.

Concurrently with its efforts to address 2017's challenges, the Company executed on exciting plans to build for the future, launching innovative new products and structures like our Langhorne Re joint venture, diversifying the coverages and services we offer clients worldwide and thereby expanding and strengthening our global platforms. Our Board believes these investments position RenaissanceRe exceptionally well to succeed amidst the challenges and potential changes in our industry, and continue to reflect a necessary balance between consistency and change at what we believe to be the best franchise in reinsurance. We are confident our strategy is well designed to produce both superior financial results and operational outcomes of which you will be proud.

It was also a year of change for our Board. In my 2017 letter I asked you join me in saluting the distinguished service of Ralph B. Levy, my predecessor as Non-Executive Chair. Later in the year we were honored to recognize the appointment

and confirmation of our fellow director William F. Hagerty IV to the position of U.S. Ambassador to Japan. Bill made important contributions to the Board and the Company. We appreciate his public service and continue to wish him all the best in this important role.

As their successors, we were delighted to announce the appointment of Duncan P. Hennes and Dr. Valerie Rahmani as independent directors. Duncan's distinguished career in financial services includes CEO and other C-suite positions at leading global firms and a history of helping companies navigate changes in markets, technology and customer preferences. Dr. Rahmani, most recently Chief Executive Officer of a privately held cybersecurity company, has more than 30 years of experience in the technology industry, including more than 25 years at a global technology giant across multiple global business segments. Duncan's and Val's wisdom, experience, judgment and collegiality have



already made important contributions to our Board deliberations. Our commitment to reviewing our Board's composition, experiences, and skills against RenaissanceRe's strategic needs and external trends will continue, ensuring our collective ability to fulfill our oversight role effectively.

Finally, I would like to thank the shareholders and stakeholders who participated over the past year in our continual engagement process. We appreciate your investment in RenaissanceRe, and management's engagement with you is prioritized by the Board. Your engagement supports our ongoing efforts to attract, retain and appropriately incent what our Board believes to be the best team in our industry, and to continue to build the confidence and support of our clients and investors.

Kevin's letter demonstrates how RenaissanceRe's unique capabilities position it both to succeed in high loss periods and to grow optimistically into an exciting future. We are proud to support the global RenaissanceRe team and to oversee this exceptional franchise on your behalf.

Sincerely,

**James L. Gibbons**

Non-Executive Chair

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In addition to financial measures prepared in accordance with generally accepted accounting principles ( GAAP ) set forth in this Annual Report, the Company has included certain non-GAAP financial measures within the meaning of Regulation G. The Company has consistently provided these financial measures in previous investor communications and the Company's management believes that these measures are important to investors and other interested persons, and that investors and such other persons benefit from having a consistent basis for comparison between years and for comparison with other companies within the industry. These measures may not, however, be comparable to similarly titled measures used by companies outside of the insurance industry. Investors are cautioned not to place undue reliance on these non-GAAP measures in assessing the Company's overall financial performance.

The Company uses operating income (loss) available (attributable) to RenaissanceRe common shareholders as a measure to evaluate the underlying fundamentals of its operations and believes it to be a useful measure of its corporate performance. Operating income (loss) available (attributable) to RenaissanceRe common shareholders as used herein differs from net income (loss) available (attributable) to RenaissanceRe common shareholders, which the Company believes is the most directly comparable GAAP measure, by the exclusion of net realized and unrealized gains and losses on investments, and the associated income tax expense or benefit, and the exclusion of the write-down of a portion of the Company's deferred tax asset as a result of the reduction in the U.S. corporate tax rate from 35% to 21% effective January 1, 2018 pursuant to the Tax Cuts and Jobs Act of 2017 (the Tax Bill ). The Company's management believes that operating income (loss) available (attributable) to RenaissanceRe common shareholders is useful to investors because it more accurately measures and predicts the Company's results of operations by removing the variability arising from fluctuations in the Company's fixed maturity investment portfolio, equity investments trading and investments-related derivatives, the associated income tax expense or benefit of those fluctuations, and the non-recurring impact of the write-down of a portion of the Company's deferred tax assets as a result of the Tax Bill. The Company also uses operating income (loss) available (attributable) to RenaissanceRe common shareholders to calculate operating income (loss) available (attributable) to RenaissanceRe common shareholders per common share diluted and operating return on average common equity annualized . The following is a reconciliation of: 1) net income (loss) available (attributable) to RenaissanceRe common shareholders to operating income (loss) available (attributable) to RenaissanceRe common shareholders; 2) net income (loss) available (attributable) to RenaissanceRe common shareholders per common share diluted to operating income (loss) available (attributable) to RenaissanceRe common shareholders per common share diluted; and 3) return on average common equity - annualized to operating return on average common equity annualized:

	Year Ended December 31,		
(in thousands of United States dollars, except per share amounts and percentages)	2017	2016	2015
	\$(244,770)	\$480,581	\$408,811

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Net income available to RenaissanceRe common shareholders			
Adjustment for net realized and unrealized (gains) losses on investments	(135,822)	(141,328)	68,918
Adjustment for deferred tax asset write-down (1)	36,705	-	-
Adjustment for income tax expense (benefit) (2)	11,587	3,000	(3,340)
Operating (loss) income (attributable) available to RenaissanceRe common shareholders	<b>\$(332,300)</b>	\$342,253	\$474,389

Net (loss) income (attributable) available to RenaissanceRe common shareholders per common share - diluted	\$ (6.15)	\$ 11.43	\$ 9.28
Adjustment for net realized and unrealized (gains) losses on investments	(3.41)	(3.40)	1.58
Adjustment for deferred tax asset write-down (1)	0.92	-	-
Adjustment for income tax expense (benefit) (2)	0.29	0.07	(0.08)

Operating (loss) income (attributable) available to RenaissanceRe common shareholders per common share - diluted	\$ (8.35)	\$ 8.10	\$ 10.78
Return on average common equity	(5.7%)	11.0%	9.8%
Adjustment for net realized and unrealized (gains) losses on investments	(3.2%)	(3.2%)	1.6%
Adjustment for deferred tax asset write-down (1)	0.9%	-	-
Adjustment for income tax expense (benefit) (2)	0.3%	0.1%	(0.1%)
Operating return on average common equity	(7.7%)	7.9%	11.3%

(1) Adjustment for deferred tax asset write-down represents the write-down of a portion of the Company's deferred tax asset as a result of the reduction in the U.S. corporate tax rate from 35% to 21% effective January 1, 2018 pursuant to the Tax Bill, which was enacted on December 22, 2017.

(2) Adjustment for income tax expense (benefit) represents the income tax expense (benefit) associated with the adjustment for net realized and unrealized gains (losses) on investments. The income tax impact is estimated by applying the statutory rates of applicable jurisdictions, after consideration of other relevant factors.

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The Company has included in this Annual Report tangible book value per common share and tangible book value per common share plus accumulated dividends. Tangible book value per common share is defined as book value per common share excluding goodwill and intangible assets per share. Tangible book value per common share plus accumulated dividends is defined as book value per common share excluding goodwill and intangible assets per share, plus accumulated dividends. The Company's management believes tangible book value per common share and tangible book value per common share plus accumulated dividends are useful to investors because they provide a more accurate measure of the realizable value of shareholder returns, excluding the impact of goodwill and intangible assets. The following is a reconciliation of book value per common share to tangible book value per common share and tangible book value per common share plus accumulated dividends:

	Year Ended December 31,		
	2017	2016	2015
Book value per common share	\$ 99.72	\$108.45	\$99.13
Adjustment for goodwill and other intangibles (1)	(6.49)	(6.58)	(6.59)
Tangible book value per common share	93.23	101.87	92.54
Adjustment for accumulated dividends	18.00	16.72	15.48
Tangible book value per common share plus accumulated dividends	\$111.23	\$118.59	\$108.02
Change in book value per common share	(8.0%)	9.4%	10.0%
Change in tangible book value per common share plus change in accumulated dividends	(7.2%)	11.4%	5.0%

(1) For 2017, 2016 and 2015, goodwill and other intangibles includes \$16.7 million, \$19.7 million and \$23.2 million, respectively, of goodwill and other intangibles included in investments in other ventures, under equity method.



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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

FORM 10-K

x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF  
THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2017

OR

o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF  
THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from to

Commission File No. 001-14428

RENAISSANCERE HOLDINGS LTD.

(Exact Name Of Registrant As Specified In Its Charter)

Bermuda 98-014-1974

(State or Other Jurisdiction of Incorporation or Organization) (I.R.S. Employer Identification Number)

Renaissance House, 12 Crow Lane, Pembroke HM 19 Bermuda

(Address of Principal Executive Offices)

(441) 295-4513

(Registrant's telephone number)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
---------------------	---

Common Shares, Par Value \$1.00 per share	New York Stock Exchange, Inc.
---	-------------------------------

Series C 6.08% Preference Shares, Par Value \$1.00 per share	New York Stock Exchange, Inc.
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Series E 5.375% Preference Shares, Par Value \$1.00 per share	New York Stock Exchange, Inc.
---	-------------------------------

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Act. Yes x No

o

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes o No x

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company, as defined in Rule 12b-2 of the Act. Large accelerated filer x, Accelerated filer o, Non-accelerated filer o, Smaller reporting company o, Emerging growth company o

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the

Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes  No

The aggregate market value of Common Shares held by nonaffiliates of the registrant at June 30, 2017 was \$5,498.0 million based on the closing sale price of the Common Shares on the New York Stock Exchange on that date.

The number of Common Shares, par value US \$1.00 per share, outstanding at February 2, 2018 was 40,023,789.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the registrant's definitive proxy statement for the 2018 Annual General Meeting of Shareholders are incorporated by reference into Part III of this report.

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**Table of Contents****NOTE ON FORWARD-LOOKING STATEMENTS**

This Annual Report on Form 10-K for the year ended December 31, 2017 (this “Form 10-K”) of RenaissanceRe Holdings Ltd. (“RenaissanceRe”) contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). Forward-looking statements are necessarily based on estimates and assumptions that are inherently subject to significant business, economic and competitive uncertainties and contingencies, many of which, with respect to future business decisions, are subject to change. These uncertainties and contingencies can affect actual results and could cause actual results to differ materially from those expressed in any forward-looking statements made by, or on behalf of, us. In particular, statements using words such as “may”, “should”, “estimate”, “expect”, “anticipate”, “intend”, “believe”, “predict”, “potential”, or words of similar import generally involve forward-looking statements. For example, we may include certain forward-looking statements in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” with regard to trends in results, prices, volumes, operations, investment results, margins, combined ratios, fees, reserves, market conditions, risk management and exchange rates. This Form 10-K also contains forward-looking statements with respect to our business and industry, such as those relating to our strategy and management objectives, market standing and product volumes, competition and new entrants in our industry, industry capital, insured losses from loss events, government initiatives and regulatory matters affecting the reinsurance and insurance industries.

The inclusion of forward-looking statements in this report should not be considered as a representation by us or any other person that our current objectives or plans will be achieved. Numerous factors could cause our actual results to differ materially from those addressed by the forward-looking statements, including the following:

- the frequency and severity of catastrophic and other events we cover;
- the effectiveness of our claims and claim expense reserving process;
- our ability to maintain our financial strength ratings;
- the effect of climate change on our business;
- collection on claimed retrocessional coverage, and new retrocessional reinsurance being available on acceptable terms and providing the coverage that we intended to obtain;
- the effects of United States (“U.S.”) tax reform legislation and possible future tax reform legislation and regulations, including changes to the tax treatment of our shareholders or investors in our joint ventures or other entities we manage;
- the effect of emerging claims and coverage issues;
- continued soft reinsurance underwriting market conditions;
- our reliance on a small and decreasing number of reinsurance brokers and other distribution services for the preponderance of our revenue;
- our exposure to credit loss from counterparties in the normal course of business;
- the effect of continued challenging economic conditions throughout the world;
- a contention by the Internal Revenue Service (the “IRS”) that Renaissance Reinsurance Ltd. (“Renaissance Reinsurance”), or any of our other Bermuda subsidiaries, is subject to taxation in the U.S.;
- our ability to retain our key senior officers and to attract or retain the executives and employees necessary to manage our business;
- the performance of our investment portfolio;
- losses we could face from terrorism, political unrest or war;
  - the effect of cybersecurity risks, including technology breaches or failure, on our business;
- our ability to successfully implement our business strategies and initiatives;





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our ability to determine the impairments taken on our investments;

the effects of inflation;

the ability of our ceding companies and delegated authority counterparties to accurately assess the risks they underwrite;

the effect of operational risks, including system or human failures;

our ability to effectively manage capital on behalf of investors in joint ventures or other entities we manage;

foreign currency exchange rate fluctuations;

our ability to raise capital if necessary;

our ability to comply with covenants in our debt agreements;

changes to the regulatory systems under which we operate, including as a result of increased global regulation of the insurance and reinsurance industry;

changes in Bermuda laws and regulations and the political environment in Bermuda;

- our dependence on the ability of our operating subsidiaries to declare and pay dividends;
- the success of any of our strategic investments or acquisitions, including our ability to manage our operations as our product and geographical diversity increases;

aspects of our corporate structure that may discourage third-party takeovers and other transactions;

the cyclical nature of the reinsurance and insurance industries;

adverse legislative developments that reduce the size of the private markets we serve or impede their future growth;

consolidation of competitors, customers and insurance and reinsurance brokers;

the effect on our business of the highly competitive nature of our industry, including the effect of new entrants to, competing products for and consolidation in the (re)insurance industry;

other political, regulatory or industry initiatives adversely impacting us;

increasing barriers to free trade and the free flow of capital;

international restrictions on the writing of reinsurance by foreign companies and government intervention in the natural catastrophe market;

the effect of Organisation for Economic Co-operation and Development (the “OECD”) or European Union (“EU”) measures to increase our taxes and reporting requirements;

the effect of the vote by the U.K. to leave the EU;

changes in regulatory regimes and accounting rules that may impact financial results irrespective of business operations; and

our need to make many estimates and judgments in the preparation of our financial statements.

As a consequence, our future financial condition and results may differ from those expressed in any forward-looking statements made by or on behalf of us. The factors listed above, which are discussed in more detail in “Part I, Item 1A. Risk Factors”, in this Form 10-K, should not be construed as exhaustive. Forward-looking statements speak only as of the date they are made, and we undertake no obligation to revise or update forward-looking statements to reflect new information, events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.



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**PART I**

**ITEM 1. BUSINESS**

In this Form 10-K, references to “RenaissanceRe” refer to RenaissanceRe Holdings Ltd. (the parent company) and references to “we,” “us,” “our” and the “Company” refer to RenaissanceRe Holdings Ltd. together with its subsidiaries, unless the context requires otherwise.

For your convenience, we have included a “Glossary of Selected Insurance and Reinsurance Terms” at the end of “Part I, Item 1. Business” of this Form 10-K.

All dollar amounts referred to in this Form 10-K are in U.S. dollars unless otherwise indicated.

Due to rounding, numbers presented in the tables included in this Form 10-K may not add up precisely to the totals provided.

**OVERVIEW**

RenaissanceRe is a global provider of reinsurance and insurance. We provide property, casualty and specialty reinsurance and certain insurance solutions to customers, principally through intermediaries. Established in 1993, we have offices in Bermuda, Ireland, Singapore, Switzerland, the United Kingdom (the “U.K.”), and the U.S. Our operating subsidiaries include Renaissance Reinsurance, RenaissanceRe Specialty U.S. Ltd. (“RenaissanceRe Specialty U.S.”), Renaissance Reinsurance U.S. Inc. (“Renaissance Reinsurance U.S.”), Renaissance Reinsurance of Europe Unlimited Company (“Renaissance Reinsurance of Europe”) and our Lloyd’s syndicate, RenaissanceRe Syndicate 1458 (“Syndicate 1458”). We also underwrite reinsurance on behalf of joint ventures, including Top Layer Reinsurance Ltd. (“Top Layer Re”), Upsilon RFO Re Ltd. (“Upsilon RFO”), Fibonacci Reinsurance Ltd. (“Fibonacci Re”) and DaVinci Reinsurance Ltd. (“DaVinci”). In addition, through RenaissanceRe Medici Fund Ltd. (“Medici”), we invest in various insurance based investment instruments that have returns primarily tied to property catastrophe risk.

We aspire to be the world’s best underwriter by matching well-structured risks with efficient sources of capital and our mission is to produce superior returns for our shareholders over the long term. We seek to accomplish these goals by being a trusted, long-term partner to our customers for assessing and managing risk, delivering responsive and innovative solutions, leveraging our core capabilities of risk assessment and information management, investing in these core capabilities in order to serve our customers across the cycles that have historically characterized our markets and keeping our promises. Our strategy focuses on superior risk selection, superior customer relationships and superior capital management. We provide value to our customers and joint venture partners in the form of financial security, innovative products, and responsive service. We are known as a leader in paying valid claims promptly. We principally measure our financial success through long-term growth in tangible book value per common share plus the change in accumulated dividends, which we believe is the most appropriate measure of our financial performance and in respect of which we believe we have delivered superior performance over time.

Our core products include property, casualty and specialty reinsurance and certain insurance products principally distributed through intermediaries, with whom we seek to cultivate strong long-term relationships. We believe we have been one of the world’s leading providers of catastrophe reinsurance since our founding. In recent years, through the strategic execution of a number of initiatives, including organic growth and our acquisition of Platinum Underwriters Holdings, Ltd. (“Platinum”) on March 2, 2015, we have expanded our casualty and specialty platform and products and believe we are a leader in certain casualty and specialty lines of business. We have determined our business consists of the following reportable segments: (1) Property, which is comprised of catastrophe and other property reinsurance and insurance written on behalf of our operating subsidiaries and certain joint ventures managed by our ventures unit, and (2) Casualty and Specialty, which is comprised of casualty and specialty reinsurance and insurance written on behalf of our operating subsidiaries and certain joint ventures managed by our ventures unit. To best serve our clients in the places they do business, we have operating subsidiaries, joint ventures and underwriting platforms around the world, including DaVinci, Renaissance Reinsurance, Top Layer Re, Fibonacci Re and Upsilon RFO in Bermuda, Renaissance Reinsurance U.S. in the U.S., and Syndicate 1458 in the U.K. We write property and casualty and specialty reinsurance through our wholly owned operating subsidiaries, joint ventures and



Syndicate 1458 and certain insurance products primarily through

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Syndicate 1458. Although each underwriting platform may write any or all of our classes of business, our Bermuda platform has traditionally written, and continues to write, the preponderance of our property business and our U.S. platform and Syndicate 1458 write a significant portion of our casualty and specialty business. Syndicate 1458 provides us with access to Lloyd's extensive distribution network and worldwide licenses and also writes business through delegated authority arrangements. The underwriting results of our operating subsidiaries and underwriting platforms are included in our Property and Casualty and Specialty segment results as appropriate. Since a meaningful portion of the reinsurance and insurance we write provides protection from damages relating to natural and man-made catastrophes, our results depend to a large extent on the frequency and severity of such catastrophic events, and the coverages we offer to customers affected by these events. We are exposed to significant losses from these catastrophic events and other exposures we cover. Accordingly, we expect a significant degree of volatility in our financial results and our financial results may vary significantly from quarter-to-quarter and from year-to-year, based on the level of insured catastrophic losses occurring around the world. We view our increased exposure to casualty and specialty lines of business as an efficient use of capital given these risks are generally less correlated with our property lines of business. This has allowed us to bring additional capacity to our clients, across a wider range of product offerings, while continuing to be good stewards of our shareholders' capital. In the future, our casualty and specialty lines of business may represent a greater proportion of our premiums and claims and claim expenses.

We continually explore appropriate and efficient ways to address the risk needs of our clients and the impact of various regulatory and legislative changes on our operations. We have created and managed, and continue to manage, multiple capital vehicles across a number of jurisdictions and may create additional risk bearing vehicles or enter into additional jurisdictions in the future. As our product and geographical diversity increases, we may be exposed to new risks, uncertainties and sources of volatility.

**CORPORATE STRATEGY**

We aspire to be the world's best underwriter by matching well-structured risks with efficient sources of capital and our mission is to produce superior returns for our shareholders over the long term. Our strategy for achieving these objectives, which is supported by our core values, our principles and our culture, is to operate an integrated system of what we believe are our three competitive advantages: superior customer relationships, superior risk selection and superior capital management. We believe all three competitive advantages are required to achieve our objectives, and we aim to seamlessly coordinate the delivery of these competitive advantages for the benefit of our ceding insurers, brokers, investors in our joint ventures and shareholders.

**Superior Customer Relationships.** We seek to be a trusted long-term partner to our customers for assessing and managing risk and delivering responsive solutions. We believe our modeling and technical expertise, our risk management products and our track record of keeping our promises have made us a provider of first choice in many lines of business to our customers worldwide. We seek to offer stable, predictable and consistent risk-based pricing and a prompt turnaround on claims.

**Superior Risk Selection.** We seek to build a portfolio of risks that produces an attractive risk-adjusted return on utilized capital. We develop a perspective of each risk using both our underwriters' expertise and sophisticated risk selection techniques, including computer models and databases such as Renaissance Exposure Management System ("REMS®"). We pursue a disciplined approach to underwriting and seek to select only those risks that we believe will produce a portfolio with an attractive return, subject to prudent risk constraints. We manage our portfolio of risks dynamically, both within sub-portfolios and across the Company.

**Superior Capital Management.** We seek to write as much attractively priced business as is available to us and then manage our capital accordingly. We generally seek to raise capital when we forecast increased demand in the market, at times by accessing capital through joint ventures or other structures, and seek to return capital to our shareholders or joint venture investors when the demand for our coverages appears to decline and when we believe a return of capital would be beneficial to our shareholders or joint venture investors. In using joint ventures, we aim to leverage

our access to business and our underwriting capabilities on an efficient capital base, develop fee income, generate profit commissions, diversify our

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portfolio and provide attractive risk-adjusted returns to our capital providers. We routinely evaluate and review potential joint venture opportunities and strategic investments.

We believe we are well positioned to fulfill our objectives by virtue of the experience and skill of our management team, our integrated and flexible underwriting and operating platform, our significant financial strength, our strong relationships with brokers and customers, our commitment to superior service and our proprietary modeling technology. In particular, we believe our strategy, high performance culture, and commitment to our customers and joint venture partners help us to differentiate ourselves by offering specialized services and products at times and in markets where capacity and alternatives may be limited.

**SEGMENTS**

Our reportable segments are defined as follows: (1) Property, which is comprised of catastrophe and other property reinsurance and insurance written on behalf of our operating subsidiaries and certain joint ventures managed by our ventures unit, and (2) Casualty and Specialty, which is comprised of casualty and specialty reinsurance and insurance written on behalf of our operating subsidiaries and certain joint ventures managed by our ventures unit. In addition to our two reportable segments, we have an Other category, which primarily includes our strategic investments, investments unit, corporate expenses, capital servicing costs, noncontrolling interests, certain expenses related to the acquisition of Platinum and the remnants of our former Bermuda-based insurance operations.

For the year ended December 31, 2017, our Property and Casualty and Specialty segments accounted for 51.5% and 48.5%, respectively, of our gross premiums written. Operating results relating to our segments are included in “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

The following table shows gross premiums written allocated between our segments:

Year ended December 31, (in thousands)	2017	2016	2015
Property	\$1,440,437	\$1,111,263	\$1,072,159
Casualty and Specialty	1,357,110	1,263,313	939,241
Other category	(7 )	—	(90 )
Total gross premiums written	\$2,797,540	\$2,374,576	\$2,011,310

We write proportional business as well as excess of loss business. In addition, we maintain delegated authority arrangements through Syndicate 1458, which are included in our Property and Casualty and Specialty segments, as appropriate. Our relative mix of business between proportional business and excess of loss business has fluctuated in the past and will likely vary in the future. Proportional and delegated authority business typically have relatively higher premiums per unit of expected underwriting income, together with a higher acquisition expense ratio and combined ratio, than traditional excess of loss reinsurance. In addition, these coverages tend to be exposed to relatively more attritional, and frequent, losses while being subject to less expected severity.



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The following table shows gross premiums written allocated between excess of loss, proportional and delegated authority for each of our segments:

Year ended December 31, 2017	Property	Casualty and Specialty	Other	Total
(in thousands)				
Excess of loss	\$1,192,980	\$262,415	\$(7 )	\$1,455,388
Proportional	195,473	894,810	—	1,090,283
Delegated authority	51,984	199,885	—	251,869
Total gross premiums written	\$1,440,437	\$1,357,110	\$(7 )	\$2,797,540
Year ended December 31, 2016				
Excess of loss	\$932,725	\$218,816	\$—	\$1,151,541
Proportional	148,555	900,819	—	1,049,374
Delegated authority	29,983	143,678	—	173,661
Total gross premiums written	\$1,111,263	\$1,263,313	\$—	\$2,374,576
Year ended December 31, 2015				
Excess of loss	\$919,986	\$206,522	\$(90)	\$1,126,418
Proportional	132,522	647,733	—	780,255
Delegated authority	19,651	84,986	—	104,637
Total gross premiums written	\$1,072,159	\$939,241	\$(90)	\$2,011,310

**Property Segment**

The following table shows gross premiums written in our Property segment allocated by class of business:

Year ended December 31,	2017	2016	2015
(in thousands)			
Catastrophe	\$1,104,450	\$884,361	\$930,578
Other property	335,987	226,902	141,581
Total Property segment gross premiums written	\$1,440,437	\$1,111,263	\$1,072,159

Our Property segment includes our catastrophe class of business, principally comprised of excess of loss reinsurance and excess of loss retrocessional reinsurance to insure insurance and reinsurance companies against natural and man-made catastrophes, and our other property class of business, primarily comprised of proportional reinsurance, property per risk, property (re)insurance, binding facilities and regional U.S. multi-line reinsurance. We write catastrophe reinsurance and insurance coverage protecting against large natural catastrophes, such as earthquakes, hurricanes and tsunamis, as well as claims arising from other natural and man-made catastrophes such as winter storms, freezes, floods, fires, windstorms, tornadoes, explosions and acts of terrorism. We offer this coverage to insurance companies and other reinsurers primarily on an excess of loss basis. This means we begin paying when our customers' claims from a catastrophe exceed a certain retained amount. We also offer proportional coverages and other structures on a catastrophe-exposed basis and may increase these offerings on an absolute or relative basis in the future.

Our excess of loss property contracts generally cover all natural perils, as outlined above. Our predominant exposure under such coverage is to property damage. However, other risks, including business interruption and other



non-property losses, may also be covered under our property reinsurance contracts when arising from a covered peril. We offer our coverages on a worldwide basis. Because of the wide range of possible catastrophic events to which we are exposed, including the size of such events and the potential for multiple events to occur in the same time period, our property business is volatile and our financial condition and results of operations reflect this volatility. To moderate the volatility of our risk portfolio, we may increase or decrease our presence in the property business based on market conditions and our assessment of risk-adjusted pricing adequacy. We frequently



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purchase reinsurance or other protection for our own account for a number of reasons, including, to optimize the expected outcome of our underwriting portfolio, to manage capital requirements for regulated entities and to reduce the financial impact that a large catastrophe or a series of catastrophes could have on our results.

**Casualty and Specialty Segment**

We write casualty and specialty reinsurance and insurance covering primarily targeted classes of business where we believe we have a sound basis for underwriting and pricing the risk we assume. Principally all of the business is reinsurance, however our book of insurance business has been increasing in recent periods, and may continue to do so. The following table shows gross premiums written in our Casualty and Specialty segment allocated by class of business:

Year ended December 31, (in thousands)	2017	2016	2015
Professional liability (1)	\$452,310	\$377,580	\$287,591
General casualty (2)	417,880	327,939	258,234
Financial lines (3)	303,800	413,068	265,170
Other (4)	183,120	144,726	128,246
Total Casualty and Specialty segment gross premiums written	\$1,357,110	\$1,263,313	\$939,241

(1) Includes directors and officers, medical malpractice, and professional indemnity.

(2) Includes automobile liability, casualty clash, employer's liability, umbrella or excess casualty, workers' compensation and general liability.

(3) Includes financial guaranty, mortgage guaranty, political risk, surety and trade credit.

(4) Includes accident and health, agriculture, aviation, cyber, energy, marine, satellite and terrorism. Lines of business such as regional multi-line and whole account may have characteristics of various other classes of business, and are allocated accordingly.

In recent years, we have expanded our Casualty and Specialty segment operations through organic growth initiatives and the acquisition of Platinum, and we plan to continue to expand these operations over time if market conditions are appropriate.

Our Casualty and Specialty segment gross premiums written may be subject to significant volatility as certain lines of business in this segment can be influenced by a small number of relatively large transactions. Our team of experienced professionals seeks to underwrite these lines using a disciplined underwriting approach and sophisticated analytical tools. We generally target lines of business where we believe we can adequately quantify the risks assumed and provide coverage where we believe our underwriting is robust and the market is attractive. We also seek to identify market dislocations and write new lines of business whose risk and return characteristics are estimated to exceed our hurdle rates. Furthermore, we also seek to manage the correlations of this business with our overall portfolio. We believe that our underwriting and analytical capabilities have positioned us well to manage our casualty and specialty business.

We offer our casualty and specialty reinsurance products principally on a proportional basis, and we also provide excess of loss coverage. These products frequently include tailored features such as limits or sub-limits which we believe help us manage our exposures. Any liability exceeding, or otherwise not subject to, such limits reverts to the cedant. Our Casualty and Specialty segment frequently provides coverage for relatively large limits or exposures, and thus we are subject to potential significant claims volatility.

Our Casualty and Specialty segment offers certain casualty insurance products through Syndicate 1458 including, but not limited to, general liability, medical malpractice and professional liability. Syndicate 1458 also writes business through delegated authority arrangements.

As a result of our financial strength, we have the ability to offer significant capacity and, for select risks, we have made available significant limits. We believe these capabilities, the strength of our casualty and specialty reinsurance underwriting team, and our demonstrated ability and willingness to pay valid claims are competitive advantages of our casualty and specialty reinsurance business. While we believe that these and other initiatives will support growth in our Casualty and Specialty segment, we intend to continue to

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apply our disciplined underwriting approach which, together with current and forecasted market conditions, is likely to temper such growth in current and near-term periods.

**Other**

Our Other category primarily includes the results of: (1) our share of strategic investments in certain markets we believe offer attractive risk-adjusted returns or where we believe our investment adds value, and where, rather than assuming exclusive management responsibilities ourselves, we partner with other market participants; (2) our investment unit which manages and invests the funds generated by our consolidated operations; (3) corporate expenses, certain expenses related to the acquisition of Platinum, capital servicing costs and noncontrolling interests; and (4) the remnants of our former Bermuda-based insurance operations.

**GEOGRAPHIC BREAKDOWN**

Our exposures are generally diversified across geographic zones, but are also a function of market conditions and opportunities. Our largest exposure has historically been to the U.S. and Caribbean market, which represented 56.4% of our gross premiums written for the year ended December 31, 2017. A significant amount of our U.S. and Caribbean premium provides coverage against windstorms (mainly U.S. Atlantic hurricanes), earthquakes and other natural and man-made catastrophes.

The following table sets forth the amounts and percentages of our gross premiums written allocated to the territory of coverage exposure:

Year ended December 31,	2017		2016		2015	
	Gross Premiums Written	Percentage of Gross Premiums Written	Gross Premiums Written	Percentage of Gross Premiums Written	Gross Premiums Written	Percentage of Gross Premiums Written
(in thousands, except percentages)						
<b>Property Segment</b>						
U.S. and Caribbean	\$954,269	34.1 %	\$743,226	31.3 %	\$671,887	33.4 %
Worldwide	305,915	10.9 %	210,168	8.9 %	234,801	11.7 %
Japan	49,821	1.8 %	44,536	1.9 %	32,830	1.6 %
Europe	49,486	1.8 %	37,611	1.6 %	32,973	1.6 %
Worldwide (excluding U.S.) (1)	48,182	1.7 %	55,043	2.3 %	76,370	3.8 %
Australia and New Zealand	14,151	0.5 %	13,729	0.6 %	15,869	0.8 %
Other	18,613	0.7 %	6,950	0.3 %	7,429	0.4 %
<b>Total Property Segment</b>	<b>1,440,437</b>	<b>51.5 %</b>	<b>1,111,263</b>	<b>46.9 %</b>	<b>1,072,159</b>	<b>53.3 %</b>
<b>Casualty and Specialty Segment</b>						
Worldwide	686,253	24.5 %	581,972	24.5 %	320,452	15.9 %
U.S. and Caribbean	622,757	22.3 %	646,381	27.2 %	522,778	26.0 %
Europe	9,752	0.3 %	5,541	0.2 %	936	— %
Worldwide (excluding U.S.) (1)	10,104	0.4 %	13,840	0.6 %	87,597	4.4 %
Australia and New Zealand	4,141	0.1 %	5,073	0.2 %	1,627	0.1 %
Other	24,103	0.9 %	10,506	0.4 %	5,851	0.3 %
<b>Total Casualty and Specialty Segment</b>	<b>1,357,110</b>	<b>48.5 %</b>	<b>1,263,313</b>	<b>53.1 %</b>	<b>939,241</b>	<b>46.7 %</b>
Other category	(7 )	— %	—	— %	(90 )	— %
<b>Total gross premiums written</b>	<b>\$2,797,540</b>	<b>100.0 %</b>	<b>\$2,374,576</b>	<b>100.0 %</b>	<b>\$2,011,310</b>	<b>100.0 %</b>

(1) The category “Worldwide (excluding U.S.)” consists of contracts that cover more than one geographic region (other than the U.S.).







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### VENTURES

We pursue a number of other opportunities through our ventures unit, which has responsibility for creating and managing our joint ventures, executing customized reinsurance transactions to assume or cede risk and managing certain investments directed at classes of risk other than catastrophe reinsurance.

#### Property Catastrophe Managed Joint Ventures

We actively manage property catastrophe-oriented joint ventures, which provide us with an additional presence in the market, enhance our client relationships and generate fee income and profit commissions. These joint ventures allow us to leverage our access to business and our underwriting capabilities on a larger capital base. Currently, our principal joint ventures include DaVinci, Top Layer Re, Medici, Upsilon RFO and Fibonacci Re. Renaissance Underwriting Managers, Ltd. (“RUM”), a wholly owned subsidiary of the Company, acts as the exclusive underwriting manager for each of these joint ventures except Medici.

#### DaVinci

DaVinci was established in 2001 and principally writes property catastrophe reinsurance and certain low frequency, high severity specialty reinsurance lines of business on a global basis. In general, we seek to construct for DaVinci a portfolio with risk characteristics similar to those of Renaissance Reinsurance’s property catastrophe reinsurance portfolio, and from time to time, certain lines of specialty reinsurance written by Renaissance Reinsurance such as terrorism and workers’ compensation. In accordance with DaVinci’s underwriting guidelines, it can only participate in business also underwritten by Renaissance Reinsurance. We maintain majority voting control of DaVinci’s holding company, DaVinciRe, and accordingly, consolidate the results of DaVinciRe into our consolidated results of operations and financial position. The underwriting results of DaVinciRe are principally included in our Property segment. We seek to manage DaVinci’s capital efficiently over time in light of the market opportunities and needs we perceive and believe we are able to serve. Our noncontrolling economic ownership in DaVinciRe was 22.1% at December 31, 2017 (2016 - 24.0%).

We expect our noncontrolling economic ownership in DaVinciRe to fluctuate over time. See “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations, Capital Resources” for additional information with respect of DaVinci.

#### Top Layer Re

Top Layer Re was established in 1999 and writes high excess non-U.S. property catastrophe reinsurance. Top Layer Re is owned 50% by State Farm Mutual Automobile Insurance Company (“State Farm”) and 50% by Renaissance Reinsurance. State Farm provides \$3.9 billion of stop loss reinsurance coverage to Top Layer Re. We account for our equity ownership in Top Layer Re under the equity method of accounting and our proportionate share of its results is reflected in equity in earnings of other ventures in our consolidated statements of operations.

#### Medici

Medici is an exempted fund, incorporated under the laws of Bermuda. Medici’s objective is to invest substantially all of its assets in various insurance-based investment instruments that have returns primarily correlated to property catastrophe risk. Third-party investors subscribe for the majority of the participating, non-voting common shares of Medici. We maintain majority voting control of Medici’s parent, RenaissanceRe Fund Holdings Ltd. (“Fund Holdings”), therefore the results of Medici and Fund Holdings are consolidated in our financial statements. Our economic ownership in Medici was 26.8% at December 31, 2017 (2016 - 36.5%).

#### Upsilon RFO

Effective January 1, 2013, we formed and launched a managed joint venture, Upsilon RFO, a Bermuda domiciled special purpose insurer (“SPI”), to provide additional capacity to the worldwide aggregate and per-occurrence primary and retrocessional property catastrophe excess of loss market. Upsilon RFO enhances our efforts to match desirable reinsurance risk with efficient capital through a strategic capital structure. Original business is written directly by Upsilon RFO under fully-collateralized reinsurance contracts capitalized through the sale of non-voting shares to us and Upsilon Fund. Upsilon RFO is





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considered a variable interest entity (“VIE”) as it has insufficient equity capital to finance its activities without additional financial support and we are the primary beneficiary. As a result, we consolidate Upsilon RFO and all significant inter-company transactions have been eliminated. Other than our equity investment, we have not provided any financial or other support to Upsilon RFO that we were not contractually required to provide.

**Upsilon Fund**

Effective November 13, 2014, we incorporated Upsilon Fund, an exempted Bermuda limited segregated accounts company. Upsilon Fund was formed to provide a fund structure through which third party investors can invest in property reinsurance risk managed by us. As a segregated accounts company, Upsilon Fund is permitted to establish segregated accounts to invest in and hold identified pools of assets and liabilities. Each pool of assets and liabilities in each segregated account is ring-fenced from any claims from the creditors of Upsilon Fund’s general account and from the creditors of other segregated accounts within Upsilon Fund. Third party investors purchase redeemable, non-voting preference shares linked to specific segregated accounts of Upsilon Fund and own 100% of these shares. Upsilon Fund is managed by RenaissanceRe Fund Management Ltd. in return for a management fee and performance based incentive fee. We have not provided any financial or other support to Upsilon Fund that we were not contractually required to provide. Currently, Upsilon Fund is invested in Upsilon RFO and Medici.

**Fibonacci Re**

Effective November 7, 2016, Fibonacci Re, a Bermuda-domiciled SPI, was formed to provide collateralized capacity to Renaissance Reinsurance and its affiliates. Fibonacci Re raised capital from third party investors and us via a private placement of participating notes that are listed on the Bermuda Stock Exchange. This arrangement enables Renaissance Reinsurance to support its clients with additional property catastrophe reinsurance capacity and we believe it provides attractive risk-adjusted returns to our capital partners. We concluded that Fibonacci Re meets the definition of a VIE as it does not have sufficient equity capital to finance its activities. Therefore, we evaluated our relationship with Fibonacci Re and concluded we are not the primary beneficiary of Fibonacci Re as we do not have power over the activities that most significantly impact the economic performance of Fibonacci. As a result, we do not consolidate the financial position and results of operations of Fibonacci. Other than our investment in the participating notes of Fibonacci Re, we have not provided financial or other support to Fibonacci Re that we were not contractually required to provide.

**Other Joint Ventures**

Effective December 22, 2017, we closed an initiative with Reinsurance Group of America, Incorporated to source third party capital to support reinsurers targeting large in-force life and annuity blocks (“Langhorne”). Langhorne Holdings LLC (“Langhorne Holdings”) is a company that owns and manages certain reinsurance entities within Langhorne. Langhorne Partners LLC (“Langhorne Partners”) is the general partner for Langhorne and the entity which manages the third-party investors investing into Langhorne Holdings. We concluded that Langhorne Holdings meets the definition of a VIE. We are not the primary beneficiary of Langhorne Holdings and as a result, we do not consolidate the financial position or results of operations of Langhorne Holdings. We concluded that Langhorne Partners was not a VIE. We will account for our investments in Langhorne Holdings and Langhorne Partners under the equity method of accounting, one quarter in arrears. We anticipate that our investment in Langhorne will increase, perhaps materially, as in-force life and annuity blocks of businesses are written. Other than our current and committed future equity investment in Langhorne, we have not provided financial or other support to Langhorne that we were not contractually required to provide.

**Strategic Investments**

Ventures also pursues strategic investments where, rather than assuming exclusive management responsibilities ourselves, we partner with other market participants. These investments may be directed at classes of risk other than catastrophe reinsurance, and at times may also be directed at non-insurance risks. We find these investments attractive because of their expected returns, and because they provide us with diversification benefits and information and exposure to other aspects of the market. For example, we recently executed a definitive agreement to acquire a

minority shareholding in Catalina Holdings (Bermuda)

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Ltd, a long-term consolidator in the non-life insurance/reinsurance run-off sector, subject to regulatory approval. Other examples of strategic investments include our investments in Tower Hill Insurance Group, LLC. (“THIG”), Tower Hill Holdings, Inc. (“Tower Hill”), Tower Hill Signature Insurance Holdings, Inc. (“Tower Hill Signature”) and Tower Hill Re (collectively, the “Tower Hill Companies”), which are accounted for under the equity method of accounting. We also have investments in Essent Group Ltd. and Trupanion Inc., which are accounted for at fair value and are included in other investments.

The carrying value of these investments on our consolidated balance sheet, individually or in the aggregate, may differ from the realized value we may ultimately attain, perhaps significantly so. For example, we believe that our investment in the Tower Hill Companies, which is recorded under the equity method of accounting in our consolidated financial statements in accordance with generally accepted accounting principles in the U.S. (“GAAP”), would attract a significantly higher valuation than what is currently recognized in our consolidated financial statements. However, under GAAP, we are prohibited from recording this investment at fair value. In addition, there is no liquid market for this investment.

### **Other Transactions**

Ventures works on a range of other customized reinsurance and financing transactions. For example, we have participated in and continuously analyze other attractive opportunities in the market for insurance-linked securities and derivatives. We believe our products contain a number of customized features designed to fit the needs of our partners, as well as our risk management objectives.

Our ventures unit business activities that appear in our consolidated underwriting results, such as DaVinci and certain reinsurance transactions, are included in our Property and Casualty and Specialty segment results as appropriate; the results of our equity method investments, such as Top Layer Re, and other ventures are included in the Other category of our segment results.

### **NEW BUSINESS**

From time to time we consider diversification into new ventures, either through organic growth, the formation of new joint ventures, or the acquisition of or the investment in other companies or books of business of other companies. This potential diversification includes opportunities to write targeted, additional classes of risk-exposed business, both directly for our own account and through new joint venture opportunities. We also regularly evaluate potential strategic opportunities we believe might utilize our skills, capabilities, proprietary technology and relationships to support possible expansion into further risk-related coverages, services and products. Generally, we focus on underwriting or trading risks where we believe reasonably sufficient data is available and our analytical abilities provide us with a competitive advantage, in order for us to seek to model estimated probabilities of losses and returns in respect of our then current portfolio of risks.

We regularly review potential strategic transactions that might improve our portfolio of business, enhance or focus our strategies, expand our distribution or capabilities, or provide other benefits. In evaluating potential new ventures or investments, we generally seek an attractive estimated return on equity, the ability to develop or capitalize on a competitive advantage, and opportunities which we believe will not detract from our core operations. We believe that our ability to attract investment and operational opportunities is supported by our strong reputation and financial resources, and by the capabilities and track record of our ventures unit.

### **COMPETITION**

The markets in which we operate are highly competitive, and we believe that competition is, in general, increasing and becoming more robust. Our competitors include independent reinsurance and insurance companies, subsidiaries and/or affiliates of globally recognized insurance companies, reinsurance divisions of certain insurance companies, domestic and international underwriting operations, and a range of entities offering forms of risk transfer protection on a collateralized or other non-traditional basis. As our business evolves and the (re)insurance industry continues to experience consolidation, we expect our competitors to change as well.

We believe that our principal competitors include other companies active in the Bermuda market, currently including Allied World Assurance Company, AG, Arch Capital Group Ltd., Aspen Insurance Holdings





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Limited, Axis Capital Holdings Limited, Chubb Limited, Everest Re Group, Ltd., Fidelis Insurance Holdings Limited (“Fidelis”), Hamilton Re Ltd. (“Hamilton Re”), PartnerRe Ltd., Sompo International (formerly known as Endurance Specialty Holdings Ltd.), Third Point Reinsurance Ltd. (“Third Point”), Validus Holdings, Ltd. and XL Group Ltd., as well as a growing number of private, unrated reinsurers offering predominately collateralized reinsurance. We also compete with certain Lloyd’s syndicates active in the London market, as well as with a number of other industry participants, such as American International Group, Inc., Berkshire Hathaway Inc., Hannover Rückversicherung AG (“Hannover Re”), Ironshore Inc., Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München (“Munich Re”) and Swiss Re Ltd.

Hedge funds, pension funds and endowments, investment banks, investment managers (such as Nephila Capital Ltd.), exchanges and other capital market participants are increasingly active in the reinsurance market and the market for related risk, either through the formation of reinsurance companies (such as Greenlight Reinsurance Ltd., Aeolus Re Ltd., Fidelis, Hamilton Re, and Third Point) or through the use of other financial products, such as catastrophe bonds, other insurance-linked securities and collateralized reinsurance investment funds. We expect competition from these sources to continue to increase. In addition, we continue to anticipate growth in financial products offered to the insurance market that are intended to compete with traditional reinsurance, such as exchange traded catastrophe options, insurance-linked securities, unrated privately held reinsurance companies providing collateralized or other non-traditional reinsurance, catastrophe-linked derivative agreements and other financial products.

The tax policies of the countries where our customers operate, as well as government sponsored or backed catastrophe funds, also affect demand for reinsurance, sometimes significantly. Moreover, government-backed entities increasingly represent competition for the coverages we provide directly or for the business of our customers, reducing the potential amount of third party private protection our clients might need or desire.

**UNDERWRITING AND ENTERPRISE RISK MANAGEMENT****Underwriting**

Our primary underwriting goal is to construct a portfolio of reinsurance and insurance contracts and other financial risks that maximizes our return on shareholders’ equity, subject to prudent risk constraints, and to generate long-term growth in tangible book value per common share plus the change in accumulated dividends. We assess each new (re)insurance contract on the basis of the expected incremental return relative to the incremental contribution to portfolio risk.

We have developed a proprietary, computer-based pricing and exposure management system, REMS©, which has analytic and modeling capabilities that help us to assess the risk and return of each incremental (re)insurance contract in relation to our overall portfolio of (re)insurance contracts. We believe that REMS© is a robust underwriting and risk management system that has been successfully integrated into our business processes and culture. In conjunction with pricing models that we run outside of REMS©, the REMS© framework encompasses and facilitates risk capture, analysis, correlation, portfolio aggregation and capital allocation within a single system for all of our natural hazards and non-natural hazards (re)insurance contracts. We continue to invest in and improve REMS©, incorporating our underwriting and modeling experience and adding proprietary software and a significant amount of new industry data. We continually strive to improve our analytical techniques for both natural hazard and non-natural hazard models in REMS© and while our experience is most developed for analyzing natural hazard catastrophe risks, we continue to invest in and evolve our capabilities for assessing non-natural hazard catastrophe risks. With the acquisition of Platinum and our recent growth in our casualty and specialty lines of business, we have increased our modeling and underwriting resources and associated capabilities with respect to our casualty and specialty lines of business.

We generally utilize a multiple model approach when evaluating a proposed transaction, combining both probabilistic and deterministic techniques. We combine the analyses generated by REMS© with other information and other model inputs available to us, including our own knowledge of the client submitting the proposed program, to assess the premium offered against the risk of loss and the cost of utilized capital which the program presents. The underlying risk models integrated into our underwriting and REMS© framework are a combination of internally constructed and

commercially available models. We use

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commercially available natural hazard catastrophe models to assist with validating and stress testing our base model and REMS© results.

Before we bind a (re)insurance risk, exposure data, historical loss information and other risk data is gathered from customers. Using a combination of proprietary software, underwriting experience, actuarial techniques and engineering expertise, as we deem appropriate, the exposure data is reviewed and augmented. We use this data as primary inputs into the REMS© modeling system as a base to create risk distributions to represent the risk being evaluated. We believe that the REMS© modeling system helps us to analyze each policy on a consistent basis, assisting our determination of what we believe to be an appropriate price to charge for each policy based upon the risk to be assumed. In part, through the process described above and the utilization of REMS©, we seek to compare our estimate of the expected returns in respect of a contract with the amount of capital we notionally allocate to the contract based on our estimate of its marginal impact on our portfolio of risks. A key advantage of our REMS© framework is our ability to include additional perils, risks and geographic areas that may not be captured in commercially available natural hazards risk models.

We periodically review the estimates and assumptions that are reflected in REMS© and our other tools. For example, the 2011 and 2010 New Zealand Earthquakes and the Tohoku Earthquake provided new insight on certain aspects of hazard and vulnerability to the global earthquake science community. Utilizing internal research capabilities from our team of scientists at Weather Predict Consulting Inc. (“Weather Predict”) and new research from the global earthquake science community, we updated several of our internal regional representations of earthquake risk in advance of the commercially available models. In late 2012, Storm Sandy gave rise to new data relating to storm surge, flood persistence and mid-Atlantic tropical storm meteorology. We subsequently updated our North Atlantic storm surge model to reflect this new data. We will gather data from the events of 2017 to perform similar reviews and apply learning where appropriate.

Our underwriters use the combination of our risk assessment and underwriting process, REMS© and other tools in their pricing decisions, which we believe provides them with several competitive advantages. These include the ability to:

- simulate a range of potential outcomes that adequately represents the risk to an individual contract;
- analyze the incremental impact of an individual reinsurance contract on our overall portfolio;
- better assess the underlying exposures associated with assumed retrocessional business;
- price contracts within a short time frame;
- capture various classes of risk, including catastrophe and other insurance risks;
- assess risk across multiple entities (including our various joint ventures) and across different components of our capital structure; and
- provide consistent pricing information.

As part of our risk management process, we also use REMS© to assist us, as a retrocedant, with the purchase of reinsurance coverage for our own account.

Our underwriting and risk management process, in conjunction with REMS©, quantifies and manages our exposure to claims from single events and the exposure to losses from a series of events. As part of our pricing and underwriting process, we also assess a variety of other factors, including:

- the reputation of the proposed cedant and the likelihood of establishing a long-term relationship with the cedant;
- the geographic area in which the cedant does business and its market share;
- historical loss data for the cedant and, where available, for the industry as a whole in the relevant regions and lines of business, in order to compare the cedant’s historical catastrophe loss experience to industry averages;
- the cedant’s pricing strategies; and
- the perceived financial strength of the cedant and factors such as the cedant’s historical record of making premium payments in full and on a timely basis.





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In order to estimate the risk profile of each line of non-natural hazard reinsurance (i.e., our casualty and specialty lines of business), we establish probability distributions and assess the correlations with the rest of our portfolio. In lines with catastrophe risk, such as excess workers' compensation and terrorism, we seek to directly leverage our skill in modeling property reinsurance risks, and seek to appropriately estimate and manage the correlations between these casualty and specialty lines and our property reinsurance portfolio. For other classes of business, in which we believe we have little or no natural catastrophe exposure, and therefore less correlation with our property reinsurance coverages, we derive probability distributions from a variety of underlying information sources, including recent historical experience, and the application of judgment as appropriate. The nature of some of these businesses lends itself less to the analysis we use for our property reinsurance coverages, reflecting both the nature of available exposure information, and the impact of human factors such as tort exposure. We produce probability distributions to represent our estimates of the related underlying risks which our products cover, which we believe helps us to make consistent underwriting decisions and to manage our total risk portfolio.

In addition, we also produce, utilize and report on models which measure our utilization of capital in light of regulatory capital considerations and constraints. Our position in respect of these regulatory capital models is reviewed by our risk management professional staff and periodically reported to and reviewed by senior underwriting personnel and executive management with responsibility for our regulated operating entities.

**Enterprise Risk Management ("ERM")**

We believe that high-quality and effective ERM is best achieved when it is a shared cultural value throughout the organization and consider ERM to be a key process which is the responsibility of every individual within the Company. We have developed and utilize tools and processes we believe support a culture of risk management and create a robust framework of ERM within our organization. We believe that our ERM processes and practices help us to identify potential events that may affect us, quantify, evaluate and manage the risks to which we are exposed, and provide reasonable assurance regarding the achievement of our objectives. We believe that effective ERM can provide us with a significant competitive advantage. We also believe that effective ERM assists our efforts to minimize the likelihood of suffering financial outcomes in excess of the ranges which we have estimated in respect of specific investments, underwriting decisions, or other operating or business activities, although we do not believe this risk can be eliminated. We believe that our risk management tools support our strategy of pursuing opportunities and help us to identify opportunities we believe to be the most attractive. In particular, we utilize our risk management tools to support our efforts to monitor our capital position, on a consolidated basis and for each of our major operating subsidiaries, and to allocate an appropriate amount of capital to support the risks we have assumed in the aggregate and for each of our major operating subsidiaries. We believe that our risk management efforts are essential to our corporate strategy and our goal of achieving long-term growth in tangible book value per share plus the change in accumulated dividends for our shareholders.

Our Board of Directors is responsible for overseeing enterprise-wide risk management and is actively involved in the monitoring of risks that could affect us. The members of the Board have regular, direct access to the senior executives and other officers responsible for identifying and monitoring our risks and coordinating our ERM, including our Group Chief Risk Officer, Chief Financial Officer, and Group General Counsel and Chief Compliance Officer, each of whom reports directly to our Chief Executive Officer, as well as other senior personnel such as our Chief Accounting Officer, Global Corporate Controller and Head of Internal Audit. The Board also receives regular reports from the Controls and Compliance Committee described below.

Our ERM framework operates via a three lines of defense model. The first line of defense consists of individual functions that deliberately assume risks on our behalf and own and manage risk within the Company on a day-to-day and business operational basis. The second line of defense is responsible for risk oversight and also supports the first line to understand and manage risk. A dedicated risk team led by the Group Chief Risk Officer is responsible for this second line and reports to the Board of Director's Investment and Risk Management Committee and the Chief Executive Officer. The third line of defense, our Internal Audit team, reports to the Audit Committee of the Board of



Directors and provides independent, objective assurance as to the assessment of the adequacy and effectiveness of our internal control systems and also coordinates risk-based audits and compliance reviews and other specific initiatives to evaluate and address risk within targeted areas of our business.



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The principal risk areas that make up our ERM framework are assumed risk (including reserve risk), business environment risk and operational risk:

**Assumed Risk.** We define assumed risk as activities where we deliberately take risk against our capital base, including underwriting risks and other quantifiable risks such as credit risk and market risk as they relate to investments, ceded reinsurance credit risk and strategic investment risk, each of which can be analyzed in substantial part through quantitative tools and techniques. Of these, we believe underwriting risk to be the most material to us. In order to understand, monitor, quantify and proactively assess underwriting risk, we seek to develop and deploy appropriate tools to estimate the comparable expected returns on potential business opportunities and the impact that such incremental business could have on our overall risk profile. We use the tools and methods described above in “Underwriting” to seek to achieve these objectives. Embedded within our consideration of assumed risk is our management of our aggregate, consolidated risk profile. In part through the utilization of REMS<sup>®</sup> and our other systems and procedures, we analyze our in-force aggregate assumed risk portfolio on a daily basis. We believe this capability helps us to manage our aggregate exposures and to rigorously analyze and evaluate individual proposed transactions in the context of our in-force portfolio. This aggregation process captures line of business, segment and corporate risk profiles, calculates internal and external capital tests and explicitly models ceded reinsurance. Generally, additional data is added quarterly to our aggregate risk framework to reflect updated or new information or estimates relating to matters such as interest rate risk, credit risk, capital adequacy and liquidity. This information is used in day-to-day decision making for underwriting, investments and operations and is also reviewed quarterly from both a unit level and consolidated financial position perspective. We also regularly assess, monitor and review our regulatory risk capital and related constraints.

**Reserve Risk.** Reserve risk is a subcomponent of assumed risk. We define reserve risk as the risks related to our reserve for net claims and claim expenses, including the amount, both absolute and relative, of our outstanding reserve for net claims and claim expenses, and the impact of economic, social, legal and regulatory matters. Our reserve for net claims and claim expenses is subject to significant uncertainty and has the potential to develop adversely in future periods. While reserve risk may increase in both absolute terms and relative to its overall consideration in our ERM framework, we employ robust resources, procedures and technology to identify, understand, quantify and manage this risk. Our reserving methodologies and sensitivities for each respective line of business described in “Part II. Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations, Summary of Critical Accounting Estimates, Claims and Claim Expense Reserves.”

**Business Environment Risk.** We define business environment risk as the risk of changes in the business, political or regulatory environment that could negatively impact our short term or long-term financial results or the markets in which we operate. This risk area also typically includes emerging risks. These risks are predominately extrinsic to us and our ability to alter or eliminate these risks is limited, so we focus our efforts on monitoring developments, assessing potential impacts of any changes, and investing in cost effective means to attempt to mitigate the consequences of and ensure compliance with any new requirements applicable to us.

**Operational Risk.** We are subject to a number of additional risks arising out of operational, regulatory, and other matters. We define operational risk to include the risk we fail to create, manage, control or mitigate the people, processes, structures or functions required to execute our strategic and tactical plans and assemble an optimized portfolio of assumed risk, and to adjust to and comply with the evolving requirements of business environment risk applicable to us. In light of the rapid evolution of our markets, business environment, and business initiatives, we seek to continually invest in the tools, processes and procedures we use to mitigate our exposure to operational risk on a cost-effective basis. As with assumed risk and business environment risk, operational risk presents intrinsic uncertainties, and we may fail to appropriately identify or mitigate applicable operational risk.

**Controls and Compliance Committee.** We believe that a key component of our current operational risk management platform is our Controls and Compliance Committee. The Controls and Compliance Committee is comprised of our Chief Financial Officer, Group General Counsel and Chief Compliance





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Officer, Chief Accounting Officer, Global Corporate Controller, Group Chief Risk Officer, Head of Internal Audit, staff compliance professionals and representatives from our business units. The purpose of the Controls and Compliance Committee is to establish, assess the effectiveness of, and enforce policies, procedures and practices relating to accounting, financial reporting, internal controls, regulatory, legal, compliance and related matters, and to ensure compliance with applicable laws and regulations, our Code of Ethics and Conduct (the “Code of Ethics”), and other relevant standards. In addition, the Controls and Compliance Committee is charged with reviewing certain transactions that potentially raise complex and/or significant tax, legal, accounting, regulatory, financial reporting, reputational or compliance issues.

In addition, we address other areas of operational risk through our disaster recovery program, human resource practices such as motivating and retaining top talent, our strict tax protocols and our legal and regulatory policies and procedures.

**Ongoing Development and Enhancement.** We seek to reflect and categorize risks we monitor in part through quantitative risk distributions, even where we believe that such quantitative analysis is not as robust or well developed as our tools and models for measuring and evaluating other risks, such as catastrophe and market risks. We also seek to improve the methods by which we measure risks and believe effective risk management is a continual process that requires ongoing improvement and development. We seek from time to time to identify effective new practices or additional developments both from within our industry and from other sectors. We believe that our ongoing efforts to embed ERM throughout our organization help us produce and maintain a competitive advantage and achieve our corporate goals.

### **RATINGS**

Financial strength ratings are an important factor in evaluating and establishing the competitive position of reinsurance and insurance companies. Rating organizations continually review the financial positions of our reinsurers and insurers. We have received high claims-paying and financial strength ratings from A.M. Best Company, Inc. (“A.M. Best”), Standard and Poor’s Rating Services (“S&P”), Moody’s Investors Service (“Moody’s”) and Fitch Ratings Ltd. (“Fitch”). These ratings represent independent opinions of an insurer’s financial strength, operating performance and ability to meet policyholder obligations, and are not an evaluation directed toward the protection of investors or a recommendation to buy, sell or hold any of our securities. See “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations, Capital Resources, Ratings” for the ratings of our principal operating subsidiaries and joint ventures by segment, and details of recent ratings actions.

In addition, S&P assesses companies’ ERM practices, which is an opinion on the many critical dimensions of risk that determine overall creditworthiness. RenaissanceRe has been assigned an ERM rating of “Very Strong”, which is the highest rating assigned by S&P, and indicates that S&P believes RenaissanceRe has very strong capabilities to consistently identify, measure, and manage risk exposures and losses within RenaissanceRe’s predetermined tolerance guidelines.

### **RESERVES FOR CLAIMS AND CLAIM EXPENSES**

We believe the most significant accounting judgment made by management is our estimate of claims and claim expense reserves. Claims and claim expense reserves represent estimates, including actuarial and statistical projections at a given point in time, of the ultimate settlement and administration costs for unpaid claims and claim expenses arising from the insurance and reinsurance contracts we sell. We establish our claims and claim expense reserves by taking claims reported to us by insureds and ceding companies, but which have not yet been paid (“case reserves”), adding estimates for the anticipated cost of claims incurred but not yet reported to us, or incurred but not enough reported to us (collectively referred to as “IBNR”) and, if deemed necessary, adding costs for additional case reserves which represent our estimates for claims related to specific contracts previously reported to us which we believe may not be adequately estimated by the client as of that date, or adequately covered in the application of IBNR.

Our reserving techniques, assumptions and processes differ among our Property and Casualty and Specialty segments. Refer to “Note 8. Reserve for Claims and Claim Expenses in our Notes to the Consolidated Financial Statements” for

more information on the risks we insure and reinsure, the reserving techniques, assumptions and processes we follow to estimate our claims and claim expense reserves, prior year development of the reserve for claims and claim expenses, analysis of our incurred and paid claims development and claims duration information for each of our Property and Casualty and Specialty





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segments. In addition, refer to “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations, Summary of Critical Accounting Estimates, Claims and Claim Expense Reserves” for more information on our current estimates versus our initial estimates of our claims reserves, and sensitivity analysis for each of our Property and Casualty and Specialty segments.

**INVESTMENTS**

Our investment guidelines stress preservation of capital, market liquidity, and diversification of risk. The majority of our investments consist of highly rated fixed income securities. We also hold a significant amount of short term investments which are managed as part of our investment portfolio and have a maturity of one year or less when purchased. In addition, we have an allocation to other investments including private equity partnerships, catastrophe bonds, senior secured bank loan funds, and hedge funds, and to certain equity securities. We may from time to time re-evaluate our investment guidelines and explore investment allocations to other asset classes. Our investments are subject to market-wide risks and fluctuations, as well as to risks inherent in particular securities.

For additional information regarding our investment portfolio, refer to “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations, Liquidity and Capital Resources, Investments” and “Note 5. Investments in our Notes to the Consolidated Financial Statements”.

**MARKETING**

We believe that our modeling and technical expertise, the risk management products we provide to our customers, and our reputation for paying claims promptly has enabled us to become a provider of first choice in many lines of business to our customers worldwide. We market our products primarily through reinsurance brokers and we focus our marketing efforts on targeted brokers and partners. We believe that our existing portfolio of business is a valuable asset and, therefore, we attempt to continually strengthen relationships with our existing brokers and customers. We believe that by maintaining close relationships with brokers, we are able to obtain access to a broad range of potential reinsureds. We target prospects that are capable of supplying detailed and accurate underwriting data and that potentially add further diversification to our book of business.

We believe that primary insurers’ and brokers’ willingness to use a particular reinsurer is based not just on pricing, but also on the financial security of the reinsurer, its claim paying ability ratings and demonstrated willingness to promptly pay valid claims, the quality of a reinsurer’s service, the reinsurer’s willingness and ability to design customized programs, its long-term stability and its commitment to provide stable reinsurance capacity across market cycles. We believe we have established a reputation with our brokers and customers for prompt response on underwriting submissions, for fast payments on valid claims and for providing creative solutions to our customers’ needs.

Our portfolio of business continues to be characterized by relatively large transactions with ceding companies with whom we do business, although no current relationship exceeds 10% of our gross premiums written. Accordingly, our gross premiums written are subject to significant fluctuations depending on our success in maintaining or expanding our relationships with these customers. We believe that our willingness and ability to design customized programs and to provide bespoke risk management products has helped us to develop long-term relationships with brokers and customers.

Our brokers assess client needs and also perform data collection, contract preparation and other administrative tasks, enabling us to market our products cost effectively by maintaining a smaller staff. In recent years, our distribution has become increasingly reliant on a small and relatively decreasing number of broker relationships reflecting consolidation in the broker sector. We expect this concentration to continue and perhaps increase. In 2017, three brokerage firms accounted for 76.4% of our gross premiums written.



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The following table shows the percentage of our Property and Casualty and Specialty segments' gross premiums written generated through subsidiaries and affiliates of our largest brokers:

Year ended December 31, 2017	Property		Casualty		and Specialty		Total	
AON	50.1	%	35.0	%	42.8	%		
Marsh	24.8	%	22.7	%	23.8	%		
Willis Towers Watson	7.1	%	12.5	%	9.8	%		
Total of largest brokers	82.0	%	70.2	%	76.4	%		
All others	18.0	%	29.8	%	23.6	%		
Total	100.0	%	100.0	%	100.0	%		

The following table shows the number of brokers for which we issued authorization for coverage on programs, the number of program submissions received and the number and percent of authorizations issued, allocated between our Property and Casualty and Specialty segments:

Year ended December 31, 2017	Property		Casualty		and Specialty	
Number of brokers	40		52			
Program submissions	4,119		3,306			
Programs authorized	1,387		1,144			
Programs authorized as a percentage of program submissions	33.7	%	34.6	%		

**EMPLOYEES**

At February 2, 2018, we employed 384 people worldwide (February 17, 2017 - 376, February 18, 2016 - 376). None of our employees are subject to collective bargaining agreements and we are not aware of any current efforts to implement such agreements at any of our subsidiaries.

**INFORMATION TECHNOLOGY**

Our business and support functions utilize information systems that provide critical services to both our employees and our customers. We have an integrated team of professionals who manage and support our communication platforms, transaction-management systems, and analytics and reporting capabilities, including the development of proprietary solutions like REMS©. We use off-site, secure data centers in North America and Europe for most of our core applications, but our use of cloud-based services is increasing as the security and reliability of these services improves.

Information security and privacy are important concerns, with an escalating cyber-threat environment and evolving regulatory requirements driving continued investment in this area. Our information security program is designed around the National Institute of Standards and Technology ("NIST") cybersecurity framework, upon which many cybersecurity regulations are modeled. In 2017, the New York Department of Financial Services' Cybersecurity Requirements for Financial Services Companies (the "NYDFS Cybersecurity Regulation"), which sets minimum cybersecurity standards for financial institutions, insurers and certain other companies supervised by the NYDFS and to which we are subject, became effective. In addition, the National Association of Insurance Commissioners' (the "NAIC") adopted the Insurance Data Security Model Law, which closely resembles the NYDFS Cybersecurity Regulation and will be considered by states for adoption. These and other cybersecurity regulations impose significant new regulatory requirements intended to protect the confidentiality, integrity and availability of information systems.

Our program is designed to comply with all applicable cybersecurity regulatory requirements and we will continue to evaluate and assess our compliance in the changing regulatory environment.

We protect our information systems with physical, electronic and software safeguards considered appropriate by our management. In addition, we perform regular security penetration test scenarios and provide regular security risk staff education awareness sessions in order to evaluate our preparedness and to enhance both our system's and our users' ability to identify, protect from, detect, respond to and recover



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from such an incident. Despite these efforts, computer viruses, hackers, employee misuse or misconduct and other internal or external hazards could expose our data systems to security breaches, cyber-attacks or other disruptions. We have implemented disaster recovery and business continuity plans for our operations which are regularly tested with respect to our business-critical infrastructure and systems. We employ data backup procedures that seek to ensure that our key business systems and data are regularly backed up, and can be restored promptly if and as needed. In addition, we generally store backup information at off-site locations, in order to seek to minimize our risk of loss of key data in the event of a disaster. Our recovery plans involve arrangements with our off-site, secure data centers. We believe we will be able to access our systems from these facilities and remotely in the event that our primary systems are unavailable due to various scenarios, such as natural disasters.

**REGULATION**

The business of insurance and reinsurance is regulated in most countries and all states in the U.S., although the degree and type of regulation varies significantly from one jurisdiction to another. Currently, we operate primarily in Bermuda, the U.S. and the U.K. We also have operations in Singapore, Ireland and Switzerland. Although principally regulated by the regulatory authorities of their respective jurisdictions, our operating subsidiaries may also be subject to regulation in the jurisdictions of their ceding companies. In addition, expansion into additional insurance markets could expose us or our subsidiaries to increasing regulatory oversight. However, we intend to continue to conduct our operations so as to minimize the likelihood that Renaissance Reinsurance, DaVinci, Top Layer Re, RenaissanceRe Specialty U.S., Upsilon RFO, or any of our other Bermudian subsidiaries will become subject to direct U.S. regulation.

**Bermuda Regulation**

All Bermuda companies must comply with the provisions of the Companies Act 1981. In addition, the Insurance Act 1978 and related regulations (collectively, the “Insurance Act”), regulate the business of our Bermuda insurance, reinsurance and management company subsidiaries.

As a holding company, RenaissanceRe is not currently subject to the Insurance Act. However, the Insurance Act regulates the insurance and reinsurance business of our Bermuda-licensed operating insurance companies. RenaissanceRe’s Bermuda-licensed operating insurance subsidiaries and joint ventures include Renaissance Reinsurance and DaVinci, which are registered as Class 4 general business insurers, and RenaissanceRe Specialty U.S., which is registered as a Class 3B general business insurer, and Top Layer Re, which is registered as a Class 3A general business insurer under the Insurance Act. RenaissanceRe also has operating subsidiaries registered as SPIs under the Insurance Act, including Upsilon RFO. RUM and RenaissanceRe Underwriting Management Ltd. are each registered as insurance managers under the Insurance Act.

The Insurance Act imposes solvency and liquidity standards as well as auditing and reporting requirements and confers on the Bermuda Monetary Authority (the “BMA”) powers to supervise, investigate and intervene in the affairs of insurance companies.

On March 24, 2016, the BMA was recognized by the European Parliament as fully equivalent under Solvency II for its commercial (re)insurers, retroactive to January 1, 2016. To achieve this status, the BMA made certain changes to the filing requirements and public disclosure requirements applicable to commercial (re)insurers and insurance groups, including amendments to the statutory financial reporting regime, aligning it with GAAP, International Financial Reporting Standards (“IFRS”) or other acceptable accounting standards, and the introduction of an economic balance sheet (“EBS”) framework. Amendments were made to the Insurance Act to meet these changing requirements. General Purpose Financial Statements. All Class 3A, Class 3B and Class 4 insurers must prepare financial statements in respect of their insurance business in accordance with GAAP, IFRS or other acceptable accounting standards, which are published on the BMA website.

Statutory Financial Statements. Each Class 3A, Class 3B and Class 4 general business insurer is required to submit annual statutory financial statements as part of its statutory financial return no later than four months after the insurer’s financial year end (unless specifically extended). The GAAP or IFRS financial







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statements are the basis on which statutory financial statements are prepared, subject to the application of certain prudential filters as outlined in the Insurance Accounts Rules 2016. The statutory financial statements contain statements both on a consolidated and unconsolidated basis. The unconsolidated information forms the basis for assessing the insurer's liquidity position, minimum solvency margin and class of registration.

**Capital and Solvency Return.** Class 3A, 3B and 4 insurers are also required to file a capital and solvency return in respect of their general business, which includes, among other items, the EBS, a schedule of governance and risk management, a catastrophe risk return, a schedule of loss triangles or reconciliation of net loss reserves, a schedule of eligible capital and the Enhanced Capital Requirement ("ECR") as calculated by the Bermuda Solvency and Capital Requirement ("BSCR") model. The consolidated information within the statutory financial statements form the starting basis for the preparation of the EBS. The EBS is, in turn, used as the basis to calculate the insurer's ECR.

**Financial Condition Report.** Class 3A, 3B and 4 insurers and insurance groups are required to prepare and publish a financial condition report ("FCR"), which was introduced to the regulatory regime in 2016 as part of the measures undertaken to achieve Solvency II equivalence. The FCR provides, among other things, details of measures governing the business operations, corporate governance framework and solvency and financial performance of the insurer/insurance group.

**Minimum Solvency Margin.** A general business insurer's statutory assets must exceed its statutory liabilities by an amount, equal to or greater than the prescribed minimum solvency margin ("Minimum Solvency Margin"), which varies with the category of its registration. The Minimum Solvency Margin that must be maintained by a Class 4 insurer is the greater of (i) \$100.0 million, (ii) 50% of net premiums written (with a credit for reinsurance ceded not exceeding 25% of gross premiums), (iii) 15% of net aggregate loss and loss expense provisions and other insurance reserves, or (iv) 25% of the ECR, which is established by reference to the BSCR model. The Minimum Solvency Margin for a Class 3A or Class 3B insurer is the greater of (i) \$1.0 million, (ii) 20% of the first \$6.0 million of net premiums written; if in excess of \$6.0 million, the figure is \$1.2 million plus 15% of net premiums written in excess of \$6.0 million, (iii) 15% of net aggregate loss and loss expense provisions and other insurance reserves, or (iv) 25% of the insurer's ECR.

**Enhanced Capital Requirement.** Each Class 3A, Class 3B and Class 4 insurer is required to maintain its capital at a level at least equal to its ECR which is established by reference to either the BSCR or an approved internal capital model. In either case, the ECR shall at all times equal or exceed the respective Class 3A, Class 3B and Class 4 insurer's Minimum Solvency Margin and may be adjusted in circumstances where the BMA concludes that the insurer's risk profile deviates significantly from the assumptions underlying its ECR or the insurer's assessment of its risk management policies and practices used to calculate the ECR applicable to it. While not specifically referred to in the Insurance Act, the BMA has also established a target capital level ("TCL") for each Class 3A, Class 3B and Class 4 insurer equal to 120% of the respective ECR. While a Class 3A, Class 3B and Class 4 insurer is not currently required to maintain its statutory capital and surplus at this level, the TCL serves as an early warning tool for the BMA and failure to maintain statutory capital at least equal to the TCL will likely result in increased BMA regulatory oversight.

**Minimum Liquidity Ratio.** An insurer engaged in general business is required to maintain the value of its relevant assets at not less than 75% of the amount of its relevant liabilities ("Minimum Liquidity Ratio").

**Eligible Capital.** To enable the BMA to better assess the quality of an insurer's capital resources, Class 3A, Class 3B and Class 4 insurers must maintain available capital in accordance with a "three tiered capital regime". All capital instruments are classified as either basic or ancillary capital, which in turn are classified into one of three tiers (Tier 1, Tier 2 and Tier 3) based on their "loss absorbency" characteristics (the "Tiered Capital Requirements"). Eligibility limits are then applied to each tier in determining the amounts eligible to cover regulatory capital requirement levels. The highest capital is classified as Tier 1 capital and lesser quality capital is classified as either Tier 2 capital or Tier 3 capital. Under this regime, not more than certain specified percentages of Tier 1, Tier 2 and Tier 3 capital may be used to satisfy the Class 3A, 3B and 4 insurers' Minimum Solvency Margin and ECR requirements.

Restrictions on Dividends, Distributions and Reductions of Capital. Class 3A, Class 3B and Class 4 insurers are prohibited from declaring or paying any dividends if in breach of the required Minimum Solvency Margin or Minimum Liquidity Ratio (the “Relevant Margins”) or if the declaration or payment of such dividend would cause the insurer to fail to meet the Relevant Margins. Further, Class 3A, 3B and Class 4 insurers are



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prohibited from declaring or paying in any financial year dividends of more than 25% of its total statutory capital and surplus (as shown on its previous financial year's statutory balance sheet) unless it files (at least seven days before payment of such dividends) with the BMA an affidavit stating that it will continue to meet its Relevant Margins. Class 3A, Class 3B and Class 4 insurers must obtain the BMA's prior approval for a reduction by 15% or more of the total statutory capital as set forth in its previous year's financial statements. These restrictions on declaring or paying dividends and distributions under the Insurance Act are in addition to the solvency requirements under the Companies Act which apply to all Bermuda companies.

**Fit and Proper Controllers.** The BMA maintains supervision over the controllers (as defined herein) of all Bermuda registered insurers. For so long as shares of RenaissanceRe are listed on the NYSE or another recognized stock exchange, the Insurance Act requires that the BMA be notified in writing within 45 days of any person becoming, or ceasing to be, a controller. A controller includes the managing director and chief executive of the registered insurer or its parent company; a 10%, 20%, 33% or 50% shareholder controller; and any person in accordance with whose directions or instructions the directors of the registered insurer or of its parent company are accustomed to act. In addition, all Bermuda insurers are also required to give the BMA written notice of the fact that a person has become, or ceased to be, a controller or officer of the registered insurer within 45 days of becoming aware of such fact. An officer in relation to a registered insurer includes a director, secretary, chief executive or senior executive by whatever name called.

**Material Change.** All registered insurers are required to give the BMA 30 days' notice of certain matters that are likely to be of material significance to the BMA in carrying out its supervisory function under the Insurance Act. The Insurance Act prescribes which matters require advance notice.

**Insurance Code of Conduct.** All Bermuda insurers are required to comply with the BMA's Insurance Code of Conduct, which establishes duties, requirements and standards to be complied with to ensure each insurer implements sound corporate governance, risk management and internal controls. Failure to comply with these requirements will be a factor taken into account by the BMA in determining whether an insurer is conducting its business in a sound and prudent manner under the Insurance Act.

**Special Purpose Insurer Reporting Requirements.** Unlike other (re)insurers, SPIs are fully funded to meet their (re)insurance obligations; therefore the application and supervision processes are streamlined to facilitate the transparent structure. Further, the BMA has the discretion to modify such insurer's accounting requirements under the Insurance Act. Like other (re)insurers, the principal representative of an SPI has a duty to inform the BMA in relation to solvency matters, where applicable. During 2016, new legislative requirements were introduced requiring SPIs to file annual statutory or modified financial returns via an electronic filing system. Under these requirements, SPIs are required to map GAAP financial statements to the electronic statutory forms and are required to provide information around ownership structure, assessment of risks, analyses of premium and details of segregated cells.

**Insurance Manager Reporting Requirements.** During 2016, the BMA undertook to enhance its oversight of insurance managers as part of the development of Bermuda's insurance regulatory framework. As part of this, the BMA introduced the Insurance Manager Code of Conduct and required insurance managers to file specific details via an Insurance Manager's Return. The Insurance Manager's Return requires, among other things, details around directors and officers of the insurance manager, the services provided by the entity, and details of the insurers managed by the insurance manager.

**Group Supervision.** Pursuant to the Insurance Act, the BMA acts as the group supervisor of the RenaissanceRe group of companies (the "RenaissanceRe Group") and it has designated Renaissance Reinsurance to be the "designated insurer" in respect of the RenaissanceRe Group. The designated insurer is required to ensure that the RenaissanceRe Group complies with the provisions of the Insurance Act pertaining to groups and all related group solvency and group supervision rules (together, the "Group Rules"). Under the Group Rules, the RenaissanceRe Group is required to annually prepare and submit to the BMA group GAAP financial statements, group statutory financial statements, a group capital and solvency return (including an EBS) and an FCR. An insurance group must ensure that the value of

the insurance group's assets exceeds the amount of the insurance group's liabilities by the aggregate of: (i) the individual Minimum Solvency Margin of each qualifying member of the group controlled by the parent company; and (ii) the parent company's percentage shareholding in the member multiplied by the member's Minimum Solvency Margin, where the parent company exercises significant influence over a member of the group but does not control the member (the "Group Minimum Solvency Margin"). A member is a qualified member of the insurance group if it is subject to solvency requirements in the jurisdiction in which it is



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registered. Every insurance group is also required to submit an annual group actuarial opinion when filing its group capital and solvency return. The group is required to appoint an individual approved by the BMA to be the group actuary. The group actuary must provide an opinion on the RenaissanceRe Group's technical provisions as recorded in the RenaissanceRe Group statutory EBS. Insurance groups are required to maintain available economic statutory capital and surplus to an amount that is equal to or exceeds the value of its group ECR, which is calculated at the end of its relevant year by reference to the BSCR model of the group (the "Group BSCR") or an approved internal capital model provided that the group ECR shall at all times be an amount equal to or exceeding the Group Minimum Solvency Margin. The BMA expects insurance groups to operate at or above a group TCL, which exceeds the group ECR. The TCL for insurance groups is set at 120% of its group ECR. In addition, under the Tiered Capital Requirements described above, not more than certain specified percentages of Tier 1, Tier 2 and Tier 3 capital may be used by an insurance group to satisfy the Group's Minimum Solvency Margin and group ECR requirements. Further, our Board of Directors has established solvency self assessment procedures for the RenaissanceRe Group that factor in all foreseeable material risks; Renaissance Reinsurance must ensure that the RenaissanceRe Group's assets exceed the amount of the RenaissanceRe Group's liabilities by the aggregate minimum margin of solvency of each qualifying member; and our Board of Directors has established and implements corporate governance policies and procedures designed to ensure they support the overall organizational strategy of the RenaissanceRe Group. In addition, the RenaissanceRe Group is required to prepare and submit to the BMA a quarterly financial return comprising unaudited consolidated group financial statements, a schedule of intra-group transactions and a schedule of risk concentrations. The BMA has certain powers of investigation and intervention relating to insurers and their holding companies, subsidiaries and other affiliates, which it may exercise in the interest of such insurer's policyholders or if there is any risk of insolvency or of a breach of the Insurance Act or the insurer's license conditions. The BMA may cancel an insurer's registration on certain grounds specified in the Insurance Act.

Under the provisions of the Insurance Act, the BMA may, from time to time, conduct "on site" visits at the offices of insurers it regulates. Over the past several years, the BMA has conducted "on site" reviews in respect of our Bermuda-domiciled operating insurers.

**Income Taxes.** Currently, neither we nor our shareholders are required to pay Bermuda income or profits tax, withholding tax, capital gains tax, capital transfer tax, estate duty or inheritance tax in respect of our shares. We have obtained an assurance from the Minister of Finance of Bermuda under the Exempted Undertakings Tax Protection Act 1966 that, if Bermuda enacts legislation imposing any tax on profits, income, capital asset, gain or appreciation or any tax in the nature of estate duty or inheritance tax, such tax shall not be applicable to us, our operations or our shares, debentures or other obligations until March 31, 2035, except insofar as such tax applies to persons ordinarily resident in Bermuda or is payable by us in respect of real property owned or leased by us in Bermuda.

**U.S. Regulation**

**Admitted Company Regulation.** Renaissance Reinsurance U.S. is a Maryland-domiciled insurer licensed in 26 states and the District of Columbia and qualified or certified as a reinsurer in an additional 24 states. As a U.S. licensed and authorized insurer, Renaissance Reinsurance U.S. is subject to considerable regulation and supervision by state insurance regulators. The extent of regulation varies but generally has its source in statutes that delegate regulatory, supervisory and administrative authority to a department of insurance in each state. Among other things, state insurance departments regulate insurer solvency, authorized investments, loss and loss adjustment expense and unearned premium reserves, and deposits of securities for the benefit of policyholders. State insurance departments also conduct periodic examinations of the affairs of authorized insurance companies and require the filing of annual and other reports relating to the financial condition of companies and other matters. The Maryland Insurance Administration, as Renaissance Reinsurance U.S.'s domestic regulator, is the primary financial regulator of Renaissance Reinsurance U.S. We are pursuing growth in many of lines of business written by Renaissance Reinsurance U.S., which may increase the impact of U.S. regulation on our business as a whole.

Holding Company Regulation. We are subject to the insurance holding company laws of Maryland, the domestic state of Renaissance Reinsurance U.S. These laws generally require Renaissance Reinsurance U.S. to file certain reports concerning its capital structure, ownership, financial condition and general





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business operations with the Maryland Insurance Administration. Generally, all affiliate transactions involving Renaissance Reinsurance U.S. must be fair and, if material or of specified types, require prior notice and approval or non-disapproval by the Maryland Insurance Administration. Further, Maryland law places limitations on the amounts of dividends or distributions payable by Renaissance Reinsurance U.S. Payment of ordinary dividends by Renaissance Reinsurance U.S. requires notice to the Maryland Insurance Administration. Declaration of an extraordinary dividend, which must be paid out of earned surplus, generally requires thirty days' prior notice to and approval or non-disapproval of the Maryland Insurance Administration. An extraordinary dividend includes any dividend whose fair market value together with that of other dividends or distributions made within the preceding twelve months exceeds the lesser of (1) ten percent of the insurer's surplus as regards policyholders as of December 31 of the preceding year or (2) the insurer's net investment income, excluding realized capital gains (as determined under statutory accounting principles), for the twelve month period ending December 31 of the preceding year and pro rata distributions of any class of the insurer's own securities, plus any amounts of net investment income (subject to the foregoing exclusions), in the three calendar years prior to the preceding year which have not been distributed. Maryland law also requires prior notice to and Maryland Insurance Administration approval of any person seeking to acquire control of a Maryland-domestic insurer or of an entity that directly or indirectly controls a Maryland-domestic insurer, including its holding company. Any purchaser of 10% or more of the outstanding voting securities of an insurance company, its holding company or any other entity directly or indirectly controlling the insurance company is presumed to have acquired control, unless the presumption is rebutted. Therefore, any investor who intends to acquire 10% or more of RenaissanceRe's outstanding voting securities may need to comply with these laws and would be required to file notices and reports with the Maryland Insurance Administration before such acquisition. Effective for 2014, Maryland adopted enterprise risk management and reporting obligations applicable to insurance holding company systems that are meant to protect the licensed companies from enterprise risk. These obligations include requiring an annual enterprise risk report by the ultimate controlling person identifying the material risks within the insurance holding company system that could pose enterprise risk to the U.S. licensed companies. We timely filed our enterprise risk reports with the Maryland Insurance Administration for 2016 and 2017. Effective for 2018, Maryland adopted the Risk Management and Own Risk Solvency Assessment Act (the "RMORSA Act") based on the NAIC Own Risk Solvency Assessment Model Act. The RMORSA Act requires Renaissance Reinsurance U.S. to: (i) maintain a risk management framework for identifying, assessing, monitoring, managing, and reporting its material and relevant risks; (ii) complete an Own Risk Solvency Assessment ("ORSA") at least once each year and at any time there is a significant change to the risk profile of Renaissance Reinsurance U.S. or its holding company system; and (iii) submit an ORSA summary report to the Maryland Insurance Administration at least once each year. The obligation to maintain a risk management framework may be satisfied if the RenaissanceRe group maintains a risk management framework that applies to the operations of Renaissance Reinsurance U.S. and the ORSA obligation may be satisfied if the RenaissanceRe group completes an ORSA in accordance with the requirements of the RMORSA Act.

**Reinsurance Regulation.** The insurance laws of each U.S. state regulate the sale of reinsurance to licensed ceding insurers by non-admitted alien reinsurers acting from locations outside the state. With some exceptions, the sale of insurance within a jurisdiction where the insurer is not admitted to do business is prohibited. Our Bermuda-domiciled insurance operations and joint ventures (principally Renaissance Reinsurance, DaVinci, Top Layer Re, RenaissanceRe Specialty U.S. and Upsilon RFO) are all admitted to transact insurance business in Bermuda and do not maintain an office or solicit, advertise, settle claims or conduct other insurance activities in any other jurisdiction where the conduct of such activities would require that any company be so admitted.

RenaissanceRe Underwriting Managers U.S. LLC is licensed by the Connecticut Department of Insurance as a reinsurance intermediary broker and is required to maintain its reinsurance intermediary broker license in force in order to conduct its reinsurance operations in Connecticut.

Although reinsurance contract terms and rates are generally not subject to regulation by state insurance authorities, a primary U.S. insurer ordinarily will enter into a reinsurance agreement only if it can obtain credit on its statutory financial statements for the reinsurance ceded. State insurance regulators permit U.S.



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ceding insurers to take credit for reinsurance ceded to non-admitted, non-U.S. (alien) reinsurers if the reinsurance contract contains certain minimum provisions and if the reinsurance obligations of the non-U.S. reinsurer are appropriately collateralized. Qualifying collateral may be established by an alien reinsurer exclusively for a single U.S. ceding company. Alternatively, an alien reinsurer that is accredited by a state may establish a multi-beneficiary trust with qualifying assets equal to its reinsurance obligations to all U.S. ceding insurers, plus a trusteed surplus amount. Renaissance Reinsurance and DaVinci are each an accredited reinsurer in New York and Florida and have established multi-beneficiary trusts with a qualifying financial institution in New York for the benefit of their U.S. cedants.

States generally require non-admitted alien reinsurers to provide collateral equal to one hundred percent of their reinsurance obligations to U.S. ceding insurers in order for the U.S. ceding insurers to obtain full credit for reinsurance. However, most states have adopted credit for reinsurance laws and regulations based on NAIC model law and regulation amendments that permit U.S. ceding insurers to take full credit for reinsurance when a “certified” reinsurer posts reduced collateral amounts. U.S. states are required to adopt the NAIC model law and regulation amendments permitting reduced collateral for certified reinsurers as an NAIC accreditation requirement by January 1, 2019. Under these credit for reinsurance laws and regulations, qualifying alien reinsurers may reduce their collateral for future reinsurance agreements based on a secure rating assigned by the U.S. insurance regulator. The secure rating is assigned by the state upon an assessment of the reinsurer’s financial condition, financial strength ratings and other factors. In addition, the alien reinsurer must be domiciled in a jurisdiction that is “qualified” under state law. The NAIC granted conditional qualified jurisdiction status to Bermuda effective January 1, 2014. Effective January 1, 2015, the NAIC approved its initial list of qualified jurisdictions, including Bermuda, and states that have these credit for reinsurance laws and regulations may accept such qualification in assessing reinsurers for certification. Florida has approved Renaissance Reinsurance and DaVinci for collateral reduction. As noted below, EU-domiciled reinsurers will be subject to the provisions of the US-EU Covered Agreement (defined below) that require states to remove reinsurance collateral requirements for qualifying EU reinsurers as of the US-EU Covered Agreement’s implementation date.

**NAIC Ratios.** The NAIC has established 13 financial ratios to assist state insurance departments in their oversight of the financial condition of licensed property and casualty insurance companies operating in their respective states. The NAIC’s Insurance Regulatory Information System (“IRIS”) calculates these ratios based on information submitted by insurers on an annual basis and shares the information with the applicable state insurance departments. Each ratio has an established “usual range” of results and assists state insurance departments in executing their statutory mandate to oversee the financial condition of insurance companies. A ratio result falling outside the usual range of IRIS ratios is not considered a failing result; rather unusual values are viewed as part of the regulatory early monitoring system. Furthermore, in some years, it may not be unusual for financially sound companies to have several ratios with results outside the usual ranges. An insurance company may fall outside of the usual range for one or more ratios because of specific transactions that are themselves immaterial.

**Federal Oversight and Other Government Intervention.** Government intervention in the insurance and reinsurance markets in the U.S. continues to evolve. Although U.S. state regulation is currently the primary form of regulation of insurance and reinsurance, Congress has considered proposals in several areas that may impact the industry, including the creation of an optional federal charter, repeal of the insurance company antitrust exemption from the McCarran Ferguson Act, and tax law changes, including changes to increase the taxation of reinsurance premiums paid to off-shore affiliates with respect to U.S. risks and comprehensive business tax reform legislation including border adjustments. We are unable to predict what other proposals will be made or adopted or the effect, if any, that such proposals would have on our operations and financial condition.

The Dodd-Frank Act established federal measures that impact the U.S. insurance business and preempt certain state insurance laws. For example, the Dodd-Frank Act created the Financial Stability Oversight Council (the “FSOC”), which is authorized to designate a nonbank financial company as “systemically significant” if its material financial

distress could threaten the financial stability of the U.S. The FSOC designated three insurance groups as systemically significant nonbank financial companies in 2013. As of September 2017, two of these designated groups have been undesignated. The FSOC's potential recommendation of measures to address systemic risk in the insurance industry could affect our insurance and reinsurance operations as could a determination that we or our counterparties are systemically significant. In November 2017, the U.S. Department of the Treasury ("Treasury") issued a report



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recommending certain changes to the FSOC’s process for designating nonbank financial companies as systemically significant in order to make the designation process more rigorous, clear, and transparent. Any suggested changes ultimately adopted by the FSOC would be implemented by FSOC directly, rather than through legislation.

The Dodd-Frank Act also created the Federal Insurance Office (“FIO”). The FIO does not have general supervisory or regulatory authority over the business of insurance, but it has preemption authority over state insurance laws that conflict with certain international agreements. The FIO is also authorized to monitor the U.S. insurance industry and identify potential regulatory gaps that could contribute to systemic risk and may recommend to the FSOC the designation of systemically important insurers. In addition, the FIO represents the U.S. at the International Association of Insurance Supervisors.

The Dodd-Frank Act authorizes Treasury and the Office of the U.S. Trade Representative (“USTR”) to enter into international agreements of mutual recognition regarding the prudential regulation of insurance or reinsurance (“covered agreements”). In January 2017, Treasury and the USTR negotiated a covered agreement with the EU regarding the prudential regulation of insurance and reinsurance (the “US-EU Covered Agreement”), which was signed in September 2017. Each party has begun the process of completing its internal requirements and procedures (such as amending or promulgating appropriate statutes and regulations) in order for the US-EU Covered Agreement to enter into force.

The US-EU Covered Agreement addresses three areas of prudential insurance and reinsurance supervision: reinsurance, group supervision and the exchange of information between the U.S. and EU. Under the US-EU Covered Agreement, reinsurance collateral requirements will no longer apply to qualifying EU reinsurers that sell reinsurance to the U.S. market, and U.S. reinsurers operating in the EU market will no longer be subject to “local presence” requirements. The US-EU Covered Agreement also establishes group supervision practices that apply only to U.S. and EU insurance groups operating in both territories. For instance, the US-EU Covered Agreement provides that U.S. insurance groups with operations in the EU will be supervised at the worldwide level only by U.S. insurance regulators, and precludes EU insurance supervisors from exercising solvency and capital requirements over the worldwide operations of U.S. insurers.

Government intervention in the property insurance market, particularly with respect to natural catastrophe losses, one of our key markets, has occurred on the state and federal level over recent years. Most significantly, beginning in 2007, the state of Florida enhanced the authority of the Florida Hurricane Catastrophe Fund (the “FHCF”) to offer coverage at below-market rates and expanded the ability of the state-sponsored insurer, Citizens Property Insurance Corporation (“Citizens”), to compete with private insurance companies, and other companies that cede business to us. This legislation reduced the role of the private insurance and reinsurance markets in Florida, a key target market of ours. In succeeding years, Florida legislation allowed Citizens to increase rates and cut back support for the FHCF, which has supported, over this period, a relatively increased role for private insurers in Florida, a market in which we have established substantial market share. However, we cannot assure you that this increased role will continue or be maintained, or that adverse new legislation will not be passed.

See “Part I, Item 1A. Risk Factors” and “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations, Current Outlook, Legislative and Regulatory Update” for further information regarding recent legislative and regulatory proposals and the potential effects on our business and results of operations.

**U.K. Regulation**

**Lloyd’s Regulation**

General. The operations of RSML are subject to oversight by Lloyd’s, substantially effected through the Lloyd’s Franchise Board. RSML’s business plan for Syndicate 1458, including maximum underwriting capacity, requires annual approval by the Lloyd’s Franchise Board. The Lloyd’s Franchise Board may require changes to any business plan presented to it or additional capital to be provided to support the underwriting plan. Lloyd’s also imposes various charges and assessments on its members. If material changes in the business plan for Syndicate 1458 were required by the Lloyd’s Franchise Board, or if charges and assessments payable to Lloyd’s by RenaissanceRe CCL were to increase



significantly, these events could have an adverse effect on the operations and financial results of RSML. We have deposited

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certain assets with Lloyd's to support RenaissanceRe CCL's underwriting business at Lloyd's. Dividends from a Lloyd's managing agent and a Lloyd's corporate member can be declared and paid provided the relevant company has sufficient profits available for distribution.

By entering into a membership agreement with Lloyd's, RenaissanceRe CCL has undertaken to comply with all Lloyd's bye-laws and regulations as well as the provisions of the Lloyd's Acts and the Financial Services and Markets Act 2000, as amended by the Financial Services Act 2012 (the "FSMA").

**Capital Requirements.** The underwriting capacity of a member of Lloyd's must be supported by providing a deposit (referred to as "Funds at Lloyd's") in the form of cash, securities or letters of credit in an amount determined under the capital adequacy regime of the U.K.'s Prudential Regulation Authority (the "PRA"). The amount of such deposit is calculated for each member through the completion of an annual capital adequacy exercise. Under these requirements, Lloyd's must demonstrate that each member has sufficient assets to meet its underwriting liabilities plus a required solvency margin.

**Restrictions.** A Reinsurance to Close ("RITC") generally is put in place after the third year of operations of a syndicate year of account. On successful conclusion of a RITC, any profit from the syndicate's operations for that year of account can be remitted by the managing agent to the syndicate's members. If the syndicate's managing agency concludes that an appropriate RITC cannot be determined or negotiated on commercially acceptable terms in respect of a particular underwriting year, it must determine that the underwriting year remain open and be placed into run-off. During this period, there cannot be a release of the Funds at Lloyd's of a member of that syndicate without the consent of Lloyd's.

The financial security of the Lloyd's market as a whole is regularly assessed by three independent rating agencies (A.M. Best, S&P and Fitch). Syndicates at Lloyd's take their financial security rating from the rating of the Lloyd's Market. A satisfactory credit rating issued by an accredited rating agency is necessary for Lloyd's syndicates to be able to trade in certain classes of business at current levels. RSML and RenaissanceRe CCL would be adversely affected if Lloyd's current ratings were downgraded.

**Intervention Powers.** The Council of Lloyd's has wide discretionary powers to regulate members' underwriting at Lloyd's. It may, for instance, change the basis on which syndicate expenses are allocated or vary the Funds at Lloyd's requirements or the investment criteria applicable to the provision of Funds at Lloyd's. Exercising any of these powers might affect the return on the corporate member's participation in a given underwriting year. If a member of Lloyd's is unable to pay its debts to policyholders, the member may obtain financial assistance from the Lloyd's Central Fund, which in many respects acts as an equivalent to a state guaranty fund in the U.S. If Lloyd's determines that the Central Fund needs to be increased, it has the power to assess premium levies on current Lloyd's members. The Council of Lloyd's has discretion to call or assess up to 3% of a member's underwriting capacity in any one year as a Central Fund contribution.

**PRA and FCA Regulation**

The PRA currently has ultimate responsibility for the prudential supervision of the Lloyd's market and the Financial Conduct Authority (the "FCA") has responsibility for market conduct regulation. Both the PRA and FCA have substantial powers of intervention in relation to Lloyd's managing agents, such as RSML, including the power to remove an agent's authorization to manage Lloyd's syndicates. In addition, each year the PRA requires Lloyd's to satisfy an annual solvency test which measures whether Lloyd's has sufficient assets in the aggregate to meet all outstanding liabilities of its members, both current and run-off. If Lloyd's fails this test, the PRA may require the entire Lloyd's market to cease underwriting or individual Lloyd's members may be required to cease or reduce their underwriting.

Lloyd's as a whole is authorized by the PRA and regulated by both the FCA and the PRA. Lloyd's is required to implement certain rules prescribed by the PRA and by the FCA; such rules are to be implemented by Lloyd's pursuant to its powers under the Lloyd's Act 1982 relating to the operation of the Lloyd's market. Lloyd's prescribes, in respect of its managing agents and corporate members, certain minimum standards relating to their management and control,

solvency and various other requirements. The PRA and the FCA directly monitor Lloyd's managing agents' compliance with the systems and controls prescribed by Lloyd's. If it appears to either the PRA or the FCA that either Lloyd's is not fulfilling its delegated regulatory responsibilities or that managing agents are not complying with the applicable regulatory rules and guidance, the PRA or the FCA may intervene at their discretion. Future regulatory



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changes or rulings by the PRA or FCA could impact RSML's business strategy or financial assumptions, possibly resulting in an adverse effect on RSML's financial condition and operating results.

**Change of Control.** The PRA and the FCA currently regulate the acquisition of control of any Lloyd's managing agent which is authorized under the FSMA. Any company or individual that, together with its or his associates, directly or indirectly acquires 10% or more of the shares in a Lloyd's managing agent or its parent company, or is entitled to exercise or control the exercise of 10% or more of the voting power in such Lloyd's managing agent or its parent company, would be considered to have acquired control for the purposes of the relevant legislation, as would a person who had significant influence over the management of such Lloyd's managing agent or its parent company by virtue of their shareholding or voting power in either. A purchaser of 10% or more of RenaissanceRe's common shares or voting power would therefore be considered to have acquired control of RSML. Under the FSMA, any person or entity proposing to acquire control over a Lloyd's managing agent must give prior notification to the PRA and the FCA of their or the entity's intention to do so. The PRA and FCA would then have 60 working days to consider the application to acquire control. Failure to make the relevant prior application could result in action being taken against RSML by the PRA or the FCA or both of them. Lloyd's approval is also required before any person can acquire control (using the same definition as for the PRA and FCA) of a Lloyd's managing agent or Lloyd's corporate member.

**Other Applicable Laws.** Lloyd's worldwide insurance and reinsurance business is subject to various regulations, laws, treaties and other applicable policies of the EU, as well as of each nation, state and locality in which it operates. Material changes in governmental requirements and laws could have an adverse effect on Lloyd's and market participants, including RSML and RenaissanceRe CCL.

**Solvency II**

Solvency II was adopted by the European Parliament in April of 2009 and came into effect on January 1, 2016. Solvency II represents a risk-based approach to insurance regulation and capital adequacy. Its principal goals are to improve the correlation between capital and risk, effect group supervision of insurance and reinsurance affiliates, implement a uniform capital adequacy structure for (re)insurers across the EU Member States, establish consistent corporate governance standards for insurance and reinsurance companies, and establish transparency through standard reporting of insurance operations. Under Solvency II, an insurer's or reinsurer's capital adequacy in relation to various insurance and business risks may be measured with an internal model developed by the insurer or reinsurer and approved for use by the Member State's regulator or pursuant to a standard formula developed by the EC. The PRA granted approval to Lloyd's internal model application in December 2015.

**Singapore Regulation**

Branches of Renaissance Reinsurance and DaVinci based in the Republic of Singapore (the "Singapore Branches") have each received a license to carry on insurance business as a general reinsurer. The activities of the Singapore Branches are primarily regulated by the Monetary Authority of Singapore pursuant to Singapore's Insurance Act. Additionally, the Singapore Branches are each regulated by the Accounting and Corporate Regulatory Authority (the "ACRA") as a foreign company pursuant to Singapore's Companies Act. Prior to the establishment of the Singapore Branches, Renaissance Reinsurance had maintained a representative office in Singapore commencing April 2012. We do not currently consider the activities and regulatory requirements of the Singapore Branches to be material to us. Renaissance Services of Asia Pte. Ltd., our Singapore-based service company, was established as a private company limited by shares in Singapore on March 15, 2012 and is registered with the ACRA and subject to Singapore's Companies Act.

**Ireland Regulation**

Renaissance Reinsurance of Europe, incorporated under the laws of Ireland, provides coverage to insurers and reinsurers, primarily in Europe. Business is written both in Dublin and through a branch office in the U.K. Renaissance Reinsurance of Europe and its U.K. branch are regulated and supervised by the Central Bank of Ireland and are subject to the requirements of Solvency II. Renaissance Reinsurance of Europe is







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registered with the Companies Registration Office in Ireland and is subject to the Companies Act 2014. The Central Bank of Ireland adopts a risk-based framework to the supervision of regulated firms. Firms are rated according to the impact their failure would have on financial systems, the Irish economy and on the citizens of Ireland. Renaissance Reinsurance of Europe is currently considered by the Central Bank of Ireland to be a ‘low impact’ firm. We do not currently consider the regulatory requirements of Renaissance Reinsurance of Europe and its U.K. branch to be material to us.

Renaissance Services of Europe Ltd., our Dublin-based Irish service company, was established as a private company limited by shares in Ireland and is registered with the Companies Registration Office and subject to the Companies Act 2014.

**Switzerland Regulation**

We have established branches of Renaissance Reinsurance and DaVinci in Zurich, Switzerland (the “Swiss Branches”). The reinsurance operations of branch offices of foreign reinsurers are not regulated by The Swiss Financial Market Supervisory Authority. We do not currently consider the activities of the Swiss Branches to be material to us.

RenaissanceRe Services of Switzerland AG, our Zurich-based service company, was established as a stock corporation in Switzerland on June 15, 2017. It is registered with the Commercial Register of Zurich is subject to Chapter 26 of the Swiss Code of Obligations.

**ENVIRONMENTAL AND CLIMATE CHANGE MATTERS**

Our principal economic exposures arise from our coverages for natural disasters and catastrophes. We believe, and believe the consensus view of current scientific studies substantiates, that changes in climate conditions, primarily global temperatures and expected sea levels, are likely to increase the severity, and possibly the frequency, of weather related natural disasters and catastrophes relative to the historical experience over the past 100 years. We believe that this expected increase in severe weather, coupled with currently projected demographic trends in catastrophe-exposed regions, contributes to factors that will increase the average economic value of expected losses, increase the number of people exposed per year to natural disasters and in general exacerbate disaster risk, including risks to infrastructure, global supply chains and agricultural production. Accordingly, we expect an increase in claims, especially from properties located in coastal areas. We have taken measures to mitigate losses related to climate change through our underwriting process and by continuously monitoring and adjusting our risk management models.

In addition to the impacts that environmental incidents have on our business, there has been a proliferation of governmental and regulatory scrutiny related to climate change and greenhouse gases, which will also affect our business. Although most regulations related to climate change and greenhouse gases do not directly apply to our business, these regulations could indirectly impact our business.

**GLOSSARY OF SELECTED INSURANCE AND REINSURANCE TERMS**

Accident year	Year of occurrence of a loss. Claim payments and reserves for claims and claim expenses are allocated to the year in which the loss occurred for losses occurring contracts and in the year the loss was reported for claims made contracts.
Acquisition expenses	The aggregate expenses incurred by a company for acquiring new business, including commissions, underwriting expenses, premium taxes and administrative expenses.
Additional case reserves	Additional case reserves represent management’s estimate of reserves for claims and claim expenses that are allocated to specific contracts, less paid and reported losses by the client.
Attachment point	The dollar amount of loss (per occurrence or in the aggregate, as the case may be) above which excess of loss reinsurance becomes operative.



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Bordereau	A report providing premium or loss data with respect to identified specific risks. This report is periodically furnished to a reinsurer by the ceding insurers or reinsurers.
Bound	A (re)insurance contract is considered bound, and the (re)insurer responsible for the risks of the contract, when both parties agree to the terms and conditions set forth in the contract.
Broker	An intermediary who negotiates contracts of insurance or reinsurance, receiving a commission for placement and other services rendered, between (1) a policy holder and a primary insurer, on behalf of the insured party, (2) a primary insurer and reinsurer, on behalf of the primary insurer, or (3) a reinsurer and a retrocessionaire, on behalf of the reinsurer.
Capacity	The percentage of surplus, or the dollar amount of exposure, that an insurer or reinsurer is willing or able to place at risk. Capacity may apply to a single risk, a program, a line of business or an entire book of business. Capacity may be constrained by legal restrictions, corporate restrictions or indirect restrictions.
Case reserves	Loss reserves, established with respect to specific, individual reported claims.
Casualty insurance or reinsurance	Insurance or reinsurance that is primarily concerned with the losses caused by injuries to third persons and their property (in other words, persons other than the policyholder) and the legal liability imposed on the insured resulting therefrom. Also referred to as liability insurance.
Catastrophe	A severe loss, typically involving multiple claimants. Common perils include earthquakes, hurricanes, hailstorms, severe winter weather, floods, fires, tornadoes, explosions and other natural or man-made disasters. Catastrophe losses may also arise from acts of war, acts of terrorism and political instability.
Catastrophe excess of loss reinsurance	A form of excess of loss reinsurance that, subject to a specified limit, indemnifies the ceding company for the amount of loss in excess of a specified retention with respect to an accumulation of losses resulting from a "catastrophe."
Catastrophe-linked securities; cat-linked securities	Cat-linked securities are generally privately placed fixed income securities where all or a portion of the repayment of the principal is linked to catastrophic events. This includes securities where the repayment is linked to the occurrence and/or size of, for example, one or more hurricanes or earthquakes, or insured industry losses associated with these catastrophic events.
Cede; cedant; ceding company	When a party reinsures its liability with another, it "cedes" business and is referred to as the "cedant" or "ceding company."
Claim	Request by an insured or reinsured for indemnification by an insurance company or a reinsurance company for losses incurred from an insured peril or event.
Claims made contracts	Contracts that cover claims for losses occurring during a specified period that are reported during the term of the contract.
Claims and claim expense ratio, net	The ratio of net claims and claim expenses to net premiums earned determined in accordance with either statutory accounting principles or GAAP.



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Claim reserves	Liabilities established by insurers and reinsurers to reflect the estimated costs of claim payments and the related expenses that the insurer or reinsurer will ultimately be required to pay in respect of insurance or reinsurance policies it has issued. Claims reserves consist of case reserves, established with respect to individual reported claims, additional case reserves and “IBNR” reserves. For reinsurers, loss expense reserves are generally not significant because substantially all of the loss expenses associated with particular claims are incurred by the primary insurer and reported to reinsurers as losses.
Combined ratio	The combined ratio is the sum of the net claims and claim expense ratio and the underwriting expense ratio. A combined ratio below 100% generally indicates profitable underwriting prior to the consideration of investment income. A combined ratio over 100% generally indicates unprofitable underwriting prior to the consideration of investment income.
Decadal	Refers to events occurring over a 10-year period, such as an oscillation whose period is roughly 10 years.
Delegated authority	A contractual arrangement between an insurer or reinsurer and an agent whereby the agent is authorized to bind insurance or reinsurance on behalf of the insurer or reinsurer. The authority is normally limited to a particular class or classes of business and a particular territory. The exercise of the authority to bind insurance or reinsurance is normally subject to underwriting guidelines and other restrictions such as maximum premium income. Under the delegated authority, the agent is responsible for issuing policy documentation, the collection of premium and may also be responsible for the settlement of claims.
Excess and surplus lines reinsurance	Any type of coverage that cannot be placed with an insurer admitted to do business in a certain jurisdiction. Risks placed in excess and surplus lines markets are often substandard in respect to adverse loss experience, unusual, or unable to be placed in conventional markets due to a shortage of capacity.
Excess of loss	Reinsurance or insurance that indemnifies the reinsured or insured against all or a specified portion of losses on underlying insurance policies in excess of a specified amount, which is called a “level” or “retention.” Also known as non-proportional reinsurance. Excess of loss reinsurance is written in layers. A reinsurer or group of reinsurers accepts a layer of coverage up to a specified amount. The total coverage purchased by the cedant is referred to as a “program” and will typically be placed with predetermined reinsurers in pre-negotiated layers. Any liability exceeding the outer limit of the program reverts to the ceding company, which also bears the credit risk of a reinsurer’s insolvency.
Exclusions	Those risks, perils, or classes of insurance with respect to which the reinsurer will not pay loss or provide reinsurance, notwithstanding the other terms and conditions of reinsurance.
Expense override	An amount paid to a ceding company in addition to the acquisition cost to compensate for overhead expenses.
Frequency	The number of claims occurring during a given coverage period.
Funds at Lloyd’s	Funds of an approved form that are lodged and held in trust at Lloyd’s as security for a member’s underwriting activities. They comprise the members’ deposit, personal reserve fund and special reserve fund and may be drawn down in the event that the member’s syndicate level premium trust funds are insufficient to cover its liabilities. The amount of the deposit is related to the member’s premium income limit and also the nature of the underwriting account.



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Generally Accepted Accounting Principles in the United States (“GAAP”)	Accounting principles as set forth in the statements of the Financial Accounting Standards Board (“FASB”) and related guidance, which are applicable in the circumstances as of the date in question.
Gross premiums written	Total premiums for insurance written and assumed reinsurance during a given period.
Incurred but not reported (“IBNR”)	Reserves for estimated losses that have been incurred by insureds and reinsureds but not yet reported to the insurer or reinsurer, including unknown future developments on losses that are known to the insurer or reinsurer.
Insurance-linked securities	Financial instruments whose values are driven by (re)insurance loss events. Our investments in insurance-linked securities are generally linked to property losses due to natural catastrophes.
International Financial Reporting Standards (“IFRS”)	Accounting principles, standards and interpretations as set forth in opinions of the International Accounting Standards Board which are applicable in the circumstances as of the date in question.
Layer	The interval between the retention or attachment point and the maximum limit of indemnity for which a reinsurer is responsible.
Line	The amount of excess of loss reinsurance protection provided to an insurer or another reinsurer, often referred to as limit.
Line of business	The general classification of insurance written by insurers and reinsurers, e.g., fire, allied lines, homeowners and surety, among others. Depending on the context, this term may refer to (a) the society of individual and corporate underwriting members that insure and reinsure risks as members of one or more syndicates (i.e., Lloyd’s is not an insurance company); (b) the underwriting room in the Lloyd’s building in which managing agents underwrite insurance and reinsurance on behalf of their syndicate members (in this sense Lloyd’s should be understood as a market place); or (c) the Corporation of Lloyd’s which regulates and provides support services to the Lloyd’s market.
Lloyd’s	
Loss; losses	An occurrence that is the basis for submission and/or payment of a claim. Whether losses are covered, limited or excluded from coverage is dependent on the terms of the policy.
Loss reserve	For an individual loss, an estimate of the amount the insurer expects to pay for the reported claim. For total losses, estimates of expected payments for reported and unreported claims. These may include amounts for claims expenses.
Managing agent	An underwriting agent which has permission from Lloyd’s to manage a syndicate and carry on underwriting and other functions for a member.
Net claims and claim expenses	The expenses of settling claims, net of recoveries, including legal and other fees and the portion of general expenses allocated to claim settlement costs (also known as claim adjustment expenses or loss adjustment expenses) plus losses incurred with respect to net claims.
Net claims and claim expense ratio	Net claims and claim expenses incurred expressed as a percentage of net earned premiums.
Net premiums earned	The portion of net premiums written during or prior to a given period that was actually recognized as income during such period.





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Net premiums written	Gross premiums written for a given period less premiums ceded to reinsurers and retrocessionaires during such period.
Non-proportional reinsurance	See “Excess of loss.”
Perils	This term refers to the causes of possible loss in the property field, such as fire, windstorm, collision, hail, etc. In the casualty field, the term “hazard” is more frequently used.
Profit commission	A provision found in some reinsurance agreements that provides for profit sharing. Parties agree to a formula for calculating profit, an allowance for the reinsurer’s expenses, and the cedant’s share of such profit after expenses.
Property insurance or reinsurance	Insurance or reinsurance that provides coverage to a person with an insurable interest in tangible property for that person’s property loss, damage or loss of use.
Property per risk reinsurance	Reinsurance on a treaty basis of individual property risks insured by a ceding company. A generic term describing all forms of reinsurance in which the reinsurer shares a proportional part of the original premiums and losses of the reinsured. (Also known as pro rata reinsurance, quota share reinsurance or participating reinsurance.) In proportional reinsurance, the reinsurer generally pays the ceding company a ceding commission. The ceding commission generally is based on the ceding company’s cost of acquiring the business being reinsured (including commissions, premium taxes, assessments and miscellaneous administrative expense) and also may include a profit factor. See also “Quota Share Reinsurance”.
Proportional reinsurance	
Quota share reinsurance	A form of proportional reinsurance in which the reinsurer assumes an agreed percentage of each insurance policy being reinsured and shares all premiums and losses accordingly with the reinsured. See also “Proportional Reinsurance”.
Reinstatement premium	The premium charged for the restoration of the reinsurance limit of a catastrophe contract to its full amount after payment by the reinsurer of losses as a result of an occurrence.
Reinsurance	An arrangement in which an insurance company, the reinsurer, agrees to indemnify another insurance or reinsurance company, the ceding company, against all or a portion of the insurance or reinsurance risks underwritten by the ceding company under one or more policies. Reinsurance can provide a ceding company with several benefits, including a reduction in net liability on insurances and catastrophe protection from large or multiple losses. Reinsurance also provides a ceding company with additional underwriting capacity by permitting it to accept larger risks and write more business than would be possible without an equivalent increase in capital and surplus, and facilitates the maintenance of acceptable financial ratios by the ceding company. Reinsurance does not legally discharge the primary insurer from its liability with respect to its obligations to the insured.
Reinsurance to Close	Also referred to as a RITC, it is a contract to transfer the responsibility for discharging all the liabilities that attach to one year of account of a syndicate into a later year of account of the same or different syndicate in return for a premium.



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	The amount or portion of risk that an insurer retains for its own account. Losses in excess of the retention level are paid by the reinsurer. In proportional treaties, the retention may be a percentage of the original policy's limit. In excess of loss business, the retention is a dollar amount of loss, a loss ratio or a percentage.
Retrocedant	A reinsurer who cedes all or a portion of its assumed insurance to another reinsurer.
Retrocessional reinsurance; Retrocessionaire	A transaction whereby a reinsurer cedes to another reinsurer, the retrocessionaire, all or part of the reinsurance that the first reinsurer has assumed. Retrocessional reinsurance does not legally discharge the ceding reinsurer from its liability with respect to its obligations to the reinsured. Reinsurance companies cede risks to retrocessionaires for reasons similar to those that cause primary insurers to purchase reinsurance: to reduce net liability on insurances, to protect against catastrophic losses, to stabilize financial ratios and to obtain additional underwriting capacity.
Risks	A term used to denote the physical units of property at risk or the object of insurance protection that are not perils or hazards. Also defined as chance of loss or uncertainty of loss.
Risks attaching contracts	Contracts that cover claims that arise on underlying insurance policies that incept during the term of the reinsurance contract.
Solvency II	A set of regulatory requirements that codify and harmonize the EU insurance and reinsurance regulation. Among other things, these requirements impact the amount of capital that EU insurance and reinsurance companies are required to hold. Solvency II came into effect on January 1, 2016.
Specialty lines	Lines of insurance and reinsurance that provide coverage for risks that are often unusual or difficult to place and do not fit the underwriting criteria of standard commercial products carriers.
Statutory accounting principles	Recording transactions and preparing financial statements in accordance with the rules and procedures prescribed or permitted by Bermuda, U.S. state insurance regulatory authorities including the NAIC and/or in accordance with Lloyd's specific principles, all of which generally reflect a liquidating, rather than going concern, concept of accounting.
Stop loss	A form of reinsurance under which the reinsurer pays some or all of a cedant's aggregate retained losses in excess of a predetermined dollar amount or in excess of a percentage of premium.
Submission	An unprocessed application for (i) insurance coverage forwarded to a primary insurer by a prospective policyholder or by a broker on behalf of such prospective policyholder, (ii) reinsurance coverage forwarded to a reinsurer by a prospective ceding insurer or by a broker or intermediary on behalf of such prospective ceding insurer or (iii) retrocessional coverage forwarded to a retrocessionaire by a prospective ceding reinsurer or by a broker or intermediary on behalf of such prospective ceding reinsurer.
Syndicate	A member or group of members underwriting (re)insurance business at Lloyd's through the agency of a managing agent or substitute agent to which a syndicate number is assigned.
Treaty	A reinsurance agreement covering a book or class of business that is automatically accepted on a bulk basis by a reinsurer. A treaty contains common contract terms along with a specific risk definition, data on limit and retention, and provisions for premium and duration.



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Underwriting	The insurer's or reinsurer's process of reviewing applications submitted for insurance coverage, deciding whether to accept all or part of the coverage requested and determining the applicable premiums.
Underwriting capacity	The maximum amount that an insurance company can underwrite. The limit is generally determined by a company's retained earnings and investment capital. Reinsurance serves to increase a company's underwriting capacity by reducing its exposure from particular risks.
Underwriting expense ratio	The ratio of the sum of the acquisition expenses and operational expenses to net premiums earned.
Underwriting expenses	The aggregate of policy acquisition costs, including commissions, and the portion of administrative, general and other expenses attributable to underwriting operations.
Unearned premium	The portion of premiums written representing the unexpired portions of the policies or contracts that the insurer or reinsurer has on its books as of a certain date.

**AVAILABLE INFORMATION**

We maintain a website at [www.renre.com](http://www.renre.com). The information on our website is not incorporated by reference in this Form 10-K. We make available, free of charge through our website, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with, or furnish such material to, the U.S. Securities and Exchange Commission (the "SEC"). We also make available, free of charge from our website, our Audit Committee Charter, Compensation and Corporate Governance Committee Charter, Corporate Governance Guidelines, and Code of Ethics. Such information is also available in print for any shareholder who sends a request to RenaissanceRe Holdings Ltd., Attn: Office of the Corporate Secretary, P.O. Box HM 2527, Hamilton, HMGX, Bermuda. Reports filed with the SEC may also be viewed or obtained at the SEC Public Reference Room at 100 F Street, N.E., Washington, DC 20549. Information on the operation of the SEC Public Reference Room may be obtained by calling the SEC at 1-800-SEC-0330. The SEC maintains an internet site that contains reports, proxy and information statements, and other information regarding issuers, including the Company, that file electronically with the SEC. The address of the SEC's website is [www.sec.gov](http://www.sec.gov).

**ITEM 1A. RISK FACTORS**

Factors that could cause our actual results to differ materially from those in the forward-looking statements contained in this Form 10-K and other documents we file with the SEC include the following:

**Risks Related to Our Company**

Our exposure to catastrophic events could cause our financial results to vary significantly from one period to the next and could adversely impact our financial results.

We have a large overall exposure to natural and man-made disasters, such as earthquakes, hurricanes, tsunamis, winter storms, freezes, floods, fires, tornadoes, hailstorms, drought, cyber-risks and acts of terrorism. As a result, our operating results have historically been, and we expect will continue to be, significantly affected by low frequency and high severity loss events.

Claims from catastrophic events could cause substantial volatility in our quarterly and annual financial results and could materially adversely affect our financial condition, results of operations and cash flows. We believe that certain factors, including increases in the value and geographic concentration of insured property, particularly along coastal regions, the increasing risks associated with extreme weather events as a result of changes in climate conditions, and the effects of inflation, may continue to increase the number and severity of claims from catastrophic events in the future. Accordingly, unanticipated events could result in net negative impacts as compared to our competitors. Historically, a relatively large percentage of our coverage exposures have been concentrated in the U.S. southeast, but due to the expected increase in



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severe weather events, there is the potential for significant exposures in other geographic areas in the future.

Our claims and claim expense reserves are subject to inherent uncertainties.

Our claims and claim expense reserves reflect our estimates, using actuarial and statistical projections at a given point in time, of our expectations of the ultimate settlement and administration costs of claims incurred.

We use actuarial and computer models (See “Part I, Item 1. Business, Underwriting and Enterprise Risk Management.”), historical reinsurance and insurance industry loss statistics, and management’s experience and judgment to assist in the establishment of appropriate claims and claim expense reserves. Our estimates and judgments are based on numerous factors, and may be revised as additional experience and other data become available and are reviewed, as new or improved methodologies are developed, as loss trends and claims inflation impact future payments, or as current laws or interpretations thereof change.

Due to the many assumptions and estimates involved in establishing reserves and the inherent uncertainty of modeling techniques, the reserving process is inherently uncertain. It is expected that some of our assumptions or estimates will prove to be inaccurate, and that our actual net claims and claim expenses paid and reported will differ, perhaps materially, from the reserve estimates reflected in our financial statements. Accordingly, we may understate the exposures we are assuming and our results of operations and financial condition may be adversely impacted, perhaps significantly. Conversely, we may prove to be too conservative and contribute to factors which would impede our ability to grow in respect of new markets or perils or in connection with our current portfolio of coverages.

A decline in our financial strength ratings may adversely impact our business, perhaps materially so.

Financial strength ratings are used by ceding companies and reinsurance intermediaries to assess the financial strength and quality of reinsurers and insurers. Rating agencies evaluate us periodically and may downgrade or withdraw their financial strength ratings in the future if we do not continue to meet the criteria of the ratings previously assigned to us. In addition, rating agencies may make changes in their capital models and rating methodologies which could increase the amount of capital required to support the ratings.

A ratings downgrade or other negative ratings action could adversely affect our ability to compete with other reinsurers and insurers, as well as the marketability of our product offerings, our access to and cost of borrowing and our ability to write new business, which could materially adversely affect our results of operations. For example, following a ratings downgrade we might lose customers to more highly rated competitors or retain a lower share of the business of our customers. We believe that the risk of a ratings downgrade has increased recently. S&P affirmed our ratings in 2017, but revised the outlook to negative, based primarily on its view of industry challenges and trends.

In addition, many reinsurance contracts contain provisions permitting cedants to, among other things, cancel coverage pro rata or require the reinsurer to post collateral for all or a portion of its obligations if the reinsurer is downgraded below a certain rating level. It is increasingly common for our reinsurance agreements to contain such terms. Whether a cedant would exercise any of these rights could depend on various factors, such as the reason for and extent of such downgrade, the prevailing market conditions and the pricing and availability of replacement reinsurance coverage. We cannot predict to what extent these contractual rights would be exercised, if at all, or what effect this would have on our financial condition or future operations, but the effect could be material.

For the current ratings of certain of our subsidiaries and joint ventures and additional ratings information, refer to “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations, Liquidity and Capital Resources, Ratings”.

The trend towards increasingly frequent and severe climate events could result in underestimated exposures that have the potential to adversely impact our financial results.

Our most severe estimated economic exposures arise from our coverages for natural disasters and catastrophes. An increase in the severity and frequency of weather related natural disasters and catastrophes which we believe is likely to result from changes in climate conditions, coupled with currently







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projected demographic trends in catastrophe-exposed regions, contributes to factors which may increase the average economic value of expected losses, increase the number of people exposed per year to natural disasters and in general exacerbate disaster risk, including risks to infrastructure, global supply chains and agricultural production.

Accordingly, we expect an increase in claims, especially from properties located in these catastrophe-exposed regions. A substantial portion of our coverages may be adversely impacted by climate change, and we cannot assure you that our risk assessments accurately reflect environmental and climate related risks. We cannot predict with certainty the frequency or severity of tropical cyclones, wildfires or other catastrophes. Unanticipated environmental incidents could lead to additional insured losses that exceed our current estimates, resulting in disruptions to or adverse impacts on our business, the market, or our clients. Further, certain investments, such as catastrophe-linked securities and property catastrophe managed joint ventures, or other assets in our investment portfolio, could also be adversely impacted by climate change.

Retrocessional reinsurance may become unavailable on acceptable terms, or may not provide the coverage we intended to obtain, or we may not be able to collect on claimed retrocessional coverage.

As part of our risk management, we buy reinsurance for our own account, which is known as “retrocessional reinsurance.” The reinsurance we purchase is generally subject to annual renewal. From time to time, market conditions have limited or prevented insurers and reinsurers from obtaining retrocessional reinsurance. Accordingly, we may not be able to renew our current retrocessional reinsurance arrangements or obtain desired amounts of new or replacement coverage. In addition, even if we are able to obtain such retrocessional reinsurance, we may not be able to negotiate terms that we consider appropriate or acceptable from entities with satisfactory creditworthiness or collect on claimed retrocessional coverage. This could limit the amount of business we are willing to write, or decrease the protection available to us as a result of large loss events.

When we purchase reinsurance or retrocessional reinsurance for our own account, the insolvency of any of our reinsurers, or inability or reluctance of any of our reinsurers to make timely payments to us under the terms of our reinsurance agreements could have a material adverse effect on us. Generally, we believe that the “willingness to pay” of some reinsurers and retrocessionaires is declining, so this risk may be more significant to us at present than at many times in the past. Complex coverage issues or coverage disputes may impede our ability to collect amounts we believe we are owed.

A large portion of our reinsurance protection is concentrated with a relatively small number of reinsurers. The risk of such concentration of retrocessional coverage may be increased by recent and future consolidation within the industry. Recently enacted U.S. tax reform legislation, as well as possible future tax reform legislation and regulations, could reduce our access to capital, decrease demand for our products and services, impact our shareholders or investors in our joint ventures or other entities we manage or otherwise adversely affect us.

U.S. tax reform legislation, commonly referred to as the Tax Cuts and Jobs Act (the “Tax Bill”), was signed into law on December 22, 2017. The Tax Bill amends a range of U.S. federal tax rules applicable to individuals, businesses and international taxation, including, among other things, by altering the current taxation of insurance premiums ceded from a United States domestic corporation to any non-U.S. affiliate. For example, the Tax Bill includes a new base erosion anti-avoidance tax (the “BEAT”) that would have substantially altered the taxation of affiliate reinsurance between our operating affiliates which are subject to U.S. taxation and our non-U.S. affiliates which are not. We believe those transactions would have become economically unfeasible under the BEAT and terminated them as of the 2017 year end. While these transactions were not significant for us, on an industry-wide basis for specific market participants the impacts could be more material, and it is possible that over time the BEAT may result in increased prices for certain reinsurance or insurance products, which could cause a decrease in demand for these products and services due to limitations on the available resources of our clients or their underlying insureds.

The Tax Bill may also increase the likelihood that we or our non-U.S. subsidiaries or joint ventures managed by us will be deemed a “controlled foreign corporation” (“CFC”) within the meaning of the Internal Revenue Code for U.S. federal tax purposes. Specifically, the Tax Bill expands the definition of “U.S. shareholder” for CFC purposes to include

U.S. persons who own 10% or more of the value of a foreign corporation's shares,

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rather than only looking to voting power held. As a result, the “voting cut-back” provisions included in our Amended and Restated Bye-laws that limit the voting power of any shareholder to 9.9% of the total voting power of our capital stock will be ineffective in avoiding “U.S. shareholder” status for U.S. persons who own 10% or more of the value of our shares. The Tax Bill also expands certain attribution rules for stock ownership in a way that would cause foreign subsidiaries in a foreign parent group that includes at least one U.S. subsidiary to be treated as CFCs. In the event a corporation is characterized as a CFC, any “U.S. shareholder” of the CFC is required to include its pro rata share of certain insurance and related investment income in income for a taxable year, even if such income is not distributed. In addition, U.S. tax exempt entities subject to the unrelated business taxable income (“UBTI”) rules that own 10% or more of the value of our non-U.S. subsidiaries or joint ventures managed by us that are characterized as CFCs may recognize UBTI with respect to such investment.

In addition to changes in the CFC rules, the Tax Bill contains modifications to certain provisions relating to passive foreign investment company (“PFIC”) status that could, for example, discourage U.S. persons from investing in our joint ventures or other entities we manage. The Tax Bill makes it more difficult for a non-U.S. insurance company to avoid PFIC status under an exception for certain non-U.S. insurance companies engaged in the active conduct of an insurance business. The Tax Bill limits this exception to a non-U.S. insurance company that would be taxable as an insurance company if it were a U.S. corporation and that maintains insurance liabilities of more than 25% of such company’s assets for a taxable year (or maintains reserves that at least equal 10% of its assets and it satisfies a facts and circumstances test that requires a showing that the failure to exceed the 25% threshold is due to run-off or rating agency circumstances). While we believe that we should satisfy this reserve test for the foreseeable future, we cannot assure you that this will continue to be the case in future years, and there is a significant risk that joint venture entities managed by us may not satisfy the reserve test.

The IRS has been considering other changes to the PFIC rules for several years. In 2015, the IRS issued proposed regulations intended to clarify the application of this insurance company exception to the classification of a non-U.S. insurer as a PFIC. These proposed regulations provide that a non-U.S. insurer will qualify for the insurance company exception only if, among other things, the non-U.S. insurer’s officers and employees perform its substantial managerial and operational activities. This proposed regulation will not be effective until adopted in final form.

We are unable to predict all of the ultimate impacts of the Tax Bill and other proposed tax reform regulations and legislation on our business and results of operations. It is possible the IRS will construe the intent of the Tax Bill as having been to reduce or eliminate certain perceived tax advantages of companies (including insurance companies) that have legal domiciles outside the U.S., and its interpretation, enforcement actions or regulatory changes could increase the impact of the Tax Bill beyond prevailing current assessments or our own estimates. Further, it is possible that other legislation could be introduced and enacted in the future that would have an adverse impact on us. These events and trends towards more punitive taxation of cross border transactions could in the future materially adversely impact the insurance and reinsurance industry and our own results of operations by increasing taxation of certain activities and structures in our industry. Accordingly, we cannot reliably estimate what the potential impact of any such changes could be to us or our non-U.S. subsidiaries or joint ventures managed by us and our and their respective sources of capital, investors or the market generally, however, it is possible these changes could materially adversely impact our results of operations.

Emerging claim and coverage issues, or other litigation, could adversely affect us.

Unanticipated developments in the law as well as changes in social conditions could potentially result in unexpected claims for coverage under our insurance and reinsurance contracts. These developments and changes may adversely affect us, perhaps materially so. For example, we could be subject to developments that impose additional coverage obligations on us beyond our underwriting intent, or to increases in the number or size of claims to which we are subject.

In addition, we believe our property results have been adversely impacted over recent periods by increasing primary claims level fraud and abuses, as well as other forms of social inflation, and that these trends may continue,

particularly in certain U.S. jurisdictions in which we focus, including Florida and Texas. For example, in Florida, homeowners are increasingly assigning the benefit of their insurance recovery to third parties, typically related to a water loss claim but also with respect to other claims. This practice is referred to as an "assignment of benefits", and is characterized by an inflated size and number of claims, increased



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incidence of litigation, interference in the adjustment of claims, and the assertion of bad faith actions and one-way attorney fees. Assignments of benefits and related insurance fraud may directly affect us, potentially materially, through any policy we write in Florida, as well as by inflating the size of occurrences we cover under our reinsurance treaties and reducing the value of certain investments we have in Florida, including both debt and equity investments in domestic reinsurers.

With respect to our casualty and specialty reinsurance operations, these legal and social changes and their impact may not become apparent until some time after their occurrence. For example, we could be deemed liable for losses arising out of a matter, such as the potential for industry losses arising out of a pandemic illness, that we had not anticipated or had attempted to contractually exclude. Moreover, irrespective of the clarity and inclusiveness of policy language, we cannot assure you that a court or arbitration panel will enforce policy language or not issue a ruling adverse to us. Our exposure to these uncertainties could be exacerbated by the increased willingness of some market participants to dispute insurance and reinsurance contract and policy wording. Alternatively, potential efforts by us to exclude such exposures could, if successful, reduce the market's acceptance of our related products. The full effects of these and other unforeseen emerging claim and coverage issues are extremely hard to predict. As a result, the full extent of our liability under our coverages may not be known for many years after a contract is issued. Furthermore, we expect that our exposure to this uncertainty may grow as our "long-tail" casualty businesses grow, because in these lines claims can typically be made for many years, making them more susceptible to these trends than our traditional catastrophe business, which is typically more "short-tail." While we continually seek to improve the effectiveness of our contracts and claims capabilities, we may fail to mitigate our exposure to these growing uncertainties.

A soft reinsurance underwriting market would adversely affect our business and operating results.

In a soft reinsurance underwriting market, premium rates are stable or falling and coverage is readily available. In a hard reinsurance underwriting market, premium rates are increasing and less coverage is available. Leading global intermediaries and other sources have generally reported that the U.S. reinsurance market reflected a soft underwriting market during the last several years, with growing levels of industry wide capital held. This capital has been supplied principally by traditional market participants and increasingly by alternative capital providers. We believe that the current reinsurance underwriting market is in a prolonged soft market phase, but that it will continue to be cyclical, with hard markets caused by withdrawal or use of excess capital, large or frequent loss events and other factors. However, it is possible that increased access of primary insurers to capital, new technologies and other factors may eliminate or significantly lessen the possibility of any future hard reinsurance underwriting market.

We depend on a few insurance and reinsurance brokers for a preponderance of our revenue, and any loss of business provided by them could adversely affect us.

We market our insurance and reinsurance products worldwide exclusively through a limited number of insurance and reinsurance brokers. As our business is heavily reliant on the use of a few brokers, the loss of a broker, through a merger, other business combination or otherwise, could result in the loss of a substantial portion of our business, which would have a material adverse effect on us. Our ability to market our products could decline as a result of the loss of the business provided by any of these brokers and it is possible that our premiums written would decrease. Further, due to the concentration of our brokers, our brokers may have increasing power to dictate the terms and conditions of our arrangements with them, which could have a negative impact on our business.

We are exposed to counterparty credit risk, including with respect to reinsurance brokers, customers and retrocessionaires.

In accordance with industry practice, we pay virtually all amounts owed on claims under our policies to reinsurance brokers, and these brokers, in turn, pay these amounts over to the insurers that have reinsured a portion of their liabilities with us (we refer to these insurers as ceding insurers). Likewise, premiums due to us by ceding insurers are virtually all paid to brokers, who then pass such amounts on to us. In many jurisdictions, we have contractually agreed that if a broker were to fail to make a payment to a ceding insurer, we would remain liable to the ceding insurer for the deficiency. Conversely, in many jurisdictions, when the ceding insurer pays premiums for these policies to



reinsurance brokers for payment over to us, these premiums are considered to have been paid by the cedants and the ceding insurer is no longer liable to us for those amounts, whether or not we have actually received the premiums. Consequently, in

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connection with the settlement of reinsurance balances, we assume a substantial degree of credit risk associated with brokers around the world.

We are also exposed to the credit risk of our customers, who, pursuant to their contracts with us, frequently pay us over time. We cannot assure you that our premiums receivable or reinsurance recoverables, which may not be collateralized, will be collected or that we will not be required to write down additional amounts in future periods. To the extent our customers or retrocedants become unable to pay future premiums, we would be required to recognize a downward adjustment to our premiums receivable or reinsurance recoverables, as applicable, in our financial statements.

During periods of economic uncertainty, our consolidated credit risk, reflecting our counterparty dealings with agents, brokers, customers, retrocessionaires, capital providers, parties associated with our investment portfolio, and others may increase, perhaps materially so.

Weakness in business and economic conditions generally or specifically in the principal markets in which we do business could adversely affect our business and operating results.

Challenging economic conditions throughout the world could adversely affect our business and financial results. If economic conditions should weaken, the business environment in our principal markets would be adversely affected, which could adversely affect demand for the products sold by us or our customers. In addition, volatility in the U.S. and other securities markets may adversely affect our investment portfolio or the investment results of our clients, potentially impeding their operations or their capacity to invest in our products. Global financial markets and economic and geopolitical conditions are outside of our control and difficult to predict, being influenced by factors such as national and international political circumstances (including governmental instability, wars, terrorist acts or security operations), interest rates, market volatility, asset or market correlations, equity prices, availability of credit, inflation rates, economic uncertainty, changes in laws or regulations including as regards taxation, trade barriers, commodity prices, interest rates, and currency exchange rates and controls. In addition, as discussed above, we believe our consolidated credit risk is likely to increase during an economic downturn.

U.S. taxing authorities could contend that one or more of our Bermuda subsidiaries is subject to U.S. corporate income tax, as a result of changes in laws or regulations, or otherwise.

If the IRS were to contend successfully that one or more of our Bermuda subsidiaries is engaged in a trade or business in the U.S., such subsidiary would, to the extent not exempted from tax by the U.S.-Bermuda income tax treaty, be subject to U.S. corporate income tax on the portion of its net income treated as effectively connected with a U.S. trade or business, as well as the U.S. corporate branch profits tax. If we were ultimately held to be subject to taxation, our earnings would correspondingly decline.

In addition, benefits of the U.S.-Bermuda income tax treaty which may limit any tax to income attributable to a permanent establishment maintained by one or more of our Bermuda subsidiaries in the U.S. are only available to a subsidiary if more than 50% of its shares are beneficially owned, directly or indirectly, by individuals who are Bermuda residents or U.S. citizens or residents. Our Bermuda subsidiaries may not be able to continually satisfy, or establish to the IRS that they satisfy, this beneficial ownership test. Finally, it is unclear whether the U.S.-Bermuda income tax treaty (assuming satisfaction of the beneficial ownership test) applies to income other than premium income, such as investment income.

The loss of key senior members of management could adversely affect us.

Our success depends in substantial part upon our ability to attract and retain our senior officers. The loss of services of members of our senior management team and the uncertain transition of new members of our senior management team may strain our ability to execute our strategic initiatives. The loss of one or more of our senior officers could adversely impact our business, by, for example, making it more difficult to retain customers, attract or maintain our capital support, or meet other needs of our business, which depend in part on the service of the departing officer. We may also encounter unforeseen difficulties associated with the transition of members of our senior management team to new or expanded roles necessary to execute our strategic and tactical plans from time to time.

In addition, our ability to execute our business strategy is dependent on our ability to attract and retain a staff of qualified underwriters and service personnel. The location of our global headquarters in Bermuda may impede our ability to recruit and retain highly skilled employees. Under Bermuda law, non-Bermudians (other than spouses of Bermudians, holders of Permanent Residents' Certificates and holders of Working



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Residents' Certificates) may not engage in any gainful occupation in Bermuda without a valid government work permit. Some members of our senior management are working in Bermuda under work permits that will expire over the next several years. The Bermuda government could refuse to extend these work permits, and no assurances can be given that any work permit will be issued or, if issued, renewed upon the expiration of the relevant term. If any of our senior officers or key contributors were not permitted to remain in Bermuda, or if we experienced delays or failures to obtain permits for a number of our professional staff, our operations could be disrupted and our financial performance could be adversely affected as a result.

A decline in our investment performance could reduce our profitability and hinder our ability to pay claims promptly in accordance with our strategy.

We have historically derived a meaningful portion of our income from our invested assets, which are comprised of, among other things, fixed maturity securities, such as bonds, asset-backed securities, mortgage-backed securities, equity securities, and investments in private equity partnerships, bank loan funds and hedge funds. Accordingly, our financial results are subject to a variety of investment risks, including risks relating to general economic conditions, inflation, market volatility, interest rate fluctuations, foreign currency risk, liquidity risk and credit and default risk. Additionally, with respect to certain of our investments, we are subject to pre-payment or reinvestment risk.

The market value of our fixed maturity investments is subject to fluctuation depending on changes in various factors, including prevailing interest rates and widening credit spreads. Increases in interest rates could cause the market value of our investment portfolio to decrease, perhaps substantially. Conversely, a decline in interest rates could reduce our investment yield, which would reduce our overall profitability. Interest rates are highly sensitive to many factors, including governmental monetary policies, domestic and international economic and political conditions and other factors beyond our control. Any measures we take that are intended to manage the risks of operating in a changing interest rate environment may not effectively mitigate such interest rate sensitivity.

A portion of our investment portfolio is allocated to other classes of investments including equity securities and interests in alternative investment vehicles such as catastrophe bonds, private equity partnerships, senior secured bank loan funds and hedge funds. These other classes of investments are recorded on our consolidated balance sheet at fair value, which is generally established on the basis of the valuation criteria set forth in the governing documents of such investment vehicles. Such valuations may differ significantly from the values that would have been used had ready markets existed for the shares, partnership interests, notes or other securities representing interests in the relevant investment vehicles. We cannot assure you that, if we were forced to sell these assets, we would be able to sell them for the prices at which we have recorded them, and we might be forced to sell them at significantly lower prices. Furthermore, our interests in many of the investment classes described above are subject to restrictions on redemptions and sales which limit our ability to liquidate these investments in the short term. These classes of investments expose us to market risks including interest rate risk, foreign currency risk, equity price risk and credit risk. The performance of these classes of investments is also dependent on the individual investment managers and the investment strategies. It is possible that the investment managers will leave and/or the investment strategies will become ineffective or that such managers will fail to follow our investment guidelines. Any of the foregoing could result in a material adverse change to our investment performance, and accordingly, adversely affect our financial results.

In addition to the foregoing, we may from time to time re-evaluate our investment approach and guidelines and explore investment opportunities in respect of other asset classes not previously discussed above, including, without limitation, by expanding our relatively small portfolio of direct investments in the equity markets. Any such investments could expose us to systemic and price volatility risk, interest rate risk and other market risks. Any investment in equity securities carries with it inherent volatility. We cannot assure you that such an investment will prove profitable and we could lose the value of our investment. Accordingly, any such investment could impact our financial results, perhaps materially, over both the short and the long term.

We could face losses from terrorism, political unrest and war.

We have exposure to losses resulting from acts of terrorism, political unrest and acts of war. The frequency of these events has increased in recent years and it is difficult to predict the occurrence of these events or to estimate the amount of loss an occurrence will generate. Accordingly, it is possible that actual losses

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from such acts will exceed our probable maximum loss estimate and that these acts will have a material adverse effect on us.

We closely monitor the amount and types of coverage we provide for terrorism risk under reinsurance and insurance treaties. If we think we can reasonably evaluate the risk of loss and charge an appropriate premium for such risk we will write some terrorism exposure on a stand-alone basis. We generally seek to exclude terrorism from non-terrorism treaties. If we cannot exclude terrorism, we evaluate the risk of loss and attempt to charge an appropriate premium for such risk. Even in cases where we have deliberately sought to exclude coverage, we may not be able to completely eliminate our exposure to terrorist acts.

The Terrorism Risk Insurance Act of 2002 was amended and extended by the Terrorism Risk Insurance Extension Act of 2005 and amended and extended again by the Terrorism Risk Insurance Program Reauthorization Act of 2007 (“TRIPRA”). TRIPRA expired on December 31, 2014 and was amended and renewed on January 12, 2015 for a six year period. TRIPRA provides a federal backstop to all U.S. based property and casualty insurers for insurance related losses resulting from any act of terrorism on U.S. soil or against certain U.S. air carriers, vessels or foreign missions. We benefit from TRIPRA as this protection generally inures to our benefit under our reinsurance treaties where terrorism is not excluded.

We are subject to cybersecurity risks and may incur increasing costs in an effort to minimize those risks.

Publicly reported instances of cyber security threats and incidents have increased over recent periods, and we may be subject to heightened cyber-related risks. Our business depends on the proper functioning and availability of our information technology platform, including communications and data processing systems and our proprietary pricing and exposure management system. We are also required to effect electronic transmissions with third parties including brokers, clients, vendors and others with whom we do business, and with our Board of Directors. We believe we have implemented appropriate security measures, controls and procedures to safeguard our information technology systems and to prevent unauthorized access to such systems and any data processed or stored in such systems, and we periodically evaluate and test the adequacy of such systems, measures, controls and procedures and perform third-party risk assessments; however, there can be no guarantee that such systems, measures, controls and procedures will be effective, that we will be able to establish secure capabilities with all of third parties, or that third parties will have appropriate controls in place to protect the confidentiality of our information. Security breaches could expose us to a risk of loss or misuse of our information, litigation and potential liability.

In addition, cyber incidents that impact the availability, reliability, speed, accuracy or other proper functioning of our systems could have a significant impact on our operations, and potentially on our results. We protect our information systems with physical and electronic safeguards as well as backup systems considered appropriate by management. However, it is not possible to protect against every potential power loss, telecommunications failure, cybersecurity attack or similar event that may arise. Moreover, the safeguards we use are subject to human implementation and maintenance and to other uncertainties.

We may not have the resources or technical sophistication to anticipate or prevent rapidly evolving types of cyberattacks. A significant cyber incident, including system failure, security breach, disruption by malware or other damage could interrupt or delay our operations, result in a violation of applicable privacy and other laws, damage our reputation, cause a loss of customers or give rise to monetary fines and other penalties, which could be significant. While management is not aware of a cybersecurity incident that has had a material effect on our operations, there can be no assurances that a cyber incident that could have a material impact on us will not occur in the future.

Our disaster recovery and business continuity plans involve arrangements with our off-site, secure data centers. We cannot assure you that we will be able to access our systems from these facilities in the event that our primary systems are unavailable due to various scenarios, such as natural disasters or that we have prepared for every conceivable disaster or every scenario which might arise in respect of the disaster for which we have prepared, and cannot assure you our efforts in respect of disaster recovery will succeed, or will be sufficiently rapid to avoid harm to our business.

The cybersecurity regulatory environment is evolving, and it is possible that the costs to us of and the resources required for complying with new or developing regulatory requirements will increase. For example, the NYDFS Cybersecurity Regulation imposes pre-breach cybersecurity obligations with which we may be required to comply. It is possible that similar laws and regulations may be enacted in the future in



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other jurisdictions. We also operate in a number of jurisdictions with strict data privacy and other related laws, which could be violated in the event of a significant cybersecurity incident, or by our personnel. Failure to comply with these obligations can give rise to monetary fines and other penalties, which could be significant.

See “Part I, Item 1. Business, Information Technology” for additional information related to information technology and cybersecurity.

We may from time to time modify our business and strategic plan, and these changes could adversely affect us and our financial condition.

We regularly evaluate our business plans and strategies, which often results in changes to our business plans and initiatives. Given the increasing importance of strategic execution in our industry, we are subject to increasing risks related to our ability to successfully implement our evolving plans and strategies, particularly as the pace of change in our industry continues to increase. Changing plans and strategies requires significant management time and effort, and may divert management’s attention from our core and historically successful operations and competencies. Moreover, modifications we undertake to our operations may not be immediately reflected in our financial statements. Therefore, risks associated with implementing or changing our business strategies and initiatives, including risks related to developing or enhancing our operations, controls and other infrastructure, may not have an impact on our publicly reported results until many years after implementation. Our failure to carry out our business plans may have an adverse effect on our long-term results of operations and financial condition.

Our current business strategy focuses on writing reinsurance, with limited writing of primary insurance. Certain of our competitors have, in connection with consolidation in the insurance and reinsurance industries, recently increased the amount of primary insurance they are writing, both on an absolute and relative basis. There can be no assurance that our business strategy of focusing on writing reinsurance, with limited writing of primary insurance, will prove prudent as compared to the strategies of our competitors.

The determination of impairments taken is highly subjective and could materially impact our financial position or results of operations.

The determination of impairments taken on our investments, investments in other ventures, goodwill and other intangible assets and loans varies by type of asset and is based upon our periodic evaluation and assessment of known and inherent risks associated with the respective asset class. Such evaluations and assessments are revised as conditions change and new information becomes available. Management updates its evaluations regularly and reflects impairments in operations as such evaluations are revised. There can be no assurance that our management has accurately assessed the level of impairments taken in our financial statements. Furthermore, additional impairments may need to be taken in the future, which could materially impact our financial position or results of operations. Historical trends may not be indicative of future impairments.

We may be adversely impacted by inflation.

We monitor the risk that the principal markets in which we operate could experience increased inflationary conditions, which would, among other things, cause loss costs to increase, and impact the performance of our investment portfolio. The impact of inflation on loss costs could be more pronounced for those lines of business that are considered to be long tail in nature, as they require a relatively long period of time to finalize and settle claims. Changes in the level of inflation also result in an increased level of uncertainty in our estimation of loss reserves, particularly for long tail lines of business. The onset, duration and severity of an inflationary period cannot be estimated with precision.

We depend on the policies, procedures and expertise of ceding companies and delegated authority counterparties, who may fail to accurately assess the risks they underwrite, which exposes us to operational and financial risks.

Like other reinsurers, we do not separately evaluate each primary risk assumed under our reinsurance contracts or pursuant to our delegated authority business. Accordingly, we are heavily dependent on the original underwriting decisions made by our ceding companies and delegated authority counterparties and are therefore subject to the risk that our customers may not have adequately evaluated the risks to be reinsured, or that the premiums ceded to us will

not adequately compensate us for the risks we assume,

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perhaps materially so. To the extent we continue to increase the relative amount of proportional coverages we offer, we will increase our aggregate exposure to risks of this nature.

Our business is subject to operational risks, including systems or human failures.

We are subject to operational risks including fraud, employee errors, failure to document transactions properly or to obtain proper internal authorization, failure to comply with regulatory requirements or obligations under our agreements, failure of our service providers, such as investment custodians, actuaries, information technology providers, etc., to comply with our service agreements, or information technology failures. Losses from these risks may occur from time to time and may be significant.

We are exposed to risks in connection with our management of capital on behalf of investors in joint ventures or other entities we manage.

Our operating subsidiaries owe certain legal duties and obligations (including reporting, governance and allocation obligations) to third party investors and are subject to a variety of increasingly complex laws and regulations relating to the management of third party capital. Complying with these obligations, laws and regulations requires significant management time and attention. Although we continually monitor our compliance policies and procedures, faulty judgments, simple errors or mistakes, or the failure of our personnel to adhere to established policies and procedures, could result in our failure to comply with applicable obligations, laws or regulations, which could result in significant liabilities, penalties or other losses to us and seriously harm our business and results of operations.

In addition, in furtherance of our goal of matching well-structured risk with capital whose owners would find the risk-return trade-off attractive, we may invest capital in new and complex ventures with which we do not have a significant amount of experience, which may increase our exposure to legal, regulatory and reputational risks.

In addition, our third party capital providers may redeem their interests in our joint ventures, which could materially impact the financial condition of such joint ventures, and could in turn materially impact our financial condition and results of operations.

Certain of our joint venture capital providers provide significant capital investment and other forms of capital support in respect of our joint ventures. The loss, or alternation in a negative manner, of any of this capital support could be detrimental to our financial condition and results of operations. Moreover, we can provide no assurance that we will be able to attract and raise additional third party capital for our existing joint ventures or for potential new joint ventures and therefore we may forego existing and/or potentially attractive fee income and other income generating opportunities.

We may be adversely affected by foreign currency fluctuations.

We routinely transact business in currencies other than the U.S. dollar, our financial reporting currency. Moreover, we maintain a portion of our cash and investments in currencies other than the U.S. dollar. Although we generally seek to hedge significant non-U.S. dollar positions, we may, from time to time, experience losses resulting from fluctuations in the values of these foreign currencies, which could cause our consolidated earnings to decrease. In addition, failure to manage our foreign currency exposures could cause our results of operations to be more volatile. Adverse, unforeseen or rapidly shifting currency valuations in our key markets, such as the Eurozone jurisdictions or Japan, may magnify these risks over time.

We may require additional capital in the future, which may not be available or may only be available on unfavorable terms.

To the extent that our existing capital is insufficient to support our future operating requirements, we may need to raise additional funds through financings or limit our growth. Our operations are subject to significant volatility in capital due to our exposure to potentially significant catastrophic events. Any further equity or debt financings, or capacity needed for letters of credit, if available at all, may be on terms that are unfavorable to us. Our ability to raise such capital successfully would depend upon the facts and circumstances at the time, including our financial position and operating results, market conditions, and applicable legal issues. We are also exposed to the risk that the contingent capital facilities we have in place may not be available as expected. If we are unable to obtain adequate

capital when needed, our business, results of operations and financial condition would be adversely affected.

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In addition, we are exposed to the risk that we may be unable to raise new capital for our managed joint ventures and other private alternative investment vehicles, which would reduce our future fee income and market capacity and thus negatively affect our results of operations and financial condition.

The covenants in our debt agreements limit our financial and operational flexibility, which could have an adverse effect on our financial condition.

We have incurred indebtedness, and may incur additional indebtedness in the future. Our indebtedness primarily consists of publicly traded notes, letters of credit and a revolving credit facility. For more details on our indebtedness, see “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations, Capital Resources.”

The agreements governing our indebtedness contain covenants that limit our ability and the ability of certain of our subsidiaries to borrow money, make particular types of investments or other restricted payments, sell or place a lien on our or their respective assets, merge or consolidate. Certain of these agreements also require us or our subsidiaries to maintain specific financial ratios. If we or our subsidiaries fail to comply with these covenants or meet these financial ratios, the noteholders or the lenders could declare a default and demand immediate repayment of all amounts owed to them or, where applicable, cancel their commitments to lend or issue letters of credit or, where the reimbursement obligations are secured, require us to pledge additional or a different type of collateral.

The regulatory systems under which we operate and potential changes thereto could restrict our ability to operate, increase our costs, or otherwise adversely impact us.

Certain of our operating subsidiaries are not licensed or admitted in any jurisdiction except Bermuda, conduct business only from their principal offices in Bermuda and do not maintain offices in the U.S. The insurance and reinsurance regulatory framework continues to be subject to increased scrutiny in many jurisdictions, including the U.S. and Europe. If our Bermuda insurance or reinsurance operations become subject to the insurance laws of any state in the U.S., jurisdictions in the EU, or elsewhere, we could face challenges to the future operations of these companies.

Moreover, we could be put at a competitive disadvantage in the future with respect to competitors that are licensed and admitted in U.S. jurisdictions. Among other things, jurisdictions in the U.S. do not permit insurance companies to take credit for reinsurance obtained from unlicensed or non-admitted insurers on their statutory financial statements unless security is posted. Our contracts generally require us to post a letter of credit or provide other security (e.g., through a multi-beneficiary reinsurance trust). In order to post these letters of credit, issuing banks generally require collateral. It is possible that the EU or other countries might adopt a similar regime in the future, or that U.S. or EU regulations could be altered in a way that treats Bermuda-based companies disparately. It is possible that individual jurisdiction or cross border regulatory developments could adversely differentiate Bermuda, the jurisdiction in which we are subject to group supervision, or could exclude Bermuda-based companies from benefits such as market access, mutual recognition or reciprocal rights made available to other jurisdictions, which could adversely impact us, perhaps significantly. Any such development, or our inability to post security in the form of letters of credit or trust funds when required, could significantly and negatively affect our operations.

We could be required to allocate considerable time and resources to comply with any new or additional regulatory requirements in any of the jurisdictions in which we operate, including Bermuda, Maryland and the U.K., and any such requirements could impact the operations of our insurance and/or non-insurance subsidiaries, result in increased costs for us and impact our financial condition. In addition, we could be adversely affected if a regulatory authority believed we had failed to comply with applicable law or regulations.

Our current or future business strategy could cause one or more of our currently unregulated subsidiaries to become subject to some form of regulation. Any failure to comply with applicable laws could result in the imposition of significant restrictions on our ability to do business, and could also result in fines and other sanctions, any or all of which could adversely affect our financial results and operations.

We face risks related to changes in Bermuda law and regulations, and the political environment in Bermuda.

We are incorporated in Bermuda and many of our operating companies are domiciled in Bermuda. Therefore, our exposure to potential changes in Bermuda law and regulation that may have an adverse



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impact on our operations, such as the imposition of tax liability, increased regulatory supervision or changes in regulation is heightened. The Bermuda insurance and reinsurance regulatory framework recently has become subject to increased scrutiny in many jurisdictions, including in the U.S. and in various states within the U.S. We are unable to predict the future impact on our operations of changes in Bermuda laws and regulations to which we are or may become subject.

In addition, we are subject to changes in the political environment in Bermuda, which could make it difficult to operate in, or attract talent to, Bermuda. For example, Bermuda is a small jurisdiction and may be disadvantaged in participating in global or cross border regulatory matters as compared with larger jurisdictions such as the U.S. or the leading EU and Asian countries. In addition, Bermuda, which is currently an overseas territory of the U.K., may consider changes to its relationship with the U.K. in the future. These changes could adversely affect Bermuda or the international reinsurance market focused there, either of which could adversely impact us commercially.

Because we are a holding company, we are dependent on dividends and payments from our subsidiaries.

As a holding company with no direct operations, we rely on our investment income, cash dividends and other permitted payments from our subsidiaries to make principal and interest payments on our debt and to pay dividends to our shareholders. From time to time, we may not have sufficient liquid assets to meet these obligations. Regulatory restrictions on the payment of dividends under Bermuda law and various U.S. insurance regulations may limit the ability of our subsidiaries to pay dividends. If our subsidiaries are restricted from paying dividends to us, we may be unable to pay dividends to our shareholders or to repay our indebtedness.

Acquisitions or strategic investments we have made or may make could turn out to be unsuccessful.

As part of our strategy, we frequently monitor and analyze opportunities to acquire or make a strategic investment in new or other businesses we believe will not detract from our core operations. The negotiation of potential acquisitions or strategic investments as well as the integration of an acquired business or new personnel, could result in a substantial diversion of management resources.

Future acquisitions could likewise involve numerous additional risks such as potential losses from unanticipated litigation or levels of claims and inability to generate sufficient revenue to offset acquisition costs. As we pursue or consummate a strategic transaction or investment, we may value the acquired or funded company or operations incorrectly, fail to integrate the acquired operations appropriately into our own operations, fail to successfully manage our operations as our product and geographical diversity increases, expend unforeseen costs during the acquisition or integration process, or encounter other unanticipated risks or challenges. If we succeed in consummating a strategic investment, we may fail to value it accurately or divest it or otherwise realize the value which we originally invested or have subsequently reflected in our consolidated financial statements. Any failure by us to effectively limit such risks or implement our acquisitions or strategic investment strategies could have a material adverse effect on our business, financial condition or results of operations.

Some aspects of our corporate structure may discourage third party takeovers and other transactions or prevent the removal of our current board of directors and management.

Some provisions of our Amended and Restated Bye-Laws may discourage third parties from making unsolicited takeover bids or prevent the removal of our current board of directors and management. In particular, our Bye-Laws prohibit transfers of our capital shares if the transfer would result in a person owning or controlling shares that constitute 9.9% or more of any class or series of our shares. In addition, our Bye-Laws reduce the total voting power of any shareholder owning, directly or indirectly, beneficially or otherwise, more than 9.9% of our common shares to not more than 9.9% of the total voting power of our capital stock unless otherwise waived at the discretion of the Board. These provisions may have the effect of deterring purchases of large blocks of our common shares or proposals to acquire us, even if our shareholders might deem these purchases or acquisition proposals to be in their best interests.

In addition, our Bye-Laws provide for, among other things:

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a classified Board, whose size is fixed and whose members may be removed by the shareholders only for cause upon a 66 2/3% vote;

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restrictions on the ability of shareholders to nominate persons to serve as directors, submit resolutions to a shareholder vote and requisition special general meetings;

- a large number of authorized but unissued shares which may be issued by the Board without further shareholder action; and
- a 66 2/3% shareholder vote to amend, repeal or adopt any provision inconsistent with several provisions of the Bye-Laws.

These Bye-Law provisions make it more difficult to acquire control of us by means of a tender offer, open market purchase, proxy contest or otherwise and could discourage a prospective acquirer from making a tender offer or otherwise attempting to obtain control of us. In addition, these Bye-Law provisions could prevent the removal of our current Board of Directors and management. To the extent these provisions discourage takeover attempts, they could deprive shareholders of opportunities to realize takeover premiums for their shares or could depress the market price of the shares.

Maryland law also requires prior notice and Maryland Insurance Administration approval of changes in control of a Maryland-domestic insurer or its holding company. Any purchaser of 10% or more of the outstanding voting securities of an insurance company or its holding company is presumed to have acquired control, unless the presumption is rebutted. Therefore, any investor who intends to acquire 10% or more of our outstanding voting securities would be required to file notices and reports with the Maryland Insurance Administration before such acquisition.

The PRA and the FCA regulate the acquisition of control of RSML, our Lloyd's managing agent, which is authorized under the FSMA. Any company or individual that, together with its or his associates, directly or indirectly acquires 10% or more of the shares in a Lloyd's managing agent or its parent company, or is entitled to exercise or control the exercise of 10% or more of the voting power in such Lloyd's managing agent or its parent company, would be considered to have acquired control for the purposes of the relevant legislation, as would a person who has significant influence over the management of such Lloyd's managing agent or its parent company by virtue of its or his shareholding or voting power in either. Lloyd's approval is also required before any person can acquire control (using the same definition as for the PRA and FCA) of a Lloyd's managing agent or Lloyd's corporate member.

Investors may have difficulty in serving process or enforcing judgments against us in the U.S.

We are a Bermuda company. In addition, certain of our officers and directors reside in countries outside the U.S. All or a substantial portion of our assets and the assets of these officers and directors are or may be located outside the U.S. Investors may have difficulty effecting service of process within the U.S. on our directors and officers who reside outside the U.S. or recovering against us or these directors and officers on judgments of U.S. courts based on civil liabilities provisions of the U.S. federal securities laws whether or not we appoint an agent in the U.S. to receive service of process.

### Risks Related to Our Industry

The reinsurance and insurance businesses are historically cyclical and the pricing and terms for our products may decline, which would affect our profitability.

The reinsurance and insurance industries have historically been cyclical, characterized by periods of decreasing prices followed by periods of increasing prices. Reinsurers have experienced significant fluctuations in their results of operations due to numerous factors, including the frequency and severity of catastrophic events, perceptions of risk, levels of capacity, general economic conditions and underwriting results of other insurers and reinsurers. All of these factors may contribute to price declines generally in the reinsurance and insurance industries. Following an increase in capital in our industry after the 2005 catastrophe events and the subsequent period of substantial dislocation in the financial markets, the reinsurance and insurance markets have experienced a prolonged period of generally softening markets.

Our catastrophe-exposed lines are affected significantly by volatile and unpredictable developments, including natural and man-made disasters. The occurrence, or nonoccurrence, of catastrophic events, the frequency and severity of



which are inherently unpredictable, affects both industry results and consequently prevailing market prices of our products.

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We expect premium rates and other terms and conditions of trade to vary in the future. If demand for our products falls or the supply of competing capacity rises, our prospects for potential growth, due in part to our disciplined approach to underwriting, may be adversely affected. In particular, we might lose existing customers or suffer a decline in business, which we might not regain when industry conditions improve.

Recent or future U.S. federal or state legislation may impact the private markets and decrease the demand for our property reinsurance products, which would adversely affect our business and results of operations.

Legislation adversely impacting the private markets could be enacted on a state, regional or federal level. In the past, federal bills have been proposed in Congress which would, if enacted, create a federal reinsurance backstop or guarantee mechanism for catastrophic risks, including those we currently insure and reinsure in the private markets. These measures were not enacted by Congress; however, new bills to create a federal catastrophe reinsurance program to back up state insurance or reinsurance programs, or to establish other similar or analogous funding mechanisms or structures, may be introduced. We believe that such legislation, if enacted, could contribute to growth, inception or alteration of state insurance entities in a manner that would be adverse to us and to market participants more generally. If enacted, bills of this nature would likely further erode the role of private market catastrophe reinsurers and could adversely impact our financial results, perhaps materially. Moreover, we believe that numerous modeled potential catastrophes could exceed the actual or politically acceptable bonded capacity of Citizens and of the FHCF. This could lead either to a severe dislocation or the necessity of federal intervention in the Florida market, either of which would adversely impact the private insurance and reinsurance industry.

In March 2014, Congress passed the “Homeowner Flood Insurance Affordability Act of 2014” (the “Grimm-Waters Act”), which we believe has had an adverse impact on near term prospects for increased U.S. private flood insurance demand, the stability of the National Flood Insurance Program (the “NFIP”) and the primary insurers that produce policies for the NFIP or offer private coverages, and it is possible that additional adverse legislation or rulemaking will be enacted at the federal or state level.

In 2007, the state of Florida enacted legislation to expand the FHCF’s provision of below-market rate reinsurance to up to \$28.0 billion per season and expanded the ability of Citizens to compete with private insurance companies and other companies that cede business to us, which reduced the role of the private insurance and reinsurance markets in Florida. Because we are one of the largest providers of catastrophe-exposed coverage globally and in Florida, the 2007 bill and the weakened financial position of Florida insurers may have a greater adverse impact on us than it would on other reinsurance market participants. In addition, it is possible that other regulatory or legislative changes that impact Florida could affect our ability to sell certain of our products and have a material adverse effect on our operations. Other states, particularly those with Atlantic or Gulf Coast exposures or seismic exposures (such as California), may enact new or expanded legislation based on the 2007 Florida model or otherwise, that could further diminish aggregate private market demand for our products. See “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations, Current Outlook, Legislative and Regulatory Update” for further information.

Consolidation in the (re)insurance industry could adversely impact us.

The (re)insurance industry, including our competitors, customers and insurance and reinsurance brokers, has been consolidating. Should the market continue to consolidate, there can be no assurance we would remain a leading reinsurer. These consolidated client and competitor enterprises may try to use their enhanced market power to negotiate price reductions for our products and services and/or obtain a larger market share through increased line sizes. If competitive pressures reduce our prices, we would generally expect to reduce our future underwriting activities, resulting in reduced premiums and a reduction in expected earnings. As the insurance industry consolidates, competition for customers will become more intense and the importance of sourcing and properly servicing each customer will become greater. We could incur greater expenses relating to customer acquisition and retention, further reducing our operating margins. In addition, insurance companies that merge may be able to spread their risks across a consolidated, larger capital base so that they require less reinsurance. The number of companies offering

retrocessional reinsurance may decline. Reinsurance intermediaries could also continue to consolidate, potentially adversely impacting our ability to access business and distribute our products. We could also experience more robust competition from larger, better capitalized competitors. Any of the foregoing could adversely affect our business or our results of operations.



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We operate in a highly competitive environment.

The reinsurance industry is highly competitive. We compete, and will continue to compete, with major U.S. and non-U.S. insurers and reinsurers, including other Bermuda-based reinsurers. Many of our competitors have greater financial, marketing and management resources than we do. Historically, periods of increased capacity levels in our industry have led to increased competition and decreased prices for our products.

In recent years, hedge funds, pension funds, endowments, investment banks, investment managers, exchanges and other capital markets participants have been increasingly active in the reinsurance market and markets for related risks, either through the formation of reinsurance companies or the use of other financial products intended to compete with traditional reinsurance. We expect competition from these sources and others to continue to increase over time. It is possible that such new or alternative capital could cause reductions in prices of our products, or reduce the duration or amplitude of attractive portions of the historical market cycles. New entrants or existing competitors may attempt to replicate all or part of our business model and provide further competition in the markets in which we participate. Moreover, government-backed entities increasingly represent competition for the coverages we provide directly or for the business of our customers, reducing the potential amount of third party private protection our clients might need or desire. To the extent that industry pricing of our products does not meet our hurdle rate, we would generally expect to reduce our future underwriting activities, thus resulting in reduced premiums and a reduction in expected earnings. We are unable to predict the extent to which the foregoing or other new, proposed or potential initiatives may affect the demand for our products or the risks for which we seek to provide coverage.

Other political, regulatory and industry initiatives by state and international authorities could adversely affect our business.

The insurance and reinsurance regulatory framework is subject to heavy scrutiny by the U.S. and individual state governments, as well as an increasing number of international authorities, and we believe it is likely there will be increased regulatory intervention in our industry in the future. For example, the U.S. federal government has increased its scrutiny of the insurance regulatory framework in recent years (including as specifically addressed in the Dodd-Frank Act), and some state legislators have considered or enacted laws that will alter and likely increase state regulation of insurance and reinsurance companies and holding companies. Moreover, the NAIC, which is an association of the insurance commissioners of all 50 states and the District of Columbia, and state insurance regulators regularly reexamine existing laws and regulations. We could also be adversely affected by proposals or enacted legislation to expand the scope of coverage under existing policies for perils such as hurricanes or earthquakes or for a pandemic disease outbreak, mandate the terms of insurance and reinsurance policies, expand the scope of the FIO or establish a new federal insurance regulator, revise laws, regulations, or contracts under which we operate, disproportionately benefit the companies of one country over those of another or repeal or diminish the insurance company antitrust exemption from the McCarran Ferguson Act.

Due to this increased legislative and regulatory scrutiny of the reinsurance industry, our cost of compliance with applicable laws may increase, which could result in a decrease to both our profitability and the amount of time that our senior management allocates to running our day-to-day operations.

Further, as we continue to expand our business operations to different regions of the world outside of Bermuda, we are increasingly subject to new and additional regulations with respect to our operations, including, for example, laws relating to anti-corruption and anti-bribery, which have received increased scrutiny in recent years.

Increasing barriers to free trade and the free flow of capital could adversely affect the reinsurance industry and our business.

Recent political initiatives to restrict free trade and close markets, such as Brexit and the Trump administration's decision to withdraw from the Trans-Pacific partnership, could adversely affect the reinsurance industry and our business. The reinsurance industry is disproportionately impacted by restraints on the free flow of capital and risk because the value it provides depends on our ability to globally diversify risk.







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Internationally, restrictions on the writing of reinsurance by foreign companies and government intervention in the natural catastrophe market could reduce market opportunities for our customers and adversely impact us. Internationally, many countries with fast growing economies, such as China and India, continue to impose significant restrictions on the writing of reinsurance by foreign companies. In addition, in the wake of recent large natural catastrophes, a number of proposals have been introduced to alter the financing of natural catastrophes in several of the markets in which we operate. For example, the Thailand government has announced it is studying proposals for a natural catastrophe fund, under which the government would provide coverage for natural disasters in excess of an industry retention and below a certain limit, after which private reinsurers would continue to participate. The government of the Philippines has announced that it is considering similar proposals. Indonesia's financial services authority has announced a proposal to increase the amount of insurance business placed with domestic reinsurers. A range of proposals from varying stakeholders have been reported to have been made to alter the current regimes for insuring flood risk in the U.K., flood risk in Australia and earthquake risk in New Zealand. If these proposals are enacted and reduce market opportunities for our clients or for the reinsurance industry, we could be adversely impacted. See "Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, Current Outlook, Legislative and Regulatory Update" for further information.

The OECD and the EU may pursue measures that might increase our taxes and reduce our net income and increase our reporting requirements.

The OECD has published reports and launched a global dialog among member and non-member countries on measures to limit harmful tax competition. These measures are largely directed at counteracting the effects of jurisdictions perceived by the OECD to be tax havens or offering preferential tax regimes. The OECD has not listed Bermuda as an uncooperative tax haven jurisdiction because Bermuda has committed to eliminating harmful tax practices and to embracing international tax standards for transparency, exchange of information and the elimination of any aspects of the regimes for financial and other services that attract business with no substantial domestic activity. We are not able to predict what changes will arise from the commitment or whether such changes will subject us to additional taxes.

In addition, in 2015, the OECD published its final series of Base Erosion and Profit Shifting ("BEPS") reports related to its attempt to coordinate multilateral action on international tax rules. The proposed actions include an examination of the definition of a "permanent establishment" and the rules for attributing profit to a permanent establishment. One of these reports covers "country-by-country" reporting, which calls for the provision, at a country-specific level, of information such as affiliate and non-affiliate revenues, profit or loss before tax, income taxes paid and accrued, capital, number of employees and tangible assets. It is expected that some countries, including some EU countries, would deem a failure to implement country-by-country reporting to be sufficient rationale to place another country on a "black-list", thus potentially restricting in some way business between the two countries. Bermuda implemented country-by-country reporting in 2016 for 2017 reporting. The implementation and ongoing requirements of country-by-country reporting will require significant management time and resources. Although we believe Bermuda's implementation of country-by-country reporting has reduced the likelihood that Bermuda would appear on a "black-list", some uncertainty remains. Any changes in the tax law of an OECD member state in response to the BEPS reports and recommendations could subject us to additional taxes.

The vote by the U.K. to leave the EU could adversely affect our business.

As a result of Brexit, negotiations to determine the terms of the U.K.'s withdrawal from the EU and its future relationship with the EU are ongoing. As a result, we face risks associated with the potential uncertainty and consequences that may follow Brexit, including with respect to volatility in financial markets, exchange rates and interest rates. These uncertainties could increase the volatility of, or reduce, our investment results in particular periods or over time. Brexit could adversely affect European or worldwide political, regulatory, economic or market conditions and could contribute to instability in global political institutions and regulatory agencies. Brexit could also lead to legal uncertainty and differing laws and regulations between the U.K., and the EU, and could impair or

adversely affect the ability of the Lloyd's market, including Syndicate 1458, to transact business in EU countries, particularly in respect of primary or direct insurance business as to which we currently rely on the licensure afforded to syndicates at Lloyd's for access to EU markets. In addition, these uncertainties could affect the operations, strategic position or results of insurers or reinsurers on whom we ultimately rely to access underlying insured coverages. Any of these potential



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effects of Brexit, and others we cannot anticipate, could adversely affect our results of operations or financial condition.

Regulatory regimes and changes to accounting rules may adversely impact financial results irrespective of business operations.

Accounting standards and regulatory changes may require modifications to our accounting principles, both prospectively and for prior periods, and such changes could have an adverse impact on our financial results. Required modification of our existing principles, and new disclosure requirements, could have an impact on our results of operations and increase our expenses in order to implement and comply with any new requirements.

The preparation of our consolidated financial statements requires us to make many estimates and judgments.

The preparation of consolidated financial statements requires us to make many estimates and judgments that affect the reported amounts of assets, liabilities (including claims and claim expense reserves), shareholders' equity, revenues and expenses, and related disclosures. On an ongoing basis, we evaluate our estimates, including those related to premiums written and earned, our net claims and claim expenses, investment valuations, income taxes and those estimates used in our risk transfer analysis for reinsurance transactions. We base our estimates on historical experience, where possible, and on various other assumptions we believe to be reasonable under the circumstances, which form the basis for our judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Our judgments and estimates may not reflect our actual results. We utilize actuarial models as well as historical insurance industry loss development patterns to establish our claims and claim expense reserves. Actual claims and claim expenses paid may deviate, perhaps materially, from the estimates reflected in our financial statements. For more details on our estimates and judgments, see "Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, Critical Accounting Estimates."

### **ITEM 1B. UNRESOLVED STAFF COMMENTS**

None.

### **ITEM 2. PROPERTIES**

We lease office space in Bermuda, which houses our executive offices and operations for our Property and Casualty and Specialty segments. Our U.S. based subsidiaries lease office space in a number of U.S. locations, including New York, New York, Stamford, Connecticut, Chicago, Illinois and Raleigh, North Carolina. We also lease office space in London, England (U.K.), principally for our Lloyd's underwriting platform, and in Dublin, Ireland, Singapore and Switzerland. While we believe that our current office space is sufficient for us to conduct our operations, we may expand into additional facilities and new locations to accommodate future growth. To date, the cost of acquiring and maintaining our office space has not been material to us as a whole.

### **ITEM 3. LEGAL PROCEEDINGS**

We and our subsidiaries are subject to lawsuits and regulatory actions in the normal course of business that do not arise from or directly relate to claims on reinsurance treaties or contracts or direct surplus lines insurance policies. In our industry, business litigation may involve allegations of underwriting or claims-handling errors or misconduct, disputes relating to the scope of, or compliance with, the terms of delegated underwriting agreements, employment claims, regulatory actions or disputes arising from our business ventures. Our operating subsidiaries are subject to claims litigation involving, among other things, disputed interpretations of policy coverages. Generally, our direct surplus lines insurance operations are subject to greater frequency and diversity of claims and claims-related litigation than our reinsurance operations and, in some jurisdictions, may be subject to direct actions by allegedly injured persons or entities seeking damages from policyholders. These lawsuits involving or arising out of claims on policies issued by our subsidiaries, which are typical to the insurance industry in general and in the normal course of business, are considered in our loss and loss expense reserves which are discussed in its loss reserves discussion. In addition, we may from time to time engage in litigation or arbitration related to claims for payment in respect of ceded reinsurance, including disputes that challenge our ability to enforce our underwriting intent. Such





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matters could result, directly or indirectly, in providers of protection not meeting their obligations to us or not doing so on a timely basis. We may also be subject to other disputes from time to time, relating to operational or other matters distinct from insurance or reinsurance claims. Any litigation, arbitration or regulatory process contains an element of uncertainty, and, accordingly, the value of an exposure or a gain contingency related to a dispute is difficult to estimate. Currently, we believe that no individual litigation or arbitration to which we are presently a party is likely to have a material adverse effect on our financial condition, business or operations.

**ITEM 4. MINE SAFETY DISCLOSURES**

Not applicable.

**PART II****ITEM 5. MARKET FOR REGISTRANT’S COMMON EQUITY, RELATED SHAREHOLDER MATTERS AND ISSUER REPURCHASES OF EQUITY SECURITIES****MARKET INFORMATION AND NUMBER OF HOLDERS**

Our common shares are listed on the NYSE under the symbol “RNR.”

The following table sets forth, for the periods indicated, the high and low prices per share of our common shares as reported in composite NYSE trading:

	Price Range of Common Shares	
	High	Low
2017		
Fourth Quarter	\$ 141.77	\$ 123.86
Third Quarter	152.00	120.55
Second Quarter	145.62	134.08
First Quarter	150.74	134.62
2016		
Fourth Quarter	\$ 137.21	\$ 117.36
Third Quarter	122.97	114.34
Second Quarter	121.38	107.27
First Quarter	120.59	107.47

On February 2, 2018, the last reported sale price for our common shares was \$129.90 per share and there were 124 holders of record of our common shares.





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**PERFORMANCE GRAPH**

The following graph compares the cumulative return on our common shares, including reinvestment of our dividends on our common shares, to such return for the S&P 500 Composite Stock Price Index (“S&P 500”) and S&P’s Property-Casualty Industry Group Stock Price Index (“S&P P&C”), for the five-year period commencing December 31, 2012 and ending December 31, 2017, assuming \$100 was invested on December 31, 2012. Each measurement point on the graph below represents the cumulative shareholder return as measured by the last sale price at the end of each calendar year during the period from January 1, 2013 through December 31, 2017. As depicted in the graph below, during this period, the cumulative return was (1) 63.3% on our common shares; (2) 108.1% for the S&P 500; and (3) 148.3% for the S&P P&C.

**COMPARISON OF FIVE YEAR CUMULATIVE TOTAL RETURN**

**DIVIDEND POLICY**

Since our initial public offering, we have paid dividends on our common shares every quarter and have increased our dividend each year. Our Board of Directors declared regular quarterly dividends to shareholders of \$0.32 per common share in 2017 and \$0.31 per common share in 2016. On February 8, 2017, RenaissanceRe’s Board of Directors approved an increase in the Company’s quarterly dividend to \$0.33 per common share. The declaration and payment of dividends on our common shares are subject to the discretion of the Board and depend on, among other things, our financial condition, general business conditions, legal, contractual and regulatory restrictions regarding the payment of dividends by us and our subsidiaries and other factors which the Board may in the future consider to be relevant.



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The laws of the various jurisdictions in which we and our subsidiaries are organized restrict the ability of RenaissanceRe to pay dividends to its shareholders and of our subsidiaries to pay dividends to RenaissanceRe. Refer to “Part II, Item 1. Business, Regulation”, “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations, Liquidity and Capital Resources, Financial Condition” and “Note 18. Statutory Requirements in our Notes to the Consolidated Financial Statements” for additional information.

**ISSUER REPURCHASES OF EQUITY SECURITIES**

Our share repurchase program may be effected from time to time, depending on market conditions and other factors, through open market purchases and privately negotiated transactions. On November 10, 2017, our Board of Directors approved a renewal of our authorized share repurchase program to an aggregate amount of up to \$500.0 million. Unless terminated earlier by our Board of Directors, the program will expire when we have repurchased the full value of the shares authorized. The table below details the repurchases that were made under the program during the three months ended December 31, 2017, and also includes other shares purchased, which represents common shares surrendered by employees in respect of withholding tax obligations on the vesting of restricted stock or in lieu of cash payments for the exercise price of employee stock options.

	Total shares purchased	Average Shareprice purchased share	Other shares purchased	Average Shareprice purchased share	Shares purchased repurchase program	Average price per share	Dollar amount still available under repurchase program (in millions)
Beginning dollar amount available to be repurchased							\$ 467.3
October 1 - 31, 2017	—	\$—	—	\$—	—	\$	—
November 1 - 10, 2017	1,212	\$ 139.70	1,212	\$ 139.70	—	\$	—
November 10, 2017 - renewal of authorized share repurchase program of \$500.0 million							32.7
Dollar amount available to be repurchased							500.0
November 11 - 31, 2017	—	\$—	—	\$—	—	\$	—
December 1 - 31, 2017	8,424	\$ 125.59	8,424	\$ 125.59	—	\$	—
Total	9,636	\$ 127.36	9,636	\$ 127.36	—	\$	—\$ 500.0

During 2017, pursuant to our publicly announced share repurchase program, we repurchased an aggregate of 1.3 million common shares in open market transactions at an aggregate cost of \$188.6 million and an average price of \$142.67 per common share. In the future, we may authorize additional purchase activities under the currently authorized share repurchase program, increase the amount authorized under the share repurchase program, or adopt additional trading plans.



**Table of Contents****ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA**

The following tables set forth our selected consolidated financial data and other financial information at the end of and for each of the years in the five-year period ended December 31, 2017. The results of Platinum are included in our consolidated financial data from March 2, 2015. The selected consolidated financial data should be read in conjunction with our consolidated financial statements and related notes thereto and “Part II, Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations” of this Form 10-K.

Year ended December 31, (in thousands, except share and per share data and percentages)	2017	2016	2015	2014	2013
<b>Statements of Operations Data:</b>					
Gross premiums written	\$2,797,540	\$2,374,576	\$2,011,310	\$1,550,572	\$1,605,412
Net premiums written	1,871,325	1,535,312	1,416,183	1,068,236	1,203,947
Net premiums earned	1,717,575	1,403,430	1,400,551	1,062,416	1,114,626
Net investment income	222,209	181,726	152,567	124,316	208,028
Net realized and unrealized gains (losses) on investments	135,822	141,328	(68,918 )	41,433	35,076
Net claims and claim expenses incurred	1,861,428	530,831	448,238	197,947	171,287
Acquisition expenses	346,892	289,323	238,592	144,476	125,501
Operational expenses	160,778	197,749	219,112	190,639	191,105
Underwriting (loss) income	(651,523 )	385,527	494,609	529,354	626,733
Net (loss) income	(354,671 )	630,048	542,242	686,256	841,768
Net (loss) income (attributable) available to RenaissanceRe common shareholders	(244,770 )	480,581	408,811	510,337	665,676
Net (loss) income (attributable) available to RenaissanceRe common shareholders per common share – diluted	(6.15 )	11.43	9.28	12.60	14.87
Dividends per common share	1.28	1.24	1.20	1.16	1.12
Weighted average common shares outstanding – diluted	39,854	41,559	43,526	39,968	44,128
Return on average common equity	(5.7 )%	11.0 %	9.8 %	14.9 %	20.5 %
Combined ratio	137.9 %	72.5 %	64.7 %	50.2 %	43.8 %
<b>Balance Sheet Data:</b>					
At December 31,	2017	2016	2015	2014	2013
Total investments	\$9,503,439	\$9,316,968	\$8,999,068	\$6,743,750	\$6,821,712
Total assets	15,226,131	12,352,082	11,555,287	8,202,307	8,177,651
Reserve for claims and claim expenses	5,080,408	2,848,294	2,767,045	1,412,510	1,563,730
Unearned premiums	1,477,609	1,231,573	889,102	512,386	477,888
Debt	989,623	948,663	960,495	248,279	247,950
Capital leases	26,387	26,073	26,463	26,817	27,138
Preference shares	400,000	400,000	400,000	400,000	400,000
Total shareholders’ equity attributable to RenaissanceRe	4,391,375	4,866,577	4,732,184	3,865,715	3,904,384
Common shares outstanding	40,024	41,187	43,701	38,442	43,646

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Book value per common share	\$99.72	\$108.45	\$99.13	\$90.15	\$80.29	
Accumulated dividends	18.00	16.72	15.48	14.28	13.12	
Book value per common share plus accumulated dividends	\$117.72	\$125.17	\$114.61	\$104.43	\$93.41	
Change in book value per common share plus change in accumulated dividends	(6.9	)% 10.7	% 11.3	% 13.7	% 19.5	%



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**Table of Contents****ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

The following is a discussion and analysis of our results of operations for 2017 compared to 2016 and 2016 compared to 2015, respectively. The following also includes a discussion of our liquidity and capital resources at December 31, 2017. The results of Platinum are included in our results of operations from March 2, 2015. This discussion and analysis should be read in conjunction with the audited consolidated financial statements and notes thereto included in this filing. This filing contains forward-looking statements that involve risks and uncertainties. Actual results may differ materially from the results described or implied by these forward-looking statements. See "Note on Forward-Looking Statements."

**OVERVIEW**

RenaissanceRe is a global provider of reinsurance and insurance. We provide property, casualty and specialty reinsurance and certain insurance solutions to customers, principally through intermediaries. Established in 1993, we have offices in Bermuda, Ireland, Singapore, Switzerland, the U.K., and the U.S. Our operating subsidiaries include Renaissance Reinsurance, RenaissanceRe Specialty U.S., Renaissance Reinsurance U.S., Renaissance Reinsurance of Europe and Syndicate 1458. We also underwrite reinsurance on behalf of joint ventures, including Top Layer Re, Upsilon RFO, Fibonacci Re and DaVinci. In addition, through Medici, we invest in various insurance based investment instruments that have returns primarily tied to property catastrophe risk.

We aspire to be the world's best underwriter by matching well-structured risks with efficient sources of capital and our mission is to produce superior returns for our shareholders over the long term. We seek to accomplish these goals by being a trusted, long-term partner to our customers for assessing and managing risk, delivering responsive and innovative solutions, leveraging our core capabilities of risk assessment and information management, investing in these core capabilities in order to serve our customers across the cycles that have historically characterized our markets and keeping our promises. Our strategy focuses on superior risk selection, superior customer relationships and superior capital management. We provide value to our customers and joint venture partners in the form of financial security, innovative products, and responsive service. We are known as a leader in paying valid claims promptly. We principally measure our financial success through long-term growth in tangible book value per common share plus the change in accumulated dividends, which we believe is the most appropriate measure of our financial performance and in respect of which we believe we have delivered superior performance over time.

Our core products include property, casualty and specialty reinsurance and certain insurance products principally distributed through intermediaries, with whom we seek to cultivate strong long-term relationships. We believe we have been one of the world's leading providers of catastrophe reinsurance since our founding. In recent years, through the strategic execution of a number of initiatives, including organic growth and our acquisition of Platinum on March 2, 2015, we have expanded our casualty and specialty platform and products and believe we are a leader in certain casualty and specialty lines of business. We have determined our business consists of the following reportable segments: (1) Property, which is comprised of catastrophe and other property reinsurance and insurance written on behalf of our operating subsidiaries and certain joint ventures managed by our ventures unit, and (2) Casualty and Specialty, which is comprised of casualty and specialty reinsurance and insurance written on behalf of our operating subsidiaries and certain joint ventures managed by our ventures unit.

To best serve our clients in the places they do business, we have operating subsidiaries, joint ventures and underwriting platforms around the world, including DaVinci, Renaissance Reinsurance, Top Layer Re, Fibonacci Re and Upsilon RFO in Bermuda, Renaissance Reinsurance U.S. in the U.S., and Syndicate 1458 in the U.K. We write property and casualty and specialty reinsurance through our wholly owned operating subsidiaries, joint ventures and Syndicate 1458 and certain insurance products primarily through Syndicate 1458. Although each underwriting platform may write any or all of our classes of business, our Bermuda platform has traditionally written, and continues to write, the preponderance of our property business and our U.S. platform and Syndicate 1458 write a significant portion of our casualty and specialty business. Syndicate 1458 provides us with access to Lloyd's extensive distribution



network and worldwide licenses and also writes business through delegated authority arrangements. The underwriting results of our operating subsidiaries and underwriting platforms are included in our Property and Casualty and Specialty segment results as appropriate.

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Since a meaningful portion of the reinsurance and insurance we write provides protection from damages relating to natural and man-made catastrophes, our results depend to a large extent on the frequency and severity of such catastrophic events, and the coverages we offer to customers affected by these events. We are exposed to significant losses from these catastrophic events and other exposures we cover. Accordingly, we expect a significant degree of volatility in our financial results and our financial results may vary significantly from quarter-to-quarter and from year-to-year, based on the level of insured catastrophic losses occurring around the world. We view our increased exposure to casualty and specialty lines of business as an efficient use of capital given these risks are generally less correlated with our property lines of business. This has allowed us to bring additional capacity to our clients, across a wider range of product offerings, while continuing to be good stewards of our shareholders' capital. In the future, our casualty and specialty lines of business may represent a greater proportion of our premiums and claims and claim expenses.

We continually explore appropriate and efficient ways to address the risk needs of our clients and the impact of various regulatory and legislative changes on our operations. We have created and managed, and continue to manage, multiple capital vehicles across a number of jurisdictions and may create additional risk bearing vehicles or enter into additional jurisdictions in the future. As our product and geographical diversity increases, we may be exposed to new risks, uncertainties and sources of volatility.

Our revenues are principally derived from three sources: (1) net premiums earned from the reinsurance and insurance policies we sell; (2) net investment income and realized and unrealized gains from the investment of our capital funds and the investment of the cash we receive on the policies which we sell; and (3) fees and other income received from our joint ventures, advisory services and various other items.

Our expenses primarily consist of: (1) net claims and claim expenses incurred on the policies of reinsurance and insurance we sell; (2) acquisition costs which typically represent a percentage of the premiums we write; (3) operating expenses which primarily consist of personnel expenses, rent and other operating expenses; (4) corporate expenses which include certain executive, legal and consulting expenses, costs for research and development, transaction and integration-related expenses, and other miscellaneous costs, including those associated with operating as a publicly traded company; (5) redeemable noncontrolling interests, which represent the interests of third parties with respect to the net income of DaVinciRe and Medici; and (6) interest and dividend costs related to our debt and preference shares. We are also subject to taxes in certain jurisdictions in which we operate. Since the majority of our income is currently earned in Bermuda, which does not have a corporate income tax, the tax impact to our operations has historically been minimal, notwithstanding the impact of the write-down of a portion of our deferred tax asset in the fourth quarter of 2017 associated with the adoption of the Tax Bill. In the future, our net tax exposure may increase as our operations expand geographically, or as a result of adverse tax developments.

The underwriting results of an insurance or reinsurance company are discussed frequently by reference to its net claims and claim expense ratio, underwriting expense ratio, and combined ratio. The net claims and claim expense ratio is calculated by dividing net claims and claim expenses incurred by net premiums earned. The underwriting expense ratio is calculated by dividing underwriting expenses (acquisition expenses and operational expenses) by net premiums earned. The combined ratio is the sum of the net claims and claim expense ratio and the underwriting expense ratio. A combined ratio below 100% indicates profitable underwriting prior to the consideration of investment income. A combined ratio over 100% indicates unprofitable underwriting prior to the consideration of investment income. We also discuss our net claims and claim expense ratio on a current accident year basis and a prior accident years basis. The current accident year net claims and claim expense ratio is calculated by taking current accident year net claims and claim expenses incurred, divided by net premiums earned. The prior accident years net claims and claim expense ratio is calculated by taking prior accident years net claims and claim expenses incurred, divided by net premiums earned.





**Table of Contents****SUMMARY OF CRITICAL ACCOUNTING ESTIMATES****Claims and Claim Expense Reserves****General Description**

We believe the most significant accounting judgment made by management is our estimate of claims and claim expense reserves. Claims and claim expense reserves represent estimates, including actuarial and statistical projections at a given point in time, of the ultimate settlement and administration costs for unpaid claims and claim expenses arising from the insurance and reinsurance contracts we sell. We establish our claims and claim expense reserves by taking claims reported to us by insureds and ceding companies, but which have not yet been paid (“case reserves”), adding estimates for the anticipated cost of claims incurred but not yet reported to us, or incurred but not enough reported to us (collectively referred to as “IBNR”) and, if deemed necessary, adding costs for additional case reserves which represent our estimates for claims related to specific contracts previously reported to us which we believe may not be adequately estimated by the client as of that date, or adequately covered in the application of IBNR.

On March 2, 2015 we acquired Platinum and the transaction was accounted for under the acquisition method of accounting in accordance with FASB ASC Topic Business Combinations. Total consideration paid was allocated among acquired assets and assumed liabilities based on their fair values, including Platinum’s claims and claim expense reserves, which totaled \$1.4 billion at March 2, 2015, and consisted of \$179.7 million and \$1.2 billion included in our Property and Casualty and Specialty segments, respectively. These claims and claim expense reserves are subject to the reserving methodologies for each respective line of business as described below.

The following table summarizes our claims and claim expense reserves by line of business, allocated between case reserves, additional case reserves and IBNR:

At December 31, 2017 (in thousands)	Case Reserves	Additional Case Reserves	IBNR	Total
Property	\$696,285	\$ 896,522	\$893,583	\$2,486,390
Casualty and Specialty	689,962	124,923	1,760,607	2,575,492
Other	6,605	—	11,921	18,526
Total	\$1,392,852	\$ 1,021,445	\$2,666,111	\$5,080,408
At December 31, 2016 (in thousands)				
Property	\$214,954	\$ 186,308	\$226,512	\$627,774
Casualty and Specialty	591,705	105,419	1,498,002	2,195,126
Other	6,935	—	18,459	25,394
Total	\$813,594	\$ 291,727	\$1,742,973	\$2,848,294



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Activity in the liability for unpaid claims and claim expenses is summarized as follows:

Year ended December 31, (in thousands)	2017	2016	2015
Net reserves as of January 1	\$2,568,730	\$2,632,519	\$1,345,816
Net incurred related to:			
Current year	1,902,424	694,957	610,685
Prior years	(40,996 )	(164,126 )	(162,447 )
Total net incurred	1,861,428	530,831	448,238
Net paid related to:			
Current year	450,527	83,015	95,747
Prior years	524,298	506,279	425,565
Total net paid	974,825	589,294	521,312
Amounts acquired (1)	—	—	1,394,117
Foreign exchange	38,445	(5,326 )	(34,340 )
Net reserves as of December 31	3,493,778	2,568,730	2,632,519
Reinsurance recoverable as of December 31	1,586,630	279,564	134,526
Gross reserves as of December 31	\$5,080,408	\$2,848,294	\$2,767,045

(1) Represents the fair value of Platinum's reserve for claims and claim expenses and reinsurance recoverable acquired at March 2, 2015.

The following table details our prior year development by segment of its liability for unpaid claims and claim expenses:

Year ended December 31, (in thousands)	2017 (Favorable) adverse development	2016 (Favorable) adverse development	2015 (Favorable) adverse development
Property	\$ (45,596 )	\$ (104,876 )	\$ (93,786 )
Casualty and Specialty	6,183	(58,140 )	(67,791 )
Other	(1,583 )	(1,110 )	(870 )
Total favorable development of prior accident years net claims and claim expenses	\$ (40,996 )	\$ (164,126 )	\$ (162,447 )

Our reserving methodology for each line of business uses a loss reserving process that calculates a point estimate for our ultimate settlement and administration costs for claims and claim expenses. We do not calculate a range of estimates and do not discount any of our reserves for claims and claim expenses. We use this point estimate, along with paid claims and case reserves, to record our best estimate of additional case reserves and IBNR in our consolidated financial statements. Under GAAP, we are not permitted to establish estimates for catastrophe claims and claim expense reserves until an event occurs that gives rise to a loss.

Reserving for our reinsurance claims involves other uncertainties, such as the dependence on information from ceding companies, the time lag inherent in reporting information from the primary insurer to us or to our ceding companies, and differing reserving practices among ceding companies. The information received from ceding companies is typically in the form of bordereaux, broker notifications of loss and/or discussions with ceding companies or their brokers. This information may be received on a monthly, quarterly or transactional basis and normally includes paid claims and estimates of case reserves. We sometimes also receive an estimate or provision for IBNR. This information



is often updated and adjusted from time to time during the loss settlement period as new data or facts in respect of initial claims, client accounts, industry or event trends may be reported or emerge in addition to changes in applicable statutory and case laws.

Our estimates of losses from large events are based on factors including currently available information derived from claims information from certain customers and brokers, industry assessments of losses from



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the events, proprietary models, and the terms and conditions of our contracts. The uncertainty of our estimates for large events is also impacted by the preliminary nature of the information available, the magnitude and relative infrequency of the events, the expected duration of the respective claims development period, inadequacies in the data provided to the relevant date by industry participants, the potential for further reporting lags or insufficiencies and, in certain cases, the form of the claims and legal issues under the relevant terms of insurance and reinsurance contracts. In addition, a significant portion of the net claims and claim expenses associated with certain large events can be concentrated with a few large clients and therefore the loss estimates for these events may vary significantly based on the claims experience of those clients. The contingent nature of business interruption and other exposures will also impact losses in a meaningful way, which we believe may give rise to significant complexity in respect of claims handling, claims adjustment and other coverage issues, over time. Given the magnitude of certain events, there can be meaningful uncertainty regarding total covered losses for the insurance industry and, accordingly, several of the key assumptions underlying our loss estimates. Loss reserve estimation in respect of our retrocessional contracts poses further challenges compared to directly assumed reinsurance. In addition, our actual net losses from these events may increase if our reinsurers or other obligors fail to meet their obligations.

Because of the inherent uncertainties discussed above, we have developed a reserving philosophy which attempts to incorporate prudent assumptions and estimates, and we have generally experienced favorable net development on prior accident years net claims and claim expenses in the last several years. However, there is no assurance that this favorable development on prior accident years net claims and claim expenses will occur in future periods.

Our reserving techniques, assumptions and processes differ among our Property and Casualty and Specialty segments. Refer to “Note 8. Reserve for Claims and Claim Expenses in our Notes to the Consolidated Financial Statements” for more information on the risks we insure and reinsure, the reserving techniques, assumptions and processes we follow to estimate our claims and claim expense reserves, prior year development of the reserve for claims and claim expenses, analysis of our incurred and paid claims development and claims duration information for each of our Property and Casualty and Specialty segments.

#### Property Segment

##### Actual Results vs. Initial Estimates

As discussed above, the key assumption in estimating reserves for our Property segment is our estimate of incurred claims and claim expenses. The table below shows our initial estimates of incurred claims and claim expenses for each accident year and how these initial estimates have developed over time. The initial estimate of accident year incurred claims and claim expenses represents our estimate of the ultimate settlement and administration costs for claims incurred in our Property segment occurring during a particular accident year, and as reported as of December 31 of that year. The re-estimated incurred claims and claim expenses as of December 31 of subsequent years, represent our revised estimates as reported as of those dates. Our most recent estimates as reported at December 31, 2017 differ from our initial accident year estimates and demonstrate that our initial estimate of incurred claims and claim expenses are reasonably likely to vary from our most recent estimate, perhaps significantly. Changes in this estimate will be recorded in the period in which they occur. In accident years where our current estimates are lower than our initial estimates, we have experienced favorable development while accident years where our current estimates are higher than our original estimates indicates adverse development. The table is presented on a net basis and, therefore, includes the benefit of reinsurance recoverable. In addition, we have included historical incurred claims and claim expenses development information related to Platinum in the table below. For incurred accident year claims denominated in foreign currency, we have used the current year-end balance sheet foreign exchange rate for all periods provided, thereby eliminating the effects of changes in foreign currency translation rates from the incurred accident year claims development information included in the table below.



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The following table details our Property segment incurred claims and claim expenses, net of reinsurance, as of December 31, 2017.

(in thousands) Accident Year	Incurred claims and claim expenses, net of reinsurance									
	For the year ended December 31,									
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
2008	\$852,500	\$754,840	\$754,393	\$750,523	\$716,537	\$701,522	\$692,225	\$684,834	\$683,757	\$683,374
2009	—	224,928	169,191	149,830	143,232	138,899	139,676	138,948	139,167	138,732
2010	—	—	632,510	584,878	550,608	555,419	576,079	580,084	590,023	592,679
2011	—	—	—	1,286,890	1,221,811	1,170,141	1,118,651	1,098,124	1,066,200	1,063,035
2012	—	—	—	—	438,548	345,168	312,216	294,400	276,236	265,058
2013	—	—	—	—	—	230,355	200,105	177,533	155,384	143,823
2014	—	—	—	—	—	—	—	—	—	—