

# 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.

## 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.

## 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 (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.

## 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.

## 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

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