2018

Annual Review



The security of experience. The power of innovation.

People are RGA's most important asset and the source of our sustainable competitive advantage. Our success is the result of talented professionals around the world working together to benefit our clients, our industry, and our society.









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ON THE COVER First row, from left: Carmony Wong, Senior Vice President, Head of Hong Kong and High Net Worth, RGA Asia Pacific / Hamza Shaiban, Business Initiatives Analyst, Global Accounts. Second row, from left: From U.S. Mortality Markets: Michael Hill, Executive Director, Underwriting; Marge Beckman, Vice President, Underwriting / Mark Ma, Vice President and Managing Actuary, Business Initiatives, U.S. Markets. Third row, from left: Karen Edgerton, Senior Vice President, Stable Value, Global Financial Solutions, U.S. / Adriano de Matteis, Managing Director, RGA Italy and Chief Marketing Officer, RGA EMEA.

 INSIDE COVER *First row, from left:* From U.S. Individual Health: Lesley CayCe-Turner, Business Data Analyst; James Frederick, Senior Business Data Analyst / From RGA Australia: Roy Johnson, Head of Underwriting, Claims, and Technical Services;
Nadine Gooderick, Chief Operating Officer; Ben Lynch, Claims Manager;
Marnie McConnell, Chief Legal Counsel / André de Vries, Vice President, Business Development, Global Financial Solutions, EMEA. Second row, from left: Julia Dinh, Director of User Experience and Design, RGAX / Patrick Hurley, Vice President and Actuary, Life, Accident, and Special Risk, U.S. Group Reinsurance / Muy-Hieng Yam, Manager, Reinsurance Operations, TAI. *Third row, from left:* From RGA Japan: Kayoko Tsuzuki, Executive Director, Business Development; Hidetoshi Shinagawa, Director, Business Development; Yoshihisa Ishikawa, Executive Director, Appointed Actuary and Client Liaison Actuary; Natsuko Yamamoto, Senior Manager, Underwriting / Brian Louth, Senior Vice President and Chief Marketing Officer, RGA Canada.

MESSAGE FROM THE CEO

2018 was a milestone year for RGA, marking our 25th year as a public company and our 10th year as a fully independent organization. While RGA is much larger and more globally diversified today, our success is still driven by the same core tenets: disciplined execution, deep technical expertise, innovative solution development, an empowering culture, and a tireless focus on our customers' needs. These key ingredients, combined with our proven strategy, make **RGA** unique and enable us to continue delivering on our promises to key stakeholders: our clients, our investors, our employees, and society at large.

For our clients, RGA leverages technical risk expertise to create innovative solutions that help them grow and prosper. As insurers faced increased pressure from changing consumer needs, regulations, and economic uncertainty in 2018, RGA served as a trusted partner, advancing innovation throughout the industry. RGA was named "Life Reinsurer of the Year" by leading industry publications in both Asia and North America and, for the eighth consecutive year, ranked #1 on NMG Consulting's 2018 Global All Respondent Business Capability Index.

For our investors, RGA creates long-term value with a disciplined approach to growing our business and managing our capital. In 2018, we delivered profitable organic growth in our traditional businesses, deployed a high level of capital in transactions and share repurchases, and expanded our capabilities to support future opportunities. Once again, our diversified global platform enabled us to offset short-term underperformance in some segments with strength in others to produce solid earnings overall. Throughout the past quarter-century, investors who have placed their trust in RGA have benefitted from sustained growth and consistent returns. Our strong balance sheet, available excess capital, and high-quality investment portfolio position RGA to continue to achieve attractive financial results for years to come.

For our employees, RGA fosters an empowering and intellectually challenging culture. RGA invests in training and engagement programs that enable each associate to meet his or her own personal development goals because we recognize that our people are our most important asset and one of our only real sources of sustainable competitive advantage. Our commitment to our associates also extends to ensuring that we support a diverse, inclusive, and respectful workplace. I was proud to be one of the early signatories of the CEO Action for Diversity & Inclusion[™] pledge, and this remains among my top priorities as CEO. *Forbes* magazine recognized our commitment to employees in 2018 by naming RGA one of the "World's Best Employers."

For society, RGA acts as a responsible organization, committed to bolstering the resilience of the insurance industry, and – most importantly – helping people live longer, healthier, more financially secure lives. In 2018, we distributed over \$9 billion dollars in death benefits, living benefits, and annuity payments and helped provide financial security for millions of families around the world. Beyond that, our associates remained active volunteers in the communities where they live and work, and RGA continued its long-standing support of the many charitable organizations serving these communities. 2018 also marked the 20th anniversary of the Longer Life Foundation, a not-for-profit partnership between RGA and Washington University School of Medicine in St. Louis, which has funded over 100 groundbreaking research projects to improve wellness and longevity. We were honored to be recognized by *Forbes* in 2018 as one of the world's "Best Regarded Companies," based on factors including social responsibility, trustworthiness, performance, and conduct as an employer.

Looking to the future, I remain excited and optimistic about the opportunities in front of RGA. Despite some headwinds including uncertainty in the global economy, increasing competition, and complexity and costs of new regulations and accounting regimes, our distinctive operating model – with a focus on biometric insurance risks diversified by product and geography and a high-quality balance sheet with less sensitivity to the financial markets – positions us to build on a decades-long track record of success.

I would like to thank RGA employees, clients, shareholders, and partners for their contributions to our success in 2018, and I look forward to our continued success together in the years to come.

Anne Manning

Anna Manning President and Chief Executive Officer

A History of Steady Growth

As of December 31, 2018

Total Assets

\$64.5B



Book Value Per Share

\$134.53



Market Capitalization

\$8.8B



Recognition

Best Regarded Companies

RGA was named to *Forbes* magazine's 2018 Best Regarded Companies list, ranking #149 of 250 global companies listed.

World's Best Employers

RGA was named to *Forbes* magazine's 2018 World's Best Employers list, ranking #97 of 500 companies listed.

A DIVERSIFIED PORTFOLIO OF BUSINESS PRODUCED A STRONG YEAR FINANCIALLY.

Net Premiums



Billion

Total Revenues



Billion

Net Income



Million

Total Assets



Billion

Market Capitalization



Billion

Life Reinsurance In Force







YEAR IN REVIEW

Net Premiums

(in millions USD)



Todd Larson

Senior Executive Vice President and Chief Financial Officer

Disciplined Financial Growth

RGA's proven strategy and diversified global platform generated positive financial results in 2018. We had a strong capital deployment year, investing approximately \$725 million of capital into in-force transactions and share repurchases. RGA ended the year with a high-quality balance sheet.

We are well-positioned to generate positive financial results moving forward given RGA's financial strength and an operating model focused on biometric business and financial solutions business, diversified by geography and product line, and supported by a strong balance sheet and investment portfolio. We will continue to fund our organic growth, pursue attractive in-force transactions, and strategically deploy capital to sustain consistently high-performing businesses and capitalize on emerging opportunities.

The underlying fundamentals of RGA's business remain sound as we execute on our disciplined approach to profitable growth.

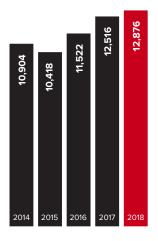
2014 2015 2016 2017 2018

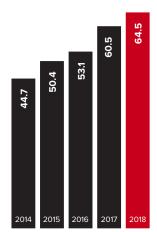
Industry Recognition

RGA was recognized by clients and industry associations for superior performance in 2018:

Total Revenues (in millions USD)

Total Assets (in billions USD)





#1 in Business Capability

For the eighth consecutive year, RGA was ranked #1 on NMG Consulting's Global All Respondent Business Capability Index (BCI), based on feedback from insurance executives in more than 50 markets.

Life Reinsurer of the Year

RGA was recognized as "Life Reinsurer of the Year" at the 2018 Asia Insurance Industry Awards for demonstrating leadership through innovation and thought leadership, and enhancing the stability, security, and image of the industry.

Financial Strength Ratings

RGA Reinsurance Company, RGA's U.S.-based operating subsidiary, receives high ratings for its claims-paying ability based on the company's financial condition and earnings. Its ratings as of December 31, 2018:

S&P Global Ratings

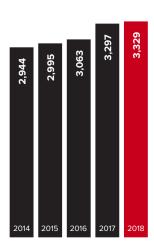
Very Strong



11.00

Assumed Ordinary Life Reinsurance In Force (in billions USD)



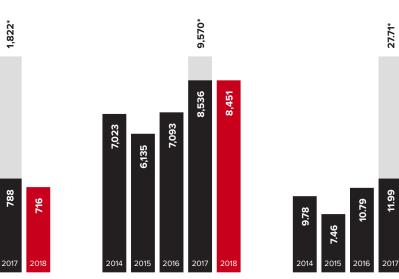


Net Income

(in millions USD)

Total Stockholders' Equity (in millions USD)





*The estimated impact of the U.S. Tax Cuts and Jobs Act of 2017 was recognized in the fourth quarter of 2017, increasing net income and total stockholders' equity by approximately \$1.0 billion, or \$15.72 per diluted share.

Life Reinsurer of the Year

RGA was named "Life Reinsurer of the Year" at the 2018 Reactions North America Awards for helping to raise industry standards in the region through continual innovation, deep subject matter expertise, and superior client service.

Launch of the Year

684

2014

502

2015

2016

Langhorne Re, a global reinsurer targeting large in-force life and annuity blocks which was launched in January 2018 by RGA and RenaissanceRe Holdings, Ltd., was named "Launch of the Year" at the 2018 Reactions North America Awards.

Innovator of the Year

RGA received the silver award for "Innovator of the Year" at the 2018 Efma-Accenture North America Innovation in Insurance Awards for embracing solutions that enable a new level of personalization and convenience for insurance consumers.

A.M. Best Company

Superior



Moody's Investors Service

Good



RGA Americas Reinsurance Company, Ltd., RGA Life Reinsurance Company of Canada, RGA Global Reinsurance Company, Ltd., RGA International Reinsurance Company dac, and RGA Reinsurance Company of Australia Limited each have a financial strength rating of AA- from S&P Global Ratings.

RGA Americas Reinsurance Company, Ltd., RGA Life Reinsurance Company of Canada, and RGA Atlantic Reinsurance Company Ltd. each have a financial strength rating of A+ from A.M. Best Company.

GLOBAL STRATEGY, LOCALLY DELIVERED



Alain Néemeh

Senior Executive Vice President and Chief Operating Officer

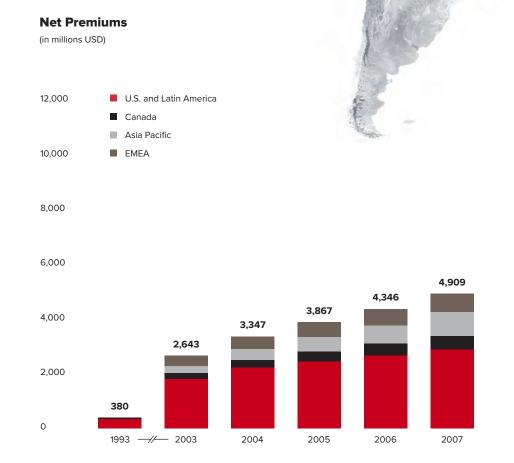
RGA's history of steady, profitable growth is the result of strong discipline and stellar execution of a proven strategy. The company first expanded outside the U.S. market more than a quarter of a century ago, and now serves clients in over 80 countries. RGA is the only global reinsurer focused exclusively on the life and health insurance industry.

Our operational footprint provides access to the world's most important insurance markets and allows RGA to serve clients where they operate. Geographic diversification not only balances periodic volatility among markets, it also fuels product line diversification as we develop tailored solutions to meet local needs.

RGA rarely enjoyed a first-mover advantage when entering new markets and has had to innovate to compete. We work very closely with our clients and leverage insights learned in one market to adapt solutions for clients in others. The result is a global brand built around clientcentricity and a proven ability to execute.

RGA's worldwide operations once again performed well in 2018. Ceding companies ranked RGA #1 for the eighth consecutive year on NMG Consulting's Global All Respondent Business Capability Index (BCI) – and #1 in BCI in many individual markets. We will continue to build upon our momentum by identifying opportunities and helping clients achieve success in every market we serve. In 2018, RGA exceeded \$10 billion in global net premiums for the first time.

Worldwide Operations



Canada

Bermuda

Barbados

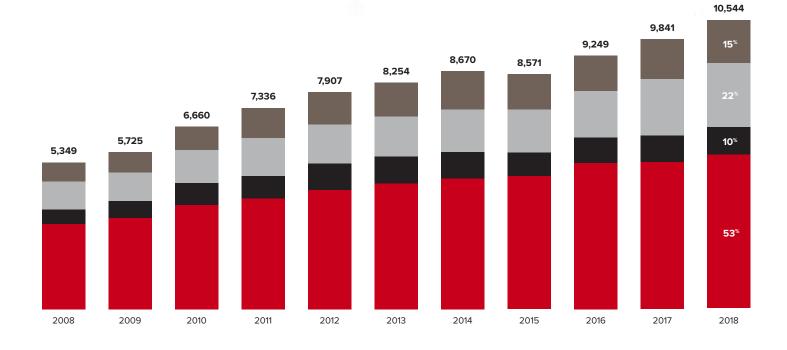
Brazil

United States

Mexico







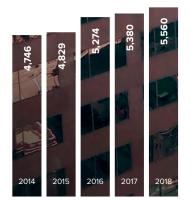
Operations

U.S. AND LATIN AMERICA

U.S. and Latin America Operations ended 2018 with \$1.6 trillion of life reinsurance in force. Total revenues exceeded \$7 billion in 2018 for the second consecutive year.



U.S. and Latin America Operations Net Premiums (in millions USD)







From left, from U.S. Mortality Markets: **Jennifer Thoreson**, Executive Director, Underwriting Services; **Catie Muccigrosso**, Vice President, Underwriting.

Mike Emerson Executive Vice President, Head of U.S. and Latin American Markets



How is RGA helping insurers better serve today's consumer? We have come to an inflection point where demand for a streamlined insurance process is overwhelming. There is no turning back: the industry is headed toward a more personalized process for the insurance applicant, and RGA is focused on leading the way. Our teams have been working for years to understand and apply data and build up our technology infrastructure, and now we are bringing these tools and solutions to bear to improve the customer journey. Important issues must stay top of mind – from responsible data use to the many implications of advanced genetics but the end goal also remains clear: help insurers match consumers' experience with their expectations.

How does RGA remain a reinsurance

partner of choice in the region? A consistent, relentless client focus lies at the center of everything we do. Through that lens, we work daily to deliver "the security of experience" and "the power of innovation" as expressed in the RGA tagline. Taking it a step further, there is a third component to the value we bring clients: certainty of execution. While the original RGA vision has not changed in more than four decades, our strategy has adapted as the industry has evolved. Today, as our clients face unprecedented uncertainty, RGA's strategy is clearer than ever. We see where the market is headed, and we are partnering to implement reliable, forward-looking solutions.

U.S. and Latin America operations make up RGA's largest operating division, with principal business lines including individual life; group life, health, and disability; long-term care; and asset-intensive, capital-motivated, and longevity reinsurance. Despite higher-than-expected claims experience, the segment generated \$537 million in pre-tax income in 2018.

Industry-leading facultative underwriting capabilities remained an RGA trademark and a key competitive advantage in 2018. U.S. underwriters reviewed more than 100,000 facultative reinsurance cases for the 12th consecutive year, resulting in more than \$16 billion of new life reinsurance placed. Overall, assumed new business volume totaled \$107 billion in the region, a 7% increase over 2017.

As new data sources, technologies, and ways of doing business emerged in the industry, RGA's consumer-centric approach helped clients navigate the evolving landscape and capitalize on new opportunities. The U.S. team focused on more-efficient and more-tailored methods of risk assessment, applying data-driven insights to improve the customer experience and accelerate the insurance process. In the individual mortality market, this included employing expert tools, such as the RGA prescription scoring model and TransUnion's TrueRisk® Life credit-based insurance score, on behalf of clients. RGA expanded upon this success by working with TransUnion to launch TrueRisk® Life Group, giving group carriers a competitive edge when pricing new business and renewals.

For the third consecutive study, U.S. group life and disability insurers ranked RGA #1 on NMG Consulting's 2018 All Respondent Business Capability Index. In the group healthcare space, RGA launched an innovative Managed Care Stop Loss Turnkey solution to meet growing demand for self-funded plans, enabling healthcare clients to enter the self-funded market and assisting in the development of capabilities to achieve long-term success.

RGA's Global Financial Solutions business line initiated and deepened partnerships with U.S. insurers to improve their capital efficiency and help them meet regulatory requirements, generating \$250 million in pre-tax income for the year. Building on established success in executing asset-intensive and capital-motivated transactions, the team completed a market-first longevity swap in 2018. Longevity expertise globally positions RGA as a potential long-term leader in the emerging U.S. pension risk transfer space.

In Latin America, RGA focused on expanding coverage to uninsured and underinsured populations, partnering with clients on new product development initiatives and exploring digital distribution strategies. This included broadening the scope of health initiatives to meet growing demand for new group and individual health insurance solutions. Insurers in Mexico ranked RGA #1 on NMG Consulting's All Respondent Business Capability Index for the eighth consecutive year in 2018, and the Latin American team strengthened its position in local markets throughout the region.

How is RGA working with clients to improve

risk assessment? We see a promising future for accelerated risk assessment, but we must pursue it responsibly. To that end, RGA data analytics and underwriting experts bring together various sources of evidence to determine which combinations provide the greatest predictive power. RiskDimensions[™], RGA's risk assessment toolset, gives clients access to a consistent, compatible portfolio of new and existing tools that, when used in combination, deliver more powerful results. A new predictive model using prescription data, for example, has proven to enhance the effectiveness of RGA's other solutions. As a reinsurer, RGA not only provides carriers with improved risk assessment, but also acts as a long-term partner willing to share that risk.

Operations

CANADA

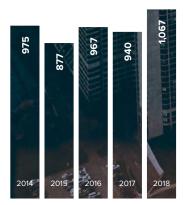
Canada Operations ended 2018 with \$384 billion of life reinsurance in force. Total revenues in Canada reached \$1.3 billion in 2018, an increase of 10% over 2017.

in n



Canada Operations Net Premiums

(in millions USD)





From left, from RGA Canada: **Martin Houle**, Vice President, Business Development; **Isabelle Bouchard**, Vice President, Group Reinsurance; **Mitch Viau**, Vice President, Living Benefits; **Sylvia Gervais**, Director, Underwriting.

Alka Gautam

President and Chief Executive Officer, RGA Life Reinsurance Company of Canada



How would you characterize 2018 for RGA Canada? We consider 2018 one of the best years our team has ever produced. Doubledigit premium and revenue growth laid a foundation for future earnings. We added significant value to our business not only through organic growth, but also through the execution of several material transactions in 2018. We expect the efforts invested in these transactions to generate additional growth opportunities as we move forward. RGA Canada is solidly positioned for the long term, reinsuring one of the largest in-force blocks in the market.

What does surpassing \$1 billion in annual premiums mean to your team?

This important milestone demonstrates our sustained success in meeting the reinsurance needs of our clients. RGA has written more individual life business than any other reinsurer in Canada for the past decade, and 2018 extended that industry leadership with an exceptional year. In a market often characterized as mature, I am particularly proud of the team's accomplishments in bringing forwardthinking and innovative business solutions to our clients. We work proactively to identify the best opportunities with the right partners and together develop optimal solutions.

RGA Life Reinsurance Company of Canada (RGA Canada) maintained its market leadership in 2018. For the 10th consecutive time, RGA Canada was ranked #1 on the All Respondent Business Capability Index in NMG Consulting's 2018 Life & Health Reinsurance study of Canadian ceding companies. Canada operations are primarily engaged in traditional individual life reinsurance. Additional business lines include creditor, group life and health, individual health, critical illness, disability, and longevity reinsurance.

In 2018, annual net premiums in Canada increased 14% over 2017 to surpass \$1 billion for the first time. During the year, the Canadian team executed several material transactions that, coupled with organic growth, drove the increase in net premiums.

With new capital requirements taking effect in 2018 and new accounting standards on the way, RGA worked with clients in Canada to stay ahead of a dynamic regulatory environment. A number of significant transactions were executed to help insurers optimize capital efficiency, including a series of agreements with a long-time client partner to reinsure mortality and lapse risk from a large block of Canadian universal life policies, and an agreement to reinsure an in-force block of Canadian group payout annuities.

Assumed new business, including these transactions, increased 21% over the prior year. Pre-tax income was \$122 million in 2018, despite unfavorable claims experience.

Facultative underwriting again proved a signature strength for the individual mortality team, who reviewed more than 40,000 cases in 2018. RGA leveraged this facultative expertise to counsel clients regarding underwriting modernization. The Canadian team worked with clients and insurtech companies to develop actionable insights for ongoing digitalization efforts and brought to market a number of direct-to-consumer products designed to streamline the customer journey and accelerate and simplify the underwriting process.

Product diversification remained a strategic priority as business lines outside of individual life reinsurance comprised 27% of total premiums. RGA Canada developed an enhanced client engagement framework in 2018 to deepen its strategic understanding of clients' business needs and maintain focus on meaningful solutions integrated across all product lines.

An ongoing commitment to the advancement of the Canadian insurance industry continued to be a hallmark of RGA in 2018. RGA experts tackled the most important issues facing insurers by hosting, sponsoring, and participating in industry events and publishing studies, surveys, and articles. Behavioral science and its many implications for insurance, for example, served as the basis for an RGA-led industry dialogue. The team also conducted an in-depth survey of Canadian underwriters to determine current and future needs and develop forward-thinking solutions.

How does RGA Canada collaborate to help clients adapt to a changing industry?

Canadian insurers face complex challenges, including adapting to evolving regulatory demands and streamlining the customer journey. To address these challenges, RGA combines expertise from our diverse business lines and from operations around the world. In 2018, RGA Canada's team worked with financial solutions specialists to execute large in-force transactions, and collaborated with RGAX and RGA's data analytics experts to bring new digital tools and data-driven insights to clients. We also applied learnings from other geographic markets to import and tailor solutions for the Canadian industry. In all cases, we followed our proven approach: first listen to clients and then mobilize the RGA enterprise on their behalf.

Operations

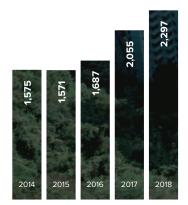
ASIA PACIFIC

Asia Pacific Operations ended 2018 with \$617 billion of life reinsurance in force. Total revenues reached \$2.5 billion, an 8% increase over 2017.



Asia Pacific Operations Net Premiums

(in millions USD)





From left: **Shih-Nin Low**, Senior Vice President, Managing Director, Southeast Asia Markets; **Jason Ou**, Chief Executive Officer, RGA China; **K.S. Gopalakrishnan**, Chief Executive Officer, RGA India; **Arthur Ozeki**, Chief Executive Officer, RGA Japan; **Michael Shin**, Senior Vice President, RGA Hong Kong; Chief Executive Officer, RGA Korea; and Chief Marketing Officer, RGA Asia.

Tony Cheng Executive Vice President, Head of Asia



How does RGA Asia Pacific work as a region on behalf of clients? Collaboration is like a jigsaw puzzle, and organizations excel when they can fit different pieces into a cohesive whole. At RGA Asia Pacific, we combine various backgrounds, skill sets, and fields of expertise to provide clients with wide-ranging solutions. Regional teams specializing in areas such as data science and medical underwriting convene regularly to focus on key issues affecting clients and bring insights back to local markets. This process repeats itself on a global scale throughout the RGA enterprise. Such cross-market and cross-functional collaboration is often not feasible for our clients amid their day-to-day operations, and the value it brings is a key competitive advantage for RGA.

RGA's Asia Pacific operations serve clients throughout the region from offices in Australia, China, Hong Kong, India, Japan, Malaysia, New Zealand, Singapore, South Korea, and Taiwan. Primary reinsurance products include individual and group life, living benefits, health, high net worth, Retakaful, superannuation, annuity, and financial solutions.

The Asia Pacific segment delivered another strong year in 2018, generating \$172 million in pre-tax income, an increase of 6% over 2017. RGA ranked #1 on NMG Consulting's 2018 All Respondent Business Capability Index in the Asia region for the seventh consecutive year and was named "Life Reinsurer of the Year" at the 2018 Asia Insurance Industry Awards.

Expanded market research drove customer-centric product development throughout the region in 2018. After investigating the needs of cancer patients in Taiwan, RGA launched the market's first hospital cash product for cancer survivors. The Hong Kong office conducted five customer research exercises and transferred insights learned into successful product introductions. A new Market Research Committee in Korea worked to not only launch consumer-focused products but also provide post-launch consulting for clients.

A holistic approach incorporating product design, underwriting, distribution dynamics, wellness, and integration of third-party services enabled RGA to remain a regional leader in critical illness (CI) and impaired lives solutions. Market introductions included a first-of-its-kind agency channel simplified cancer proposition in Malaysia, the first joint life CI and senior CI product in the Philippines, and an impaired lives tiered pricing structure reflecting health status in Singapore. In Hong Kong, a variety of innovative CI solutions covered conditions ranging from juvenile developmental disorders to previously excluded cancer conditions.

RGA continued to advance data-driven underwriting throughout the region. The Japan team built on its market leadership in underwriting with initiatives to accelerate risk assessment by digitizing health checks and other forms. FAST (Fast Algorithmic Simplified Track), which leverages bancassurance and behavioral data, predictive models, and RGA's underwriting expertise to enhance coverage and simplify risk assessment, was launched in Thailand. Looking to the future, the India office explored the potential of using artificial intelligence to create a seamless, automated application process.

As the Royal Commission assessed the business conduct of Australia's insurance industry in 2018, RGA continued to uphold and advocate for responsible practices and sensible policies, assisting clients in preparing for pending regulations. This client focus extended to product development, data analytics initiatives, and growing financial solutions capabilities. RGA remains well-positioned in the Australian market and focused on long-term growth.

Where do you see product innovation

headed in Asia? RGA has long been a product development leader in Asia, which has fueled our remarkable growth in the region. Yet as we continue to innovate, products become more complex. Innovation moving forward will require advanced data analytics to help simplify insurance. To that end, we are working with RGA data experts and RGAX to create new data-driven solutions. To address clients' emerging capital reserve challenges, we are also collaborating with our Global Financial Solutions team to integrate capital relief structures within our reinsurance products. So while product innovation will continue, it will require an increased level of cross-functional integration.

How is RGA addressing increased demand for financial solutions in the region? With

Solvency II-like reserve requirements already being implemented and new IFRS accounting standards on the way, the need for capital efficiency is growing - as is the opportunity for RGA to help clients meet that need. Our Asia Pacific Global Financial Solutions team executed a record number of transactions in 2018, including several transactions in Japan, Hong Kong, and China and our first financial reinsurance transaction in Indonesia. We are also working with clients and regulators to implement structural changes in select markets, such as opening up coinsurance as an alternative solution in Korea. RGA's global expertise in this space positions us for significant growth in the years ahead.

Operations

EMEA

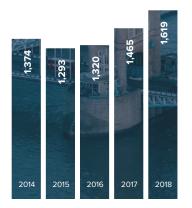
EMEA Operations ended 2018 with \$716 billion of life reinsurance in force.

Total revenues increased 10% over 2017 to reach \$1.8 billion.



EMEA Operations Net Premiums

(in millions USD)







From left, from RGA Italy: **Dorota Anna Wysocka**, Marketing, Communication, and EMEA Events Manager; **Flora Aliyeva**, Business Developer; **Davide Baldan**, Director, Business Development; **Roberto Rizzo**, Head of Life Business Development.

Olav Cuiper Executive Vice President, Head of EMEA



How is RGA partnering to reach new consumers in EMEA? To succeed in

today's insurance environment, you need a different mindset and new skills, which often requires looking outside the industry. Digital distribution is a key focus for our EMEA team, and we are partnering with tech companies to help clients make insurance more accessible. In Italy, for example, we teamed with a popular insurtech to market innovative health coverage to bank customers. In Spain, RGA is working with an insurer to offer term life policies within a wearables-enabled wellness proposition via a leading retail chain. And in Germany, our continued partnership with Getsurance provides long-term disability products through an entirely digital experience.

In what ways is RGA working to advance the insurance industry in EMEA? It starts

with sharing insights to drive innovation - via online newsletters, webcasts, white papers, workshops, trainings, and RGA events. We again hosted Technovate Labs, local events showcasing promising insurtech startups, across the region in 2018. Meanwhile, RGAX EMEA organized its second annual Big Ideas Competition to identify possible solutions to challenges affecting life and health markets and welcomed insurance professionals to Life Design Sprints, which are focused sessions to identify, build, and test new ideas. As a region, we advanced RGA's thought leadership, producing a steady stream of published articles online. All of these efforts targeted one goal: moving our clients and the industry forward.

How is RGA helping clients meet the demands of increasing regulation? The

business environment is evolving faster than ever, leading regulators to develop new compliance requirements on a seemingly continuous basis. The past year was certainly no exception as insurers continued to adjust to Solvency II capital requirements, adapted processes to meet General Data Protection Regulation guidelines, and prepared for implementation of new IFRS accounting requirements. RGA leads by example, working proactively to ensure our operations are always in compliance. From that foundation, we serve clients as an expert advisor, applying learnings from around the globe. We also act as a partner, developing forward-looking solutions to equip insurers for a shifting landscape and position them for future growth.

RGA's Europe, Middle East and Africa (EMEA) segment supports clients from offices in France, Germany, Ireland, Italy, the Netherlands, Poland, South Africa, Spain, the United Arab Emirates, and the United Kingdom. Primary reinsurance services include individual and group life, credit life and living benefits, health, longevity, and financial solutions. In 2018, ceding companies ranked RGA #1 on NMG Consulting's All Respondent BCI for the EMEA region in aggregate for the sixth consecutive year.

Net premiums in EMEA increased by \$153 million, or 10% over 2017, reflecting higher volumes across individual life, health, and longevity businesses. The EMEA division reported pre-tax income of \$252 million, a 30% increase over the previous year, driven primarily by closed-block longevity and payout annuity businesses in the U.K.

Business stability characterized 2018 throughout Europe as traditional lines continued to mature and extend organic growth. RGA solidified its strong position in the U.K., reinsuring approximately half of the market's new mortality business while taking a selective approach to critical illness coverage. Ongoing product line expansion and diversification included new critical illness coverage in Portugal and new health products in Italy. RGA Germany, which celebrated its 10th anniversary in 2018, and RGA Spain advanced digital distribution initiatives launched in recent years to achieve greater market adoption.

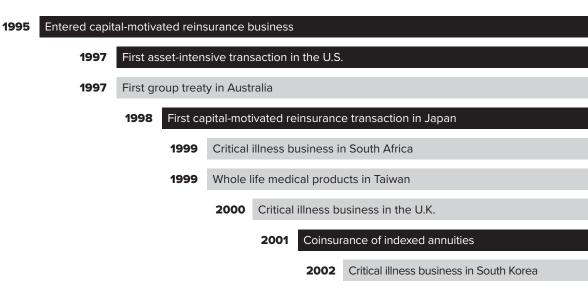
In the Middle East and South Africa, RGA utilized strong local operations and customized solutions to deepen client relationships and increase business volume. The Middle East team executed on its growth strategy throughout 2018: expanding health reinsurance to address mandated coverage in the United Arab Emirates, building credit life business in Saudi Arabia, and establishing a stronger presence in Egypt's individual life market. RGA South Africa extended its long-standing market leadership, ranking #1 on NMG Consulting's All Respondent Business Capability Index for the ninth consecutive year.

While maintaining a disciplined approach to new business in 2018, the EMEA Global Financial Solutions team increased annual pre-tax income by \$73 million, or 59%, as blocks acquired from previous transactions continued to generate positive bottom-line results, particularly in the U.K. RGA leveraged experience with lapse shock absorbers in Europe to bring similar solutions to South Africa, executing multiple transactions to help insurers meet new capital requirements.

STRATEGIC PRODUCT LINE DIVERSIFICATION

Product Portfolio Expansion

Year of Select Product Introductions (Not including individual mortality)



Executive Vice President, Global Financial Solutions

John Laughlin

Within a rapidly evolving industry environment, insurers must embrace change and seek opportunities to diversify and innovate. At RGA, we help lead the way.

RGA has strategically grown its operations by leveraging established capabilities to expand into complementary lines of business. Our foundational expertise in mortality risk management has grown and evolved to encompass a wide range of knowledge areas and skill sets – in morbidity, longevity, policyholder behavior, and market risks – enabling RGA to deliver holistic risk- and capital-management solutions.

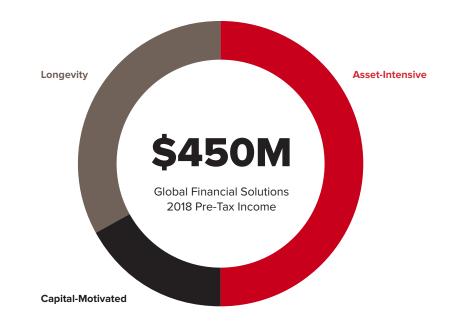
The driving force behind this expansion has been a dedicated client focus. We partner with clients to identify needs, anticipate trends, and seize opportunities. Our teams take an entrepreneurial and collaborative approach to business, exploring untapped possibilities and working across business lines to create morecomprehensive client solutions.

Helping insurers meet the demands of regulatory changes offers one example of how this collaborative process works. In 2018, experts from various RGA business units came together to work with clients worldwide to address new capital, accounting, and data privacy requirements. This resulted in a range of product launches, market-first transactions, and other innovative solutions.

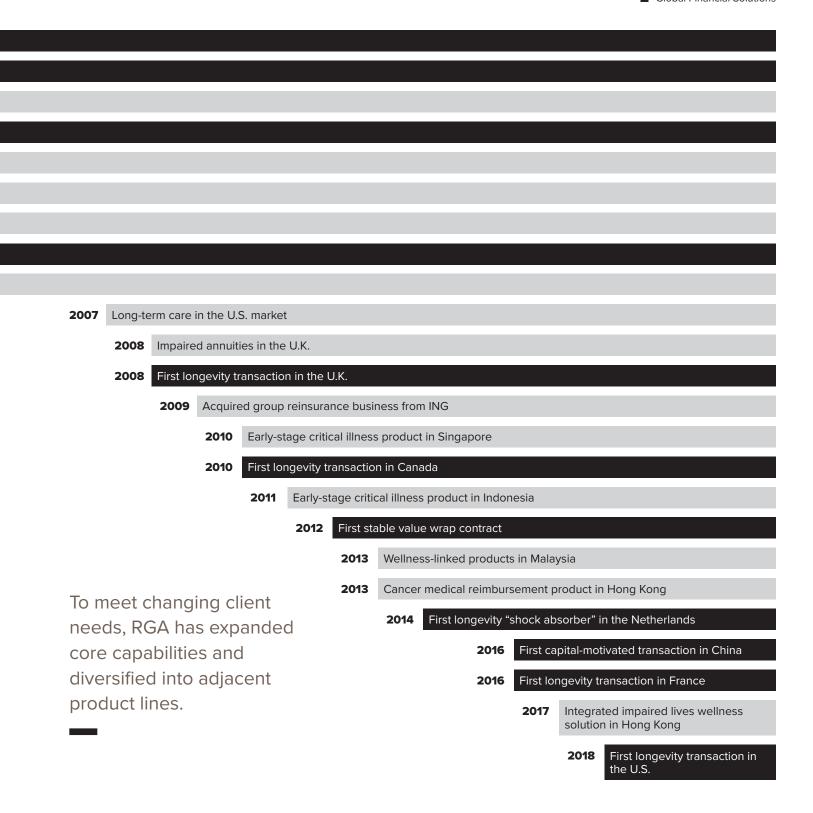
In the years ahead, this same cross-functional collaboration and disciplined diversification will continue to strengthen RGA and move the entire industry forward.

Diversified Growth

Alongside continuous growth and diversification in traditional reinsurance, RGA has expanded and deepened its Global Financial Solutions product lines.



Traditional Business LinesGlobal Financial Solutions



RISK SOLUTIONS

As the only global reinsurer focused exclusively on life and health business. RGA brings specialized expertise to create customized risk management solutions for insurers worldwide. In 2018, RGA partnered with individual and group life, health, and living benefits carriers to capitalize on emerging opportunities and position their businesses for long-term growth.



Innovation Accelerates Within Core Mortality Business

RGA strengthened its position as a global leader in mortality reinsurance in 2018 and ended the year with \$3.3 trillion of life reinsurance in force in support of individual and group-issued term life, whole life, universal life, and joint and last survivor life, among other products. The mortality business line continued to develop new service offerings based on clients' needs.

Risk assessment remained a signature strength as RGA underwriters reviewed more than 500,000 facultative cases worldwide for the sixth consecutive year. Backed by extensive mortality experience and informed by years of underwriting innovation, RGA underwriters, actuaries, data scientists, and technology experts developed new risk assessment tools in response to changing client expectations. For example, FAST (Fast Algorithmic Simplified Track) combined worldwide RGA learnings and capabilities to deliver an accelerated underwriting solution to insurers in Asia.

RGA also strengthened its existing portfolio of tools. A revamped Global Underwriting Manual introduced a user-friendly design, advanced functionality, and updated ratings guidelines to expedite risk assessment. Similarly, a new online claims manual was rolled out to clients in South Africa and Asia to simplify claims management. In the U.S., ASAP (Automatic Selection and Assessment Program) added an online reference guide,



an intuitive user interface, and more preferred classes, and SUP (Strategic Underwriting Program) reviewed a record number of

cases while supplementing clients' underwriting staff.

Globally, RGA continued to help clients reach underinsured populations through streamlined sales processes, increasing the number and diversity of people ultimately served – from mass market to high net worth consumers. A variety of distribution mechanisms, such as mobile platforms and bancassurance channels, facilitated accessibility, enhanced versatility, and reduced frictional costs.

Group Team Responds to Changing Client Needs

RGA supports insurers with workplace and additional group products, including life, disability, healthcare, accident, critical illness, and catastrophe reinsurance. In 2018, an ongoing commitment to delivering added value to clients through superior product

Continued on page 22

From left: **Dave Rengachary, M.D.**, Senior Vice President, Chief Medical Director, U.S. Mortality Markets; **Daniel Zimmerman, M.D.**, Senior Vice President and Chief Medical Director, Global Support Team.

A Milestone and a Mission



Daniel Zimmerman, M.D. Senior Vice President and Chief Medical Director, Global Support Team

The Longer Life Foundation (LLF), a not-for-profit partnership between RGA and Washington University School of Medicine in St. Louis, celebrated its 20th anniversary in 2018. The LLF supports research to promote healthier living, enhance longevity, and aid in predicting mortality and morbidity outcomes. Over its first two decades the foundation funded 114 research projects, many of which significantly advanced clinical knowledge and led to additional grants from other sources.

The LLF brings together the fields of academics and insurance for the benefit of both. LLF-funded research has added substantially to medical knowledge on longevity, genomics, obesity, older-age cognition, heart disease, and cancer – information now available for insurers to apply to product development, risk assessment, and claims management. Public health has also benefited, with LLF-funded discoveries targeting moreeffective disease assessment, diagnosis, treatment, and prevention.

RGA's work with the LLF is part of a larger mission

to understand root factors affecting mortality and morbidity in order to move the insurance industry forward. Our global medical team, a worldwide network of physicians, combines professional experience, medical advances, and new technologies and data sources to challenge previously held assumptions and develop actionable insights.

In 2018, RGA doctors addressed urgent health and longevity issues facing insurers. Knowledge sharing included papers, webinars, and presentations on topics ranging from liquid biopsies to epigenetics, opioid abuse to pandemic risk. In addition, our team advised clients on incorporating new medical advances into product offerings, leveraging RGA's vast experience database and expertise in risk management.

The future of insurance medicine will bring complex challenges, but also great opportunities. Innovations such as electronic health records, advanced biotechnology, and precision medicine are already here or soon on the way. RGA will continue to work with clients to determine a prudent path forward, for the benefit of insurers, their customers, and society at large.

To learn more about the Longer Life Foundation and to view the foundation's 20th anniversary brochure, visit longerlife.org.



Next-Generation Reinsurance Solutions



Carmony Wong Senior Vice President, Head of Hong Kong and High Net Worth

RGA Asia Pacific has long been recognized as an industry leader in product innovation. Regional breakthroughs range from the first high net worth product sold in Asia to the region's first fully simplified-issue life coverage. Decades of locally focused innovation have introduced market-first products in every country in which RGA Asia Pacific operates. Our success is driven by an unrelenting focus on our clients and a passion for overcoming the industry's biggest challenges.

In Hong Kong, we have combined RGA's leadership in both product development and financial solutions to create next-generation reinsurance solutions. This "hybrid" strategy delivers not only exciting new level-premium products, but also capital relief from the new business strain produced by their success. Products can therefore be developed and launched at more-competitive premium rates, creating a win-win-win for consumers, clients, and RGA alike.

RGA's hybrid solutions target the intersection of two transformative industry trends. Advances in medicine, new technologies, and new sources of data are fundamentally altering the biometric landscape. Meanwhile, new regulatory regimes are introducing stricter capital requirements and accounting standards, forcing insurers to change the way they operate. On both fronts, RGA's hybrid solutions deliver a successful strategy.

As our experience with these products has grown, we have expanded to new types of clients - including insurers not traditionally interested in hybrid solutions – and are exploring possibilities in other markets in the region. RGA teams from product development, financial solutions, consumer research, behavioral science, and data science work closely with insurers to identify specific needs and customize each product. Our comprehensive suite of services uniquely positions RGA Asia Pacific to help the region's life and health carriers thrive in today's and tomorrow's – insurance marketplace.

From left: **Toby Chui**, Director, Business Development, Hong Kong; **Carmony Wong**, Senior Vice President, Head of Hong Kong and High Net Worth; **Olivia Yeung**, Head of Pricing, Hong Kong and High Net Worth; **Michael Thomas**, Vice President, Business Development, Global Financial Solutions, Asia Pacific; **Kelton Lam**, Director, Business Development Actuary, Hong Kong.



Continued from page 21

development, underwriting, and claims management services distinguished RGA in a highly competitive group environment.

Focusing primarily on worksite/voluntary solutions, RGA partnered with insurers in targeted markets worldwide to innovate within the group reinsurance space. Group business extended to every RGA region, with the U.S., Australia, Canada, and South Africa markets writing the most group reinsurance in 2018. Data analytics experts explored dynamic pricing models to help clients provide more accurate and affordable quotes to meet changing customer needs and differentiate themselves in an increasingly commoditized marketplace. As traditional distribution channels and underwriting processes struggled to connect with today's consumers, RGA collaborated with group insurers and strategic partners to explore digital platforms, wellness programs, and accelerated solutions.

U.S. Group Reinsurance continued to strengthen the RGA brand, ranking #1 for the third consecutive time on NMG Consulting's All Respondent Business Capability Index in the 2018 U.S. Group Life and Disability Reinsurance Study. The team responded to higher-than-expected claims in the healthcare excess of loss and disability lines by working with clients to improve profitability. To help clients refine their pricing, RGA and TransUnion introduced TrueRisk® Life Group, a credit-based behavioral score that is predictive of group mortality experience. Also launched in 2018, RGA's Managed Care Stop Loss Turnkey solution enables healthcare clients to enter the self-funded market and develop the capabilities to succeed.



From left, from Global Products and Market Intelligence: **Leigh Allen**, Director, Global Surveys and Distribution Research; **Lynn Grenier-Lew**, Head of Global Products and Market Intelligence; **Jasmina Landekic**, Director, Competitive Intelligence.

RGA's ROSE® Consulting Group once again filled a critical need in today's dynamic healthcare environment by offering an array of industry-leading services and resources to manage complex claims, enhance operational efficiency, and improve patient care. ROSEBUD®, a National Committee for Quality Assurance-accredited neonatal and perinatal case management program, received a three-year accreditation in 2018 with a perfect score. For the year, ROSE consultants helped U.S. health insurers save more than \$12 million.



From left, from the HELIX team: **Boldwin Heunsen Moyo**, Senior Health Actuarial Analyst, Global Health; **Konrad Kuc**, Senior Health Actuary, Global Health; **Jason Gegg**, Vice President, IT Actuarial Solutions, Global Business Solutions.

Global Health Builds for Future of Healthcare

The Global Health team advanced RGA's strategic priority to grow health business in target markets in 2018. In Italy, innovative product development, including cancer cover and digital distribution initiatives, drove continued market leadership in the individual health space. The Middle East remained a high-growth market as RGA supported the ongoing rollout of compulsory private health coverage in the region. Completion of a major health transaction in Indonesia strengthened RGA's growing presence in Southeast Asia. In Latin America, the health team successfully navigated an increasingly competitive environment and is working to introduce new self-funded options in Mexico.

Globally, investment in infrastructure and technical capabilities in 2018 laid the foundation for ongoing datadriven solutions for health carriers. RGA health and technology experts collaborated to develop HELIX (HEalth Laboratory for International eXperience), an actuarial health-specific data warehouse providing in-depth analytics of health data from around the world. The Global Health team also launched an initiative to automate the validation process for health claims. RGA's solution seeks to simplify the current complexities of claims assessment, creating cost savings and ensuring consistencies for carriers while accelerating the insurance process for an improved customer experience.

RGA's individual health (long-term care) business in the U.S. produced another solid year in 2018, helping clients navigate a challenging environment to serve the market's aging population. Maintaining a disciplined approach, the team pursued product development initiatives prudently, with the goal of building capacity and capabilities to capitalize on future opportunities in an evolving industry.

From left, from Global Research and Data Analytics: **Peter Banthorpe**, Senior Vice President, Head of Global Research and Data Analytics; **Matthew Battersby**, Vice President, Chief Behavioral Scientist; **Guizhou Hu**, Vice President, Head of Risk Analytics.

Creating Value from Data-Driven Insights



Julianne Callaway Vice President and Actuary, Strategic Research, Global Research and Data Analytics



Jingyi Zhang Senior Data Scientist, Global Research and Data Analytics

The data revolution in life and health insurance is well underway and gaining momentum. Seemingly endless varieties of new datasets are now available. As many insurers are discovering, however, accessing more data is one thing; creating real value from that data is quite another.

RGA's Global Research and Data Analytics (GRDA) team is an industry leader in delivering tailored, leadingedge insights from data. GRDA works with RGA colleagues and clients across the globe to identify opportunities and maximize commercial value through collaborative research, advanced analytics, and innovation-based business development.

In 2018, GRDA supported initiatives throughout the enterprise that built on RGA's

leadership in risk assessment. For example, the team provided vital analytics expertise in validating TransUnion TrueRisk® Life Group, a breakthrough credit-based risk score that is predictive of group mortality experience (see sidebar on page 30). GRDA also launched REDi, a global experience study platform, and conducted nearly 50 experience studies to help local offices produce datasupported business decisions.

GRDA generated hundreds of knowledge-sharing and research pieces in 2018 for internal partners and insurance clients – from white papers and publications to presentations and webcasts – addressing the industry's most urgent challenges. A groundbreaking research collaboration with King's College London demonstrated the importance of genetic information in predicting morbidity and mortality outcomes.

RGA increased its ongoing investment in data science in 2018, resulting in a truly global data science unit and providing a clear competitive advantage for the company. This included adding new behavioral science capabilities to provide a deeper understanding of human behavior and more-informed insights for use in underwriting, claims, and customer engagement. These enhanced capabilities are the latest in a long line of forward-thinking growth strategies from the GRDA team.



FINANCIAL SOLUTIONS

Changing capital requirements, new accounting standards, and increasing economic uncertainty led many insurers to turn to reinsurance as a financial management strategy in 2018. RGA partnered with clients to develop innovative solutions to improve capital efficiency, increase financial returns, and achieve sustained success.



GFS Continues Diversified Growth

Global Financial Solutions (GFS) built on RGA's established industry leadership in executing structured transactions in 2018 to help insurers strengthen their capital position and accelerate business growth. The team deployed approximately \$440 million of capital toward in-force transactions during the year, its second most active year since 2012. With earnings contributions from throughout its global operations, GFS generated \$450 million in pre-tax income.

Despite greater competition from both new and established players, RGA remained a preferred financial solutions partner. An unmatched combination of counterparty strength, execution expertise, and ability to accept both biometric and investment risk have distinguished RGA in an increasingly crowded field. As the number of insurers seeking to release in-force blocks continues to grow, the GFS team is well-positioned to capitalize on emerging opportunities.

GFS transactions executed in 2018 extended to all regions and product lines, including capital-motivated, asset-intensive, and longevity reinsurance solutions. RGA's reliable, flexible approach to capital-motivated reinsurance helps companies de-risk and optimize their businesses, enabling insurers to offer more competitive pricing, develop new products, meet solvency requirements, and achieve return targets. Primarily structured as full coinsurance with asset transfer, RGA's asset-intensive



From left, from Global Financial Solutions Risk Management: Janell Lobdell, Executive Director, Operational Risk; Jeff Nordstrom, Senior Vice President and Chief Risk Officer; Nimmie Veerappen, Vice President and Actuary; A.J. Jacobson, Vice President, Financial Planning and Analysis; Rissa Rutherford, Executive Director, Risk Management Accountant.

solutions deliver full-risk coverage for investment-related products, including fixed and variable annuities, payout annuities, and interest-sensitive products such as universal life and corporateowned or bank-owned life insurance. RGA also provides longevity reinsurance support for products offered to pension plans and individual annuitants through a range of innovative solutions, including longevity swaps and full coinsurance of longevity and investment risk.

North America Team Executes on Strategy

In the U.S., solid momentum in asset-intensive business resulted in a number of successful transactions. This included the acquisition of in-force blocks of individual payout annuities from a long-standing partner, transferring approximately \$3 billion of statutory reserves and a diversified portfolio of assets to RGA. The combination of the client relationship and the desirable characteristics of the blocks made the transaction an ideal fit for RGA.

Building on the team's legacy of market-first innovations, in 2018 GFS executed the first-ever longevity swap in the U.S. market. A well-established player in longevity business globally,

Partnering for the Long Term



Gary Seifert Senior Vice President, North America, Global Financial Solutions

Long-term financial solutions require long-term partnerships. This is especially true in life insurance, as risks can carry over many years and ongoing reliability is paramount to success. RGA's GFS team has become an industry leader by building and fostering strong partnerships – we get to know our clients and work closely with them to structure customized transactions.

Within GFS North America, we refer to "the three Ex's" to express our keys to success:

- Experience for our clients: a transparent, collaborative, client-focused process with every transaction
- Expertise: industry-leading capabilities covering a range of specialties, from actuarial and accounting to deal processing and investments
- Execution certainty: agreements made, results delivered – every time

Our financial returns speak for themselves, yet we consider lasting partnerships the most important measure of success. Even as new market entrants – asset accumulators. private equity firms, and others – increase competition for available blocks of business. clients continue to come back to RGA. We deliver what the new players cannot: an established commitment to the market, a diversified balance sheet, and a track record of unwavering dependability.

This proven approach produced another outstanding year: GFS generated \$450 million in pre-tax income globally in 2018. With one long-standing client alone, RGA completed a \$3 billion deal in the U.S. and two innovative transactions covering a large block of in-force policies in Canada.

Our clients understand that the true test of a partnership occurs not when things are going well, but when things are not. They must trust their reinsurer will be there for them over the long run. Amid a turbulent business environment of ever-changing regulatory requirements and financial market uncertainty, RGA stands out as a trusted industry leader.

From left, from Global Financial Solutions, North America: **Karen Edgerton**, Senior Vice President, Stable Value; **Michael Frings**, Vice President and Senior Actuary, Pricing; **David Addison**, Senior Vice President, Business Development; **Mark Renetzky**, Senior Vice President, Head of Marketing and Transaction Services.



A New Standard in Leadership



John Hayden Executive Vice President and Controller



Jim Kellett Executive Vice President, Valuation and Financial Analysis, Global Actuarial Services

The insurance industry will never be the same. New reporting standards being implemented worldwide mandate fundamental changes to the way insurance and reinsurance companies measure financial performance.

In the U.S., targeted improvements to U.S. GAAP reporting are scheduled to take effect in January 2021, and will be followed one year later by IFRS 17, the first comprehensive international accounting standard applying to all types of insurance contracts. The new reporting standards are designed to promote more transparency and consistency across the insurance industry. At RGA, we support that goal and are committed to helping our clients achieve it as efficiently as possible while identifying new opportunities arising from the changes.

Implications for the insurance industry are profound. The new standards introduce additional complexities requiring greater integration between finance and actuarial processes and systems. RGA embraced the challenge to update our financial reporting structure early on, utilizing expertise and resources from throughout the organization. As a result, RGA is now well-positioned to make the additional changes to comply with the new standards and to help our clients adjust to and thrive within an evolving business environment.

The demands of this multi-year program highlight the strength and depth of the RGA enterprise in knowledge as well as execution. Successful implementation requires educating both internal and external stakeholders on the potential impacts of the changes. This includes client partners turning to RGA for guidance. We expect to strengthen these partnerships amid the ongoing industry transformation and to continue to deliver tailored financial solutions for managing blocks of business.



Continued from page 25

RGA has targeted opportunities in the emerging U.S. pension risk transfer market as a strategic growth priority. Actuarial pricing experts are leveraging a vast biometric database to build out proprietary models and develop innovative solutions. Coupled with RGA's established execution capabilities, these solutions provide a promising new alternative for clients seeking to explore new market opportunities.

In 2018, GFS's dedicated stable value team secured its largest contract since RGA entered the stable value wrap business in 2012. The RGA contract wraps \$2.1 billion in stable value assets, a portion of a stable value fund within a large employer's 401(k) plan. With this transaction, RGA ended 2018 with a portfolio of stable value wrap contracts covering a notional amount of \$13.4 billion in assets, a 33% increase over the previous year.



Simon Robinson, Vice President, Business Development, Global Acquisitions Europe, Global Financial Solutions.

In Canada, GFS delivered a strong year as the team collaborated with RGA experts from various business lines and geographies to help clients address challenges under Canada's Life Insurance Capital Adequacy Test (LICAT) regulations, which were implemented on January 1, 2018, and to prepare for upcoming changes to accounting standards (IFRS 17). Working with a long-time partner, GFS redesigned a longevity transaction structure to create two LICAT-compliant cash flow swaps. These innovative transactions, which transferred biometric and policyholder behavior but not investment risk, improved capital efficiency for both parties.

From left: **Sylvia Scheuler**, Vice President, Investment Accounting; **Chris Murphy**, Vice President, Global Projects, ARIS Program; **Evan Nichols**, Senior Vice President, Head of Financial and Actuarial Solutions, Global Information Technology; **Carol Mahassek**, Project Leader, IFRS Global Implementation, ARIS Program; **Geoffrey Beckemeier**, Vice President and Assistant Controller, Global Finance.



From left, from Global Financial Solutions, Asia Pacific: **Michael Thomas**, Vice President, Business Development; **Gaston Nossiter**, Senior Vice President; **Ken Su**, Executive Director, Business Development.

GFS Strengthens Capabilities in EMEA and Asia

GFS in EMEA generated pre-tax income of \$196 million in 2018, an increase of 59% over the previous year, driven primarily by favorable experience in the U.K.'s closed block longevity and payout annuity businesses. The U.K. team also took steps in 2018 to better position RGA to acquire additional longevity blocks moving forward. In Continental Europe, GFS maintained a disciplined approach within a competitive market environment. As European insurers continued to seek financial solutions strictly to meet compliance requirements, RGA targeted opportunities that also delivered long-term reinsurance value. The EMEA team employed experience in executing innovative transactions in Europe to bring market-first solutions to South Africa in 2018, completing multiple lapse shock absorbers in this growing market.

RGA executed a record number of transactions in Asia in 2018 as GFS continued to build out capabilities in the region to help clients address capital and reserving challenges. The team's strategic initiative to grow asset-intensive business in key markets resulted in the completion of multiple transactions in both Hong Kong and Japan. RGA also executed its first financial reinsurance transaction in Indonesia and two capital-motivated transactions in China. Leveraging expertise across business lines, GFS collaborated with RGA's traditional reinsurance team in Asia to co-develop products that integrate capital relief structures within traditional reinsurance solutions. Throughout the region, RGA strengthened its GFS operations and positioned the company as a financial solutions partner of choice for clients facing a dynamic regulatory environment.

Langhorne Re: Launch of the Year



Andrew Edwardson Managing Director, RGA Capital Partners

In January 2018, RGA and partner RenaissanceRe Holdings Ltd. announced the launch of a joint venture named Langhorne Re, a global reinsurer targeting large inforce life and annuity blocks. Langhorne Re focuses on large asset-intensive and longevity transactions. As life insurers seek to free up capital from large blocks of business but face limited options, Langhorne Re meets this widespread market need.

Once announced, it did not take long for the industry to take notice: RGA clients and stakeholders welcomed this partnership with Langhorne Re and it earned multiple industry awards, including "Launch of the Year" at the 2018 Reactions North America Awards.

Our RGA Capital Partners team assisted the Langhorne Re team in taking important steps to build out Langhorne Re's capabilities throughout 2018. For example, the acquisition in July of an Arizona-domiciled insurer, licensed in 47 states and the District of Columbia, strengthened Langhorne Re's ability to execute transactions in the U.S. market. Such capacity-building measures resulted in a deal-ready reinsurer equipped to provide clients with competitive and flexible solutions.

Much like RGA, Langhorne Re has adopted a disciplined approach to risk assumption and selectively pursued opportunities in 2018. Above all, Langhorne Re achieved its goal of establishing a market presence and communicating what we can bring to clients. The long-term nature of Langhorne Re's capital is proving particularly attractive. As life insurance liabilities are also long-term, both ceding companies and regulators see the advantages of corresponding capital.

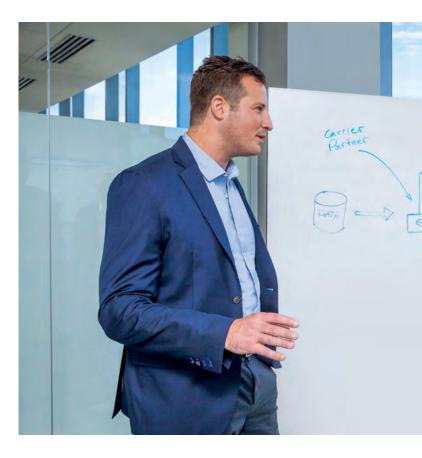
Increased regulation and uncertainty around interest rates worldwide are leading carriers to divest large blocks of business. Langhorne Re offers a long-term solution uniquely tailored to meet the needs of life insurers.

Michelle Ma, Vice President, Operations, RGA Capital Partners.



RGAX

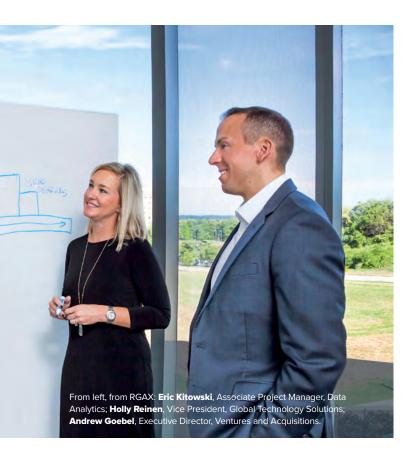
Building on RGA's legacy of continuous innovation, RGAX partnered with clients and entrepreneurs in 2018 to address existing challenges, explore new opportunities, and build the future of insurance.



Expanded Capabilities Create New Opportunities

Through strategic acquisitions, organizational realignment, and internal research and development projects, RGAX greatly expanded the scale of its technology and insurance services capabilities in 2018, creating an end-to-end suite of scalable solutions designed to drive value to each other and to RGA's traditional reinsurance business. New acquisitions made significant contributions in their first year as RGAX companies:

- **LOGiQ³ Corp**, a reinsurance administration, underwriting, and claims outsourcing and consulting company, implemented an artificial intelligence (AI) tool to enhance treaty data review services and increase efficiencies.
- **TAI (Tindall Associates, Inc.)**, the U.S. market leader in reinsurance software and consulting services, launched an initiative to integrate LOGiQ³'s reinsurance services into the TAI portfolio and enable end-to-end software and services support.
- APEXA, a centralized online solution for advisor contracting and compliance, took the next step to become the required platform for processing advisor contracts throughout the Canadian market, as APEXA clients notified business partners of mandatory adoption of the platform by 2020.
- Cookhouse Lab, an insurtech-focused innovation lab, brought together industry experts for accelerated design sprints to address social and insurance-specific challenges, from the increased incidence of suicides to industry disruption by tech giants.



• **SALT Associates**, a claims management consulting firm, began 2019 by adding two large clients and expanding capabilities to meet growing industry needs.

These companies were integrated into RGAX along with two existing RGA business units: Elite Sales Processing, a leader in the outsourced underwriting market, and AURA® (Automated Underwriting and Risk Analysis®), a SaaS (Software as a Service) based e-underwriting platform. AURA, in addition to powering innovative RGA tools and client-led initiatives throughout 2018, was selected by several major insurers around the world as the supporting technology for their e-underwriting and risk management digital platforms, which will process over one million applications annually once fully implemented.

RGAX Americas Brings Innovation to Market

With added capabilities and experience since launching in 2015, RGAX Americas continued to evolve from a front end-focused innovation enterprise, to an industry leader in bringing new ideas to market. The team applied data and technology to help clients engage consumers throughout the customer journey and encourage healthy living and financial well-being. In-market initiatives from 2018 ranged from wellness programs and

Transforming Insurance



Dennis Barnes Chief Executive Officer, RGAX

In 2015, RGA launched RGAX to build and accelerate transformational businesses in the life and health industry. Building on years of hard work and discovery, RGAX is more committed to that original mandate than ever – and to ensuring RGA's leading role in shaping the future of insurance.

After a year of key acquisitions, strategic reorganization, and global realignment in 2018, RGAX emerged as an unparalleled transformation engine for RGA and for the industry. We established four business lines – data analytics, digital distribution, consumer engagement, and insurance services - to serve clients across the insurance value chain. The goal: create tools, products, and platforms to improve the insurance experience.

RGAX is an extension of RGA's decades-long commitment to innovation, fusing industry expertise with outside capabilities to create unprecedented insights. We have combined diverse talent from adjacent industries and synthesized complementary skills to develop and commercialize new ideas. This resulted in innovation initiatives in partnership with entrepreneurs and carriers around the globe in 2018, such as digitized health checks in Japan, a holistic well-being app in the U.K., and data-driven pricing in the U.S. group market, to name a few.

RGAX is passionately driven to help close the global insurance coverage gap, to improve consumer engagement, and to take on the industry's toughest challenges. We are collaborating with clients and partners to leverage data, technology, and new ways of thinking to remove friction in the customer journey and enhance trust and transparency. Through stronger carrier-to-consumer engagement, we seek to make insurance an integral part of people's lives and ensure the long-term success of our industry.

Ultimately, RGAX's mission is to help people live longer, healthier, more financially secure lives. With the expansion of our team and capabilities in 2018, and the consumer reach of our clients, we are delivering on that mission more than ever.

From left: **Dennis Barnes**, Chief Executive Officer, RGAX; **Ray DiDonna**, Head of Underwriting and Claims Services, RGAX Americas; **Chris Murumets**, Managing Director, RGAX Americas.



Innovation Through Collaboration



Mark Friederich Vice President and Actuary, RGAX



Jeff Schuh Vice President and Actuary, U.S. Group Reinsurance

As individual life insurance carriers pursued and implemented big data solutions to improve pricing in recent years – as well as underwriting and other aspects of their business – group insurers watched from a distance. It seemed the data strategies gaining traction in individual life markets would not transfer to the group space due to major differences in data availability, underwriting practices, and price structures. So group pricing methodology remained static as it has for several decades.

That changed in 2018 with the launch of TransUnion TrueRisk® Life Group, a creditbased risk score developed by TransUnion and validated by RGA that is predictive of group mortality experience. TrueRisk® Life Group provides a behavioral score that gives carriers a competitive edge when pricing new business and renewals.

RGA's partnership with TransUnion began four years ago and led to the development of TrueRisk® Life for individual life insurance underwriting. Applying the same principles to the aroup space, we found that aggregated credit data can dramatically improve the fit of a traditional group life insurance pricing basis. The TrueRisk® Life Group score combines individual TrueRisk® Life scores of employees into an aggregate employer-group score, and can segment mortality beyond today's existing manually rated techniques.

The development of TrueRisk[®] Life Group is a testament to the collaborative possibilities of TransUnion, RGA, and RGAX. RGA's experienced U.S. Group Reinsurance team provided business expertise and deep client knowledge, while RGAX and TransUnion brought an understanding of TrueRisk® Life in the individual space and innovative processes for bringing new products to market. Supporting it all was the data analysis and modeling expertise of RGA's Global Research and Data Analytics team.

In a competitive marketplace, group insurers understand the need to adopt new approaches. TrueRisk® Life Group is a big step forward in applying data to further refine pricing for carriers.



Continued from page 29

family-focused coverage to legacy planning and eldercare services. One such initiative brings together strategic industry partners, as well as business units throughout RGAX and RGA, to deliver a fully automated term life insurance product targeted to younger consumers.

RGAX Americas also launched Greenhouse Life Insurance Company (Greenhouse) in 2018, a life and disability insurer custom-designed to partner with insurers and entrepreneurs to accelerate innovation in the life insurance industry. Greenhouse works to bring concepts to market more quickly and build them to scale on behalf of RGAX's client partners – ideas that might otherwise never leave the drawing board. Along with partners Cardiogram and Amica Insurance, Greenhouse rolled out its first product in 2018: accidental death coverage for wearable technology users offered via a digital app.



From left, from AURA Technologies: **Brad Butler**, Vice President and AURA Chief Technology Officer; **Patti Treis**, Senior Vice President and General Manager; **Michael Casale**, Vice President, Client Services.

EMEA Team Puts Ideas in Motion

RGAX EMEA worked with a variety of clients and partners in 2018 to develop solutions that addressed the industry's most urgent challenges. To facilitate innovation, the team established a life insurance vehicle to enable testing of new ideas in market and once again organized the international Big Ideas Competition. RGAX also employed Life Design Sprints, which are focused sessions to conceive new ideas, select those most likely to work, build prototypes for testing, and learn from results with real customers. Life Design Sprints produce concrete, tested output to address well-defined customer problems in days rather than weeks or months.

From left, from RGAX: **Noah Krusell**, Execution Manager; **Carolyn Balfany**, Vice President, Global Product Management.



From left: **Richard Verdin**, Managing Director, RGAX EMEA; **Leo Wong**, Managing Director, RGAX Asia Pacific; **André Dreyer**, Vice President, Ventures and Acquisitions, RGAX Emerging Solutions.

Among other initiatives throughout the region, RGAX EMEA partnered with tech company yulife in 2018 to develop an appled solution that uses behavioral science, gamification, and AI to build deeper and more-rewarding relationships with customers. The vision behind yulife is to target businesses employing the mobile-savvy millennial market by simplifying the insurance experience and engaging employees through a well-being tool and a rewards program that promotes long-term health.

RGAX Asia Pacific Expands Insurance Ecosystem

In the Asia Pacific region, RGAX worked to harness advancements in technology and data analytics to deliver new customerengagement and risk-assessment solutions to the life and health insurance industry. The team selectively partnered with tech and insurtech supply chain leaders, based on distribution capabilities, technologies, and data sources, seeking opportunities to strengthen the insurance ecosystem on behalf of clients.

In 2018, RGAX Asia Pacific collaborated with RGA colleagues in local offices to introduce new digital tools and advance datadriven initiatives. RGAX experts supported efforts in Japan to develop a one-stop digital solution, digitizing health checks and other forms to accelerate automated decision-making. In India, the team tested AI in underwriting to gauge the potential for a chatbot/avatar interface to create a seamless tele-underwriting experience and generate cost savings. Partnering with an insurer client and a telecommunications company in China, RGAX developed a centralized digital platform designed to facilitate business and bring together insurer, service provider, and customer in a mutually beneficial relationship.

As the range and depth of new data sources continues to expand, along with RGA's ability to analyze that data, RGAX is focused on translating that information into real-world insights for clients.

Empowering Tomorrow's Insurance Leaders



Simon Bell Head of Emerging Solutions, RGAX

Transformative innovation, once considered the exclusive realm of tech companies and startups, has become democratized. Forward-thinking investments are paying off, and startup methodologies and design thinking have created new ways of doing business. Yet progress in insurance remains slow as carriers strive to turn promising ideas into scalable, sustainable business.

RGAX is designed to accelerate this process and make insurance more affordable, accessible, and integral to modern life. A dedicated client focus, as well as a diversified portfolio of solutions, distinguishes RGAX from our industry counterparts; rather than compete with insurers, we work to empower them. RGAX provides resources and expertise that the demands of day-today insurance operations can prevent our clients from developing on their own.

In 2018, RGAX added powerful new innovation vehicles to fuel progress, with the Global Emerging Solutions team acting as a launchpad for new ideas. Cookhouse Lab brings together industry experts on a co-creation basis for accelerated design sprints to devise viable product solutions to insurers' toughest challenges. Studio goes a step further, bringing concepts to market and building them to prototype – ideas that might otherwise never be realized.

Our approach is comprehensive and longterm. We work in depth with our clients and examine underlying and related factors to anticipate how issues may evolve over time. To address eldercare, for example, RGAX partnered in 2018 to advance technology solutions for in-place aging (Kraydel in the U.K. and K4Connect in the U.S.) and also to provide services for family caregivers of the elderly, who face their own set of challenges (TCARE).

At RGAX, we believe the skills to innovate are learnable. By providing expert guidance and connecting clients with partner companies and resources, we seek to empower the insurance leaders of tomorrow.

From left: **Sehij Gahunia**, Reinsurance Analyst, TAI; **Nick Durie**, Learning Solutions Director, RGAX; **Mariah Clarkin**, Sales and Communication Specialist, APEXA; **Farzaneh Mashhadian**, Consultant, TAI.



INVESTING IN GROWTH



Timothy Matson

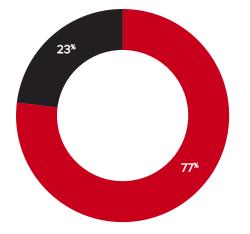
Executive Vice President and Chief Investment Officer

RGA's Investments team pursues several key long-term objectives: produce a reliable stream of investment income, manage balance sheet strength, partner with RGA business lines to support transactions, and continually enhance the company's investment platform.

Sound asset/liability management ensures appropriate matching of cash flows, while an expanding choice of asset classes provides additional sources of investment income and diversification to reduce market risk. To support a steady increase in assets under management, RGA uses both internal and external investment managers, typically insourcing asset management as skill levels and cost efficiencies are reached.

RGA's internal investment teams are based in St. Louis and London, with commercial mortgage loan production offices across the U.S. and Canada. External managers are used for specialty asset classes. A multi-manager approach enables us to strike the right balance of investment expertise and management expense. The growth of RGA's asset-intensive business led to the creation of our Investment Solutions team, which works exclusively with Global Financial Solutions on new transactions, bringing together in-house expertise in portfolio management, credit analysis, and strategic asset allocation.

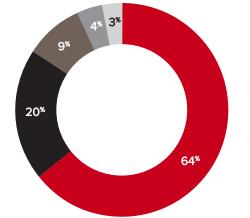
All investment activity is dependent on a robust and scalable operations platform. New investment software and data warehouse capabilities recently brought online dramatically increase our ability to analyze data and meet complex transaction demands.



Management of Assets

As of December 31, 2018

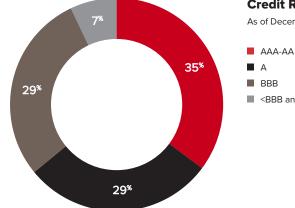
- RGA Investments
- External Managers



Asset Allocation

As of December 31, 2018

- Investment-Grade Credit
- Government Bonds
- Commercial Mortgage Loans
- High-Yield Bonds
- Private Debt and Equity



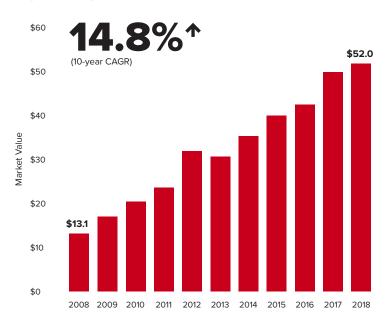
Credit Rating Distribution

As of December 31, 2018

- SBBB and Not-Rated

Annualized Growth in Assets Under Management

(in billions USD)



In 2018, RGA Investments continued to generate reliable income, build financial strength, and support business growth.

Building Strength amid Market Uncertainty



Amy Gibson Vice President, Credit and Trading

Early in 2018, strong global growth and corporate earnings coupled with steadily rising interest rates provided a near-"Goldilocks" environment for financial firms that stood to benefit from higher reinvestment rates. Yet lurking below the surface were growing concerns about increasing leverage on corporate balance sheets, weaker lending standards by market participants, and the eventual turn in the credit cycle.

Despite strong earnings, low interest rates over the last decade have encouraged companies to use leverage to finance merger and acquisition activity, share buybacks, and dividend increases. As an experienced credit investor, RGA understands that the asymmetric nature of debt investing requires a focus on prevention of principal loss. To aid in the preservation of principal, we have put processes in place that combine quantitative screens with fundamental research. This allows the team of sector specialists to identify sectors and issuers that face greater loss probability.

At times during 2018, when some risks were not rewarded, RGA proactively rotated into issuers with the ability and liquidity to withstand both a slower economy and a debt market that makes refinancing more difficult. We also emphasized private market investing where covenants and security provide additional lender protections.

Meanwhile, the Investments team continued to build RGA's asset class and credit research capabilities. We insourced the management of U.S. traditional private placements and expanded our credit research efforts covering direct lending and emerging markets. This enabled RGA to better control the sourcing of assets that enhance portfolio diversification and offer attractive yield and structural features not often available in public bonds.

RGA Investments built on a proven strategy in 2018, strengthening our ability to support the company and our clients' growth and protection needs.

From left, from U.S. Investments, Corporate Bond: **Anne Nyambweke**, Associate Credit Analyst; **Curtis Spillers**, Senior Credit Analyst; **James Smallwood**, Vice President, Senior Analyst.







Selected Consolidated Financial and Operating Data

2017	2016	2015	2014
9,841	\$ 9,249	\$ 8,571	\$ 8,670
2,155	1,912	1,734	1,714
(43)	(39)	(57)	(8)
211	133	(108)	194
168	94	(165)	186
352	267	278	334
12,516	11,522	10,418	10,904
8,519	7,993	7,489	7,407
502	365	337	451
1,467	1,311	1,127	1,391
710	645	554	538
146	138	143	97
29	26	23	12
11,373	10,478	9,673	9,896
1,143	1,044	745	1,008
(679)	343	243	324
1,822	\$ 701	\$ 502	\$ 684
		•	
28.28	\$ 10.91	\$ 7.55	\$ 9.88
27.71	10.79	7.46	9.78
65,753	64,989	67,292	69,962
1.82	\$ 1.56	\$ 1.40	\$ 1.26
51,691	\$ 44,841	\$ 41,978	\$ 36,696
60,515	53,098	50,383	44,654
43,583	37,874	37,371	30,892
2,788	3,089	2,298	2,298
784	841	899	774
9,570	7,093	6,135	7,023
148.48	110.31	94.09	102.13
			\$ 2,944 482
	3,297 395		

(1) 2017 reflects adjustments related to the initial adoption of U.S. Tax Reform. See Note 9 - "Income Tax" in the Notes to Consolidated Financial Statements of RGA's Annual Report on Form 10-K for additional information.

(2) Policy liabilities include future policy benefits, interest-sensitive contract liabilities, and other policy claims and benefits.

LEADERSHIP

Board of Directors

J. Cliff Eason

Chairman of the Board Retired President and Chief Executive Officer, Southwestern Bell Telephone, SBC Communications, Inc.

Arnoud W. A. Boot Director

Professor of Corporate Finance and Financial Markets, University of Amsterdam and Director, Amsterdam Center for Law & Economics

John F. Danahy

Director

Retired Chairman and Chief Operating Officer, May Merchandising Company and May Department Stores International

Christine Detrick

Director

Former Director and Head of Americas Financial Services Practice, Bain & Company, Inc.

John J. Gauthier Director

Retired Chief Investment Officer of Allied

World Assurance Company Holdings, AG and Retired President of Allied World Financial Services Company, Inc.

Patricia L. (Tricia) Guinn Director

Retired Managing Director, Risk and Financial Services, Towers Watson

Alan C. Henderson

Director

Retired President and Chief Executive Officer, RehabCare Group, Incorporated

Anna Manning

Director

President and Chief Executive Officer, Reinsurance Group of America, Incorporated

Hazel M. McNeilage

Director

Former Regional Managing Director, EMEA, Northern Trust Corporation's Asset Management division (NTAM)

Frederick J. Sievert

Director Retired President, New York Life Insurance Company

Stanley B. Tulin

Director Retired Vice Chairman and Chief Financial Officer, AXA Financial, Inc. and AXA Equitable Life Insurance Company

Steven C. Van Wyk Director

Chief Information Officer and Head of Technology & Innovation, PNC Financial Services Group, Inc.

RGA Executive Committee



Anna Manning President and Chief Executive Officer

Todd C. Larson Senior Executive Vice President and Chief Financial Officer

Alain P. Néemeh Senior Executive Vice President and Chief Operating Officer



Dennis Barnes, Jr. Executive Vice President, Chief Executive Officer, RGAX



Gay Burns Executive Vice President and Chief Human Resources Officer



John P. Laughlin Executive Vice President, Global Financial Solutions



Timothy Matson Executive Vice President and Chief Investment Officer



Jonathan Porter Executive Vice President and Global Chief Risk Officer



Timothy L. Rozar Senior Vice President and Chief of Staff to the CEO

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David Dubois, General Manager 31-33 rue de la Baume, 6th floor 75008 Paris France **T** 33.1.55.07.97.80 **F** 33.1.55.07.80.96

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RGA Reinsurance Company Hong Kong Branch Michael Shin Senior Vice President, RGA Hong Kong; Chief Executive Officer, RGA Korea; Chief Marketing Officer, RGA Asia

Shih-Nin Low, Senior Vice President, Managing Director, Southeast Asia Markets 29th Floor Dorset House Taikoo Place 979 King's Road Hong Kong T 852.2511.8688 F 852.2511.8827

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Malaysia

RGA Global Reinsurance Company, Ltd. Labuan Branch

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Mexico

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1st Floor, Sentinel House Sunnyside Office Park 32 Princess of Wales Terrace Parktown, 2193 Johannesburg South Africa T 27.11.484.0577 F 27.11.484.0734

South Korea

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Chief Executive Officer, RGA Hong Kong, Chief Executive Officer, RGA Korea; Chief Marketing Officer, RGA Asia Seoul Finance Center 9F, 136, Sejong-daero Jung-gu, Seoul, 04520 Korea T 82.2.6730.1350 F 82.2.6730.1370

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United States

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Mike Emerson, Executive Vice President and Head of U.S. and Latin American Markets 100 Washington Avenue South, Suite 1400 Minneapolis, Minnesota 55401-1908 U.S.A. **T** 612.217.6000 **F** 612.217.6111

Accelerated underwriting

A form of underwriting designed to be both less invasive and faster from the time of application to issue. This approach relies on more non-traditional techniques, including the use of predictive models and new data sources, to rate certain applicants.

Actuary

A specialist in the mathematics of risk, especially as relates to such insurance calculations as premiums, reserves, dividends, and insurance and annuity rates.

Allowance

An amount paid by the reinsurer to the ceding company to help cover the ceding company's acquisition and other costs, especially commissions. Allowances are usually calculated as a large percentage (often 100%) of the first-year premiums reinsured and account for smaller percentages of renewal premiums reinsured.

Annuity

A contract that provides for income payments to an insured at regular intervals, either for a specific period or for the lifetime of the insured, in exchange for premiums.

Asset-intensive reinsurance

A transaction for which the key element is often performance of the underlying assets, more so than any mortality risk. The transaction is usually for coinsurance or funds withheld, and often involves reinsurance of annuities.

Assumed reinsurance

Insurance risk that a reinsurer accepts (assumes) from a ceding company.

Attending Physician Statement (APS)

A report by the treating physician or medical facility regarding the medical condition of a patient who applies for insurance. This is one of the most common sources of medical background information used in underwriting.

Automatic reinsurance

Reinsurance arrangement whereby the ceding company and reinsurer agree that all business of a certain description will be ceded to the reinsurer. Under this arrangement, the ceding company performs underwriting decision-making within agreed-upon parameters for all business reinsured.

Bancassurance

The provision of insurance and banking products and services through a common distribution channel and/or to the same client base.

Big data

A term generally referring to datasets so large they require specialized software tools and expertise to capture, store, or process the information. The five dimensions ("the five V's") of big data are Volume, Variety, Velocity, Veracity, and Value. In life and health insurance, big data can reveal more-complex patterns and trends related to mortality, morbidity, and the propensity of insurance consumers to purchase or retain protection products.

Capital-motivated reinsurance

Reinsurance, including financial reinsurance, for which the primary purpose is to enhance the cedant's capital position.

Captive insurer

An insurance or reinsurance entity designed to provide insurance or reinsurance coverage for risks of the entity or entities by which it is owned or with which it is affiliated.

Ceding company

(also known as cedant)

An insurer that transfers, or cedes, risk to a reinsurer.

Cession

The insurance risk associated with a policy that is reinsured from an insurer to a reinsurer.

Claim

Demand on an insurer or reinsurer for payment under the terms of an insurance policy.

Closed-block acquisition

The acquisition of a block of insurance products that are discontinued but still have active policyholders.

Coinsurance

(also known as original terms reinsurance)

A form of reinsurance under which the ceding company shares its premiums, death claims, surrender benefits, dividends, and policy loans with the reinsurer, and the reinsurer pays expense allowances to reimburse the ceding company for a share of its expenses.

Counterparty

A party to a contract requiring or offering the exchange of risk.

Counterparty risk

The risk that a party to an agreement will be unable to fulfill its contractual obligations.

Critical illness (CI) insurance

(also known as dread disease insurance) Insurance that provides a guaranteed fixed sum upon diagnosis of a specified illness or condition, such as cancer, heart disease, or permanent total disability. The coverage can be offered on a standalone basis or as an add-on to a life policy.

Data privacy (also known as *information privacy*)

An area of information technology (IT) that addresses security issues and how much, or how little, personally identifiable information can be held in a computer system or shared with third parties.

Enterprise Risk Management (ERM)

An enterprise-wide framework used by a firm to assess all risks facing the organization, manage mitigation strategies, monitor ongoing risks, and report to interested audiences.

Excess of loss reinsurance

A form of non-proportional reinsurance in which the reinsurer indemnifies a ceding company for losses exceeding a specified limit.

Expected mortality

Number of deaths predicted to occur in a defined group of people.

Face amount

Amount payable at the death of the insured or at the maturity of the policy.

Facultative reinsurance

A type of reinsurance in which the reinsurer underwrites an individual risk submitted by the ceding company for a risk that is unusual, large, highly substandard, or not covered by an automatic reinsurance treaty. Such risks are typically submitted to multiple reinsurers for competitive offers.

Financial reinsurance

(also known as *financially motivated reinsurance***)** A form of capital-motivated reinsurance that satisfies all regulatory requirements for risk transfer and is often designed to produce very predictable reinsurer profits as a percentage of the capital provided.

Group life insurance

Insurance policy under which the lives of a group of people, most commonly employees of a single company, are insured in accordance with the terms of one master contract.

Guaranteed issue life insurance

Insurance products that are guaranteed upon application, regardless of past health conditions.

IFRS

International Financial Reporting Standards.

Impaired life

An applicant who represents an underwritten risk for life insurance that is higher than an underwritten risk at standard rates. An applicant can be considered "impaired" due to medical condition, hazardous activities, or other reasons.

In-force sum insured

A measure of insurance in effect at a specific date.

Individual life insurance

An insurance policy that insures the life of usually one, and sometimes two or more, related individuals, rather than a group of people.

Insurance-linked wellness program

An insurance program designed to promote improved health and customer engagement. Health tracking often relies on data from wearable devices and biometric screenings to monitor progress. Typically participants are offered premium discounts, cash rewards, or other incentives to participate.

Insurtech

(also insuretech and instech)

A collection of companies and technologies seeking to streamline the insurance application and claims management processes, enhance the consumer experience, and increase competition.

Living benefits

A life insurance benefit enabling the policy owner to access the cash value and/or death benefit of a policy while still living, generally when the insured faces terminal, critical, or chronic illness or disability.

Longevity product

An insurance product that mitigates longevity risk by providing a stream of income for the duration of the policyholder's life.

Longevity swap

An insurance, reinsurance, or derivative contract designed to exchange ("swap") a fixed payment stream for a variable payment stream that is dependent on the longevity or survival of a defined group of lives. For example, the variable payment stream can be defined as the benefit payments to be paid under a defined benefit pension plan, or as the benefits paid to the annuitant under an insurance contract. The fixed payment stream would be the expected payment stream plus a margin.

Modified coinsurance

A variant on coinsurance in which the ceding company retains all the reserves, as well as assets backing reserves, and pays the reinsurer interest on the reinsurer's share of the reserves.

Morbidity

A measure of the incidence of sickness or disease within a specific population group.

Mortality experience

Actual number of deaths occurring in a defined group of people.

Mortality risk reinsurance

Removing some of the major mortality or lapse risk associated with life insurance from the client company.

Novation

The act of replacing one participating member of a contract with another, with all rights, duties and terms being transferred to the new party upon consent of all parties affected.

Original terms reinsurance

See coinsurance.

Portfolio

The totality of risks assumed by an insurer or reinsurer.

Predictive modeling

(also known as *predictive analytics*) A process employing algorithms and statistics by which current or historical facts are used to create predictions about future events or behaviors.

Preferred risk coverage

Coverage designed for applicants who represent a better-than-average risk to an insurer.

Premium

Amount paid to insure a risk.

Primary insurance

(also known as *direct insurance*) Insurance business related to contracts directly between insurers and policyholders. The insurance company is directly responsible to the policyholder.

Quota share

(also known as 'first dollar' quota share)

A reinsurance arrangement in which the reinsurer receives a certain percentage of each risk reinsured.

Reinsurance

The transfer of insurance risk from an insurer, referred to as the ceding company, to a reinsurer, in conjunction with the payment of a reinsurance premium. Through reinsurance, a reinsurer 'insures' an insurer.

Reserves

The amount required to be carried as a liability in the financial statement of an insurer or reinsurer to provide for future commitments under outstanding policies and contracts.

Retakaful

A form of reinsurance that is acceptable within Islamic law. See *Takaful*.

Retention limit

The maximum amount of risk a company will insure on one life. Any amount in excess of the retention limit must be reinsured.

Retrocession

A transfer of reinsurance risk from a reinsurer to another reinsurer, referred to as the retrocessionaire, in conjunction with the payment of a retrocession premium. Through retrocession, a retrocessionaire reinsures a reinsurer.

Retrocessionaire

A reinsurer that reinsures another reinsurer. See *retrocession*.

Securitization

The structuring of financial assets as collateral against which securities can be issued to investors.

Simplified issue life insurance

Insurance products with limited face amounts that require no or minimal underwriting.

Stable value wraps

Contracts within a stable value fund that provide a limited guarantee on a high-quality, diversified portfolio of fixed income assets. These contracts, combined with the fixed income assets, provide principal protection. While offering returns similar to short-term bond funds, these investment portfolios have similar protective qualities of money market funds.

Statutory capital

The excess of statutory assets over statutory reserves, both of which are calculated in accordance with standards established by insurance regulators.

Takaful

A form of insurance that is acceptable within Islamic law and that is devised upon the principles of mutual advantage and group security.

Treaty

(also known as a contract)

A reinsurance agreement between a reinsurer and a ceding company. The three most common methods of accepting reinsurance are automatic, facultative, and facultative-obligatory. The three most common types of reinsurance treaties are YRT (yearly renewable term), coinsurance, and modified coinsurance.

Underwriting

The process by which a company assesses the risk inherent in an application for insurance prior to acceptance of the policy.

Valuation

The periodic calculation of reserves, the funds that insurance companies are required to hold to make good on all future insurance obligations.

Variable life insurance

A form of whole life insurance under which the death benefit and the cash value of the policy fluctuate according to the performance of an investment fund. Most variable life insurance policies guarantee that the death benefit will not fall below a specified minimum.

DISCLAIMERS

This 2018 Annual Review contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 including, among others, statements relating to projections of the strategies, earnings, revenues, income or loss, ratios, future financial performance, and growth potential of RGA (which we refer to as "we," "us," or "our"). The words "intend," "expect," "project," "estimate," "predict," "anticipate," "should," "believe," and other similar expressions also are intended to identify forward-looking statements. Forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified. Future events and actual results, performance, and achievements could differ materially from those set forth in, contemplated by, or underlying the forward-looking statements. See "Item 7–Management's Discussion and Analysis of Financial Condition and Results of Operations – Cautionary Note Regarding Forward-Looking Statements" of RGA's Annual Report on Form 10-K.

RGA's 2018 Form 10-K is available for download via our website: **www.rgare.com**

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