Validus Reinsurance, Ltd. Singapore Branch Public Disclosure

For the fiscal year ended December 31, 2017

Purpose

This document is meant to satisfy the public disclosure requirements, as outlined in Notice 124 of the Monetary Authority of Singapore (the "MAS"), for the Validus Reinsurance, Ltd. Singapore Branch (the "Singapore Branch").

The information in this document is directly extracted from or based on information from the following sources: the Annual Report on Form 10-K for Validus Holdings, Ltd. ("Validus Holdings" or "Validus Group"), which can be found on the Validus Holdings website located at http://www.validusholdings.com; the Validus Reinsurance, Ltd. ("Validus Re Ltd.") Consolidated Financial Statements, which can be found on the Bermuda Monetary Authority ("BMA") website located at http://www.bma.bm; and the MAS Insurance Company Returns for the Singapore Branch, which can be found on the MAS website located at http://www.mas.gov.sg/.

The information provided below is for the fiscal year ended December 31, 2017 and contains disclosures relating to the Validus Group and its subsidiaries, including Validus Re Ltd., the parent and head office of the Singapore Branch. Hereinafter, "the Company", "us" or "we" is used to describe any or all of Validus Holdings, Ltd. and its subsidiary companies.

Note: Paragraph 10 of Notice 124 states: "Where any disclosure which relates to activities conducted at the group* level or at the head office level (as the case may be) has been made at the group level or head office level (as the case may be), a licensed insurer, may cross-refer to those disclosures made at the group level or head office level (as the case may be). *Group refers to the ultimate holding company, its subsidiaries and any other company or entity treated as part of the ultimate holding company's group of companies according to the Accounting Standards."

All financial information contained herein relating to the Validus Group and Validus Re Ltd. includes results from the Singapore Branch and is expressed in U.S. Dollars utilizing U.S. GAAP unless otherwise indicated. Singapore specific amounts are presented in accordance with the statutory requirements of the annual MAS Insurance Company Returns.

Information provided herein should be referenced in conjunction with additional information provided in the sources cited above.

Company Profile

Validus Holdings, Ltd. was incorporated under the laws of Bermuda on October 19, 2005. The Company conducts its operations worldwide through three reportable segments which have been determined under U.S. GAAP segment reporting: Reinsurance, Insurance and Asset Management.

The Reinsurance segment operates globally and is primarily focused on treaty reinsurance. The Insurance segment operates globally and focuses on specialty insurance within both the Lloyd’s and the U.S. commercial insurance markets. The Asset Management segment reports the results of the Company’s Bermuda-based investment adviser, managing capital for third parties and Validus through insurance-linked securities (“ILS”) and other property catastrophe and specialty reinsurance investments.

We seek to establish ourselves as a leader in the global (re)insurance markets. Our principal operating objective is to use our capital efficiently by underwriting (re)insurance contracts with superior risk and return characteristics. Our primary underwriting objective is to construct a portfolio of (re)insurance contracts that maximizes our return on equity subject to prudent risk constraints on the amount of capital we expose to any single event. We manage our risks through a variety of means, including contract terms, portfolio selection, diversification, including geographic diversification, and proprietary and commercially available third-party vendor catastrophe models.

On January 21, 2018, the Company entered into a definitive agreement and plan of merger with American International Group, Inc. (“AIG”). The Merger Agreement provides that, subject to the satisfaction or waiver of certain conditions set forth therein, the Company will merge with an existing AIG subsidiary in accordance with the Bermuda Companies Act, with the Company surviving the Merger as a wholly-owned subsidiary of AIG. For further details, refer to the Annual Report on Form 10-K for Validus Holdings, Ltd.

In accordance with authoritative accounting guidance, we continually monitor and review our segment reporting structure to determine whether any changes have occurred that would impact the composition of our reportable segments. As a result of the evolution of the Company’s operations, the global nature of the (re)insurance industry and synergies obtained through the acquisition and integration of Talbot, Western World and CRS, the Company’s previous reportable segments had integrated in such a way that during the fourth quarter of 2017, the Company changed its reportable segments to “Reinsurance,” “Insurance,” and “Asset Management.” Furthermore, to better align the Company’s disclosures with its current strategy, the Company also changed its primary lines of business to “Property,” “Specialty - Short-tail” and “Specialty - Other.”

The Reinsurance segment operates as a global provider of reinsurance products. The segment operates primarily through Validus Reinsurance, Ltd. and Validus Reinsurance (Switzerland) Ltd., as well as Lloyd’s Syndicate 1183, which is managed by Talbot Holdings Ltd. through its wholly–owned subsidiaries.

Validus Re Ltd. was incorporated under the laws of Bermuda on October 19, 2005. The Company is 100% owned by Validus Holdings.

Validus Re Ltd. maintains a branch office in Singapore which commenced operations in December, 2009.

Validus Re Ltd. is registered as a Class 4 insurer under The Insurance Act 1978 of Bermuda, amendments thereto and related regulations (the "Insurance Act") since November 2005. It commenced operations with approximately $1.0 billion of equity capital and a balance sheet unencumbered by any historical losses relating to the 2005 hurricane season, the events of September 11, 2001, asbestos or other legacy exposures affecting our industry.

The Reinsurance segment, including the Singapore Branch, primarily concentrates on property and other reinsurance risks commonly referred to as short-tail in nature due to the relatively brief period between the occurrence and payment of a claim.

Details of gross premiums written by line of business for the Reinsurance segment, are provided below:

	Year Ended December 31, 2017		Year Ended December 31, 2016		Year Ended December 31, 2015	
(US Dollars in thousands)	Gross Premiums Written	Gross Premiums Written (%)	Gross Premiums Written	Gross Premiums Written (%)	Gross Premiums Written	Gross Premiums Written (%)
Property	$ 548,977	45.9%	$ 497,263	42.0%	$ 571,612	47.9%
Specialty - Short-tail	505,111	42.3%	555,504	46.9%	599,333	50.2%
Specialty - Other	141,119	11.8%	132,145	11.2%	23,644	2.0%
Total	$ 1,195,207	100.0%	$ 1,184,912	100.0%	$ 1,194,589	100.0%

Note: Figures provided in the table above and in the line of business descriptions immediately following are based on Reinsurance segment reporting for the Validus Group Consolidated Financial Statements.

Property: The Reinsurance segment primarily underwrites property reinsurance business on a catastrophe excess of loss, per risk excess of loss and proportional basis.

Property catastrophe excess of loss: Property catastrophe reinsurance covers insurance companies' (referred to as "ceding companies" or "cedants") exposures to an accumulation of property and related losses from separate policies, typically relating to natural disasters or other catastrophic events. Property catastrophe reinsurance is generally written on an excess of loss basis, which responds when aggregate claims and claim expenses from a single occurrence for a covered peril exceed a certain amount specified in a particular contract. (In regards to the Singapore Branch, coverage for property catastrophe in Asia is more evenly distributed between pro-rata and excess of loss). Under these contracts, the Company provides protection to an insurer for a portion of the total losses in excess of a specified loss amount, normally up to a maximum amount per loss and/or an aggregate amount across multiple losses, as specified in the contract. In the event of a loss, most contracts provide for coverage of a second occurrence following the payment of a premium to reinstate the coverage under the contract, which is referred to as a reinstatement premium. The coverage provided under excess of loss reinsurance contracts may be on a worldwide basis or limited in scope to specific regions or geographical areas. Property catastrophe reinsurance contracts are typically written on an "all perils" basis, providing protection against losses from earthquakes and hurricanes, as well as other natural and man-made catastrophes such as floods, tornadoes, fires and storms. Coverages may also be written to provide limited coverage based on named perils only, such as windstorm-only coverage. The predominant exposures covered are losses stemming from property damage and business interruption coverage resulting from a covered peril. Certain risks, such as terrorism, cyber crime, war or nuclear contamination may be excluded, partially or wholly, from certain contracts. Gross premiums written on property catastrophe business during the year ended December 31, 2017 were $432.5 million.

Property per risk excess of loss: Property per risk reinsurance provides coverage for ceding companies' excess retention on individual property and related risks, such as highly-valued buildings. Per risk reinsurance protects cedants on a "single risk" basis. A "risk" in this context might relate to one building, or a group of buildings, or to one insurance policy which the cedant treats as a single risk. Coverage is usually triggered by a large loss sustained by an individual risk rather than by smaller losses which fall below the specified retention of the reinsurance contract. Such property per risk coverages are generally written on an excess of loss basis, which provides the reinsured with protection beyond a specified amount up to the limit set within the reinsurance contract. Gross premiums written on property per risk excess of loss business during the year ended December 31, 2017 were $26.0 million.

Property proportional: Property proportional contracts require that the reinsurer share the premiums as well as the losses and loss expenses in an agreed proportion with the reinsured. Gross premiums written on property proportional business during the year ended December 31, 2017 were $90.5 million.

Specialty – Short-tail: This line consists of reinsurance on aerospace and aviation, agriculture, composite, marine, other specialty (composed of contingency, crisis management and life and accident & health), technical lines, terrorism, trade credit, and workers' compensation. The Company seeks to underwrite specialty lines with very limited exposure correlation with its property portfolios. With the exception of the aerospace and aviation, agriculture, marine, and trade credit lines of business, which have a meaningful portion of their gross premiums written volume on a proportional or treaty basis, the Company's specialty - short-tail lines are written on an excess of loss basis. Gross premiums written on specialty - short-tail business during the year ended December 31, 2017 were $505.1 million.

Specialty - Other: This class provides reinsurance on casualty and financial lines of business on both a proportional and excess of loss basis. Gross premiums written on specialty - other business during the year ended December 31, 2017 were $141.1 million.

Details of gross premiums written by line of business for the Singapore Branch, based on information provided in the MAS Insurance Company Returns and presented in Singapore Dollars, are provided below:

	Year Ended December 31, 2017			Year Ended December 31, 2016			Year Ended December 31, 2015		
(Singapore Dollars in thousands)		Gross Premiums Written	Gross Premiums Written (%)		Gross Premiums Written	Gross Premiums Written (%)		Gross Premiums Written	Gross Premiums Written (%)
Property	S$	25,024	85.7%	S$	30,539	80.3%	S$	35,992	79.8%
Marine and Aviation		3,023	10.4%		6,336	16.7%		8,140	18.1%
Casualty and Others		1,150	3.9%		1,164	3.1%		945	2.1%
Total	S$	29,197	100.0%	S$	38,039	100.0%	S$	45,077	100.0%

Corporate Governance

The following table provides information regarding our executive officers and key employees as of February 28, 2018:

Name	Age	Position
Edward J. Noonan	59	Chairman of the Board of Directors and Chief Executive Officer of the Validus Group
Jeffrey D. Sangster	45	Executive Vice President and Chief Financial Officer
Peter Bilsby	48	Global Head of Insurance and Chief Executive Officer of the Talbot Group
Patrick Boisvert	44	Executive Vice President and Chief Accounting Officer
Kean D. Driscoll	44	Global Head of Reinsurance, President of Validus Holdings and Chief Executive Officer of Validus Reinsurance, Ltd.
John J. Hendrickson	57	Director of Strategy, Risk Management and Corporate Development
Andrew E. Kudera	58	Executive Vice President and Chief Actuary
Robert F. Kuzloski	54	Executive Vice President and General Counsel
Michael R. Moore	48	Executive Vice President and Chief Operating Officer
Jonathan P. Ritz	50	President of Western World Insurance Group. Inc. and Chief Executive Officer of Validus Specialty
Romel Salam	51	Executive Vice President and Chief Risk Officer
Lixin Zeng	49	Global Head of Asset Management and Chief Executive Officer of ALphaCat Managers Ltd.

Edward J. Noonan has been Chairman of our Board and the Chief Executive Officer of the Validus Group since its formation. Mr. Noonan has over 30 years of experience in the (re)insurance industry, serving most recently as the acting Chief Executive Officer of United America Indemnity Ltd. from February 2005 through October 2005 and as a member of the Board of Directors from December 2003 to May 2007. Mr. Noonan served as President and Chief Executive Officer of American Re-Insurance Company from 1997 to 2002, having joined American Re in 1983. Mr. Noonan also served as Chairman of Inter-Ocean Reinsurance Holdings of Hamilton, Bermuda from 1997 to 2002. Prior to joining American Re, Mr. Noonan worked at Swiss Reinsurance from 1979 to 1983. Mr. Noonan received a B.S. in Finance from St. John's University in 1979. Mr. Noonan is also a director of Central Mutual Insurance Company and All American Insurance Company, both of which are property and casualty companies based in Ohio.

Jeffrey D. Sangster has served as Executive Vice President and Chief Financial Officer of the Company since February 2013. Mr. Sangster joined the Company in October 2006 and has served in various finance positions during that time, including Chief Accounting Officer and Chief Financial Officer of Validus Reinsurance, Ltd. Mr. Sangster has 20 years of experience in the reinsurance industry and was previously with Endurance, Centre Group and Ernst & Young. Mr. Sangster is Chartered Accountant and a member of the Chartered Professional Accountants of Bermuda and the Chartered Professional Accountants of Manitoba.

Peter Bilsby currently serves as Global Head of Insurance and Chief Executive Officer of the Talbot Group. Prior to this, Mr. Bilsby served as Managing Director of Talbot. Mr. Bilsby joined Talbot as Head of Global Aerospace from XL London Market Ltd. in September 2009 and served as Director of Underwriting until his appointment as Managing Director in November 2013. Peter Bilsby has almost 30 years' experience in the insurance market.

Patrick Boisvert was appointed Executive Vice President and Chief Accounting Officer of the Company in July 2016. Prior to his role, he was Managing Director & Chief Financial Officer of Validus Reinsurance (Switzerland) Ltd. Before joining Validus in 2013, Mr. Boisvert was Chief Financial Officer of Flagstone Reinsurance Holdings SA from 2008 to 2012 and Chief Accounting Officer and Treasurer from 2006 to 2008. Prior to joining Flagstone, he was Vice President Fund Administration for BISYS Hedge Fund Services. Mr. Boisvert began his career in 1995 with Ernst & Young in

Montreal, Canada. He holds a Bachelor in Accounting from Université du Quebec à Trois-Rivieres, is a member of the C.F.A. Institute and a member of the Chartered Professional Accountants of Canada.

Kean D. Driscoll is the Global Head of Reinsurance, President of Validus Holdings, Ltd. and Chief Executive Officer of Validus Reinsurance, Ltd. He was a founding member of the Company, and previously served as Chief Underwriting Officer. Mr. Driscoll has over 20 years of experience as a reinsurance underwriter, and was previously with Quanta Re, and Zurich Re N.A. (Converium). Mr. Driscoll holds a B.A. in Literature from Colgate University and an M.B.A. from Columbia University, where he graduated with Honors.

John J. Hendrickson has been a director of the Company since its formation. In February 2013, Mr. Hendrickson joined Validus Group as Director of Strategy, Risk Management and Corporate Development. Prior to this, Mr. Hendrickson was the Founder and Managing Partner of SFRi LLC, an independent investment and advisory firm specializing in the insurance industry. From 1995 to 2004, Mr. Hendrickson held various positions with Swiss Re, including as Member of the Executive Board, Head of Capital Partners (Swiss Re's Merchant Banking Division) and Managing Partner of Securitas Capital. From 1985 to 1995, Mr. Hendrickson was with Smith Barney, the U.S. investment banking firm. Mr. Hendrickson has also served as a director of (re)insurance companies, including serving as audit committee chair.

Andrew E. Kudera has served as Chief Actuary of the Company since January 2010. Previously, Mr. Kudera operated an independent actuarial consulting firm which served as corporate actuary and loss reserve specialist for Validus Reinsurance, Ltd. from its inception through to the end of 2008. Prior to establishing his own consulting firm, Mr. Kudera was the Chief Reserving Actuary for Endurance Specialty Holdings Ltd., a large international (re)insurance company. Mr. Kudera has over 35 years of actuarial and financial management experience in the insurance industry in both company and consulting capacities. Mr. Kudera is a Fellow of the Casualty Actuarial Society, a Member of the American Academy of Actuaries, an Associate of the Society of Actuaries, a Fellow of the Canadian Institute of Actuaries and a Fellow of the Institute of Actuaries.

Robert F. Kuzloski joined the company in January 2009 and served as Executive Vice President and Chief Corporate Legal Officer of the Company until August of 2012 when he was appointed Executive Vice President and General Counsel of the Company. Prior to joining the Company in January of 2009, Mr. Kuzloski served as Senior Vice President and Assistant General Counsel of XL Capital Ltd. Prior to that, Mr. Kuzloski worked as an attorney at the law firm of Cahill Gordon & Reindel LLP where he specialized in general corporate and securities law, mergers and acquisitions and corporate finance.

Michael R. Moore serves as Executive Vice President and Group Chief Operating Officer of the Company, a position he has held since May 2016, having previously held the position of Chief Accounting Officer since June 2013. Mr. Moore has over 20 years of experience, including 18 years in the (re)insurance industry. Prior to joining Validus, Mr. Moore served as a Senior Vice President, Corporate Operations at Axis Capital, Chief Accounting Officer at Endurance Specialty Holdings Ltd. and as a Senior Manager with Ernst & Young. Mr. Moore received a Bachelor of Commerce, with distinction, from the University of Alberta in 1993 and he is a Chartered Accountant and member of the Chartered Professional Accountants of Bermuda and Chartered Professional Accountants of Canada.

Jonathan P. Ritz serves as President of Western World Insurance Group, Inc. and Chief Executive Officer of Validus Specialty, having previously held the position of Chief Operating Officer since October 2010. Mr. Ritz has over 20 years of experience in the (re)insurance and brokerage industries. Most recently, Mr. Ritz served as Chief Operating Officer of IFG Companies-Burlington Insurance Group. Prior to IFG, Mr. Ritz served as Chief Operating Officer of the specialty lines division of ICAT Holdings LLC. From 2007 to 2008, Mr. Ritz was a Managing Director at Guy Carpenter and from 1997 to 2007 he held various positions with United America Insurance Group including Chief Operating Officer and Senior Vice President of ceded reinsurance.

Romel Salam serves as Executive Vice President and Chief Risk Officer of the Company, a position he has held since April 2013. He was promoted to his current role after serving for three years as Chief Actuary and Chief Risk Officer of Validus Reinsurance, Ltd, the reinsurance arm of Validus Group. Prior to joining the Company in 2010, Mr. Salam was a Senior Vice President at Transatlantic Reinsurance where he spent 20 years in positions of increasing responsibility. Mr. Salam is a Fellow of the Casualty of Actuarial Society and a Member of the American Academy of Actuaries.

Lixin Zeng, Ph.D., CFA serves as Global Head of Asset Management and Chief Executive Officer of AlphaCat Managers Ltd. and has played a key role in the Manager since its formation in 2008. Prior to this role, he was Executive Risk Officer of Validus Reinsurance Ltd, responsible for developing and executing the catastrophe risk strategy of the entire Validus Group. Dr. Zeng was one of the original employees at the founding of Validus in 2005. His prior positions include: Chief Catastrophe Risk Officer at the ACE Group from 2004 to 2005, Head of Development at Willis Re Inc from 2001 to 2004, Analyst at EW Blanch Co. from 1998 to 2001 and Research Scientist at Arkwright Mutual Insurance Co from 1996 to 1998. Mr. Zeng has expertise in insurance portfolio optimization and risk management and has published multiple articles in professional journals on related topics. He has a Ph.D. in atmospheric sciences from the University of Washington where he graduated in 1996. He received a B.S. in Meteorology from Beijing University, graduating in 1990 and is a CFA charterholder.

Copies of the charters for the audit committee, the compensation committee, the corporate governance and nominating committee, the finance committee and the risk committee, as well as the Company's Corporate Governance Guidelines, Code of Business Conduct and Ethics for Directors, Officers and Employees (the "Code"), which applies to all of the Company's Directors, officers and employees, and Code of Ethics for Senior Officers, which applies to the Company's principal executive officer, principal accounting officer and other persons holding a comparable position, are available free of charge on the Company's website at http://www.validusholdings.com or by writing to Investor Relations, Validus Holdings, Ltd., 29 Richmond Road, Pembroke, HM 08, Bermuda. The Company will also post on its website any amendment to the Code and any waiver of the Code granted to any of its directors or executive officers to the extent required by applicable rules.

Enterprise Risk Management

Risk Management Framework: The Company promotes sound risk management practices at all levels of the organization, and has implemented an Enterprise Risk Management ("ERM") framework (the "Framework") that is aligned with the Company's culture and responds to the needs of the business. The Framework establishes, identifies, assesses, quantifies and manages risks and opportunities. The Framework is designed to:

- Establish the principles by which the Company can evaluate the risk/reward trade-offs associated with key strategic and tactical decisions.
- Establish a risk governance structure that, in respect of all activities related to ERM, operates with clearly defined roles and responsibilities.
- Establish minimum requirements that must be met by each of the Company's reportable segments.
- Identify and assess all risks and causes of risks arising out of the Company's strategic initiatives, internal processes, and external environment.
- Establish a set of responses to manage the Company's risks within its stated risk appetite and risk tolerances.
- Establish procedures through which near miss and actual incidents, that either have the potential to impact or have impacted the Company, are reported and reviewed in order to inform the risk identification and assessment process.

Risk Governance: Our risk governance philosophy reflects the overall governance of the Company, with the segments given broad autonomy over the management of their businesses, while adhering to the overall strategy of the Company. Similarly, the Company's reportable segments have broad operational latitude over their risk management functions while staying within the parameters set by the Company.

The Company's Board of Directors has established a separate Risk Committee ("RC") that is governed by a charter which is updated and reviewed periodically by the Board of Directors. The RC is responsible for, among other things, approving the Framework, working with management to ensure ongoing, effective implementation of the Framework and reviewing the Company's specific risk limits as defined in the Framework, including limits related to major categories of risk. The implementation of risk policies and oversight of risk management is the responsibility of the Group Risk Management Committee ("GRMC"). The GRMC reports to the RC and is governed by a charter that is reviewed and approved annually by the RC. The GRMC also has two subcommittees, the Model Risk Subcommittee and the Operational Risk Subcommittee, both of which are governed by charters that are reviewed annually by the RC. Various risk policies are in place to facilitate consistent risk assessment across the Company and to ensure that strategic business decisions are supported by effective modeling and analysis.

Risk Appetite: The Company's risk appetite is expressed through a series of qualitative and quantitative statements, principles, limits, and tolerances that, in the aggregate, convey the Company's risk and reward preferences and set the risk parameters within which the Company and its segments operate. The risk appetite is proposed by management and approved by the Board of Directors.

The significant quantitative measures include meeting minimum returns on capital and risk-adjusted capital over a full insurance industry cycle, managing the probability of break-even net income or better, meeting or exceeding budgeted net income over a calendar year, and managing the probability of losing specified percentages of shareholders' equity in a calendar year. They also include probability thresholds in respect of maintaining a buffer above regulatory and rating agency capital levels.

The Company also sets levels of concentration risks within its risk appetite, including those related to probable maximum losses, zonal aggregates and the contribution of various risk categories to the overall assessment of the Company's risk capital.

Risk Classification: Risks are broadly divided into those that the Company assumes explicitly and from which it derives income and those that are a by-product of the operating and business environment, from which the Company does not earn income.

The risks assumed are categorized as catastrophe, reserve and premium risks (also together referred to as insurance risk), market (or investment) risk and credit risk. The Company's goal is to get adequately compensated for these risks, while creating optimal insurance and investment portfolios subject to the constraints of the Company's risk appetite. The remaining risks are categorized as operational and strategic risks, which typically include emerging risks, for which the Company's goal is to identify, assess and mitigate to the extent considered appropriate.

Risk Ownership: The Company's risk management philosophy is to entrust risk identification and control activities with the employees who have the responsibility for and expertise in the areas giving rise to each risk. This approach not only creates workflow efficiencies, it also promotes awareness of and accountability for risk at all levels of the Company. As such, primary risk ownership is assigned to the managers of functional areas. The risk identification and control activities are embedded in the job descriptions of risk owners and control operators and monitored by the GRMC.

Risk Assessment, Control and Mitigation: The Company performs a regular risk assessment process that considers the likelihood and impact of causes of risk, both before and after the existence of relevant controls. The approaches used to identify and update causes of risk include scenario building, incident and near-miss reporting and market intelligence. We have established controls to appropriately manage the likelihood and impact of risks, focused on those with the most significance and after considering the tolerance level established for each risk. We may also design new controls in response to the incident reporting process.

The Company also has in place policies, including underwriting, investment, and credit policies, to manage the assumption of risk. These policies provide for the Company's risk limits, tolerance levels and other guidelines, as well as the processes for ensuring compliance with the desired risk profile of the Company. The Company has at its disposal a variety of risk mitigation tools, including the purchase of reinsurance and retrocessional coverage, which it uses to ensure that its risk profile stays within prescribed limits and tolerance levels.

Exposure Management: In order to manage the assumption of insurance risk, the Company has established risk limits through both qualitative and quantitative considerations, including market share, history of and expertise in a class of business or jurisdiction, transparency and symmetry of available information, reliability of pricing models and availability and cost of reinsurance. These

limits are reviewed at least annually and aligned to the overall risk appetite established by the Company's Board of Directors. In addition, a group exposure management policy is in place to ensure appropriate and consistent risk assessment and aggregation of exposures that accumulate between the operating companies in the group.
Three tools are used to measure and manage exposures:

- Absolute maximum limits - these are defined based on the underlying peril or coverage and include measures such as zonal aggregates, which convey the maximum contractual loss exposure.
- Probable maximum loss - these are defined where probabilistic event sets exist for underlying perils and are established for most natural catastrophe, aviation and upstream energy coverage, and convey an extreme but likely loss exposure.
- Realistic disaster scenarios ("RDSs") - these are either prescribed by third parties or developed internally and convey a more intuitive view of potential loss outcomes.

The Company will often use multiple tools to validate its exposure measurement and ensures that at least one of these tools is available for each class of business.

Model Validation Framework: The Company relies extensively on a wide range of models to support key decisions made across the business, and has implemented a Model Validation Framework to establish a uniform set of validation and governance standards that ensure the quality and reliability of key models across the Company.

Portfolio Optimization: The Company has developed a comprehensive and integrated Economic Capital Model ("ECM") framework to facilitate the consistent assessment of risk, including risks classified as operational. This framework includes assessment at the individual operating company level, as well as across the Company. Using the ECM framework, the Company is able to assess the impact on risk appetite metrics of key strategic and tactical decisions as well as the risk/return trade-offs associated with these decisions, including growth strategy, new product launch, business mix and retrocession strategy, mergers and acquisitions, planning and budgeting, investment strategy and capital management.

It is the goal of the Company to make the most efficient use of its capital and to achieve an adequate return for its shareholders. To that end, the Company seeks to maximize net income given the amount of capital at risk and subject to the risk limits, tolerance levels and other constraints that are imposed by our business, regulatory, and rating agency environments. The Company has therefore put in place portfolio optimization procedures, including the integrated use of the ECM within the annual planning process, in order to help shape portfolios that optimize their respective risk return profiles.

Underwriting Risk Management: The Company's underwriters manage risk by monitoring a number of qualitative and quantitative indicators. Our in-house pricing platform, the Validus Capital Allocation and Pricing System ("VCAPS"), a proprietary computer-based system for modeling, pricing, allocating capital and analyzing catastrophe-exposed risks, provides reinsurance underwriters with a real-time view of the risk-adjusted profitability of each account. This tool allows our underwriters to examine the effects of contract terms and conditions as well as analyze the contribution of a contract to our overall risk capital and its impact on the projected incurred loss for one of our key stress scenarios. The Company believes that giving our underwriters the tools to make sound decisions is critical to our long-term success. To that end, we strive to create an environment that promotes close cooperation between our underwriting, catastrophe modeling, risk, claims, and actuarial functions.

All of the Company's underwriters adhere to a strict set of underwriting guidelines and letters of authority that specifically address the limits of their underwriting authority and their referral criteria.

The Company's current underwriting guidelines and letters of authority include:

- Lines of business that a particular underwriter is authorized to write;
- Exposure limits by line of business;
- Contractual exposures and limits requiring mandatory referrals; and
- Levels of analysis to be performed by lines of business.

In general, our underwriting approach is to:

- Seek high quality clients who have demonstrated superior performance over an extended period;
- Evaluate our clients' exposures and make adjustments where their exposure is not adequately reflected;
- Apply the comprehensive knowledge and experience of our entire underwriting team to make progressive and cohesive decisions about the business they underwrite; and
- Employ our well-founded and carefully maintained market contacts within the group to enhance our robust distribution capabilities.

Our underwriters have the responsibility to analyze all submissions and determine if the related potential exposures meet with both the Company's risk profile line size and aggregate limitations, in line with the business plan. In order to ensure compliance, we run appropriate management information reports and subject all lines to regular audits.

Use of Models: A pivotal factor in determining whether to found and fund the Company was the opportunity for differentiation based upon superior risk management expertise; specifically, managing catastrophe risk and optimizing our portfolio to generate attractive returns on capital while controlling our exposure to risk, and assembling a management team with the experience and expertise to do so. The Company's proprietary models are updated to reflect the latest science and data for the given peril-region of interest. This has enabled the Company to gain a competitive advantage over those reinsurers who rely exclusively on commercial models for pricing and portfolio management. The Company has made a significant investment in expertise in the risk modeling area to capitalize on this opportunity. The Company has assembled an experienced group of professional experts who operate in an environment designed to enable them to use their expertise as a competitive advantage. While the Company uses both proprietary and commercial probabilistic models, catastrophe risk is ultimately subject to absolute aggregate limitations as discussed above.

Commercial Vendor Models: The Company licenses major commercial vendor models, including RMS and AIR, to assess the adequacy of risk pricing and to monitor its overall exposure to risk in correlated geographic zones for various natural catastrophe perils. The vendor models provide information that enables the Company to aggregate exposures by correlated event loss scenarios, which are probability-weighted. This enables the generation of exceedance probability curves for the portfolio and major geographic areas. All models have their strengths and weaknesses; our internal research efforts target a greater understanding of, and if necessary, changes to frequency and severity for key peril-regions.

The Company also uses its quantitative expertise to improve the reliability of the vendor model outputs and expedite scientific review and operationalization of their findings to formulate its view of risk in the following areas:

- Ceding companies may report insufficient data and many reinsurers may not be sufficiently critical in their analysis of this data. The Company generally scrutinizes data for anomalies that may indicate insufficient data quality. These circumstances are addressed by either declining the program or, if the variances are manageable, by modifying the model inputs and outputs and pricing to reflect insufficient data quality;
- Performing independent checks on the accuracy of reported building characteristics through third-party tools and the use of licensed data sources;
- Prior to making overall adjustments for changes in variable metrics, the Company carefully examines the adjustment against the latest scientific studies and technology available to ensure its impact to the business is thoroughly evaluated before adopting it into its systems; and
- To properly quantify risk, the Company frequently adjusts vendor models in advance of their updates based on the latest scientific studies and claims data from recent events.

In addition, many risks, such as second-event covers, aggregate excess of loss, or attritional loss components, cannot be fully evaluated using the vendor models. In order to better evaluate and price these risks, the Company has developed proprietary analytical tools, such as VCAPS and other models and data sets.

Proprietary Models: In addition to making frequency and severity adjustments to the vendor model outputs, the Company utilizes VCAPS to assist in pricing submissions and monitoring risk aggregation.

VCAPS uses the output of catastrophe models to generate a 100,000-year simulation set, which is used for both pricing and risk management. This approach allows more precise measurement and pricing of risk given the underlying exposures. The two primary benefits of this approach are:

- VCAPS takes into account annual limits, event/franchise/annual aggregate deductibles, and reinstatement premiums. This functionality allows for more accurate evaluation of treaties with a broad range of features, including both common (reinstatement premium and annual limits) and complex features (second or third event coverage, aggregate excess of loss, attritional loss components, covers with varying attachment across different geographical zones or lines of businesses and covers with complicated structures); and

- VCAPS's use of 100,000-year simulations enables robust pricing of catastrophe-exposed business. This capability is possible in real-time operation because the Company has designed a computing hardware platform and software environment to accommodate the significant computing needs.

In addition to VCAPS, the Company uses other proprietary models and other data in evaluating exposures.

Geographic Diversification: The Company actively manages its aggregate exposures by geographic or risk zone to maintain a balanced and diverse portfolio of underlying risks. The coverage the Company is willing to provide for any risk located in a particular zone is limited to a predetermined level, thus limiting the net aggregate loss exposure from all contracts covering risks believed to be located in any zone. Contracts that have "worldwide" territorial limits have exposures in several geographic zones. Generally, if a proposed contract would cause the limit to be exceeded, the contract would be declined, regardless of its desirability, unless the Company buys reinsurance or retrocessional coverage, thereby reducing the net aggregate exposure to the maximum limit permitted or less.

The following table sets forth the gross premiums written allocated to the territory of coverage based on the Reinsurance segment reporting for the Validus Group Consolidated Financial Statements:

	Year Ended December 31, 2017		Year Ended December 31, 2016	
(US Dollars in thousands)	Gross Premiums Written	Gross Premiums Written (%)	Gross Premiums Written	Gross Premiums Written (%)
United States	$ 418,814	35.0%	$ 464,212	39.2%
Worldwide excluding United States [(a)]	47,467	4.0%	53,369	4.5%
Australia and New Zealand	4,072	0.3%	7,402	0.6%
Europe	39,334	3.3%	32,875	2.8%
Latin America and Caribbean	49,297	4.1%	52,080	4.4%
Japan	43,002	3.6%	42,045	3.5%
Canada	6,284	0.5%	4,365	0.4%
Rest of the world [(b)]	21,927	1.8%	21,142	1.8%
Sub-total, non United States	211,383	17.7%	213,278	18.0%
Worldwide including United States [(a)]	188,383	15.8%	159,313	13.4%
Other locations non-specific [(c)]	376,627	31.5%	348,109	29.4%
Total	$ 1,195,207	100.0%	$ 1,184,912	100.0%

(a) Represents risks in two or more geographic zones.

(b) Represents risk in one geographic zone.

(c) The other locations non-specific category refers to business for which an analysis of exposure by geographic zone is not applicable since these exposures can span multiple geographic areas and, in some instances, are not fixed locations.

The following table sets forth the gross premiums written by line of business and allocated to the territory of coverage for the Singapore Branch based on information provided in the MAS Insurance Company Returns:

(Singapore Dollars in thousands)		Year Ended December 31, 2017 Gross Premiums Written	Year Ended December 31, 2017 Gross Premiums Written (%)		Year Ended December 31, 2016 Gross Premiums Written	Year Ended December 31, 2016 Gross Premiums Written (%)
China	S$	8,375	28.7%	S$	11,599	30.5%
Japan		7,562	25.9%		13,044	34.3%
Korea		8,453	29.0%		8,110	21.3%
Thailand		632	2.2%		651	1.7%
Philippines		1,263	4.3%		1,183	3.1%
Taiwan		1,347	4.6%		1,586	4.2%
India		22	0.1%		19	0.0%
Australia	-	2	0.0%	-	393	-1.0%
Others		1,545	5.3%		2,240	5.9%
Total	S$	29,197	100.0%	S$	38,039	100.0%

The effectiveness of geographic zone limits in managing risk exposure depends on the degree to which an actual event is confined to the zone in question and on the Company's ability to determine the actual location of the risks believed to be covered under a particular insurance or reinsurance contract. Accordingly, there can be no assurance that risk exposure in any particular zone will not exceed that zone's limits. Further control over diversification is achieved through guidelines covering the types and amount of business written in product classes and lines within a class.

Reinsurance Management: The Company enters into reinsurance and retrocession agreements in order to mitigate its accumulation of loss, reduce its liability on individual risks and enable it to underwrite policies with higher limits. The ceding of the (re)insurance risk does not legally discharge the Company from its primary liability for the full amount of the policies, and the Company is therefore required to pay the loss and bear collection risk relating to the possibility that the reinsurer or retrocessionaire fails to meet its obligations under the reinsurance or retrocession agreement.

Retrocession: The Company monitors the opportunity to purchase retrocessional coverage for its reinsurance segment on a continual basis and employs the VCAPS modeling system to evaluate the effectiveness of risk mitigation and exposure management relative to the cost. This coverage may be purchased on an indemnity basis as well as on an index basis (e.g., industry loss warranties ("ILWs")). The Company also considers and at times uses alternative retrocessional structures, including collateralized quota share facilities and other capital markets products (e.g. catastrophe bonds), where the pricing and terms are attractive.

When the Company buys retrocessional coverage on an indemnity basis, payment is for an agreed upon portion of the losses actually suffered. In contrast, when the Company buys an ILW cover, which is a reinsurance contract in which the payout is dependent on both the insured loss of the policy purchaser and a measure of the industry-wide loss, payment is made only if both the Company and the industry suffer a loss, as reported by one of a number of independent agencies, in excess of specified threshold amounts. With an ILW, the Company bears the risk of suffering a loss while receiving no payment under the ILW if the industry loss was less than the specified threshold amount.

Reserve for Losses and Loss Expenses

For (re)insurance companies, a significant judgment made by management is the estimation of the reserve for losses and loss expenses. The Company establishes its reserve for losses and loss expenses to cover the estimated incurred liability for both reported and unreported claims.

Loss reserves are established due to the significant periods of time that may lapse between the occurrence, reporting and payment of a loss. To recognize liabilities for unpaid losses and loss expenses, the Company estimates future amounts needed to pay claims and related expenses with respect to insured events. The Company's reserving practices and the establishment of any particular reserve reflects management's judgment concerning sound financial practice and does not represent any admission of liability with respect to any claim. Unpaid losses and loss expense reserves are established for reported claims ("case reserves") and incurred but not reported ("IBNR") claims.

The nature of the Company's high excess of loss liability and catastrophe business can result in loss expenses and payments that are both irregular and significant. Such losses are part of the normal course of business for the Company. Adjustments to reserves for individual years can also be irregular and significant. Conditions and trends that have affected development of liabilities in the past may not necessarily occur in the future. Accordingly, it is inappropriate to extrapolate future redundancies or deficiencies based upon historical experience.

Validus Re Ltd's reinsurance loss reserves are established based upon an estimate of the total cost of claims that have been incurred, including estimates of unpaid liability on known individual claims, the costs of additional case reserves on claims reported but not considered to be adequately reserved in such reporting ("ACRs") and amounts that have been incurred but not yet reported. ACRs are used in certain cases and are calculated based on management's estimate of the required case reserve on an individual claim less the case reserves reported by the client. The Loss Reserve Committee follows catastrophe event ultimate loss reserve estimation procedures for the investigation, analysis, estimation and approval of ultimate loss reserving.

For reported losses, case reserves are established within the parameters of the coverage provided in the impacted reinsurance contracts. Where there is a reported claim for which the reported case reserve is determined to be insufficient, an ACR or individual claim IBNR estimate will be booked that is adjusted as claims notifications are received. Information is obtained from various sources including brokers, proprietary and third party vendor models and internal data regarding reinsured exposures related to the geographic location of the event, as well as other sources. Generally accepted actuarial techniques are used in the IBNR estimation process. Historical insurance industry loss emergence patterns, as well as estimates of future trends in claims severity, frequency and other factors, are used in establishing loss reserves.

Loss reserves represent estimates, including actuarial and statistical projections at a given point in time, of the expectations of the ultimate settlement and administration costs of claims incurred. Such estimates are not precise in that, among other things, they are based on predictions of future developments and estimates of future trends in loss severity and frequency and other variable factors such as inflation, litigation and tort reform. This uncertainty is heightened by the low frequency high severity nature of the reinsurance business written, thereby providing limited claims loss emergence patterns that directly pertain to the Reinsurance segment's operations. This continues to necessitate the partial use of industry loss emergence patterns in deriving IBNR, which contribute to the inherent uncertainty within the loss reserve estimation process and therefore will differ from actual experience. Further, expected losses and loss ratios are typically developed in part by using outputs from vendor and proprietary computer models and these expected losses and loss ratios are a significant component in the calculation of IBNR. Finally, the uncertainty surrounding estimated costs is greater in cases where large, unique events have been reported and the associated claims are in early stages of resolution. As a result of these uncertainties, it is likely that the ultimate liability will differ from such estimates, perhaps materially.

Additional information relating to the Validus Group's loss reserves held as at December 31, 2017 and the general pattern of loss payment and loss reporting for the Company's business is provided in the 2017 Loss Development Triangles document, which is available on the Company's website.

The following table represents an analysis of paid and unpaid losses and loss expenses incurred and a reconciliation of the beginning and ending unpaid loss expenses for Validus Re Ltd. as at December 31, 2017 and 2016:

(US Dollars in thousands)	December 31, 2017	December 31, 2016
Reserve for losses and loss expenses, beginning of year	$ 2,738,203	$ 2,763,405
Loss reserves recoverable	(221,963)	(128,437)
Net reserves for losses and loss expenses, beginning of year	$ 2,516,240	$ 2,634,968
Net reserves acquired [(a)]	23,753	-
Increase (decrease) in net reserves for losses and loss expenses incurred in respect of losses occurring in:		
Current year	1,837,234	1,233,701
Prior years	(209,994)	(213,456)
Total net incurred losses and loss expenses	1,627,240	1,020,245
Foreign exchange loss (gain)	48,110	(31,465)
Less net losses and loss expenses paid in respect of losses occurring in:		
Current year	(556,562)	(382,585)
Prior years	(730,366)	(724,923)
Total net paid losses	(1,286,928)	(1,107,508)
Net reserve for losses and loss expenses, end of year	2,928,415	2,516,240
Loss reserves recoverable	915,877	221,963
Reserve for losses and loss expenses, end of year	$ 3,844,292	$ 2,738,203

Incurred losses and loss expenses comprise:

	December 31, 2017	December 31, 2016
Gross losses and loss expenses	$ 2,599,054	$ 1,144,741
Reinsurance recoveries	(971,814)	(124,496)
Net incurred losses and loss expenses	$ 1,627,240	$ 1,020,245

(a) Equals net reserves acquired of $42,575 less net reserves commuted at closing of $18,822.

Note: Figures provided in the table above are based on Consolidated Financial Statements for Validus Reinsurance, Ltd.

Insurance liabilities of the Singapore Branch are set in accordance with the MAS Insurance (Valuation and Capital) Regulations 2004. For year ended December 31, 2017, premium and claim liabilities, as provided in the MAS Insurance Company Returns, were S$10.3 million and S$43.8 million, respectively.

The following table provides a summary of the Singapore Branch's insurance liabilities by claim and premium categories and by line of business as at December 31, 2017 and 2016:

(Singapore Dollars in thousands)	December 31, 2017		December 31, 2016	
Net reserves by claim and premium categories:				
Net reserves for claims reported and loss expenses	S$	23,391	S$	26,559
Net reserves for claims incurred but not reported		20,422		29,312
Net unearned premium reserve		10,289		12,704
Total net insurance liabilities	S$	54,102	S$	68,575
Net reserves by line of business:				
Property	S$	39,272	S$	51,736
Marine and Aviation		13,609		14,954
Casualty and Others		1,221		1,885
Total net insurance liabilities	S$	54,102	S$	68,575

Capital Adequacy

Validus Re Ltd. has operations which are subject to laws and regulations in the jurisdictions in which they operate, the most significant of which are Bermuda, the United States and Switzerland.

Validus Re Ltd. and its subsidiaries are required to maintain certain measures of solvency and liquidity which provide restrictions on declaring dividends and distributions. Statutory capital and surplus as at December 31, 2017 and 2016 and statutory net income for the years ended December 31, 2017 and 2016 for our (re)insurance subsidiaries based in our most significant regulatory jurisdictions were as follows:

	Statutory Capital and Surplus					
	Required		Actual		Statutory Net Income (Loss)	
	December 31,		December 31,		Years Ended December 31	
(US Dollars in thousands)	2017	2016	2017	2016	2017	2016
Bermuda	$ 676,930	$ 1,447,018	$ 4,128,051	$ 4,244,075	$ 13,448	$ 477,624
United States	120,512	78,342	376,178	416,746	(7,968)	7,795
Switzerland	315,000	267,000	846,152	700,776	39,570	30,231

Validus Re Ltd's Bermuda based (re)insurance subsidiaries are required to maintain minimum statutory capital and surplus equal to the greater of a minimum solvency margin ("MSM") and the Enhanced Capital Requirement ("ECR") where applicable. The ECR is equal to the higher of each insurer's MSM or the Bermuda Solvency Capital Requirement ("BSCR") model or approved internal capital model. The BSCR for the relevant insurers for the year ended December 31, 2017 will not be filed with the BMA until April 2018. As a result, the required statutory capital and surplus as at December 31, 2017, as set out above, is based on the MSM of all relevant insurers, whereas the required statutory capital and surplus as at December 31, 2016 is based on the MSM and ECR where applicable for all relevant insurers. Required statutory capital and surplus for Bermuda based entities includes Validus Reinsurance, Ltd., Validus Reinsurance (Switzerland) Ltd. (Bermuda Branch), IPC Re Limited, and Mont Fort Re Ltd.

Required statutory capital and surplus for U.S. based subsidiaries is based on the Risk-Based Capital (“RBC”) requirements as specified by the National Association of Insurance Commissioners and includes Western World Insurance Company, Tudor Insurance Company and Stratford Insurance Company.

Required statutory capital and surplus for the Swiss based subsidiary is based on the Target Capital (“TC”) requirements calculated under the Swiss Solvency Test (“SST”). Required and actual statutory capital and surplus includes Validus Reinsurance (Switzerland) Ltd. and its Bermuda branch.

Validus Reinsurance, Ltd. maintains a branch office in Singapore. As the branch office is not considered a separate entity for regulatory purposes, the required and actual statutory capital and surplus amount includes amounts, as set out above, related to the applicable branch office. The branch office is subject to additional minimum capital or asset requirements in their country of domicile. At December 31, 2017 and 2016, the actual capital and assets for the branch exceeded the relevant local regulatory requirements.

Additional information relating to Validus Re Ltd.’s statutory and regulatory requirements is provided in the Validus Re Ltd. Consolidated Financial Statements.

Investment Management

The overriding goal of our investment management is capital preservation, such that the assets of the Company are invested to provide for the timely payment of all contractual obligations of policyholders and creditors, ensuring our ability to underwrite future business and to satisfy all regulatory and rating agency requirements. We aim to achieve these objectives through a clearly defined process that is driven by the enterprise-wide risk and capital position of Validus to ensure assets are invested in accordance with our defined financial objectives and risk tolerances. Our approach considers the joint impact of underwriting and investment risks to the Company, in the context of clear prioritization of underwriting needs and opportunities. As such, we structure our investment portfolio to support policyholder reserves and contingent risk exposures with a liquid portfolio of high quality fixed-income investments with a comparable duration profile.

Our Chief Investment Officer and Chief Financial Officer oversee our investment strategy and have established the Company’s Investment Policy Statement ("IPS") which is approved by our Finance Committee and Board of Directors. The IPS provides a framework for the management and oversight of the Company's managed investment portfolio. The purpose of the IPS is to:

- Communicate and align the Company’s investment philosophy and goals;
- Provide transparency regarding investment policies, procedures and controls;
- Set expectations and priorities of our third party investment managers;
- Establish a framework for integrating investment management into our overall enterprise risk management ("ERM") process;
- Mandate our investment parameters, including permissible asset classes and portfolio constraints, and governance structure for portfolio oversight and management;
- Establish formalized criteria to measure, monitor, and evaluate investment performance and risk exposures on a regular basis; and
- Ensure assets are invested in accordance with the overall financial goals and risk tolerances of the Company.

The IPS is updated annually or as otherwise appropriate to reflect changes to the Company, the economy, the investment environment, the regulatory environment or other factors.

A significant portion of (re)insurance contracts written by the Company provide short-tail reinsurance coverage for losses resulting mainly from natural and man-made catastrophes, which could result in payment of a substantial amount of losses at short notice. Accordingly, the Company’s investment portfolio is primarily structured to provide liquidity, which means the investment portfolio contains a significant amount of relatively short-term fixed maturity investments. The Company’s IPS specifically requires certain minimum thresholds of cash, short-term investments, and highly-rated fixed maturity securities relative to our consolidated net reserves and estimates of probable maximum loss exposures at the 1 in 100 year threshold to provide necessary liquidity in a wide range of reasonable scenarios. As such, we structure our managed cash and investment portfolio to support policyholder reserves and contingent risk exposures with a liquid portfolio of high quality fixed-income investments with a comparable duration profile.

The Company’s IPS requires managed investments to have an average duration in the range of 0.75 years to 3.25 years. At December 31, 2017, the average duration of the Company’s managed investment portfolio was 2.17 years (December 31, 2016: 2.17 years). This duration is reviewed regularly based on changes in the duration of the Company's liabilities and general market conditions.

The Company’s IPS also requires certain minimum credit quality standards for its managed fixed maturity portfolio, including a minimum weighted average portfolio rating of A+ for securities with ratings. Further limits on asset classes and security types are also mandated. In addition, the Company stress-tests the downside risks within its asset portfolio using internal and external inputs and stochastic modeling processes to help define and limit asset risks to acceptable levels that are consistent with our overall ERM framework. At December 31, 2017, the Company’s rated managed fixed maturity portfolio had an average credit quality rating of AA- (December 31, 2016: AA-).

The value of the Company’s managed fixed maturity portfolio will fluctuate with, among other factors, changes in the interest rate environment and in overall economic conditions. Additionally, the structure of the Company’s overall managed investment portfolio exposes the Company to other risks, including insolvency or reduced credit quality of corporate debt securities, prepayment, default and structural risks on asset-backed securities, mortgage-backed securities and bank loans and liquidity risks on certain other investments, including hedge funds, fixed income investment funds and private equity investments.

Consistent with U.S. GAAP, the Company recognizes investments at their fair value in the Consolidated Balance Sheets. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

Detailed information regarding investments and related valuation, risks and accounting policies for the Validus Group and Validus Re Ltd. can be found in the Annual Report on Form 10-K for Validus Holdings, Ltd. and the Validus Reinsurance, Ltd. Consolidated Financial Statements, respectively.

The Singapore Branch maintains a liquid portfolio of high quality fixed-income investments with a duration profile commensurate with its insurance liabilities.

Financial Performance

The following table provides consolidated statements of operations and comprehensive income for Validus Re Ltd. for the years ended December 31, 2017 and 2016 (expressed in thousands of U.S. dollars):

(US Dollars in thousands)	December 31, 2017	December 31, 2016
Revenues		
Gross premiums written	$ 2,568,293	$ 2,325,197
Reinsurance premiums ceded	(390,298)	(230,147)
Net premiums written	2,177,995	2,095,050
Change in unearned premiums	101,093	(95,956)
Net premiums earned	2,279,088	1,999,094
Net investment income	137,708	127,832
Net realized gains on investments	6,579	5,915
Net change in unrealized (losses) gains on investments	(6,426)	28,382
Income (loss) from investment affiliates	22,010	(2,083)
Other insurance related income and other income	53,002	63,994
Foreign exchange losses	(7,260)	(208)
Total revenues	2,484,701	2,222,926
Expenses		
Losses and loss expenses	1,627,240	1,020,245
Policy acquisition costs	596,638	579,850
General and administrative expenses	203,299	161,330
Share compensation expenses	11,646	11,617
Finance expenses	14,429	12,157
Transaction expenses	3,261	-
Total expenses	2,456,513	1,785,199
Income before taxes and (loss) income from operating affiliates	28,188	437,727
Tax benefit	10,409	19,018
(Loss) income from operating affiliates	(25,790)	19,964
Income from structured notes receivable from AlphaCat ILS fund	641	615
Net income	$ 13,448	$ 477,324
Net income	$ 13,448	$ 477,324
Other comprehensive income (loss), net of tax:		
Change in minimum pension liability	2,869	(484)
Change in fair value of cash flow hedges	1,890	-
Other comprehensive income (loss), net of tax:	4,759	(484)
Comprehensive income	$ 18,207	$ 476,840

Note: Figures provided in the table above are based on Consolidated Financial Statements for Validus Re Ltd. and differ from figures for the Reinsurance segment reporting for the Validus Group Consolidated Financial Statements.

The following table provides information from Form 2 – Fund Profit and Loss Account, as provided in the MAS Insurance Company Returns, for the years ended December 31, 2017 and 2016 (expressed in Singapore dollars):

(Singapore Dollars in thousands)	December 31, 2017	December 31, 2016
Income		
Gross premiums	S$ 29,197	S$ 38,039
Less: Outward reinsurance premiums	1,912	2,105
Investment revenue	2,148	558
Less: Investment expenses	-	-
Other income	1,553	815
Total income	30,986	37,307
Expenses		
Gross claims settled	19,196	23,159
Less: Reinsurance recoveries	179	431
Management expenses	5,157	5,414
Distribution expenses	7,911	12,096
Increase/(decrease) in net policy liabilities	(9,538)	(22,885)
Provision for doubtful debts/bad debts	-	-
Taxation expenses	-	-
Other expenses	-	-
Total Outgo	22,547	17,353
Net Income	S$ 8,439	S$ 19,954