

VALIDUS HOLDINGS LTD
Form 10-K
February 17, 2012

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**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-K

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

For the fiscal year ended December 31, 2011

Commission file number 001-33606

VALIDUS HOLDINGS, LTD.

(Exact name of registrant as specified in its charter)

BERMUDA
(State or other jurisdiction of
incorporation or organization)

29 Richmond Road, Pembroke, Bermuda HM 08
(Address of principal executive offices and zip code)

98-0501001
(I.R.S. Employer
Identification No.)

(441) 278-9000

(Registrant's telephone number, including area code)

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

Title of Each Class:	Name of Each Exchange on Which Registered:
Common Shares, \$0.175 par value per share	New York Stock Exchange
Securities registered pursuant to Section 12(g) of the Act:	

None

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

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

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

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if a
smaller reporting company)

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant as of June 30, 2011 was \$2,393.6 million computed upon the basis of the closing sales price of the Common Shares on June 30, 2011. For the purposes of this computation, shares held by directors and officers of the registrant have been excluded. Such exclusion is not intended, nor shall it be deemed, to be an admission that such persons are affiliates of the registrant.

As of February 15, 2012, there were 99,478,305 outstanding Common Shares, \$0.175 par value per share, of the registrant.

DOCUMENTS INCORPORATED BY REFERENCE

Part III incorporates information from certain portions of the registrant's definitive proxy statement to be filed with the Securities and Exchange Commission within 120 days after the fiscal year ended December 31, 2011.

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This Annual Report on Form 10-K contains "Forward-Looking Statements" as defined in the Private Securities Litigation Reform Act of 1995. A non-exclusive list of the important factors that could cause actual results to differ materially from those in such Forward-Looking Statements is set forth herein under the caption "Management's Discussion and Analysis of Financial Condition and Results of Operations Cautionary Note Regarding Forward-Looking Statements."

PART I

All amounts presented in this part are in U.S. dollars except as otherwise noted.

Item 1. Business

Overview

Validus Holdings, Ltd. (the "Company") was incorporated under the laws of Bermuda on October 19, 2005. Our initial investor, which we refer to as our founding investor, is Aquiline Capital Partners LLC, a private equity firm dedicated to investing in financial services companies. Other sponsoring investors included private equity funds managed by Goldman Sachs Capital Partners, Vestar Capital Partners, New Mountain Capital and Merrill Lynch Global Private Equity. The Company conducts its operations worldwide through two wholly-owned subsidiaries, Validus Reinsurance, Ltd. ("Validus Re") and Talbot Holdings Ltd. ("Talbot"). The Company, through its subsidiaries, provides reinsurance coverage in the Property, Marine and Specialty lines markets, effective January 1, 2006, and insurance coverage in the same markets effective July 2, 2007.

We seek to establish ourselves as a leader in the global insurance and reinsurance markets. Our principal operating objective is to use our capital efficiently by underwriting primarily short-tail insurance and reinsurance contracts with superior risk and return characteristics. Our primary underwriting objective is to construct a portfolio of short-tail insurance and reinsurance contracts which maximize 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 criteria, including geographic diversification criteria, and proprietary and commercially available third-party vendor models.

Since our formation in 2005, we have been able to achieve substantial success in the development of our business. Selected examples of our accomplishments are as follows:

Raising approximately \$1.0 billion of initial equity capital in December 2005 and underwriting \$217.4 million in gross premiums written for the January 2006 renewal season;

At the time of the Company's formation an executive management team was assembled with an average of 20 years of industry experience and senior expertise spanning multiple aspects of the global insurance and reinsurance business;

Building a risk analytics staff comprised of over 40 experts, many of whom have PhDs and Masters degrees in related fields;

Developing Validus Capital Allocation and Pricing System ("VCAPS"), a proprietary computer-based system for modeling, pricing, allocating capital and analyzing catastrophe-exposed risks;

Acquiring all of the outstanding shares of Talbot Holdings Ltd. on July 2, 2007;

Completing an initial public offering ("IPO") on July 30, 2007;

Acquiring all of the outstanding shares of IPC Holdings Ltd. ("IPC") on September 4, 2009;

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Commencing in November of 2009, repurchasing \$947.2 million or 35.0 million shares of the Company's common stock, representing 26.7% of the outstanding common shares at the repurchase starting point of September 30, 2009; and

Raising \$185.0 million of initial capital for AlphaCat Re 2011, Ltd. ("AlphaCat Re 2011") on May 25, 2011 and a further \$71.0 million of additional capital on December 23, 2011.

Our Operating Subsidiaries

The following chart shows how our Company and its principal operating subsidiaries are organized.

For a complete list of the Company's subsidiaries, see Exhibit 21

- (a) AlphaCat Re 2011 Ltd. is a non-consolidated affiliate.

Our Segments

Validus Re: Validus Re, the Company's principal reinsurance operating subsidiary, operates as a Bermuda-based provider of short-tail reinsurance products on a global basis. Validus Re concentrates on first-party risks, which are property risks and other reinsurance lines commonly referred to as short-tail in nature due to the relatively brief period between the occurrence and payment of a claim.

Validus Re was registered as a Class 4 insurer under The Insurance Act 1978 of Bermuda, amendments thereto and related regulations (the "Insurance Act") in 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.

Validus Re entered the global reinsurance market in 2006 during a period of imbalance between the supply of underwriting capacity available for reinsurance on catastrophe-exposed property, marine and energy risks and demand for such reinsurance coverage.

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On September 4, 2009, the Company acquired all of the outstanding shares of IPC. The primary lines in which IPC conducted business were property catastrophe reinsurance and, to a limited extent,

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property-per-risk excess, aviation (including satellite) and other short-tail reinsurance on a worldwide basis. For segmental reporting purposes, the results of IPC's operations since the acquisition date have been included within the Validus Re segment in the consolidated financial statements.

On May 25, 2011, the Company joined with other investors in capitalizing AlphaCat Re 2011, a new special purpose "sidecar" reinsurer formed for the purpose of writing collateralized reinsurance and retrocessional reinsurance. At the time of formation, Validus Re had an equity interest in AlphaCat Re 2011 and as Validus Re held a majority of AlphaCat Re 2011's outstanding voting rights, the financial statements of AlphaCat Re 2011 were included in the consolidated financial statements of the Company.

On December 23, 2011, the Company completed a secondary offering of common shares of AlphaCat Re 2011 to third party investors, along with a partial sale of Validus Re's common shares to one of the third party investors. As a result of these transactions, Validus Re maintained an equity interest in AlphaCat Re 2011; however its share of AlphaCat Re 2011's outstanding voting rights decreased to 43.7%. As a result of the Company's voting interest falling below 50%, the individual assets and liabilities and corresponding noncontrolling interest of AlphaCat Re 2011 have been derecognized from the consolidated balance sheet of the Company as at December 31, 2011 and the remaining investment in AlphaCat Re 2011 is treated as an equity method investment as at December 31, 2011. The portion of AlphaCat Re 2011's earnings attributable to third party investors for the year ended December 31, 2011 is recorded in the Consolidated Statements of Operations and Comprehensive Income as net income attributable to noncontrolling interest.

The following are the primary lines in which Validus Re conducts its business. Details of gross premiums written by line of business are provided below:

(Dollars in thousands)	Year Ended December 31, 2011		Year Ended December 31, 2010		Year Ended December 31, 2009(a)	
	Gross Premiums Written	Gross Premiums Written (%)	Gross Premiums Written	Gross Premiums Written (%)	Gross Premiums Written	Gross Premiums Written (%)
	Property	\$ 862,664	72.5%	\$ 790,590	71.8%	\$ 526,428
Marine	232,401	19.5%	227,135	20.6%	152,853	19.9%
Specialty	95,155	8.0%	83,514	7.6%	88,803	11.6%
Total	\$ 1,190,220	100.0%	\$ 1,101,239	100.0%	\$ 768,084	100.0%

(a)

The results of operations for IPC are consolidated only from the September 2009 date of acquisition.

Property: Validus Re underwrites property catastrophe reinsurance, property per risk reinsurance and property pro rata reinsurance.

Property catastrophe: Property catastrophe reinsurance provides reinsurance for insurance companies' 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 provides coverage to primary insurance companies when aggregate claims and claim expenses from a single occurrence from a covered peril exceed a certain amount specified in a particular contract. Under these contracts, the Company provides protection to an insurer for a portion of the total losses in excess of a specified loss amount, up to a maximum amount per loss 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. Coverage can also vary from "all property" perils, which is the most expansive form of coverage, to more limited coverage of specified perils such as windstorm-only coverage. Property catastrophe reinsurance contracts are typically "all risk"

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in nature, providing protection against losses from earthquakes and hurricanes, as well as other natural and man-made catastrophes such as floods, tornadoes, fires and storms. The predominant exposures covered are losses stemming from property damage and business interruption coverage resulting from a covered peril. Certain risks, such as 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, 2011 were \$666.9 million.

Property per risk: Property per risk reinsurance provides reinsurance for insurance companies' excess retention on individual property and related risks, such as highly-valued buildings. Risk excess of loss reinsurance protects insurance companies on their primary insurance risks on a "single risk" basis. A "risk" in this context might mean the insurance coverage on one building or a group of buildings or the insurance coverage under a single policy which the reinsured 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 protection beyond a specified amount up to the limit set within the reinsurance contract. Gross premiums written on property per risk business during the year ended December 31, 2011 were \$70.0 million.

Property pro rata: Property pro rata contracts require that the reinsurer share the premiums as well as the losses and loss expenses in an agreed proportion with the cedant. Gross premiums written on property pro rata business during the year ended December 31, 2011 were \$125.8 million.

Marine: Validus Re underwrites reinsurance on marine risks covering damage to or losses of marine vessels and cargo, third-party liability for marine accidents and physical loss and liability from principally offshore energy properties. Validus Re underwrites marine on an excess of loss basis and on a pro rata basis. Gross premiums written on marine business during the year ended December 31, 2011 were \$232.4 million.

Specialty: Validus Re underwrites other lines of business depending on an evaluation of pricing and market conditions, which include aerospace and aviation, agriculture, terrorism, life and accident & health, financial lines, nuclear, workers' compensation catastrophe and crisis management. The Company seeks to underwrite other specialty lines with very limited exposure correlation with its property, marine and energy portfolios. With the exception of the aerospace line of business, which has a meaningful portion of its gross premiums written volume on a proportional basis, the Company's other specialty lines are written on an excess of loss basis. Gross premiums written on specialty business during the year ended December 31, 2011 were \$95.2 million.

Talbot: On July 2, 2007, the Company acquired all of the outstanding shares of Talbot. Talbot is the Bermuda parent of a specialty insurance group primarily operating within the Lloyd's insurance market through Syndicate 1183. The acquisition of Talbot provides the Company with significant benefits in terms of product line and geographic diversification as well as offering the Company broader access to underwriting expertise. Similar to Validus Re, Talbot writes primarily short-tail lines of business but, as a complement to Validus Re, focuses mostly on insurance, as opposed to reinsurance risks, and on specialty lines where Validus Re currently has limited or no presence (e.g., war, financial institutions, contingency, accident and health). In addition, Talbot provides the Company with access to the Lloyd's marketplace where Validus Re does not operate. As a London-based insurer, Talbot also writes the majority of its premiums on risks outside the United States. Talbot's team of underwriters have, in many cases, spent most of their careers writing niche, short-tail business and bring their expertise to bear on expanding the Company's short-tail insurance franchise.

The Company has expanded and diversified its business through Syndicate 1183's access to Lloyd's license agreements with regulators around the world. Underwriting Risk Services, Inc., Underwriting Risk

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Services (Middle East) Ltd., Validus Reaseguors, Inc., Validus Re Chile S.A. and Talbot Risk Services Pte Ltd, act as approved Lloyd's coverholders for Syndicate 1183.

The following are the primary lines in which Talbot conducts its business. Details of gross premiums written by line of business are provided below:

(Dollars in thousands)	Year Ended December 31, 2011		Year Ended December 31, 2010		Year Ended December 31, 2009	
	Gross Premiums Written	Gross Premiums Written (%)	Gross Premiums Written	Gross Premiums Written (%)	Gross Premiums Written	Gross Premiums Written (%)
Property	\$ 306,317	30.2%	\$ 314,769	32.1%	\$ 269,583	29.3%
Marine	341,821	33.7%	315,102	32.1%	307,385	33.4%
Specialty	365,984	36.1%	351,202	35.8%	342,938	37.3%
Total	\$ 1,014,122	100.0%	\$ 981,073	100.0%	\$ 919,906	100.0%

Property: The main sub-classes within property are international and North American direct and facultative contracts, onshore energy, lineslips and binding authorities together with a book of business written on a treaty reinsurance basis. The business written is mostly commercial and industrial insurance though there is a modest personal lines component. The business is short-tail with premiums for reinsurance and, direct and facultative business, substantially earned within 12 months and premiums for lineslips and binding authorities substantially earned within 12 months of the expiry of the contract. Gross premiums written on property business during the year ended December 31, 2011 were \$306.3 million, including \$96.1 million of treaty reinsurance.

Marine: The main types of business within marine are hull, cargo, energy, marine and energy liabilities, yachts and marinas and other treaty. Hull consists primarily of ocean going vessels and cargo and covers worldwide risks. Energy covers a variety of oil and gas industry risks. The marine and energy liability account provides cover for protection and indemnity clubs and a wide range of companies operating in the marine and energy sector. Yacht and marina policies historically have been written through Underwriting Risk Services Ltd., an underwriting agency that is a subsidiary of Talbot. Each of the sub-classes within marine has a different profile of contracts written some, such as energy, derive up to 27.9% of their business through writing facultative contracts while others, such as cargo, only derive 12.8% through this method. Each of the sub-classes also has a different geographical risk allocation. Most business written is short-tail enabling a quicker and more accurate picture of expected profitability than is the case for long tail business. The marine and energy liability account, which makes up \$51.7 million of the \$341.8 million of gross premiums written during the year ended December 31, 2011, is the primary long-tail class in this line. The business written is mainly on a direct and facultative basis with a small element written on a reinsurance basis either as excess of loss reinsurance or proportional reinsurance.

Specialty: This class consists of war (comprising marine & aviation war, political risks and political violence, including war on land), financial institutions, contingency, accident and health, airlines and aviation treaty. With the exception of aviation treaty, most of the business written under the specialty accounts is written on a direct or facultative basis or under a binding authority through a coverholder. Gross premiums written on specialty business during the year ended December 31, 2011 were \$366.0 million.

War: The marine & aviation war account covers physical damage to aircraft and marine vessels caused by acts of war and terrorism. The political risk account deals primarily with expropriation, contract frustration/trade credit, kidnap and ransom, and malicious and accidental product tamper. The political violence account mainly insures physical loss to property or goods anywhere in the world, caused by war, terrorism or civil unrest. This class is often written in conjunction with cargo, specie, property, energy, contingency and political risk. The period of the risks can extend up to 36 months and beyond. The

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attritional losses on the account are traditionally low but the account can be affected by large individual losses. Talbot is a market leader in the war and political violence classes. Gross premiums written on war business during the year ended December 31, 2011 were \$174.9 million.

Financial Institutions: Talbot's financial institutions team predominantly underwrites bankers blanket bond, professional indemnity and directors' and officers' coverage for various types of financial institutions and similar companies. Bankers blanket bond insurance products are specifically designed to protect against direct financial loss caused by fraud/criminal actions and mitigate the damage such activities may have on the asset base of the insured. Professional indemnity insurance protects businesses in the event that legal action is taken against them by third parties claiming professional negligence. Directors' and officers' insurance protects directors and officers against personal liability for losses incurred by a third party due to negligent performance by the director or officer. Gross premiums written on financial institutions business for the year ended December 31, 2011 were \$37.5 million, comprising:

(Dollars in thousands)	Year Ended	
	December 31, 2011	
	Gross Premiums Written	Gross Premiums Written (%)
Bankers blanket bond	\$ 22,565	60.1%
Professional indemnity	13,058	34.8%
Directors' and Officers'	1,904	5.1%
Other	4	0.0%
Total	\$ 37,531	100.0%

The risks covered in financial institutions are primarily fraud related and are principally written on an excess of loss basis. Talbot's financial institutions account is concentrated on non-U.S. based clients, with 40.2% of gross premiums written in 2011 generated in Europe, 10.5% from the U.S. and 49.3% from other geographical regions. In addition, Talbot seeks to write regional accounts rather than global financial institutions with exposure in multiple jurisdictions and has only limited participation in exposures to publicly listed U.S. companies. As of December 31, 2011, the Company had gross reserves related to the financial institutions business of \$176.7 million, comprised of \$69.5 million, or 39.4% of incurred but not reported ("IBNR") and \$107.2 million, or 60.6% of case reserves. For comparison, as at December 31, 2010 the Company had gross reserves related to the financial institutions business of \$171.5 million, comprising \$83.0 million, or 48.4% of IBNR and \$88.5 million, or 51.6% of case reserves. As of December 31, 2011, Talbot had minimal exposure to U.S. directors' and officers' risks.

Contingency: The main types of covers written under the contingency account are event cancellation and non-appearance business. Gross premiums written on contingency business during the year ended December 31, 2011 were \$19.8 million.

Accident and Health: The accident and health account provides insurance in respect of individuals in both their personal and business activity together with corporations where they have an insurable interest relating to death or disability of employees or those under contract. Gross premiums written on accident and health business during the year ended December 31, 2011 were \$21.9 million.

Aviation: The aviation account insures major airlines, general aviation, aviation hull war and satellites. The coverage includes excess of loss treaties with medium to high attachment points. Gross premiums written on aviation business during the year ended December 31, 2011 were \$110.8 million.

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Enterprise Risk Management

Validus has implemented an Enterprise Risk Management ("ERM") framework (the "Framework") to identify, assess, quantify and manage risks and opportunities in order to protect our capital and maximize shareholder returns. This framework is incorporated into the business activities of the Company and its strategic planning processes.

The Company's Board of Directors has established a separate Risk Committee that is responsible for, among other things, approving the Company's ERM 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 for underwriting, investment, operational, business and other risks. The Company's Chief Risk Officer prepares a quarterly presentation for the Risk Committee and communicates with the chairman of the Risk Committee on an informal basis periodically throughout the year.

The management committee of the Company that oversees risk management is the Group Risk Management Committee ("GRMC"). The GRMC is comprised of senior executives including among others; the Chief Executive Officer, Chief Financial Officer, Chief Risk Officer, Chief Actuary, Chief Operating Officer, Chief Executive Officer of Validus Re and Chief Executive Officer of the Talbot Group.

To efficiently assess risks to the Company the GRMC has identified six key risk categories. Potential risks may span several or all of these key risk areas and as such risks are considered both within the context of these areas and the Company as a whole. The key risk areas are; Credit Risk, Market Risk, Liquidity Risk, Insurance Risk, Operational Risk and Group Risk.

Risk Appetite

The Group's risk appetite sets a context within which all risks and opportunities are viewed. The risk appetite is proposed by management and approved by the Board, it represents the amount of risk the Company wants to take, within the constraints of capital resources, strategy, regulation and the rating agency environment.

Economic Capital Model

The Group uses economic capital modeling for capital adequacy assessment, risk-adjusted performance measurement and group-level and operating entity-level risk analysis.

Modeling

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 current with emerging scientific trends. 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 allow 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 based on risk levels determined by the Risk Committee of the Board of Directors.

Vendor Models: The Company has global licenses for all three major commercial vendor models (RMS, AIR and EQECAT), to assess the adequacy of risk pricing and to monitor its overall exposure to risk in correlated geographic zones. Commencing in January 2012, the Company incorporated RMS

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version 11 into its vendor models. The Company models property exposures that could potentially lead to an over-aggregation of property risks (i.e., catastrophe-exposed business) using the vendor models. The vendor models enable 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. Once exposures are modeled using one of the vendor models, the other two models are used as a reasonability check and validation of the loss scenarios developed and reported by the first. The three commercial models each have unique strengths and weaknesses. For example, it is sometimes necessary to impose changes to frequency and severity ahead of changes made by the model vendors.

The Company's review of market practice revealed a number of areas where quantitative expertise can be used to improve the reliability of the vendor model outputs:

Ceding companies may often 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 output and pricing to reflect insufficient data quality;

Prior to making overall adjustments for changes in climate variables, other variables are carefully examined (for example, demand surge, storm surge, and secondary uncertainty); and

Pricing individual contracts frequently requires further adjustments to the three vendor models. Examples include bias in damage curves for commercial structures and occupancies and frequency of specific perils.

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 has implemented a proprietary pricing and risk management tool, VCAPS, to assist in pricing submissions and monitoring risk aggregation.

To supplement the analysis performed using vendor models, VCAPS uses the gross loss 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 exposures. The two primary benefits of this approach are:

VCAPS takes into account annual limits, event/franchise/annual aggregate deductibles, and reinstatement premiums. This 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 use of 100,000-year simulations enables robust pricing of catastrophe-exposed business. This 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. The Company cannot assure that the models and assumptions used by the software will accurately predict losses. Further, the Company cannot assure that the software is free of defects in the modeling logic or in the software code. In addition, the Company has not sought copyright or other legal protection for VCAPS.

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Underwriting Risk Management

We underwrite and manage risk by paying close attention to risk selection and analysis. Through a detailed examination of contract terms, diversification criteria, contract experience and exposure, we aim to outperform our peers. We strive to provide our experienced underwriters with technically sound and objective information. We believe a strong working relationship between the underwriting, catastrophe modeling and actuarial disciplines is critical to long-term success and solid decision-making.

All of the Company's underwriters are subject to a set of underwriting guidelines. At Validus Re, these guidelines are established by the Chief Executive Officer and approved by the Company's Board of Directors. At Talbot, the guidelines are established by executive management at Talbot and approved by their Board of Directors. These guidelines are then subject to review and approval by the Risk Committee of our Board of Directors. Underwriters are also issued 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 to the Chief Executive Officer at Validus Re and the Chief Executive Officer at Talbot; and

level 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;

employ our well-founded and carefully maintained market contacts within the group to enhance our robust distribution capabilities; and

refer submissions to the Chief Underwriting Officer at Validus Re, the Chief Executive Officer at Talbot, Chief Executive Officer at Validus Re and the Risk Committee of our Board of Directors according to our underwriting guidelines.

The underwriting guidelines are subject to waiver or change by the Chief Executive Officer at Validus Re or the Chief Executive Officer at Talbot subject to their authority as overseen by their respective Risk Committees.

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 all lines are subject to fully approved regulatory audits. Further, our treaty reinsurance operation has the authority limits of individual underwriters built into VCAPS while Talbot maintains separate compliance procedures to ensure that the appropriate policies and guidelines are followed.

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Validus Re: We have established a referral process whereby business exceeding set exposure or premium limits is referred to the Chief Executive Officer for review. As the reviewer of such potential business, the Chief Executive Officer has the ability to determine if the business meets the Company's overall desired risk profile. The Chief Executive Officer has defined underwriting authority for each underwriter, and risks outside of this authority must be referred to the Company's Chief Executive Officer.

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The Risk Committee of our Board of Directors reviews business that is outside the authority of the Chief Executive Officer.

Talbot: Our risk review and control processes have been designed to ensure that all written risks comply with underwriting and risk control strategies. The workflow system is designed to automate the referral of risks to the relevant reviewer who has an appropriate level of authority to review the risk. These reviews are documented, monitored and reports are prepared on a regular basis.

Collectively, the various peer review procedures serve numerous objectives, including:

Validating that underwriting decisions are in accordance with risk appetite, authorities, agreed business plans and standards for type, quality and profitability of risk;

Providing an experienced and suitably qualified second review of individual risks;

Ensuring that risks identified as significant undergo the highest level of technical underwriting review;

Elevating technical underwriting queries and/or need for remedial actions on a timely basis; and

Improving database accuracy and coding for subsequent management reporting.

The principal elements of the underwriting review process are as follows:

Underwriter Review: The underwriting team must evidence data entry review by confirming review and agreement on the workflow system within a specified number of working days of entry being completed by the contracted third party.

Peer Review: The majority of risks are peer reviewed by another underwriter within a specified number of working days of data entry being completed. There is an agreed matrix of underwriters authorized to peer review.

Class of business review: Risks written into a class by an underwriter other than the nominated class underwriter are subsequently forwarded to, and reviewed by, the nominated class underwriter.

Exceptions review: Risks that exceed a set of pre-determined criteria will also be referred to the Active Underwriter or the Underwriting Risk Officer for review. Such risks are discussed by the underwriters at regular underwriting meetings in the presence of at least one of the above. In certain circumstances, some risks may be referred to the Insurance Management Committee or the Talbot Underwriting Ltd ("TUL") Board for final approval. These reviews also commonly include reports of risks renewed where there has been a large loss ratio in the recent past.

Insurance Management Committee: At its regular meetings, the Committee reviews a range of key performance indicators including: premium income written versus plan; movements in syndicate cash and investments; aggregate exposures; together with other highlighted exception reports. The Committee also reviews claim movements over a financial threshold.

Expert Review Subcommittee ("ERC"): The ERC is a committee that meets regularly to review the underwriting activities of Syndicate 1183 and other related activities to provide assurance that the underwriting risks assumed are within the parameters of the business plan. This is achieved with the help of eight external expert reviewers who report their findings to the ERC.

The expert reviewers obtain and review a sample of risks underwritten in each class and report their findings to the quarterly meetings of the ERC. Findings range from general comments on approach and processes to specific points in respect of individual risks.

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Within Talbot, the TUL Board is responsible for creating the environment and structures for risk management to operate effectively. The Talbot Chief Executive is responsible for ensuring the risk management process is implemented.

The TUL Board has several committees responsible for monitoring risk. The TUL Board approves the risk appetite as part of the syndicate business plan process which sets targets for premium volume, pricing, line sizes, aggregate exposures and retention by class of business.

The TUL Executive Committee is responsible for establishing and maintaining a comprehensive risk register and key controls for TUL. It is responsible for formulating a risk appetite consistent with the Company's risk appetite, for approval by the TUL Board.

The key focuses of each committee are as follows:

The TUL Executive Committee manages key risks with regard to strategy and reserves;

The Insurance Management Committee manages insurance risks;

The Operational Risk Committee manages risk related to people, processes, systems and external events; and

The Financial Risk Committee manages credit risk associated with reinsurers, brokers, coverholders and investments, market risk and liquidity risk.

Performance against underwriting targets is measured regularly throughout the year. Risks written are subject to peer review, an internal quality control process. Pricing is controlled by the monitoring of rate movements and the comparison of technical prices to actual prices for certain classes of business. Controls over aggregation of claims exposures vary by class of business. They include limiting coastal risks, monitoring aggregation by county/region/blast zones and applying line size limits in all cases. Catastrophe modeling software and techniques are used to model expected loss outcomes for Lloyd's Realistic Disaster Scenario returns and in-house catastrophe event scenarios. Reserves are reviewed for adequacy on a quarterly basis. The syndicate also purchases reinsurance, with an appropriate number of reinstatements, to arrive at an acceptable net retained risk.

Program Limits

Overall exposure to risk is controlled by limiting the amount of insurance or reinsurance underwritten in a particular program or contract. This helps to diversify within and across risk zones. The Risk Committee sets these limits, which may be exceeded only with its approval.

Geographic Diversification

