

# **Investor Presentation**

Fourth Quarter 2017

VALIDUS HOLDINGS, LTD.



REINSURANCE







ASSET MANAGEMENT





## **Cautionary Note Regarding Forward-Looking Statements**

Certain statements herein may include projections, goals, assumptions and statements that may constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, and Validus may make related oral, forward-looking statements on or following the date hereof. These projections, goals, assumptions and statements are not historical facts but instead represent only Validus' belief regarding future events, many of which, by their nature, are inherently uncertain and outside Validus' control. These projections, goals, assumptions and statements include statements preceded by, followed by or including words such as "will," "believe," "anticipate," "expect," "intend," "plan," "focused on achieving," "view," "target," "goal," or "estimate." Accordingly, there are or will be important factors that could cause Validus' actual results and financial condition to differ, possibly materially, from the results and financial condition indicated in these projections, goals, assumptions and statements.

We believe that these factors include, but are not limited to, the following: 1) unpredictability and severity of catastrophic events; 2) rating agency actions; 3) adequacy of Validus' risk management and loss limitation methods; 4) cyclicality of demand and pricing in the insurance and reinsurance markets; 5) statutory or regulatory developments including tax policy, reinsurance and other regulatory matters; 6) Validus' ability to implement its business strategy during "soft" as well as "hard" markets; 7) adequacy of Validus' loss reserves; 8) continued availability of capital and financing; 9) retention of key personnel; 10) competition; 11) potential loss of business from one or more major insurance or reinsurance brokers; 12) Validus' ability to implement, successfully and on a timely basis, complex infrastructure, distribution capabilities, systems, procedures and internal controls, and to develop accurate actuarial data to support the business and regulatory and reporting requirements; 13) general economic and market conditions (including inflation, volatility in the credit and capital markets, interest rates and foreign currency exchange rates); 14) the integration of businesses Validus may acquire or new business ventures Validus may start; 15) the effect on Validus' investment portfolios of changing financial market conditions including inflation, interest rates, liquidity and other factors; 16) acts of terrorism or outbreak of war; 17) availability of reinsurance and retrocessional coverage; 18) the inability to complete the proposed transaction with AIG (the "proposed transaction") because, among other reasons, conditions to the closing of the proposed transaction may not be satisfied or waived; 19) uncertainty as to the timing of completion of the proposed transaction; 20) the inability to complete the proposed transaction due to the failure to obtain Validus shareholder approval for the proposed transaction or the failure to satisfy other conditions to completion of the proposed transaction, including that a governmental entity may prohibit, delay or refuse to grant approval for the consummation of the transaction; 21) the occurrence of any event, change or other circumstances that could give rise to the termination of the merger agreement; 22) risks related to disruption of management's attention from Validus' ongoing business operations due to the proposed transaction; 23) the effect of the announcement of the proposed transaction on Validus' relationships with its clients, operating results and business generally; and 24) the outcome of any legal proceedings to the extent initiated against Validus or others following the announcement of the proposed transaction, as well as Validus' management's response to any of the aforementioned factors.

The foregoing review of important factors should not be construed as exhaustive and should be read in conjunction with the other cautionary statements that are included herein and elsewhere, including the risk factors included in Validus' most recent reports on Form 10-K and Form 10-Q and other documents of Validus on file with or furnished to the Securities and Exchange Commission ("SEC"). Any forward-looking statements made in this material are qualified by these cautionary statements, and there can be no assurance that the actual results or developments anticipated by Validus will be realized or, even if substantially realized, that they will have the expected consequences to, or effects on, Validus or its business or operations. Except as required by law, Validus undertakes no obligation to update publicly or revise any forward-looking statement, whether as a result of new information, future developments or otherwise.





# Validus Overview & Financial Highlights

VALIDUS HOLDINGS, LTD.

## **Business Plan and Strategic Objectives**



## **Our Story**

Since our founding in 2005 we have evolved from a reinsurance focused company to a leading global provider of reinsurance, insurance, and asset management services

## **Our Business Plan**

Validus' business plan since formation has been to generate attractive riskadjusted returns through a primary focus on short-tail lines with strategic diversification into select longer-tail specialty classes

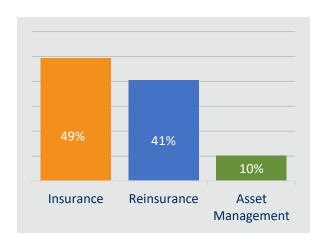
## Our Main Strategic Objective

Maximize book value for shareholders by operating a leading global specialty underwriter, writing insurance and reinsurance with diversification by class of business and geography

## **Key Highlights**



## VALIDUS MIX OF BUSINESS BY REPORTABLE SEGMENT



\$3.7

Billion Market Capitalization \$3.0

Billion 2017 Gross Premiums Written \$1.52

Annual Dividend per Share

9

Countries

**17** 

Offices

1,264

**Employees** 

A (Stable)

Competitive Financial Strength Rating

\$10.8

Billion Total Investments and Cash \$7.1

Billion Total Managed Investments and Cash "VR"

NYSE Ticker Symbol

- 1) Financial strength ratings of A Stable from both AM Best and S&P.
- 2) All data points are as of or for the last twelve months ended December 31, 2017.

## **Key Accomplishments**





Since its founding in 2005, Validus has expanded its platform to include a global reinsurer, a Lloyd's syndicate, a third party reinsurance asset manager and a U.S. specialty insurer



The diversified portfolio as measured by gross premiums written by reportable segment is comprised of 49% insurance and 41% reinsurance and 10% asset management for the year ended December 31, 2017



Maintained a focus on underwriting profits in conjunction with a strong balance sheet



Delivered outstanding financial results since the 2007 IPO as measured by growth in book value per diluted common share plus accumulated dividends



Active capital management, returning \$4.1 billion to investors through repurchases and dividends from Validus' 2007 IPO through February 27, 2018



#### **Maximizing Shareholder Value Creation** \$90.00 81.84 \$85.00 \$80.00 2005 - 2018\$75.00 13.84 Adjusted CAGR (3) = 13.4% \$70.00 \$65.00 \$60.00 2005 - 201756.53 55.79 52.49 \$55.00 $CAGR^{(2)} = 10.4\%$ 48.53 11.56 \$50.00 13.08 43.91 10.16 \$45.00 39.70 8.88 \$40.00 35.46 35.76 7.68 4.48 31.28 \$35.00 2.48 3.48 68.00 \$30.00 1.60 24.58 24.00 \$25.00 19.73 0.80 44.97 16.93 42.33 42.71 \$20.00 39.65 36.23 35.22 32.98 32.28 \$15.00 29.68 24.00 23.78 \$10.00 19.73 16.93 \$5.00 \$0.00 2017 2018 (1) 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016

Total Value Creation = Compound annual growth in diluted BVPS plus accumulated dividends from Validus' formation through 2018

Cumulative Dividends

◆ Diluted BVPS plus Accumulated Dividends

■ Diluted BVPS

<sup>1) \$68.00</sup> reflects the cash consideration holders of Validus common shares will receive following shareholder approval and satisfaction of other conditions to closing of the AIG acquisition, announced on January 22, 2018.

<sup>2)</sup> CAGR from 2005 – 2017 based on diluted BVPS plus accumulated dividends of \$55.79.

Adjusted CAGR from 2005 – 2018 based on cash consideration of \$68.00 per common share plus accumulated dividends from company formation through June 30, 2018 (the date the AIG acquisition is expected to close) of \$81.84.

## **Validus Group of Companies**



#### VALIDUS REINSURANCE

- Global Reinsurance group focused primarily on treaty reinsurance
- Specializing in covering catastrophe risk predominantly on an excess of loss basis
- Providing solutions to cover Property, Marine, Energy,
   Specialty including Agriculture, and Casualty business

#### VALIDUS INSURANCE

 Validus Insurance provides tailored insurance solutions through Talbot, our Lloyds specialty insurance group, Western World our U.S. specialty lines organization, Validus Specialty who offers a wide range of E&S and Admitted Insurance Solutions, and Crop Risk Services, who offers leading crop insurance services to North America

## VALIDUS ASSET MANAGEMENT

 Bermuda-based investment advisor managing capital for third parties and Validus through insurance-linked securities and other property catastrophe and specialty reinsurance investments

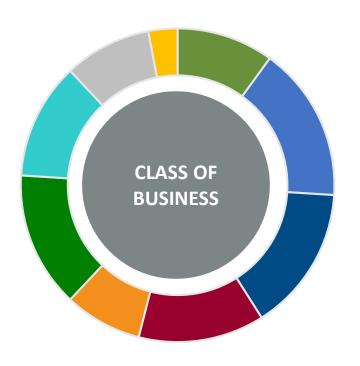
## VALIDUS RESEARCH

Provides Analytical Support Across All Platforms

## **Mix of Business**

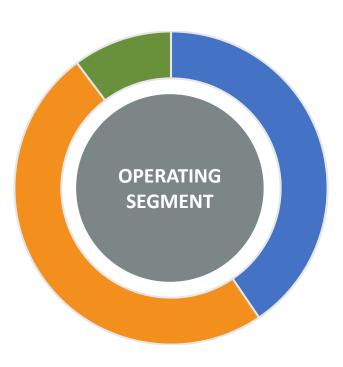


## **2017 GROSS PREMIUMS WRITTEN OF \$3.0 BILLION**



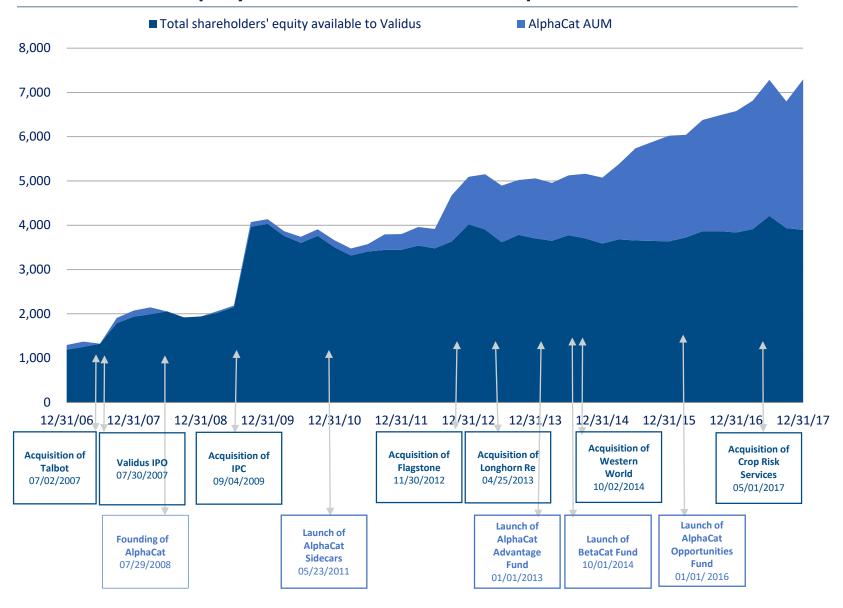
- Asset Management 10%
- Other Property 16%
- Property Cat XOL 15%
- Other Specialty Short-tail 13%
- Other Specialty Other 8%

- Agriculture 14%
- Marine 12%
- Liability 9%
- Casualty 3%



- Reinsurance 41%
- Insurance 49%
- Asset Management 10%

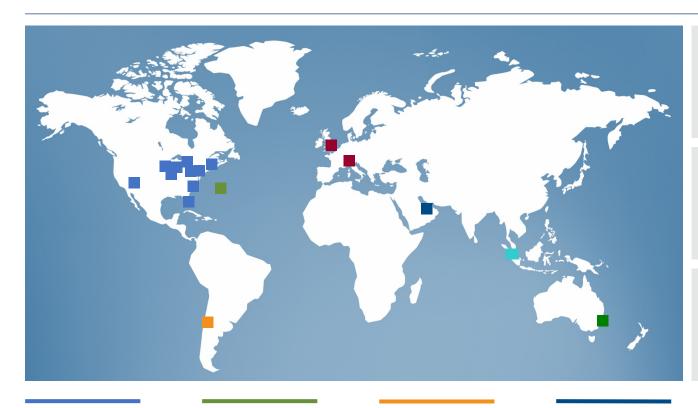
## Market Footprint of \$7.3 Billion USD: Shareholders' Equity Available to Validus + AlphaCat AUM





## **Strength and Expertise Across the Globe**





9 COUNTRIES

**17** OFFICES

**1,264** EMPLOYEES

#### **NORTH AMERICA**

Atlanta

Boston

Council Bluffs

Decatur

Miami

Minneapolis

New York

Parsippany

Scottsdale

Waterloo

#### BERMUDA

Hamilton

EUROPE

London Zurich

#### LATIN AMERICA

Santiago

#### **ASIA PACIFIC**

Singapore

## MIDDLE EAST & NORTH AFRICA

Dubai

#### **AUSTRALIA**

Sydney

## **Adapting to Market Demand**

## **GROWTH AND DIVERSIFICATION IN VALIDUS' BUSINESS SINCE INCEPTION**



Reinsurance 100%

Significant growth in GPW through acquisitions of:

- 2007 Talbot
- 2009 IPCRe
- 2012 Flagstone
- 2013 Longhorn Re
- 2014 Western World
- 2017 Crop Risk Services (2)
- Improved portfolio balance in insurance through Talbot and Western World acquisitions
- AlphaCat established in 2008 to capitalize on the insurance linked securities market
- Access to multiple sources of capital to respond to business opportunities as presented



<sup>.) 2006</sup> was the first full year of operations for Validus.

<sup>2)</sup> The acquisition of Crop Risk Services closed on May 1, 2017.

## **Financial Highlights Fourth Quarter 2017**



## **Gross premiums written**

\$443M

(Increase of 27% in the Insurance segment and 24% in the Reinsurance segment)

Net (loss) attributable to Validus common shareholders of \$(9)M and diluted (loss) per share of \$(0.11)

(1.0)% ROAE and 0.5% net operating ROAE

#### 109.7% combined ratio

(87.8% for the Reinsurance segment and 112.2% for the Insurance segment)

Net operating income available to Validus common shareholders of \$4M and diluted operating income per share of \$0.05

Book value per diluted common share of \$42.71

(0.1)% change in book value per diluted common share (inclusive of dividends)

<sup>1)</sup> Validus diluted book value per share, operating income, operating earnings per share and operating ROAE are non-GAAP financial measures. For further details, please refer to the "Non-GAAP Financial Measures" section included in the Company's most recent Form 10-Q or 10-K.

<sup>2)</sup> ROAE and net operating ROAE calculations are annualized.

## Financial Highlights Full Year 2017



## **Gross premiums written**

\$2,951M

(Increase of 22% in the Insurance segment and 16% in the Asset Management segment) Net (loss) attributable to Validus common shareholders of \$(63)M and diluted (loss) per share of \$(0.80)

(1.7)% ROAE and (2.3)% net operating ROAE

### 122.6% combined ratio

(96.1% for the Reinsurance segment and 111.1% for the Insurance segment)

Net operating (loss)
attributable to Validus
common shareholders
of \$(85)M and diluted
operating (loss)
per share of \$(1.07)

Book value per diluted common share of \$42.71

(1.6)% change in book value per diluted common share (inclusive of dividends)

<sup>1)</sup> Validus diluted book value per share, operating (loss), operating (loss) per share and operating ROAE are non-GAAP financial measures. For further details, please refer to the "Non-GAAP Financial Measures" section included in the Company's most recent Form 10-Q or 10-K.

<sup>2)</sup> ROAE and net operating ROAE calculations are annualized.

## **Active Capital Management**

## **CAPITAL MANAGEMENT INCEPTION TO** DATE \$4.1 BILLION<sup>(1)</sup>



- Special Dividend
- Common Share Dividends
- Share Repurchases

#### **CAPITAL MANAGEMENT**

- On Feb 3, 2015 Validus reset the common share repurchase authorization to \$750 million
- Remaining authorization of \$293 million
- On February 9, 2017 Validus increased the quarterly dividend to \$0.38 per share
- 2017 capital management of \$167 million
  - Common share repurchases of \$27 million
  - Common share dividends of \$124 million
  - Preferred share dividends of \$16 million



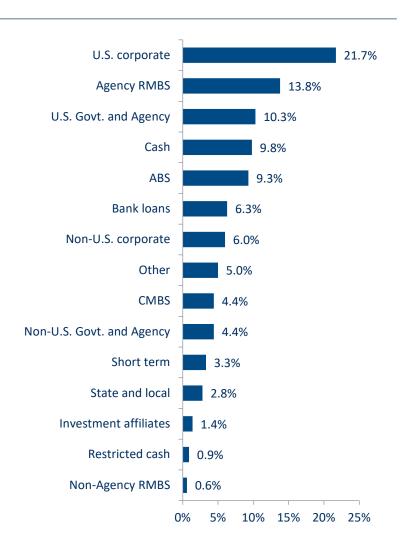
Expressed in millions of U.S. Dollars

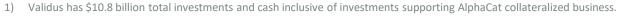
Inception to date capital management includes \$20 million of dividends on preferred shares.

Inception to date and 2017 capital management actions of \$4.1 billion is through February 27, 2018.

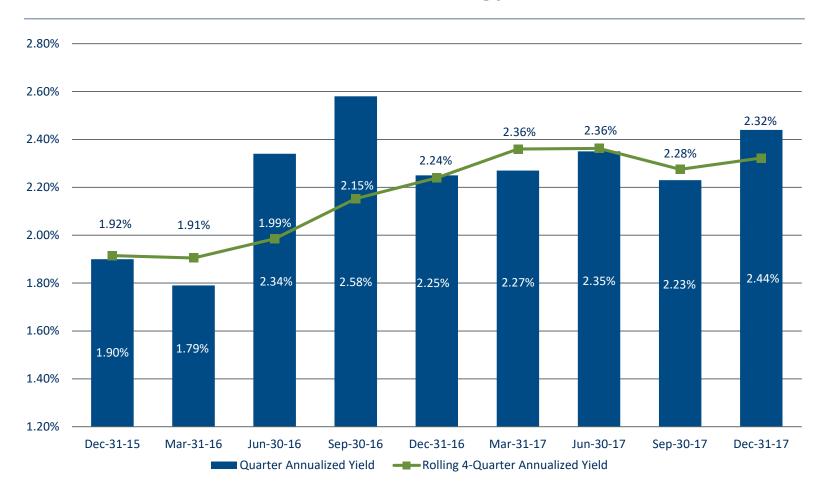


- Total managed investments and cash of \$7.1 Billion
  - Emphasis on the preservation of invested assets
  - Provision of sufficient liquidity for prompt payment of claims
  - Comprehensive portfolio disclosure
- Average portfolio rating of AA-
- Duration of 2.17 years
- Q4 2017 annualized investment yield:
   2.44% (Q4 2016: 2.25%)









- In 2014, Validus set out to increase portfolio yield without increasing tail risk. Validus' Chief Investment Officer worked with our risk and financial modeling teams to establish a new portfolio allocation
- Our managed portfolio is conservatively positioned and asset allocation is continually evaluated to balance capital preservation and liquidity needs with reasonable return expectations



## Loss Reserves at December 31, 2017

#### **NET FAVORABLE RESERVE DEVELOPMENT**

#### Expressed in \$US Millions



### Net favorable reserve development during 2017:

Reinsurance Segment: \$113 million

Insurance Segment: \$97 million

Asset Management Segment: \$13 million

#### **GROSS RESERVE MIX**



- Gross reserves for losses and loss expenses of \$4.8 billion
- \$3.6 billion net of loss reserves recoverable
- Q4 2017 notable losses Northern California Wildfires of \$88 million and Southern California Wildfires of \$38 million
- Non-notable losses of \$10 million in Q4 2017

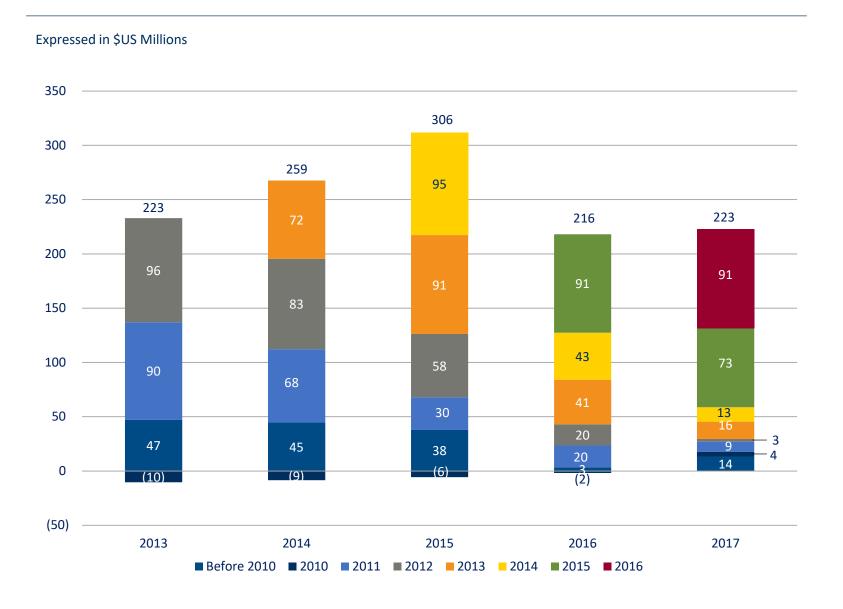
<sup>1)</sup> The Company defines a notable loss event as an event whereby consolidated net losses and loss expenses aggregate to a threshold greater than or equal to \$30 million. The Company defines a non-notable loss event as an event whereby consolidated net losses and loss expenses aggregate to a threshold greater than or equal to \$15 million but less than \$30 million.

<sup>2)</sup> Net of losses attributable to AlphaCat investors and noncontrolling interests of \$81 million and the net impact of reinstatement premiums and acceleration of unearned premiums of \$8 million, the net loss attributable to Validus from Q4 2017 notable loss events was \$37 million.

There were no non-notable loss events occurring during Q4 2017. However, as a result of notable loss events occurring Q4 2017, the Company reallocated retrocession recoveries between all 2017 loss events. As such, the Company increased its net loss estimate on the Q3 2017 Mexico City Earthquake which caused this event to exceed the \$15 million threshold and become a non-notable loss event.









# Reportable Segments & Validus Research

VALIDUS HOLDINGS, LTD.

## **Reinsurance Overview**





Validus Reinsurance is a leading global multi-line reinsurance group operating in Bermuda, Chile, London, Switzerland, Singapore and the United States



We are among the world's largest and most successful reinsurers specializing in the assumption of volatility risk, with the financial strength and resources to satisfy the most demanding global clients but also nimble enough to provide innovative and client-focused solutions in a complex and evolving marketplace



We operate from seven offices internationally and we are able to provide a broad suite of reinsurance products and services, backed by highly-rated capital and specialized local knowledge, in virtually every corner of the world



We utilize our superior analytical tools and resources to offer our clients unique insight into their risk portfolios. In addition, we provide exceptional service and commitment to our clients and their communities

#### REINSURANCE PRODUCTS

Agriculture



Validus Re

Aviation



Talbot Underwriting

Energy



Validus Re

Marine



Validus Re Talbot Underwriting

**Property** 



Validus Re Talbot Underwriting

Specialty



Validus Re Talbot Underwriting

## **Reinsurance Highlights**

#### **FOURTH QUARTER 2017**

Operating highlights from the quarter ended December 31, 2017 include the following:

- Gross premiums written of \$52 million
- Net premiums written of \$11 million
- Combined ratio of 87.8%
- Underwriting income of \$31 million

#### **YEAR ENDED 2017**

Operating highlights from the year ended December 31, 2017 include the following:

- Gross premiums written of \$1.2 billion
- Net premiums written of \$986 million
- Combined ratio of 96.1%
- Underwriting income of \$40 million

#### **GROSS PREMIUMS WRITTEN - \$1.2 BILLION**

Year ended December 31, 2017



- Property Cat XOL 38%
- Other Property 8%
- Other Specialty Short-tail 17%
- Other Specialty Other 5%
- Agriculture 15%
- Marine 10%
- Casualty 7%

### **Insurance Overview**

Validus Insurance provides tailored insurance solutions through Talbot, our Lloyds specialty insurance group, Western World our U.S. specialty lines organization, Validus Specialty who offers a wide range of E&S and Admitted Insurance Solutions, and Crop Risk Services, who offers leading crop insurance services to North America

#### **TALBOT**

- Joined Validus Group in 2007
- Specialty insurance group operating within the Lloyd's market through Syndicate 1183
- Primary office locations: London, Miami, Santiago, Dubai, Sydney & Singapore

#### WESTERN WORLD

- U.S. based specialty property and casualty underwriter
- Joined Validus Group October 2014
- Focused on U.S. Excess and Surplus Lines
- Pioneer in Binding Authority business

#### **INSURANCE PRODUCTS**

#### **Accident & Health**



**Talbot Underwriting** 

#### Energy



Talbot Underwriting Validus Specialty

Agriculture



**Crop Risk Services** 

**Financial Lines** 



Talbot Underwriting

#### Aviation



Talbot Underwriting

Fine Art & Specie



Talbot Underwriting

## Cargo



Talbot Underwriting Validus Specialty

Marine



Talbot Underwriting Validus Specialty

### VALIDUS SPECIALTY

- Founded in February 2017
- Offers a wide range of US E&S and Admitted Insurance Solutions
- Operates on behalf of Western World Insurance Group and Talbot Underwriting Ltd, through Syndicate 1183 at Lloyd's

#### CROP RISK SERVICES

- Joined Validus Group in May 2017
- Primary office in Decatur, Illinois with satellite office located in Council Bluffs, Iowa, that handles MPCI underwriting
- Our staff in the Council Bluffs office has more than 100 years of combined experience in MPCI underwriting

#### Constr



Casualty

Western World





Talbot Underwriting Validus Specialty

#### Construction



Talbot Underwriting Validus Specialty

**Political Violence** 



Talbot Underwriting Validus Specialty

#### Contingency



Talbot Underwriting

#### **Professional Lines**



Validus Specialty

#### Crisis Management



Talbot Underwriting

#### Property



Talbot Underwriting Western World Validus Specialty

## **Insurance Highlights**

#### **FOURTH QUARTER 2017**

Operating highlights from the quarter ended December 31, 2017 include the following:

- Gross premiums written of \$377 million
- Net premiums written of \$321 million
- Combined ratio of 112.2%
- Underwriting (loss) of \$(37) million

#### **YEAR ENDED 2017**

Operating highlights from the year ended December 31, 2017 include the following:

- Gross premiums written of \$1.5 billion
- Net premiums written of \$1.2 billion
- Combined ratio of 111.1%
- Underwriting (loss) of \$(132) million

#### **GROSS PREMIUMS WRITTEN - \$1.5 BILLION**

Year ended December 31, 2017



- Property 27%
  - Liability 17%
- Marine 16%
- Agriculture 16%
- Other Specialty Short-tail 13%
- Other Specialty Other 11%

## **Insurance - Crop Risk Services**

#### **COMPANY OVERVIEW**

- First established in 1982 as ASI Agriserve Inc. ("ASI")
- Acquired by Validus Group on May 1, 2017 and the company became Crop Risk Services
- Primary crop insurance general agent headquartered in Decatur, IL with 370 employees
- 86% of gross premiums written ("GPW") is multi-peril crop insurance ("MPCI") and 14% private crop insurance products
- Total 2017 GPW of \$597 million

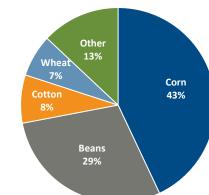
#### GEOGRAPHY MIX RY 2017 (2)

TX 13%

13%

Other

27%



## **CROP MIX RY 2017** (2)

#### **KEY HIGHLIGHTS**

- Stratford Insurance Company, a Western World subsidiary, is the Standard Reinsurance Agreement ("SRA") holder and Approved Insurance Provider ("AIP")
- #9 ranked U.S. crop writer with 5.1% market share
- Scaled business with 1,170 agents across 36 states
- Successful joint marketing partnership with ADM grain division
- Strong value proposition for farmers and knowledge of their needs
- Strong management team with significant experience and relationships in the crop industry
- Operational excellence in claims, marketing and origination
- Leading technology, data and analytics integration to improve service and efficiency

RY represents Reinsurance Year.

Mix figures represent MPCI for the nine months ended September 30, 2017, source CRS Management.

CRS #9 US crop writer ranking and market share data represents RY2017, source National Crop Insurance Services.

## **Asset Management – Overview**

#### **ASSET MANAGEMENT OVERVIEW**

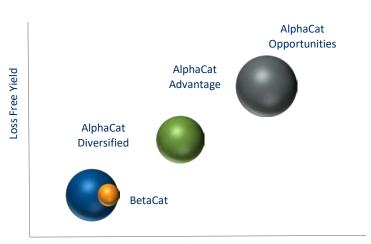
Formed in 2008, AlphaCat Managers is a Bermuda-based investment advisor managing capital for third parties and Validus through insurance-linked securities and other property catastrophe and specialty reinsurance investments.

Leveraging on the underwriting and investment expertise within the Validus Group, AlphaCat Managers invests in private reinsurance transactions, as well as catastrophe bonds, a common type of insurance-linked security issued by insurance and reinsurance companies. AlphaCat Managers helps investors take full advantage of this asset class with low correlation, accessing the market via AlphaCat Reinsurance Ltd., a Bermuda-based provider of fully collateralized property catastrophe reinsurance retrocession capacity.

#### **QUICK FACTS**

- Founded in 2008
- Opened access to external investors in 2011
- Grown organically to \$3.4 billion in assets under management as of January 1, 2018

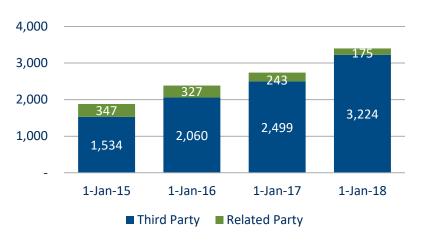
#### **FUNDS**



**Expected Loss** 

#### ASSETS UNDER MANAGEMENT

**Expressed in USD Millions** 



## **Validus Research – Depth of Resources**

#### RESEARCH

- Validus Group's thought leader in catastrophe risk quantification and model development
- Post-Doctoral expertise in physical and data sciences including seismology, atmospheric sciences, hydrology, structural engineering, and statistics
- Responsibility for the Validus View of Risk derived from independent research/validation with the agility to reflect latest science and experience in a responsive way

#### **SOFTWARE ENGINEERING**

 Continuous evolution of our core underwriting, portfolio and risk management systems, including the Validus Capital Allocation and Pricing System (VCAPS)

#### **CATASTROPHE MODELING**

- Rigorous analyses/investigations of insurance/reinsurance transactions with a heavy focus on exposure data quality
- Over 60 years of combined catastrophe modeling experience applying and evolving industry best practice





# **Transparent Risk Disclosures**

VALIDUS HOLDINGS, LTD.

# Estimated Exposures to Peak Zone Property Catastrophe Losses As of January 1, 2018



Reinsurance

## Peak US Hurricane PML Down 65% Since 2013

**Peak Zone PML** 

Consolidated (Insurance and Reinsurance Segments) Estimated Net Loss

<u>Zones</u>	<u>Perils</u>	20 year return period	50 year return period	100 year return period	250 year return period	Segment Net Maximum Zonal Aggregates
United States	Hurricane	259,970	308,684	335,490	545,121	1,694,259
California	Earthquake	49,085	195,133	287,734	322,762	1,444,727
Europe	Windstorm	93,276	213,719	268,337	456,383	1,374,612
Japan	Earthquake	57,124	130,705	208,205	295,699	955,949
Japan	Typhoon	66,129	134,493	219,350	256,136	843,280

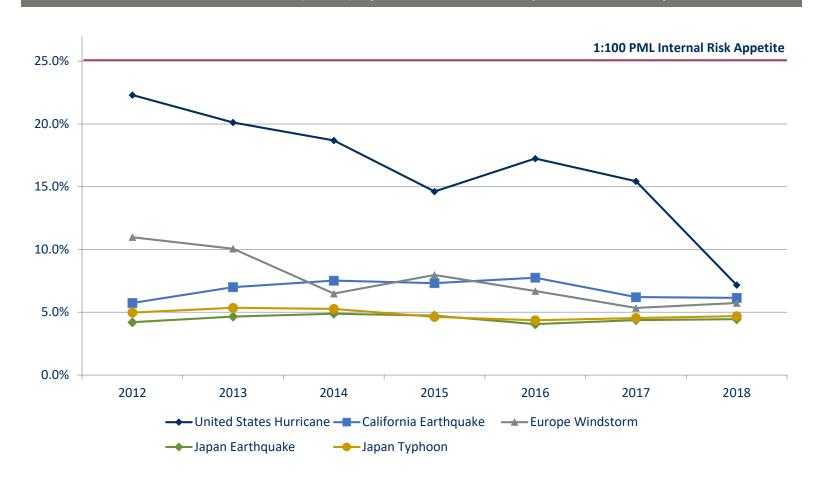
<sup>1)</sup> Net PMLs and maximum zonal aggregates include Validus' share of the Asset Management segment limits.

<sup>2)</sup> Peak US hurricane PML down 65% as compared to the January 1, 2013 portfolio, the historical high point.

<sup>3)</sup> A full explanation and disclaimer is contained in the notes on other financial and exposure measures found in the Appendix hereto.



### Net Probable Maximum Loss (1:100) by Zone and Peril Compared to Total Capitalization



<sup>1)</sup> A full explanation and disclaimer is contained in the notes on other financial and exposure measures found in the Appendix hereto.

<sup>2)</sup> Consolidated (Insurance and Reinsurance Segments) estimated net loss 1:100 year PML as a % of total capitalization.

Total capitalization equals total shareholder's equity less noncontrolling interests plus Senior Notes and Junior Subordinated Deferrable Debentures.

<sup>4)</sup> All data points are as at January 1.

## **Realistic Disaster Scenarios**

Consolidated Estimated Exposures to Specified Loss Scenarios - As of July 1, 2017 (Expressed in millions of U.S. Dollars)

Туре	Catastrophe Scenarios	rophe Scenarios Description		Estimated Consolidated Net Loss	% of latest 12 Months Consolidated Net Premiums Earned	
Marine	Loss of major complex	Total loss to all platforms and bridge links of a major oil complex	\$	173.3	6.7%	
	Major cruise vessel					
Marine	incident	US-owned cruise vessel sunk or severely damaged		147.3	5.7%	
Marine	Marine collision	Fully laden tanker collides with a cruise vessel in US waters		111.6	4.3%	
		Chinese economy has a "hard landing" with sharp fall in growth rates;				
Political Risk	s South East Asia	regional contagion		177.4	6.9%	
		The Russian corporate sector struggles to deal with the effects of crashing				
Political Risk	s Russia	commodity and stock prices		62.2	2.4%	
Political Risk	s Turkey	Severe economic crisis in Turkey due to political upheaval		50.1	1.9%	
		Severe economic, political and social crisis in Nigeria leads to widespread				
Political Risk	s Nigeria	civil unrest		49.8	1.9%	
Political Risk	s Middle East	US and Iran escalate into military confrontation; regional contagion		88.2	3.4%	
Aviation	Aviation collision	Collision of two aircraft over a major city		34.0	1.3%	
		Large single or sequence of proton flares results in loss to all satellites in				
Satellite	Solar flare	synchronous orbit		54.7	2.1%	
Satellite	Generic defect	Undetected defect in a number of operational satellites causing major loss		29.4	1.1%	
Terrorism	Rockefeller Center	Midtown Manhattan suffers a 2-tonne conventional bomb blast		96.2	3.7%	
Terrorism	One World Trade Center	Lower Manhattan suffers a 2-tonne conventional bomb blast		45.3	1.8%	
Liability	Professional lines	Failure or collapse of a major corporation		42.4	1.6%	
Liability	Professional lines	UK pensions mis-selling		19.1	0.7%	
•	Major data security	Simultaneous cyber-attacks on organizations within one industrial sector;				
Cyber	breach	loss of customer data		74.6	2.9%	



<sup>1)</sup> A full explanation and disclaimer is contained in the notes on other financial and exposure measures found in the Appendix hereto.



Net loss estimates and zonal aggregates are before income tax, net of reinstatement premiums, and net of reinsurance and retrocessional recoveries. The estimates set forth on page 29 are based on an Occurrence basis on assumptions that are inherently subject to significant uncertainties and contingencies. These uncertainties and contingencies can affect actual losses and could cause actual losses to differ materially from those expressed above. In particular, modeled loss estimates do not necessarily accurately predict actual losses, and may significantly mis-estimate actual losses. Such estimates, therefore, should not be considered as a representation of actual losses.

The Company has developed the estimates of losses expected from certain catastrophes for its portfolio of property, marine, workers' compensation, and personal accident contracts using commercially available catastrophe models such as RMS, AIR and EQECAT, which are applied and adjusted by the Company. These estimates include assumptions regarding the location, size and magnitude of an event, the frequency of events, the construction type and damageability of property in a zone, policy terms and conditions and the cost of rebuilding property in a zone, among other assumptions. These assumptions will evolve following any actual event. Accordingly, if the estimates and assumptions that are entered into the risk model are incorrect, or if the risk model proves to be an inaccurate forecasting tool, the losses the Company might incur from an actual catastrophe could be materially higher than its expectation of losses generated from modeled catastrophe scenarios. 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. Further, the Company cannot assure that such third party models are free of defects in the modeling logic or in the software code.

The Company has presented the Company Realistic Disaster Scenarios for non-natural catastrophe events. Twice yearly, Lloyd's syndicates' including the Company's Talbot Syndicate 1183 are required to provide details of their potential exposures to specific disaster scenarios. Lloyd's makes its updated Realistic Disaster Scenarios (RDS) guidance available to the market annually. The RDS scenario specification document for 2017 can be accessed at the RDS part of the Lloyd's public website: http://www.lloyds.com/the-market/tools-and-resources/research/exposure-management/realistic-disaster-scenarios.

The Consolidated Net Premiums Earned used in the calculation represent the net premiums earned for the year ended December 31, 2017.

Modeling catastrophe threat scenarios is a complex exercise involving numerous variables and is inherently subject to significant uncertainties and contingencies. These uncertainties and contingencies can affect actual losses and could cause actual losses incurred by the Company to differ materially from those expressed above. Should an event occur, the modeled outcomes may prove inadequate, possibly materially so. This may occur for a number of reasons including, legal requirements, model deficiency, non-modeled risks or data inaccuracies.

A modeled outcome of net loss from a single event also relies in significant part on the reinsurance and retrocession arrangements in place, or expected to be in place at the time of the analysis, and may change during the year. Modeled outcomes assume that the reinsurance and retrocession in place responds as expected with minimal reinsurance failure or dispute. Reinsurance is purchased to match the original exposure as far as possible, but it is possible for there to be a mismatch or gap in cover which could result in higher than modeled losses to the Company. In addition, many parts of the reinsurance program are purchased with limited reinstatements and, therefore, the number of claims or events which may be recovered from second or subsequent events is limited. It should also be noted that renewal dates of the reinsurance program do not necessarily coincide with those of the inwards business written. Where original business is not protected by risks attaching reinsurance or retrocession programs, the programs could expire resulting in an increase in the possible net loss retained by the Company.

Investors should not rely on the information set forth in this presentation when considering investment in the Company. The information contained in this presentation has not been audited nor has it been subject to independent verification. The estimates set forth above speak only as of the date of this presentation and the Company undertakes no obligation to update or revise such information to reflect the occurrence of future events. The events presented reflect a specific set of prescribed calculations and do not necessarily reflect all events that may impact the Company.





For more information on our company, products and management team please visit our website at: www.validusholdings.com

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