

INVESTOR PRESENTATION FOURTH QUARTER 2013



Aspen Insurance Holdings Limited



SAFE HARBOR DISCLOSURE

This slide presentation is for information purposes only. It should be read in conjunction with our financial supplement posted on our website on the Investor Relations page and with other documents filed or to be filed shortly by Aspen Insurance Holdings Limited (the "Company" or "Aspen") with the U.S. Securities and Exchange Commission.

Non-GAAP Financial Measures:

In presenting Aspen's results, management has included and discussed certain "non-GAAP financial measures" as such term is defined in Regulation G. Management believes that these non-GAAP financial measures, which may be defined differently by other companies, better explain Aspen's results of operations in a manner that allows for a more complete understanding of the underlying trends in Aspen's business. However, these measures should not be viewed as a substitute for those determined in accordance with GAAP. The reconciliation of such non-GAAP financial measures to their respective most directly comparable GAAP financial measures in accordance with Regulation G is included herein or in the financial supplement, as applicable, which can be obtained from the Investor Relations section of Aspen's website at www.aspen.co.

Application of the Safe Harbor of the Private Securities Litigation Reform Act of 1995: This presentation contains written or oral "forward-looking statements" within the meaning of the U.S. federal securities laws. These statements are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include all statements that do not relate solely to historical or current facts, and can be identified by the use of words such as "expect," "intend," "plan," "believe," "do not believe," "aim," "project," "anticipate," "seek," "will," "likely," "estimate," "may," "continue," "guidance," "outlook," "trends," "future," "could," "target," and similar expressions of a future or forward-looking nature.

All forward-looking statements address matters that involve risks and uncertainties. Accordingly, there are or will be important factors that could cause actual results to differ materially from those indicated in these statements. Aspen believes these factors include, but are not limited to: our ability to successfully implement steps to further optimize the business portfolio, ensure capital efficiency and enhance investment returns; the possibility of greater frequency or severity of claims and loss activity, including as a result of natural or man-made (including economic and political risks) catastrophic or material loss events, than our underwriting, reserving, reinsurance purchasing or investment practices have anticipated; the assumptions and uncertainties underlying reserve levels that may be impacted by future payments for settlements of claims and expenses or by other factors causing adverse or favorable development; the reliability of, and changes in assumptions to, natural and man-made catastrophe pricing, accumulation and estimated loss models; decreased demand for our insurance or reinsurance products and cyclical changes in the highly competitive insurance and reinsurance industry; changes in insurance and reinsurance market conditions; increased competition from existing insurers and reinsurers and from alternative capital providers and insurance-linked funds and collateralized special purpose insurers on the basis of pricing, capacity, coverage terms, new capital, binding authorities to brokers or other factors and the related demand and supply dynamics as contracts come up for renewal; changes in the availability, cost or quality of reinsurance or retrocessional coverage; changes in general economic conditions, including inflation, deflation, foreign currency exchange rates, interest rates and other factors that could affect our financial results; the risk of a material decline in the value or liquidity of all or parts of our investment portfolio; evolving issues with respect to interpretation of coverage after major loss events; our ability to adequately model and price the effect of climate cycles and climate change; any intervening legislative or governmental action and changing judicial interpretation and judgements on insurers' liability to various risks; the effectiveness of our loss limitation methods, including our reinsurance purchasing; changes in the total industry losses, or our share of total industry losses, resulting from past events and, with respect to such events, our reliance on loss reports received from cedants and loss adjustors, our reliance on industry loss estimates and those generated by modeling techniques, changes in rulings on flood damage or other exclusions as a result of prevailing lawsuits and case law; the impact of one or more large losses from events other than natural catastrophes or by an unexpected accumulation of attritional losses; the impact of acts of terrorism, acts of war and related legislation; any changes in our reinsurers' credit quality and the amount and timing of reinsurance recoverables; the continuing and uncertain impact of the current depressed lower growth economic environment in many of the countries in which we operate; the level of inflation in repair costs due to limited availability of labor and materials after catastrophes; a decline in our operating subsidiaries' ratings with S&P, A.M. Best or Moody's; the failure of our reinsurers, policyholders, brokers or other intermediaries to honor their payment obligations; our ability to execute our business plan to enter new markets, introduce new products and develop new distribution channels, including their integration into our existing operations; our reliance on the assessment and pricing of individual risks by third parties; our dependence on a few brokers for a large portion of our revenues; the persistence of heightened financial risks, including excess sovereign debt, the banking system and the Eurozone debt crisis; changes in our ability to exercise capital management initiatives (including our share repurchase program) or to arrange banking facilities as a result of prevailing market changes or changes in our financial position; changes in government regulations or tax laws in jurisdictions where we conduct business; changes in accounting principles or policies or in the application of such accounting principles or policies; Aspen or Aspen Bermuda Limited becoming subject to income taxes in the United States or the United Kingdom; loss of one or more of our senior underwriters or key personnel; our reliance on information and technology and third party service providers for our operations and systems; and increased counterparty risk due to the credit impairment of financial institutions. For a more detailed description of these uncertainties and other factors, please see the "Risk Factors" section in Aspen's Annual Report on Form 10-K as filed with the U.S. Securities and Exchange Commission on February 26, 2013. Aspen undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the dates on which they are made.

The guidance in this presentation relating to 10% Operating ROE in 2014 is made as at February 6, 2014. Such guidance assumes a pre-tax catastrophe load of \$185 million per annum, normal loss experience and given the current interest rate and insurance pricing rate environment. Aspen has identified actions in each of its three operating return on equity levers – optimization of the business portfolio, capital efficiency and enhancing investment returns – to seek to achieve a 10% operating ROE in 2014. These forward looking statements are subject to risks and uncertainties, as discussed above, which could cause actual results to differ materially from these statements.

In addition, any estimates relating to loss events involve the exercise of considerable judgment and reflect a combination of ground-up evaluations, information available to date from brokers and cedants, market intelligence, initial tentative loss reports and other sources. The actuarial range of reserves and management's best estimate represents a distribution from our internal capital model for reserving risk based on our then current state of knowledge and explicit and implicit assumptions relating to the incurred pattern of claims, the expected ultimate settlement amount, inflation and dependencies between lines of business. Due to the complexity of factors contributing to the losses and the preliminary nature of the information used to prepare these estimates, there can be no assurance that Aspen's ultimate losses will remain within the stated amounts.



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ASPEN OVERVIEW: WHO WE ARE

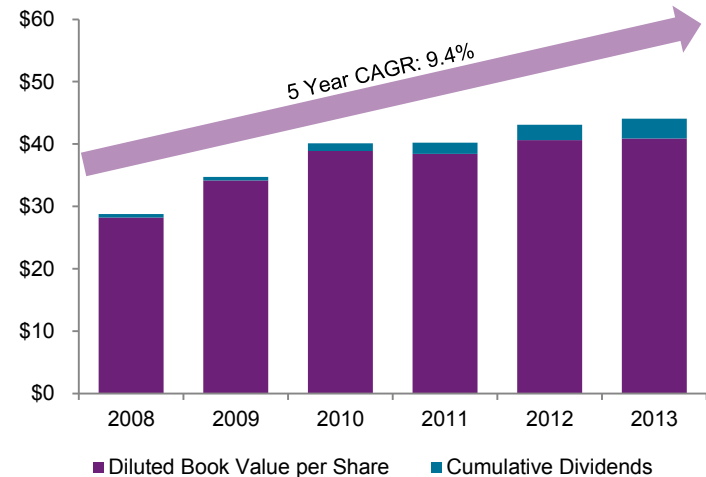
- Bermuda-domiciled specialty insurer and reinsurer
- \$2.6 billion gross written premiums for 2013
- Underwriting focused company with industry-leading underwriting expertise and distinctive culture
- Strong balance sheet with ratings of A / Stable (S&P), A2 / Stable (Moody's) and A / Stable (A.M. Best) for Aspen's operating subsidiaries

**GROSS WRITTEN PREMIUMS BY SEGMENT FOR THE
LAST TWELVE MONTHS THROUGH DECEMBER 31, 2013**



■ 57% INSURANCE
■ 43% REINSURANCE

**GROWTH IN DILUTED BOOK VALUE PER SHARE⁽¹⁾
AND CUMULATIVE DIVIDENDS**





DIVERSIFIED BUSINESS MIX: REINSURANCE

ESTABLISHED LEADER, POSITIONED FOR CONTINUED PROFITABLE GROWTH

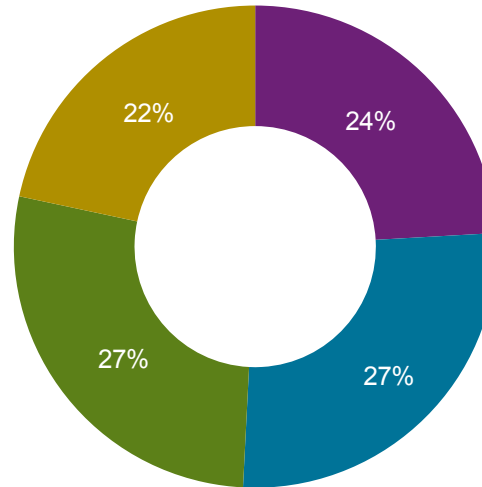
SPECIALTY REINSURANCE:

- Hired Michael Dicker as global head of Agriculture to work with our underwriters globally and oversee strategy for line

CASUALTY REINSURANCE:

- Hired Jamie Lewis as head of Casualty Reinsurance in London
- Achieved average rate increase of 1% in 2013 in a pressured environment

GWP BY BUSINESS LINE ⁽¹⁾



PROPERTY CAT REINSURANCE:

- Diversified book both in geography and peril
- Extensive in-house, bespoke catastrophe modeling expertise

OTHER PROPERTY REINSURANCE:

- Formed Rock Re in October 2013 to focus on North American brokered property facultative market
- Hired Tom Luning as head of US Regional Business development

STRATEGIC POSITIONING

Gain access to attractive and well-rated risks through:

- Local market strategy enables close proximity to clients through hubs in Zurich, Singapore and Miami (serving Latin America)
- Close proximity to the client enables a high level of service, local market knowledge and more frequent, detailed oversight of clients
- Offer clients multiple products and solutions which creates a multifaceted relationship
- Aspen Capital Management, Company's asset management business, leverages Aspen Re's existing underwriting and technical expertise into managing reinsurance risks on behalf of third-party investors



DIVERSIFIED BUSINESS MIX: INSURANCE ESTABLISHED LEADER, POSITIONED FOR CONTINUED PROFITABLE GROWTH

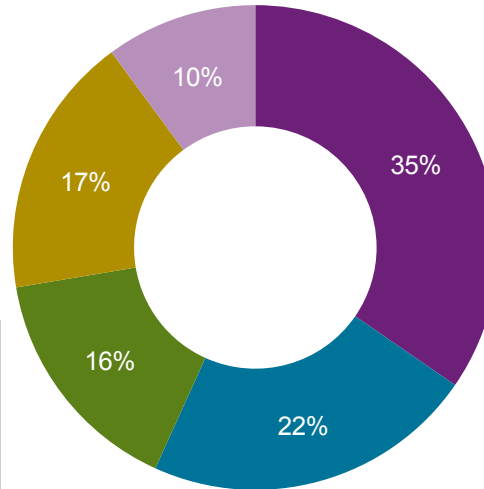
PROGRAMS:

- Gaining traction in the U.S.
- Targets premier program business on a direct basis or through a reinsurance intermediary
- Average rate increase of 4% in 2013

CASUALTY INSURANCE:

- Changing market dynamic in the U.S. due to recent downgrades of competitors is creating opportunities
- Average rate increase of 4% in 2013

GWP BY BUSINESS LINE ⁽¹⁾



MARINE, ENERGY AND TRANSPORTATION:

- Hired Tony Carroll in the U.S. to focus on a variety of onshore energy and construction classes and Christopher Wildee in London to enhance capabilities in fast growing energy property physical damage market
- Average rate increase of 6% in 2013

FINANCIAL AND PROFESSIONAL LINES:

- Notable rate improvement in Financial Institutions
- Average rate decrease of 2% in 2013

PROPERTY INSURANCE:

- Continue to achieve rate increases in the U.S. following a year of large industry losses

STRATEGIC POSITIONING

- Targeting areas which have the superior returns which come from an understanding of complex risks
- Prior investment in U.S. platform bearing fruit as U.S. was profitable throughout 2013
- Focused on continued momentum in the U.S. while growing the International platform through profitable, niche opportunities



FINANCIAL HIGHLIGHTS: YTD DECEMBER 31, 2013

<i>(\$ in millions, except per share data and percentages)</i>	YTD 2013	YTD 2012	COMMENTS
OPTIMIZATION OF BUSINESS PORTFOLIO			
Gross Written Premiums	\$2,646.7	\$2,583.3	<ul style="list-style-type: none"> Increase primarily driven by insurance segment, reflecting rate and market driven increases in Casualty, Financial and Professional lines and Programs business
Net Written Premiums	\$2,299.7	\$2,246.9	
Combined Ratio	92.6%	94.3%	<ul style="list-style-type: none"> Combined ratio reflects strong reinsurance segment performance (76.4% YTD 2013) and improving U.S. platform scale and profitability Combined ratio ex catastrophes: 88.0% (YTD 2013) vs. 84.4% (YTD 2012) Accident year ex catastrophe combined ratio : 93.0% (YTD 2013) vs. 91.1% (YTD 2012)
Annualized Operating ROE ⁽¹⁾	9.7%	8.5%	<ul style="list-style-type: none"> ROE and EPS growth reflect improved underwriting profitability and effective capital management through active share repurchases, with a reduction in investment income due to the lower interest rate environment
Diluted Operating EPS ⁽¹⁾	\$3.88	\$3.38	
CAPITAL EFFICIENCY			
Ordinary Share Repurchases	\$309.6	\$62.7	<ul style="list-style-type: none"> \$500 million current repurchase authorization; \$224 million remaining as at December 31, 2013 \$150 million Accelerated Share Repurchase completed in 2013
Diluted BVPS at Period End	\$40.90	\$40.65	<ul style="list-style-type: none"> Positive contributions from underwriting and ordinary share repurchases offset by reduction in unrealized gains in the investment portfolio
ENHANCING INVESTMENT RETURNS			
Book Yield on Fixed Income Portfolio at Period End	2.74%	2.88%	<ul style="list-style-type: none"> Seek to mitigate impact of continuing low interest rates through increased allocation to equities, BB-rated securities and investment grade emerging markets debt (comprises alternative investments)
Average Duration of the Fixed Income Portfolio at Period End	3.2 years ⁽²⁾	3.0 years ⁽²⁾	<ul style="list-style-type: none"> Portfolio comprises 9.7% of alternative investments

■ AHL: NYSE (1) See Aspen's quarterly financial supplement for a reconciliation of operating income to net income, average equity to closing shareholders' equity, and diluted book value per share to basic book value per share in the Investor Relations section of Aspen's website at www.aspen.co.

(2) Includes the impact of interest rate swaps.



CREATING SHAREHOLDER VALUE: THE ASPEN APPROACH

Three Levers to Higher ROE

1. Optimization of business portfolio

- Ceded reinsurance program: estimated \$25 million benefit to net income in 2014 ⁽¹⁾
- U.S. business making progress towards achieving scale in 2015
- Controlled reduction of wind and quake volatility in U.S. property insurance; release of \$140 million of capital through December 31, 2014

2. Capital efficiency

- \$310 million repurchased in 2013; \$224 million remaining share repurchase authorization as at December 31, 2013
- Plan to continue to opportunistically repurchase ordinary shares
- Longer term, we expect to use comprehensive earnings mainly to repurchase ordinary shares after dividends, to promote organic growth and to ensure our capital levels satisfy internal and regulatory requirements

3. Enhancing investment return

- Constantly evaluating ways to increase return on investments within our risk tolerance
- Invested a further \$200 million in equities in 2013
- Tactically adding to positions in BB bank loans and high yield bonds; \$96 million at 4Q 2013
- Invested \$200 million in investment grade emerging market debt in 3Q 2013

Expect to achieve 10% operating ROE in 2014 ⁽²⁾

■ AHL: NYSE (1) As at February 6, 2014. See "Safe Harbor Disclosure" slide 2

(2) As at February 6, 2014, assuming a pre-tax catastrophe load of \$185 million per annum, normal loss experience and given the current interest rate and insurance pricing environment. See "Safe Harbor Disclosure" slide 2

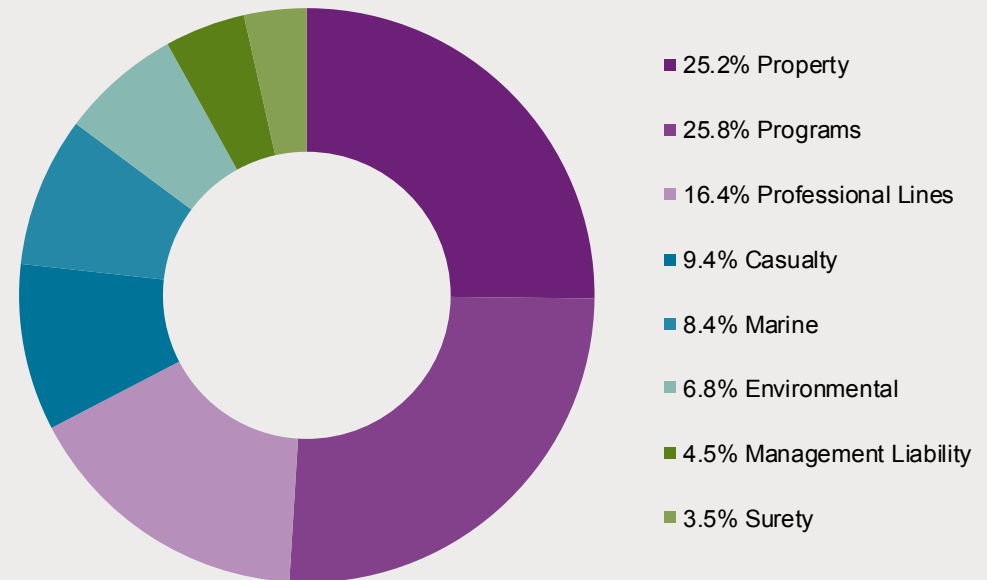


CREATING SHAREHOLDER VALUE: INVESTMENTS IN A SPECIALTY NICHE BUSINESS IN THE U.S. BEARING FRUIT

U.S. INSURANCE STRATEGY ⁽¹⁾:

- Specialty U.S. insurance underwriter
- Making good progress in building out the platform
- Four consecutive quarters with a combined ratio of less than 100%
- As at December 31, 2013, accounts for 36% of segment net earned premiums (NEP) and expect this percentage to increase over time
- Targeting to achieve \$550 million of NEP for the year 2015 (\$396 million of NEP in 2013)
- At the level of \$550 million NEP, the platform is expected to have a “normalized” general and administrative expense ratio of approximately 16%

YTD DECEMBER 31, 2013 U.S. INSURANCE TEAMS GWP: \$592 MILLION⁽²⁾



Focusing on scale and leveraging platform to drive continued growth in profitability



CREATING SHAREHOLDER VALUE: PROACTIVE MANAGEMENT OF CAPITAL

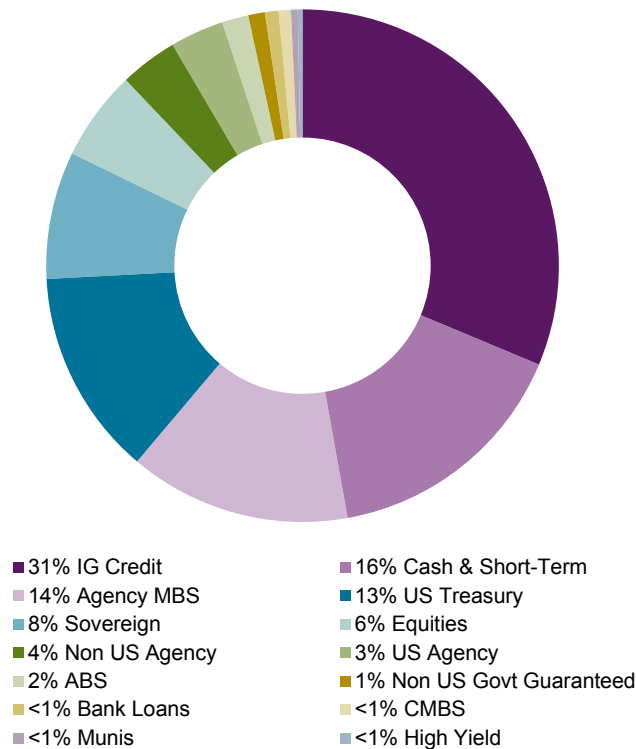
CAPITAL MANAGEMENT STRATEGY

- Maintain strong balance sheet of our operating subsidiaries with capital at levels that satisfy all regulatory and rating agency requirements as well as internal metrics
 - Ratings of A/Stable (S&P), A2/Stable (Moody's) and A/Stable (A.M. Best)
- Competitive dividend yield; quarterly dividend increased 6% in 1Q 2013
- Return capital to shareholders through share repurchases
 - In 1Q 2013, announced new \$500 million share repurchase authorization, including \$150 million Accelerated Share Repurchase
 - Overall, repurchased \$310 million in 2013 (over 10% of current market capitalization)
 - Longer term, we expect to use comprehensive earnings mainly to repurchase ordinary shares after dividends, to promote organic growth and to ensure our capital levels satisfy internal and regulatory requirements

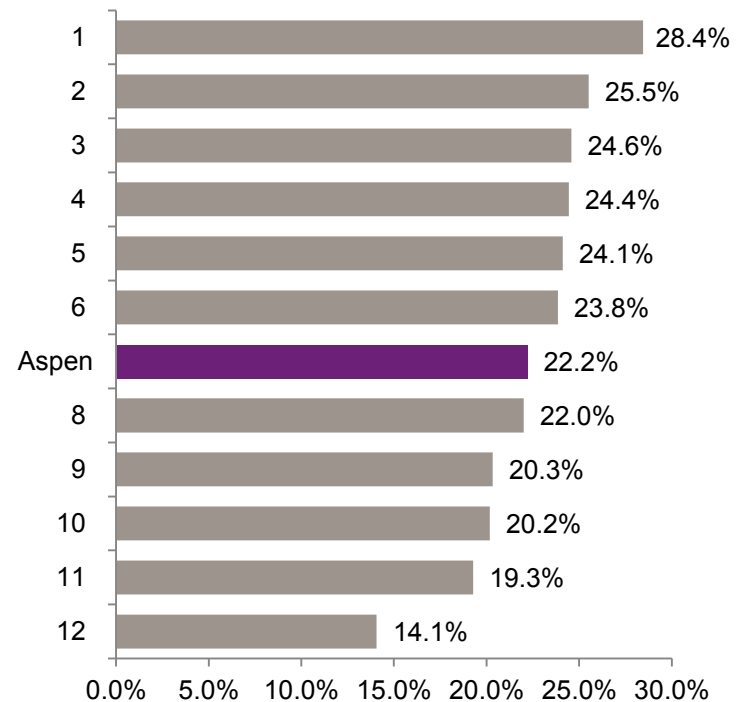


CONSERVATIVE INVESTMENT PORTFOLIO: DELIVERING STRONG INVESTMENT RETURNS WITH HIGH QUALITY PORTFOLIO

PORTFOLIO ALLOCATIONS AT DECEMBER 31, 2013



5 YEAR TOTAL RETURN ⁽¹⁾



- Invested an additional \$200 million in equities in January 2013
- Invested \$200 million in BBB emerging market debt portfolio in August 2013
- Tactically building the BB bank loan and BB high yield bond portfolio as opportunities arise



CONCLUSION: FOCUSED ON SHAREHOLDER VALUE

- Deep underwriting expertise and understanding of client needs and risks
- Executing plan to drive higher ROE and BVPS growth
 - Optimizing business portfolio to free up capital and improve risk-adjusted returns
 - Improving capital efficiency
 - Enhancing investment return within acceptable risk parameters
- Pursuing selective, profitable growth in exposures we know and understand, subject to market conditions
 - Diversified platform allows us to take advantage of areas where rates are improving
 - Significant portion of growth expected to be in diversifying lines
 - Longer term, we expect to use comprehensive earnings mainly to repurchase ordinary shares after dividends, to promote organic growth and to ensure our capital levels satisfy internal and regulatory requirements

Expect to achieve 10% Operating ROE in 2014 ⁽¹⁾

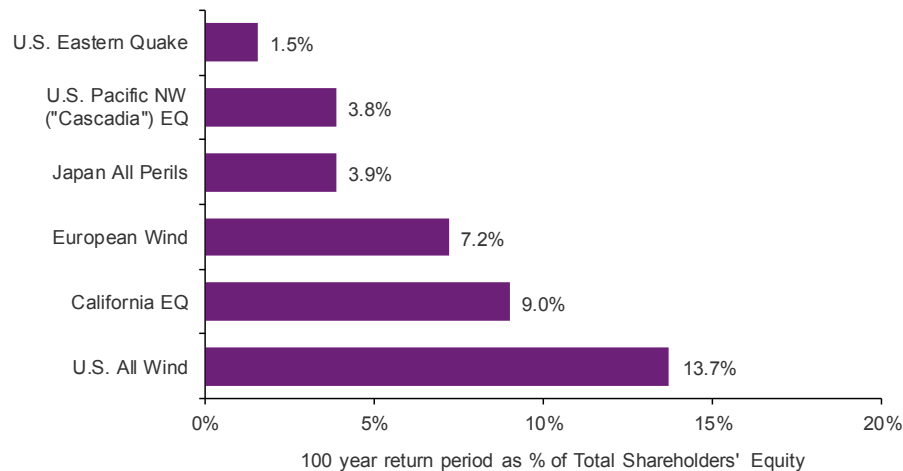


I APPENDIX



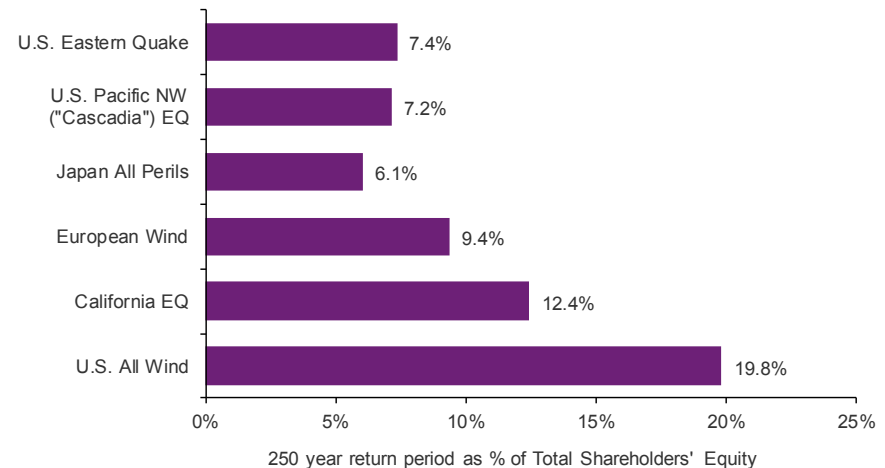
UNDERWRITING EXPERTISE: ASPEN'S NATURAL CATASTROPHE EXPOSURES IN MAJOR PERIL ZONES AS AT JANUARY 1, 2014

100 YEAR RETURN PERIOD AS % OF TOTAL SHAREHOLDERS' EQUITY



1 in 100 year tolerance:
17.5% of total shareholders' equity

250 YEAR RETURN PERIOD AS % OF TOTAL SHAREHOLDERS' EQUITY



1 in 250 year tolerance:
25.0% of total shareholders' equity

Based on Shareholders' equity of \$3,299.9 million (excluding non-controlling interest) at December 31, 2013. The estimates reflect Aspen's own view of the modelled maximum losses at the return periods shown which include input from various third party vendor models and our own proprietary adjustments to these models. Catastrophe loss experience may materially differ from the modelled PMLs due to limitations in one or more of the models or uncertainties in the application of policy terms and limits.

INVESTOR PRESENTATION FOURTH QUARTER 2013



Aspen Insurance Holdings Limited