



2016 Loss Development Triangles

2016 Loss Development Triangle Cautionary Language

This report is for informational purposes only and is current as of December 31, 2016. Aspen Insurance Holdings Limited (“Aspen,” the “Company,” “we,” “us,” or “our”) is under no obligation and does not expect to update or revise this report, whether as a result of new information, future events or otherwise, even when new data has been reflected in the Company’s filings with the U.S. Securities and Exchange Commission (the “SEC”) or otherwise. Although the loss development patterns disclosed in this report are an important factor in the process used to estimate loss reserve requirements, they are not the only factors considered in establishing reserves. The process for establishing reserves is subject to considerable variability and requires the use of informed estimates and judgments. Important details, such as specific loss development expectations for particular contracts, years or events, cannot be developed solely by analysing the information provided in this report. In addition to analysing loss development information, management incorporates additional information into the reserving process, such as pricing for insurance and reinsurance products as well as current market conditions. Readers must keep these and other qualifications more fully described in this report in mind when reviewing this information. This report should be read in conjunction with other documents filed by us with the SEC, including the most recent Annual Report on Form 10-K and Quarterly Reports on Form 10-Q.

Safe Harbor for Forward-Looking Statements

Some of the statements in this report may include 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,” “assume,” “objective,” “intend,” “plan,” “believe,” “do not believe,” “aim,” “project,” “anticipate,” “seek,” “will,” “likely,” “estimate,” “may,” “continue,” “guidance,” “outlook,” “trends,” “future,” “could,” “would,” “should,” “target,” “on track” 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, including our assumptions on inflation costs associated with long-tail casualty business which could differ materially from actual experience; the political, regulatory and economic effects arising from the vote by the U.K. electorate in favor of a U.K. exit from the European Union in the referendum held in June 2016 and resulting negotiations; 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; cyclical changes in the insurance and reinsurance industry; the models we use to assess our exposure to losses from future natural catastrophes (“catastrophes”) contain inherent uncertainties and our actual losses may differ significantly from expectations; our capital models may provide materially different indications than actual results; increased competition from existing (re)insurers 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; our ability to execute our business plan to enter new markets, introduce new products and teams and develop new distribution channels, including their integration into our existing operations; our acquisition strategy; changes in market conditions in the agriculture

industry, which may vary depending upon demand for agricultural products, weather, commodity prices, natural disasters, and changes in legislation and policies related to agricultural products and producers; termination of, or changes in, the terms of the U.S. Federal Multiple Peril Crop Insurance Program or the U.S. Farm Bill, including modifications to the Standard Reinsurance Agreement put in place by the Risk Management Agency of the U.S. Department of Agriculture; the recent consolidation in the (re)insurance industry; loss of one or more of our senior underwriters or key personnel; our ability to exercise capital management initiatives, including capital available to pursue our share repurchase program at various levels or to declare dividends, or to arrange banking facilities as a result of prevailing market conditions, the level of catastrophes or other losses or changes in our financial results; our ability to implement successfully our efficiency initiative to optimize processes and support growth; 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; the risks associated with the management of capital on behalf of investors; a failure in our operational systems or infrastructure or those of third parties, including those caused by security breaches or cyber attacks; evolving issues with respect to interpretation of coverage after major loss events; our ability to adequately model and price the effects of climate cycles and climate change; any intervening legislative or governmental action and changing judicial interpretation and judgments on insurers' liability to various risks; the risks related to litigation; the effectiveness of our risk management loss limitation methods, including our reinsurance purchasing; changes in the availability, cost or quality of reinsurance or retrocessional coverage; changes in the total industry losses or our share of total industry losses resulting from events, such as catastrophes, that have occurred in prior years or may occur 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 catastrophes or by an unexpected accumulation of attritional losses and deterioration in loss estimates; 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; our reliance on information and technology and third-party service providers for our operations and systems; 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 Standard & Poor's Ratings Services, A.M. Best Company Inc. or Moody's Investors Service Inc.; the failure of our reinsurers, policyholders, brokers or other intermediaries to honor their payment obligations; 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 crisis; 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; increased counterparty risk due to the credit impairment of financial institutions; and Aspen or Aspen Bermuda Limited becoming subject to income taxes in the United States or the United Kingdom.

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 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 losses and the preliminary nature of the information used to prepare estimates, there can be no assurance that our ultimate losses will remain within the stated amounts.

The foregoing review of important factors should not be construed as exhaustive. For a more detailed description of these uncertainties and other factors, please see the “Risk Factors” section in our most recently filed Annual Report on Form 10-K and Quarterly Report on Form 10-Q. We undertake no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future developments 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.

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SECTION 1: INTRODUCTION	

The primary goal of Aspen's annual report on its Global Loss Development triangles is to provide stakeholders with additional insight into the reserves held on Aspen's balance sheet as at December 31, 2016.

Reserves are required owing to the time difference between the occurrence, reporting and eventual settlement of a loss which, for some lines of business, can be several years. Since reserves are an estimate of the likely outcome of these future events, they are subject to a degree of volatility. The actual emergence of ultimate losses can be expected to differ, perhaps materially, from any estimate of such losses.

The reserving process is an integral part of Aspen's business. Our actuaries project over 50 different products and in many cases several sub classes of those products. They meet regularly with each underwriting team and with senior claims personnel to ensure that as much information as possible is considered before management reach a decision on the point estimate to record in the financial statements.

Therefore, while this report provides additional insight into the diversity and loss characteristics of many areas of our business, it is by necessity summary information. The reader should be aware that loss payment and loss reporting patterns are not the only considerations in establishing loss reserves. We caution that an attempt to evaluate our loss reserves using solely the data provided in this report could be misleading. Important details, such as specific loss development expectations for particular contracts, years, or events cannot be developed solely by analysing information at this level. We also incorporate additional information, such as pricing and market conditions, in our reserve analyses. We also caution strongly against mechanical application of standard actuarial methodologies to project ultimate losses and loss reserves using triangles presented in this report. Mechanical application of reserving methods could fail to take into account important factors including the following:

- i. For several reserving classes, our premium volume has changed dramatically in recent years. As older years refer to a substantially different volume of premiums and claims, inferences drawn from patterns relating to those years may lack actuarial credibility. Therefore mechanical application of such techniques would not be appropriate.
- ii. For several reserving classes, pricing conditions have changed dramatically in recent years. The extrapolation of loss ratios from prior periods to current conditions would therefore be inappropriate.
- iii. Several reserving classes are affected by the presence of large losses, including natural catastrophes. Loss development for years with a sizeable component of large losses may differ significantly from those years unaffected by large losses.
- iv. The composition of the portfolio has changed over time for several reserving classes. In some cases, these changes have been material. Trends derived from a summary of loss development data cannot capture all of these changes.

Without incorporating the above and other critical information, results derived from a direct extrapolation of loss development triangles in this report have the potential to produce inappropriate results.

SECTION 2: DATA

Our loss development triangles and summary exhibits are presented on an accident year basis for both our insurance and reinsurance segments. We rely primarily, but not always, on accident year information for our internal reserve analysis. We utilize underwriting year information in analyzing some of our proportional treaties and we subsequently allocate reserves to the respective accident years based on earnings profiles.

Each section within the data exhibits is in two parts. The first part is a summary as at December 31, 2016 of gross, ceded and net earned premium, paid losses, case reserves, incurred but not reported losses (“IBNR”), ultimate losses and ultimate loss ratios. The second part is the gross loss development triangles of paid loss, paid loss ratio, case incurred loss and case incurred loss ratio.

Data is presented in thousands of U.S. dollars, unless indicated otherwise. All non U.S. dollar data have been converted to U.S. dollars at 2016 year-end exchange rates in order to remove the impact of changes in exchange rates from historical development.

We do not discount our unpaid losses and loss expense reserves. Inter-company reinsurance transactions have not been reflected in the triangles and do not therefore appear in any of the ceded figures in this report.

In respect of proportional treaties where we have specific information on loss dates, we make accurate allocation of paid and reported claims to accident year. Where we do not have this information, an estimated allocation is made to accident year using the assumption that losses will follow how the premium is earned over the period of the contract.

The data in each section is unadjusted with respect to significant loss events. We have provided some reserving notes at the end of each of the insurance and reinsurance reserving classes which detail the gross, ceded and net of reinsurance position for the 2007 events: Windstorm Kyrill, U.K. Flooding and California Wildfires; 2008 hurricanes: Ike and Gustav; 2010 events: Earthquakes in Chile and New Zealand; 2011 events: Brisbane, Australia Floods, New Zealand Earthquake, Japan Earthquake and Tsunami, U.S. Tornadoes, and Floods in Thailand; and 2012: Superstorm Sandy.

We include a Glossary at the end of this report with definitions of terms used.

SECTION 3: RESERVING CLASS DESCRIPTIONS

The following provides background commentary on the underlying business composition in each reserving class.

INSURANCE SEGMENT

Property and Casualty

This reserving class comprises U.S. and U.K. commercial property, commercial liability, U.S. primary casualty, excess casualty, environmental liability, railroad liability and programs business, written on a primary, excess, quota share, program and facultative basis.

- *U.S. and U.K. Commercial Property:* Property insurance provides physical damage and business interruption coverage for losses arising from weather, fire, theft and other causes. The U.S. commercial property team covers mercantile, manufacturing, municipal and commercial real estate business. The U.K. commercial team's client base is predominantly U.K. institutional property owners, small and middle market corporates and public sector clients.
- *Commercial Liability:* Commercial liability is primarily written in the U.K. and provides employers' liability coverage, products and public liability coverage for insureds domiciled in the U.K. and Ireland. The U.K. regional team also covers directors' and officers' ("D&O") and professional indemnity, predominantly to small and medium corporates.
- *U.S. Primary Casualty:* The U.S. primary casualty account consists primarily of lines written within the primary insurance sector. We are focused on delivering expertise to brokers and customers in hospitality, real estate, construction and products liability.
- *Excess Casualty:* The excess casualty line comprises medium and large sophisticated and risk-managed insureds worldwide and covers broad-based risks at lead/high excess attachment points, including general liability, commercial and residential construction liability, life science, railroads, trucking, product and public liability and associated types of cover found in general liability policies in the global insurance market written from the U.K., U.S. and Bermuda. It also includes a portfolio of U.K. and other non-U.S. employers' liability and public liability coverage written through a managing general agent.
- *Environmental Liability:* The environmental account primarily provides contractors' pollution liability and pollution legal liability across industry segments that have environmental regulatory drivers and contractual requirements for coverage including: real estate and public entities, contractors and engineers, energy contractors and environmental contractors and consultants. The business is written in both the primary and excess insurance markets in the U.S. and the U.K.
- *Railroad Liability:* Our railroad liability business was established in 2016 and comprises primary and excess liability business for freight, commuter and excursion railroads. While also providing general liability coverage to the railroad

support industry (contractors, repair shops and products manufacturers) as well as contingent liability for railcar fleet owners/managers and railroad protective liability in the United States.

- *Programs:* Our programs business was historically reported as a separate class of business within property and casualty insurance. We reduced our exposure to programs business in 2016 and therefore decided to no longer have a distinct and separate programs unit. Programs business that was renewed in 2016 has been included within the predominant property and casualty line of business.

On a significant portion of our property and casualty insurance contracts we are obligated to offer terrorism under the Terrorism Risk Insurance Program Reauthorization Act of 2007 (“TRIPRA”), which expired on December 31, 2014, and now the Terrorism Risk Insurance Program Reauthorization Act of 2015 (the “2015 TRIA Reauthorization”). Wherever possible, we exclude coverage protection against nuclear, biological, chemical or radiological (“NBCR”) attacks. However, certain U.S. states (notably New York and Florida) prohibit admitted market companies from fully excluding such perils, resulting in some level of exposures to NBCR attacks as well as fire following such events. In addition, we would expect to benefit from the protection of the 2015 TRIA Reauthorization and the over-arching \$100 billion industry loss cap (subject to the relevant deductible and co-retention).

Marine, Aviation and Energy

This reserving class consists of marine and energy liability, onshore energy physical damage, offshore energy physical damage, marine hull, specie, inland and ocean marine and aviation, written on a primary, excess, quota share, program and facultative basis.

- *Marine and Energy Liability:* The marine and energy liability business based in the U.K. includes marine liability cover mainly related to the liabilities of ship-owners and port operators, including reinsurance of Protection and Indemnity Clubs (“P&I Clubs”). It also provides liability cover globally (including the U.S.) for companies in the oil and gas sector, both onshore and offshore and in the power generation sector. Our liability for U.S. commercial construction is now being written under our global excess casualty line and we are no longer writing new construction liability in this class.
- *Offshore Energy Physical Damage:* Offshore energy physical damage provides insurance cover against physical damage losses in addition to operator’s extra expenses for companies operating in the oil and gas exploration and production sector.
- *Onshore Energy Physical Damage:* Our marine, energy and construction property unit underwrites a variety of worldwide onshore energy and construction sector classes of business with a focus on property covers.
- *Marine Hull:* The marine hull team insures physical damage to ships (including war and associated perils) and related marine assets.
- *Specie:* The specie business line focuses on the insurance of high value property items on an all risks basis, including fine art, general and bank related specie, jewellers’ block and armored car.

- *Inland and Ocean Marine:* The inland and ocean marine team writes business principally covering builders' construction risk, contractors' equipment and global transportation exposures such as marine cargo, inland transit, warehousing and war, in addition to exhibition, fine arts and museum insurance. The book also consists of our newly acquired Managing General Agent, Blue Waters Insurers Corp., which consists of inland, ocean marine and cargo business.
- *Aviation:* The aviation team writes physical damage insurance on hulls and spares (including war and associated perils), aviation hull deductible cover and comprehensive legal liability for airlines, smaller operators of airline equipment, airports and associated business and non-critical component part manufacturers.

Financial and Professional Lines

This reserving class comprises financial and corporate risks, professional liability, management liability, credit and political risks, crisis management, accident and health, surety risks and technology liability (cyber risks), written on a primary, excess, quota share, program and facultative basis.

- *Financial and Corporate Risks:* Our financial institutions business is written on both a primary and excess of loss basis and consists of professional liability, crime insurance and D&O cover, with the largest exposure comprising risks headquartered in the U.K., followed by Australia, the U.S. and Canada. We cover financial institutions including commercial and investment banks, asset managers, insurance companies, stockbrokers and insureds with hybrid business models. This account also includes a book of D&O insurance for commercial insureds located outside of the U.S. and a worldwide book of representations and warranties and tax indemnity business.
- *Professional Liability:* Our professional liability business is written out of the U.S. (including errors and omissions ("E&O")), the U.K., Switzerland and Bermuda and is written on both a primary and excess of loss basis. The U.K. team focuses on risks in the U.K. with some Australian and Canadian business while the U.S. team focuses on the U.S. We insure a wide range of professions including lawyers, accountants, architects, engineers, doctors and medical technicians. This account also includes a portfolio of technology liability and data protection insurance. The data protection insurance covers firms for first party costs and third party liabilities associated with their breach of contractual or statutory data protection obligations.
- *Management Liability:* Our management liability business is written out of the U.S. and Bermuda. We insure a diverse group of commercial and financial institutions predominately on an excess basis. Our products include D&O liability, fiduciary liability, employment practices liability, fidelity insurance and blended liability programs including E&O liability. The focus of the account is predominantly on risks headquartered in the U.S. or risks with a material U.S. exposure.
- *Credit and Political Risks:* The credit and political risks team writes business covering the credit and contract frustration risks on a variety of trade and non-trade related transactions, as well as political risks (including multi-year war on land cover). We provide credit and political risks cover worldwide but with concentrations in a number of countries, such as China, Brazil, Russia (where we significantly reduced our exposures from 2014), the Netherlands and the U.S.

- *Crisis Management*: The crisis management team writes insurance designed to protect individuals and corporations operating in high-risk areas around the world, including covering the shipping industry's exposure to acts of piracy. It also writes terrorism and political violence insurance, providing coverage for damage to property (largely fixed assets such as buildings) resulting from acts of terrorism, strikes, riots, civil commotion or political violence, in addition to product recall business, a new product we began to write in 2016. This book is written on a global basis, although capacity is selectively deployed.
- *Accident and Health*: The global accident and health team focuses on insurance and reinsurance products which help protect individuals, groups and companies from the consequences of accidental death or disability whether resulting from accident or sickness. This may include single or multi-person losses as well as major catastrophic events such as air crashes, earthquakes or terrorist attacks. Coverage written includes whole account treaty and facultative reinsurance protection for insurance companies.
- *Surety Risks*: Our surety team writes commercial surety risks, admiralty bonds and similar maritime undertakings including, but not limited to, federal and public official bonds, license and permits and fiduciary and miscellaneous bonds, focused on Fortune 1000 companies and large, privately owned companies in the U.S.
- *Technology Liability (Cyber Risks)*: Technology liability is written globally and provides coverage for technology, media and telecommunications firms offering protection for damages and legal defense expenses associated with financial loss claims from third parties and various forms of intellectual property breaches. We also incorporate data protection indemnity insurance against costs and liabilities that may arise when a company breaches its data protection obligations.

REINSURANCE SEGMENT

Property Catastrophe

Property catastrophe reinsurance is generally written on a treaty excess of loss basis where we provide protection to an insurer for an agreed portion of the total losses from a single event in excess of a specified loss amount. 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 selected regions or geographical areas.

Other Property

Other property reinsurance includes property risks written on an excess of loss and proportional treaties, facultative or single risk reinsurance. Risk excess of loss reinsurance provides coverage to a reinsured where it experiences a loss in excess of its retention level on a single "risk" basis. A "risk" in this context might mean the insurance coverage on one building or a group of buildings for fire or explosion or the insurance coverage under a single policy which the reinsured treats as a single risk. This line of business is generally less exposed to accumulations of exposures and losses but can still be impacted by natural catastrophes, such as earthquakes and hurricanes.

Proportional treaty reinsurance provides proportional coverage to the reinsured, meaning that, subject to event limits where applicable and ceding commissions, we pay the same share of the covered original losses as we receive in premiums charged for the covered risks. Proportional contracts typically involve close client relationships which often include regular audits of the cedants' data.

Casualty Reinsurance

Casualty reinsurance is written on an excess of loss, proportional and facultative basis and consists of U.S. treaty, international treaty and casualty facultative reinsurance. Our U.S. treaty and facultative business comprises exposures to workers' compensation (including catastrophe), medical malpractice, general liability, auto liability, professional liability and excess liability including umbrella liability. Our international treaty business reinsures exposures mainly with respect to general liability, auto liability, professional liability, workers' compensation and excess liability.

Specialty Reinsurance

Specialty reinsurance is written on an excess of loss and proportional basis and consists of credit and surety reinsurance, agriculture reinsurance and other specialty lines. Our credit and surety reinsurance business consists of trade credit, surety (mainly European, Japanese and Latin American risks) and mortgage reinsurance and insurance and political risks. Our specialty agricultural reinsurance and insurance business covers crop and multi-peril business. Other specialty lines include reinsurance treaties and some insurance policies covering policyholders' interests in marine, energy, aviation liability, space, contingency, terrorism, engineering, nuclear and personal accident. In addition, specialty reinsurance includes admitted and direct U.S. crop insurance.

A high percentage of our property catastrophe reinsurance contracts we write exclude or limit coverage for losses arising from the peril of terrorism. Within the U.S., our other property reinsurance contracts generally include limited coverage for acts that are certified as "acts of terrorism" by the U.S. Treasury Department under TRIPRA, which expired on December 31, 2014 and now the 2015 TRIA Reauthorization. We have written a limited number of property reinsurance contracts, both on a pro rata and risk excess basis, specifically covering the peril of terrorism. These contracts typically exclude coverage protecting against NBCR attacks, though we have written a small number of contracts that do not exclude such attacks, the coverage of which may be applicable to non-terrorism events.

SECTION 4: OVERVIEW OF RESERVING METHODOLOGY

Reserving Approach. We are required by U.S. Generally Accepted Accounting Principles (“U.S. GAAP”) to establish loss reserves for the estimated unpaid portion of the ultimate liability for losses and loss expenses (“ultimate losses”) under the terms of our policies and agreements with our insured and reinsured customers. Our loss reserves comprise the following components:

- the cost of claims reported to us but not yet paid known as case reserves (“case reserves”);
- IBNR reserves to cover the anticipated cost of claims incurred but not reported and potential development of reported claims; and
- the expenses associated with settling claims, including legal and other fees and the general expenses of administering the claims adjustment process, known as loss adjustment expenses (“LAE”).

Prior to the selection of the reserves to be included in our financial statements, our actuarial team employs a number of techniques to establish an actuarial mean best estimate of reserves and a stochastic view of the uncertainty around the actuarial mean best estimate. This range of estimates is considered by the Reserve Committee when selecting a management best estimate of reserves included in our financial statements.

Case Reserves. For reported claims, reserves are established on a case-by-case basis within the parameters of coverage provided in the insurance policy or reinsurance agreement. The method of establishing case reserves for reported claims differs among our operations.

With respect to our insurance operations, we are advised of potential insured losses and our claims handlers record reserves for the estimated amount of the expected indemnity settlement, loss adjustment expenses and cost of defense where appropriate. The reserve estimate reflects the judgment of the claims personnel and is based on claim information obtained to date, general reserving practices, the experience and knowledge of the claims personnel regarding the nature of the specific claim and, where appropriate and available, advice from legal counsel, loss adjusters and other claims experts.

With respect to our reinsurance claims operations, claims handlers set case reserves for reported claims generally based on the claims reports received from our ceding companies and take into consideration our cedants’ own reserve recommendations and our prior loss experience with the cedant. Additional case reserves (“ACR”), in addition to the cedants’ own recommended reserves, may be established by us to reflect our estimated ultimate cost of a loss. ACRs are generally the result of either a claims handler’s own experience and knowledge of handling similar claims, general reserving practices or the result of reserve recommendations following an audit of cedants’ reserves.

Case reserves are based on a subjective judgment of facts and circumstances and are established for the purposes of internal reserving only. Accordingly, they do not represent a commitment to any course of conduct or admission of liability on our behalf in relation to any specific claim.

IBNR Reserves. The need for IBNR reserves arises from time lags between when a loss occurs and when it is actually reported and settled. By definition, we do not have specific information on IBNR claims so they need to be estimated by actuarial methodologies. IBNR reserves are therefore generally calculated at an aggregate level and cannot be identified as reserves for a particular loss or contract. We calculate IBNR reserves by class of business within each line of business. Where appropriate, analyses may be conducted on sub-sets of a class of business. IBNR reserves are calculated by projecting our ultimate losses on each class of business and subtracting paid losses and case reserves. IBNR reserves also cover any potential development of reported claims. Over recent years, we have begun to place greater reliance on our actual actuarial experience for our long-tail lines of business that we have written since our inception in 2002. We believe that our earliest accident years are now capable of providing us with meaningful actuarial indications. Estimates and judgments for new insurance and reinsurance lines of business are more difficult to make than those made for more mature lines of business because we have more limited historical information through December 31, 2016.

Sources of Information. Claims information received typically includes the loss date, details of the claim, the recommended reserve and reports from the loss adjusters dealing with the claim. In respect of pro rata treaties and any business written through managing general agents, we receive regular statements (bordereaux) which provide paid and outstanding claims information, often with large losses separately identified. Following widely reported loss events, such as natural catastrophes and airplane crashes, we adopt a proactive approach to establish our likely exposure to claims by reviewing policy listings and contacting brokers and policyholders as appropriate.

Actuarial Methodologies. The main projection methodologies that are used by our actuaries are:

- Initial expected loss ratio (“IELR”) method: This method calculates an estimate of ultimate losses by applying an estimated loss ratio to an estimate of ultimate earned premium for each accident year. The estimated loss ratio may be based on pricing information and/or industry data and/or historical claims experience revalued to the year under review.
- Bornhuetter-Ferguson (“BF”) method: The BF method uses as a starting point an assumed IELR and blends in the loss ratio, which is implied by the claims experience to date using benchmark loss development patterns on paid claims data (“Paid BF”) or reported claims data (“Reported BF”). Although the method tends to provide less volatile indications at early stages of development and reflects changes in the external environment, it can be slow to react to emerging loss development and can, if the IELR proves to be inaccurate, produce loss estimates which take longer to converge with the final settlement value of loss.

- Loss development (“Chain Ladder”) method: This method uses actual loss data and the historical development profiles on older accident years to project more recent, less developed years to their ultimate position.
- Exposure-based method: This method is typically used for specific large catastrophic events such as a major hurricane. All exposure is identified and we work with known market information and information from our cedants to determine a percentage of the exposure to be taken as the ultimate loss.

In addition to these methodologies, our actuaries may use other approaches depending upon the characteristics of the class of business and available data.

In general terms, the IELR method is most appropriate for classes of business and/or accident years where the actual paid or reported loss experience is not yet mature enough to modify our initial expectations of the ultimate loss ratios. Typical examples would be recent accident years for classes of business in casualty reinsurance. The BF method is generally appropriate where there are few reported claims and a relatively less stable pattern of reported losses. Typical examples would be our treaty risk excess class of business in our reinsurance segment and marine hull class of business in our insurance segment. The Chain Ladder method is appropriate when there are relatively stable patterns of loss emergence and a relatively large number of reported claims. Typical examples are the U.K. commercial property and U.K. commercial liability classes of business in our international insurance business.

Reserving Procedures and Process. Our actuaries calculate the IELR, BF and Chain Ladder and, if appropriate, other methods for each class of business and each accident year. They then calculate a single point actuarial mean best estimate (“ultimate”) for each class of business and provide a stochastic distribution around the mean for each line of business. The actuarial methodologies involve significant subjective judgments reflecting many factors, including but not limited to, changes in legislative conditions, changes in judicial interpretation of legal liability policy coverages and inflation. Our actuaries collaborate with our underwriting, claims, legal and finance teams in identifying factors which are incorporated in their range of ultimates in which management’s best estimate is most likely to fall. The actuarial stochastic distribution is designed to provide management with a range from which it is reasonable to select a single management best estimate for inclusion in our financial statements.

There are no differences between our year-end and our quarterly internal reserving procedures and processes because our actuaries perform the basic projections and analyses described above for each class of business quarterly.

Selection of Reported Gross Reserves. Management, through its Reserve Committee, reviews the actuarial stochastic distribution and any other evidence before selecting its management best estimate of reserves for each line of business. Management selects the management best estimate by considering all the information provided to them and by considering the risks and uncertainties within the actuarial mean best estimate. Management has to date selected its best estimate above that of the actuarial mean best estimate and within the range of the actuarial stochastic distribution. This provides the basis for the recommendation to the Audit Committee and the Board of Directors made by management regarding the reserve amounts and related disclosures to be recorded in our financial statements.

There are three Reserve Committees, one for each of the insurance and reinsurance segments and a “core” committee that makes final reserving recommendations. The “core” Reserve Committee currently consists of the Group Chief Risk Officer (the

chair), the Group Chief Operating Officer, the Chief Executive Officer of Aspen Insurance, the Group Head of Risk and the Group Chief Actuary, the Group Chief Financial Officer, the Group Head of Capital Management, the Chief Financial Officer of Aspen Insurance and the President and Chief Underwriting Officer of Aspen Re. Senior members of the insurance and reinsurance segment underwriting and claims staff comprise the remaining members of each of the insurance and reinsurance reserve committee, respectively.

Each class of business within each line of business is reviewed in detail by management through its Reserve Committee at least once a year. The timing of such reviews varies throughout the year. Additionally, we review the emergence of actual losses relative to expectations every fiscal quarter for all classes of business. If warranted from this analysis, we may accelerate the timing of our detailed actuarial reviews.

Uncertainties. While the management selected reserves make a reasonable provision for unpaid loss and loss adjustment expense obligations, we note that the process of estimating required reserves, by its very nature, involves uncertainty and therefore the ultimate claims may fall outside the actuarial range. The level of uncertainty can be influenced by such factors as the existence of coverage with long duration reporting patterns and changes in claims handling practices, as well as the other factors described above.

Because many of the coverages underwritten involve claims that may not be ultimately settled for many years after they are incurred, subjective judgments as to the ultimate exposure to losses are an integral and necessary component of the loss reserving process. We review our reserves regularly, using a variety of statistical and actuarial techniques to analyze current claims costs, frequency and severity data, and prevailing economic, social and legal factors. Reserves established in prior periods are adjusted as claims experience develops and new information becomes available.

Estimates of IBNR are generally subject to a greater degree of uncertainty than estimates of the cost of settling claims already notified to us, where more information about the claim event is generally available. IBNR claims often may not be apparent to the insured until many years after the event giving rise to the claims has happened. Classes of business where the IBNR proportion of the total reserve is high, such as casualty insurance, will typically display greater variations between initial estimates and final outcomes because of the greater degree of difficulty of estimating these reserves.

Classes of business where claims are typically reported relatively quickly after the claim event tend to display lower levels of volatility between initial estimates and final outcomes. Reinsurance claims are subject to a longer time lag both in their reporting and in their time to final settlement. The time lag is a factor which is included in the projections to ultimate claims within the actuarial analyses and helps to explain why in general a higher proportion of the initial reinsurance reserves are represented by IBNR than for insurance reserves for business in the same class. Delays in receiving information from cedants are an expected part of normal business operations and are included within the statistical estimate of IBNR to the extent that current levels of backlog are consistent with historical data. Currently, there are no processing backlogs which would materially affect our financial statements.

Allowance is made, however, for changes or uncertainties which may create distortions in the underlying statistics or which might cause the cost of unsettled claims to increase or reduce when compared with the cost of previously settled claims, including:

- changes in our processes which might accelerate or slow down the development and/or recording of paid or incurred claims;

- changes in the legal environment (including challenges to tort reform);
- the effects of inflation;
- changes in the mix of business;
- the impact of large losses; and
- changes in our cedants' reserving methodologies.

These factors are incorporated in the recommended reserve range from which management selects its best point estimate. We take all reasonable steps to ensure that we utilize all appropriate information and actuarial techniques in establishing our IBNR reserves. However, given the uncertainty in establishing claims liabilities, it is likely that the final outcome will prove to be different from the original provision established at the balance sheet date. Changes to our previous estimates of prior period loss reserves impact the reported calendar year underwriting results by worsening our reported results if the prior year reserves prove to be deficient or improving our reported results if the prior year reserves prove to be redundant. As at December 31, 2016, a 5% change in the gross reserve for IBNR losses would have equated to a change of approximately \$152.2 million in loss reserves which would represent 72.6% of income before income tax for the twelve months ended December 31, 2016. A 5% change in our net loss reserves equates to \$238.0 million and represents 6.4% of shareholders' equity at December 31, 2016.

There are specific areas of our selected reserves which have additional uncertainty associated with them. In property reinsurance, there is uncertainty relating to the ultimate settlement of losses related to the explosion in the port of Tianjin, China, Superstorm Sandy in 2012 and the New Zealand earthquake losses in 2010 and 2011. The explosion in the port of Tianjin, China in 2015 has likewise caused additional uncertainty in specialty reinsurance. In casualty reinsurance, there are additional uncertainties associated with claims emanating from the 2008 global financial crisis and subsequent market events, and the potential for new types of claim to arise given the long-tail nature of many of the reinsurance risks. In the insurance segment, we wrote a book of financial institutions risks which have a number of notifications relating to the financial crisis in 2008 and subsequent market events. Our marine and energy liability account, which is a long-tail class, experienced higher than anticipated claims development during 2013 and in 2014 experienced higher than anticipated claims development in the construction liability account and could experience further unexpected development in future years. These factors can impact the claims adjustment processes which are dependent on the gathering of the necessary information on which to assess coverage, liability, causation and quantum. In each case, management believes that they have selected an appropriate best estimate based on current information and current analyses.

Loss Reserving Sensitivity Analysis: The most significant key assumptions identified in the reserving process are that (i) the historic loss development and trend experience is assumed to be indicative of future loss development and trends, (ii) the information developed from internal and independent external sources can be used to develop meaningful estimates of the initial expected ultimate loss ratios, and (iii) no significant losses or types of losses will emerge that are not represented in either the initial expected loss ratios or the historical development patterns.

We believe that there is potentially significant risk in estimating loss reserves for long-tail lines of business and for immature accident years that may not be adequately captured through traditional actuarial projection methodologies. As discussed above,

these methodologies usually rely heavily on projections of prior year trends into the future. In selecting our best estimate of future liabilities, we consider both the results of actuarial point estimates of loss reserves in addition to the stochastic distribution of reserves. In determining the appropriate best estimate, we review (i) the position of overall reserves within the actuarial distribution, (ii) the result of bottom up analysis by accident year reflecting the impact of parameter uncertainty in actuarial calculations, and (iii) specific qualitative information on events that may have an effect on future claims but which may not have been adequately reflected in actuarial best estimates, such as the potential for outstanding litigation or claims practices of cedants to have an adverse impact.

SECTION 5: RECONCILIATIONS

Reconciliation of Gross Unpaid Losses

The following table reconciles the gross reserves for losses and loss expenses as of December 31, 2016 as reported in Aspen's consolidated financial statements prepared in accordance with U.S. GAAP to the gross reserves for loss and loss expenses published in the triangles in this report. All amounts are in millions, on a gross basis.

	<u>\$ Millions</u>
Reserves for losses and loss expenses per consolidated triangles ¹	5,130.9
Pre 2006 Year Reserves	144.2
ULAE ²	44.9
Reserves for losses and loss expenses per	
December 31, 2016 consolidated financial statements	5,319.9

Notes

(1) We keep a rolling 10 years of development data as experience prior to this is likely to be unrepresentative for more recent years. In nearly all classes of business, the incurred claims development is expected to be minimal post this point.

(2) ULAE stands for Unallocated Loss Adjustment Expenses and represents an estimate of the internal cost of running off claims.

Reconciliation of Reinsurance Unpaid Losses

The following table reconciles the ceded reinsurance reserves for losses and loss expense as of December 31, 2016 as reported in Aspen's consolidated financial statements prepared in accordance with U.S. GAAP to the ceded reinsurance reserves for loss and loss expenses published in the triangles in this report.

	<u>\$ Millions</u>
Ceded Reinsurance Reserves for losses and loss expenses per consolidated triangles	539.2
Pre 2006 Year Reserves	21.5
Ceded Reserves for losses and loss expenses per	
December 31, 2016 consolidated financial statements	560.7

Reconciliation to 2015 Global Loss Triangles

When comparing financial figures to previous disclosures (e.g. historical triangular data or historical incurred and ultimate figures) there are a number of reasons why figures may have changed. The most common reasons are:

- figures are expressed in U.S. dollars and classes are often written in multiple currencies, therefore exchange rate changes over the year can impact historical figures;
- reallocation of reinsurance recoveries between classes (where there are group programs for example covering single losses);
- changes in quantum and allocation of reinsurance recoveries due to a new process around the management and processing of outwards reinsurance contracts;
- reallocation of premiums/claims between years where we have better accident year splits of data, such as from pro rata treaty/lineslip type risks; and
- in some instances, a reallocation of classes between segments to better match the way we manage the business.

SECTION 6: Exhibits

		Consolidated Total						Value in Thousands, USD	
Valuation Date: December 31, 2016		(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Gross					= (2) + (3)		= (4) + (5)	= (6) / (1)	
Accident	Earned			Case	Case Incurred		Ultimate	Ultimate	
Year	Premium	Paid Losses	Reserves	Losses	IBNR	Losses	Loss Ratio		
2006	1,846,558	659,511	36,958	696,469					
2007	1,719,389	823,141	81,937	905,077					
2008	1,681,717	1,065,716	70,447	1,136,163					
2009	1,893,803	788,092	94,381	882,473					
2010	1,950,980	936,916	100,970	1,037,886					
2011	2,010,841	1,146,041	144,643	1,290,684					
2012	2,214,380	1,080,129	242,600	1,322,729					
2013	2,350,866	800,262	216,427	1,016,690					
2014	2,566,629	679,159	272,229	951,388					
2015	2,756,566	525,246	436,174	961,420					
2016	3,029,275	256,824	475,674	732,498					
Total	24,021,004	8,761,036	2,172,440	10,933,476	2,958,435	13,891,910	57.8%		
Ceded					= (9) + (10)		= (11) + (12)	= (13) / (8)	
Accident	Earned			Case	Case Incurred		Ultimate	Ultimate	
Year	Premium	Paid Losses	Reserves	Losses	IBNR	Losses	Loss Ratio		
2006	322,809	40,144	697	40,841					
2007	157,919	66,239	3,472	69,711					
2008	151,049	117,542	6,407	123,949					
2009	202,893	70,484	7,432	77,916					
2010	176,111	36,833	4,543	41,376					
2011	224,430	136,377	2,969	139,345					
2012	285,842	131,622	31,064	162,686					
2013	300,562	38,727	24,752	63,478					
2014	352,062	49,889	24,225	74,114					
2015	407,645	35,480	42,418	77,897					
2016	437,670	16,619	73,899	90,518					
Total	3,018,992	739,955	221,877	961,832	317,301	1,279,133	42.4%		
Net					= (16) + (17)		= (18) + (19)	= (20) / (15)	
Accident	Earned			Case	Case Incurred		Ultimate	Ultimate	
Year	Premium	Paid Losses	Reserves	Losses	IBNR	Losses	Loss Ratio		
2006	1,523,750	619,367	36,261	655,628					
2007	1,561,470	756,901	78,465	835,366					
2008	1,530,668	948,174	64,039	1,012,213					
2009	1,690,910	717,608	86,949	804,557					
2010	1,774,869	900,083	96,427	996,510					
2011	1,786,411	1,009,664	141,674	1,151,338					
2012	1,928,538	948,507	211,536	1,160,043					
2013	2,050,304	761,536	191,676	953,211					
2014	2,214,567	629,270	248,004	877,274					
2015	2,348,921	489,767	393,757	883,523					
2016	2,591,605	240,206	401,775	641,980					
Total	21,002,012	8,021,081	1,950,563	9,971,644	2,641,133	12,612,778	60.1%		

Consolidated Total											
Valuation Date: December 31, 2016						Value in Thousands, USD					
Gross Paid Losses											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	126,642	278,488	375,482	457,548	527,547	568,333	597,856	618,644	630,128	646,671	659,511
2007	119,459	320,078	484,550	602,023	679,621	726,056	764,519	784,599	803,317	823,141	
2008	182,617	450,422	629,743	776,845	872,419	951,497	1,024,557	1,052,092	1,065,716		
2009	102,199	293,011	431,625	567,982	649,665	706,387	756,078	788,092			
2010	116,282	396,051	557,751	705,655	801,891	874,417	936,916				
2011	219,334	597,476	862,425	1,001,098	1,090,958	1,146,041					
2012	193,061	619,795	836,928	975,175	1,080,129						
2013	157,130	457,841	664,047	800,262							
2014	162,619	445,770	679,159								
2015	190,709	525,246									
2016	256,824										
Paid Loss Ratio											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	6.9%	15.1%	20.3%	24.8%	28.6%	30.8%	32.4%	33.5%	34.1%	35.0%	35.7%
2007	6.9%	18.6%	28.2%	35.0%	39.5%	42.2%	44.5%	45.6%	46.7%	47.9%	
2008	10.9%	26.8%	37.4%	46.2%	51.9%	56.6%	60.9%	62.6%	63.4%		
2009	5.4%	15.5%	22.8%	30.0%	34.3%	37.3%	39.9%	41.6%			
2010	6.0%	20.3%	28.6%	36.2%	41.1%	44.8%	48.0%				
2011	10.9%	29.7%	42.9%	49.8%	54.3%	57.0%					
2012	8.7%	28.0%	37.8%	44.0%	48.8%						
2013	6.7%	19.5%	28.2%	34.0%							
2014	6.3%	17.4%	26.5%								
2015	6.9%	19.1%									
2016	8.5%										
Gross Case Incurred Losses											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	336,433	478,383	555,687	615,369	675,037	676,525	677,233	685,797	687,840	696,545	696,469
2007	397,919	619,839	757,288	827,855	855,633	865,849	873,806	888,371	895,024	905,077	
2008	502,929	803,422	939,623	1,030,656	1,071,638	1,109,927	1,130,795	1,137,193	1,136,163		
2009	366,836	633,363	730,991	796,047	827,359	865,421	875,361	882,473			
2010	457,871	749,813	870,110	967,087	998,539	1,026,781	1,037,886				
2011	697,001	1,038,723	1,139,497	1,217,689	1,262,155	1,290,684					
2012	656,808	1,021,187	1,155,191	1,255,200	1,322,729						
2013	500,534	778,263	921,276	1,016,690							
2014	474,879	784,642	951,388								
2015	585,630	961,420									
2016	732,498										
Case Incurred Loss Ratio											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	18.2%	25.9%	30.1%	33.3%	36.6%	36.6%	36.7%	37.1%	37.2%	37.7%	37.7%
2007	23.1%	36.0%	44.0%	48.1%	49.8%	50.4%	50.8%	51.7%	52.1%	52.6%	
2008	29.9%	47.8%	55.9%	61.3%	63.7%	66.0%	67.2%	67.6%	67.6%		
2009	19.4%	33.4%	38.6%	42.0%	43.7%	45.7%	46.2%	46.6%			
2010	23.5%	38.4%	44.6%	49.6%	51.2%	52.6%	53.2%				
2011	34.7%	51.7%	56.7%	60.6%	62.8%	64.2%					
2012	29.7%	46.1%	52.2%	56.7%	59.7%						
2013	21.3%	33.1%	39.2%	43.2%							
2014	18.5%	30.6%	37.1%								
2015	21.2%	34.9%									
2016	24.2%										

Consolidated Total Reserving Notes

In total, 47% (2015: 49%) of gross reserves arose from Reinsurance and 53% (2015: 51%) from Insurance.

Of the total reinsurance reserves, 42% (2015: 43%) are reported case reserves and 58% (2015: 57%) are IBNR (this includes years back to 2002). Additional case reserves amount to 12.8% (2015: 14.9%) of reported case reserves.

Of the total insurance reserves, 43% (2015: 42%) are reported case reserves and 57% (2015: 58%) are IBNR.

During 2016, there was an overall reduction of our estimate of the ultimate claims to be paid on 2015 and prior accident years of \$129 million, \$87 million of which was in the reinsurance segment and \$42 million of which was in the insurance segment.

The impact of large events is summarised in the following table:

USD '000s

Gross						Ceded						Net					
AY	Paid	Case	Incurred	IBNR	Ultimate	AY	Paid	Case	Incurred	IBNR	Ultimate	AY	Paid	Case	Incurred	IBNR	Ultimate
2006	-	-	-	-	-	2006	-	-	-	-	-	2006	-	-	-	-	-
2007	92,736	4,167	96,903	-	96,903	2007	26,965	-	26,965	-	26,965	2007	65,771	4,167	69,938	-	69,938
2008	260,501	823	261,324	-	261,338	2008	68,707	788	69,496	-	69,496	2008	191,794	35	191,829	-	191,843
2009	-	-	-	-	-	2009	-	-	-	-	-	2009	-	-	-	-	-
2010	145,112	7,764	152,877	9,108	161,985	2010	-	-	-	-	-	2010	145,112	7,764	152,877	9,108	161,985
2011	413,631	31,223	444,854	28,305	473,159	2011	98,279	1,379	99,657	67	99,724	2011	315,352	29,844	345,196	28,238	373,434
2012	228,255	57,215	285,470	55,934	341,404	2012	52,278	14,183	66,461	8,065	74,526	2012	175,977	43,032	219,009	47,869	266,878
2013	-	-	-	-	-	2013	-	-	-	-	-	2013	-	-	-	-	-
2014	-	-	-	-	-	2014	-	-	-	-	-	2014	-	-	-	-	-
2015	-	-	-	-	-	2015	-	-	-	-	-	2015	-	-	-	-	-
2016	-	-	-	-	-	2016	-	-	-	-	-	2016	-	-	-	-	-

		Insurance Total						Value in Thousands, USD	
Valuation Date: December 31, 2016		(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Gross				= (2) + (3)		= (4) + (5)		= (6) / (7)	
Accident	Earned			Case	Case Incurred	Ultimate		Ultimate	
Year	Premium	Paid Losses	Reserves	Losses	IBNR	Losses	Loss Ratio		
2006	660,868	298,464	6,114	304,578					
2007	626,422	431,124	14,550	445,674					
2008	681,678	561,344	18,234	579,577					
2009	807,666	410,681	29,846	440,527					
2010	879,591	436,270	38,474	474,744					
2011	936,368	378,187	44,279	422,466					
2012	1,117,299	628,095	123,878	751,973					
2013	1,320,767	487,813	126,272	614,085					
2014	1,532,669	435,864	167,924	603,788					
2015	1,651,400	357,441	304,405	661,846					
2016	1,701,723	130,544	300,071	430,615					
Total	11,916,450	4,555,828	1,174,046	5,729,874	1,537,050	7,266,924	61.0%		
Ceded				= (9) + (10)		= (11) + (12)		= (13) / (8)	
Accident	Earned			Case	Case Incurred	Ultimate		Ultimate	
Year	Premium	Paid Losses	Reserves	Losses	IBNR	Losses	Loss Ratio		
2006	116,475	31,816	345	32,161					
2007	79,379	52,140	3,358	55,498					
2008	92,433	111,963	6,143	118,106					
2009	149,024	70,205	7,424	77,630					
2010	140,449	36,833	4,543	41,376					
2011	152,585	27,079	816	27,895					
2012	216,689	131,256	30,737	161,994					
2013	244,100	37,719	23,317	61,036					
2014	310,410	49,865	23,538	73,404					
2015	364,394	35,442	42,165	77,607					
2016	350,417	14,750	48,064	62,814					
Total	2,216,356	599,071	190,451	789,522	289,445	1,078,967	48.7%		
Net				= (16) + (17)		= (18) + (19)		= (20) / (15)	
Accident	Earned			Case	Case Incurred	Ultimate		Ultimate	
Year	Premium	Paid Losses	Reserves	Losses	IBNR	Losses	Loss Ratio		
2006	544,393	266,648	5,769	272,417					
2007	547,042	378,984	11,192	390,176					
2008	589,244	449,380	12,091	461,471					
2009	658,642	340,475	22,422	362,897					
2010	739,143	399,437	33,931	433,368					
2011	783,783	351,109	43,463	394,571					
2012	900,610	496,839	93,140	589,979					
2013	1,076,667	450,094	102,954	553,048					
2014	1,222,259	385,998	144,386	530,384					
2015	1,287,006	321,998	262,240	584,239					
2016	1,351,306	115,794	252,007	367,801					
Total	9,700,094	3,956,757	983,595	4,940,352	1,247,605	6,187,957	63.8%		

Insurance Total											
Valuation Date: December 31, 2016						Value in Thousands, USD					
Gross Paid Losses											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	78,899	141,920	185,913	230,679	263,002	277,755	284,770	291,587	292,864	297,048	298,464
2007	65,099	174,837	284,140	335,473	370,377	394,975	410,677	417,786	423,307	431,124	
2008	57,321	206,700	314,108	388,593	448,224	497,010	544,810	556,320	561,344		
2009	43,824	140,165	214,761	299,273	339,937	373,893	398,261	410,681			
2010	52,071	180,424	267,045	334,248	383,374	414,528	436,270				
2011	67,539	183,822	255,309	316,548	359,259	378,187					
2012	130,667	375,621	482,013	566,854	628,095						
2013	95,305	276,779	392,778	487,813							
2014	106,659	277,172	435,864								
2015	134,131	357,441									
2016	130,544										
Paid Loss Ratio											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	11.9%	21.5%	28.1%	34.9%	39.8%	42.0%	43.1%	44.1%	44.3%	44.9%	45.2%
2007	10.4%	27.9%	45.4%	53.6%	59.1%	63.1%	65.6%	66.7%	67.6%	68.8%	
2008	8.4%	30.3%	46.1%	57.0%	65.8%	72.9%	79.9%	81.6%	82.3%		
2009	5.4%	17.4%	26.6%	37.1%	42.1%	46.3%	49.3%	50.8%			
2010	5.9%	20.5%	30.4%	38.0%	43.6%	47.1%	49.6%				
2011	7.2%	19.6%	27.3%	33.8%	38.4%	40.4%					
2012	11.7%	33.6%	43.1%	50.7%	56.2%						
2013	7.2%	21.0%	29.7%	36.9%							
2014	7.0%	18.1%	28.4%								
2015	8.1%	21.6%									
2016	7.7%										
Gross Case Incurred Losses											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	185,565	243,101	269,855	298,315	310,545	305,408	301,262	302,563	301,479	303,857	304,578
2007	208,750	316,937	404,867	427,150	433,025	439,629	444,852	444,541	442,757	445,674	
2008	237,457	401,824	460,898	514,097	540,250	564,843	575,093	580,077	579,577		
2009	204,870	344,881	380,200	402,728	415,301	435,648	442,546	440,527			
2010	232,363	340,200	399,075	443,278	462,676	473,572	474,744				
2011	181,881	298,499	350,713	398,193	411,465	422,466					
2012	401,785	582,131	656,501	714,523	751,973						
2013	301,743	447,282	540,495	614,085							
2014	307,643	489,571	603,788								
2015	412,989	661,846									
2016	430,615										
Case Incurred Loss Ratio											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	28.1%	36.8%	40.8%	45.1%	47.0%	46.2%	45.6%	45.8%	45.6%	46.0%	46.1%
2007	33.3%	50.6%	64.6%	68.2%	69.1%	70.2%	71.0%	71.0%	70.7%	71.1%	
2008	34.8%	58.9%	67.6%	75.4%	79.3%	82.9%	84.4%	85.1%	85.0%		
2009	25.4%	42.7%	47.1%	49.9%	51.4%	53.9%	54.8%	54.5%			
2010	26.4%	38.7%	45.4%	50.4%	52.6%	53.8%	54.0%				
2011	19.4%	31.9%	37.5%	42.5%	43.9%	45.1%					
2012	36.0%	52.1%	58.8%	64.0%	67.3%						
2013	22.8%	33.9%	40.9%	46.5%							
2014	20.1%	31.9%	39.4%								
2015	25.0%	40.1%									
2016	25.3%										

		Property Insurance (including programs)						Value in Thousands, USD	
Valuation Date: December 31, 2016		(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Gross				= (2) + (3)		= (4) + (5)		= (6) / (1)	
Accident	Earned	Case		Case Incurred	Ultimate		Ultimate		
Year	Premium	Paid Losses	Reserves	Losses	IBNR	Losses	Loss Ratio		
2006	116,839	59,175	- 19	59,156					
2007	86,302	27,737	- 7	27,730					
2008	81,544	32,807	33	32,840					
2009	113,282	24,612	865	25,477					
2010	158,156	47,283	5,484	52,767					
2011	184,729	77,335	896	78,231					
2012	271,161	228,692	5,650	234,342					
2013	320,625	108,664	15,449	124,113					
2014	387,956	140,827	26,423	167,250					
2015	434,461	148,371	63,970	212,341					
2016	445,732	65,413	102,035	167,449					
Total	2,600,788	960,918	220,779	1,181,696	188,692	1,370,388	52.7%		
Ceded				= (9) + (10)		= (11) + (12)		= (13) / (8)	
Accident	Earned	Case		Case Incurred	Ultimate		Ultimate		
Year	Premium	Paid Losses	Reserves	Losses	IBNR	Losses	Loss Ratio		
2006	53,845	14,557	3	14,560					
2007	26,982	82	-	82					
2008	24,354	5,523	199	5,721					
2009	47,366	3,468	460	3,928					
2010	38,910	7,714	3,338	11,052					
2011	48,902	12,440	392	12,832					
2012	76,122	74,887	4,671	79,558					
2013	70,398	15,934	10,677	26,611					
2014	101,118	32,929	15,537	48,465					
2015	134,219	23,492	23,822	47,314					
2016	88,711	5,723	13,729	19,452					
Total	710,927	196,748	72,828	269,576	79,042	348,618	49.0%		
Net				= (16) + (17)		= (18) + (19)		= (20) / (15)	
Accident	Earned	Case		Case Incurred	Ultimate		Ultimate		
Year	Premium	Paid Losses	Reserves	Losses	IBNR	Losses	Loss Ratio		
2006	62,994	44,617	-22	44,596					
2007	59,320	27,655	-7	27,647					
2008	57,189	27,284	-165	27,119					
2009	65,915	21,145	404	21,549					
2010	119,246	39,570	2,146	41,715					
2011	135,827	64,895	504	65,399					
2012	195,039	153,806	979	154,784					
2013	250,228	92,731	4,772	97,503					
2014	286,839	107,898	10,887	118,785					
2015	300,242	124,878	40,148	165,026					
2016	357,021	59,690	88,307	147,997					
Total	1,889,861	764,169	147,951	912,120	109,650	1,021,770	54.1%		

Property Insurance (including programs)											
Valuation Date: December 31, 2016						Value in Thousands, USD					
Gross Paid Losses											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	34,506	51,131	56,661	58,033	58,886	59,032	59,077	59,070	59,124	59,127	59,175
2007	14,390	24,764	26,388	27,392	27,301	27,322	27,356	27,438	27,449	27,737	
2008	10,710	26,973	32,430	32,742	32,888	32,786	32,791	32,803	32,807		
2009	9,724	18,282	20,590	22,844	23,417	24,342	24,503	24,612			
2010	11,999	30,837	39,709	42,611	43,985	46,514	47,283				
2011	17,815	59,786	67,141	72,603	74,207	77,335					
2012	50,497	170,456	193,471	212,648	228,692						
2013	38,093	78,459	94,509	108,664							
2014	44,850	101,969	140,827								
2015	63,753	148,371									
2016	65,413										
Paid Loss Ratio											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	29.5%	43.8%	48.5%	49.7%	50.4%	50.5%	50.6%	50.6%	50.6%	50.6%	50.6%
2007	16.7%	28.7%	30.6%	31.7%	31.6%	31.7%	31.7%	31.8%	31.8%	32.1%	
2008	13.1%	33.1%	39.8%	40.2%	40.3%	40.2%	40.2%	40.2%	40.2%		
2009	8.6%	16.1%	18.2%	20.2%	20.7%	21.5%	21.6%	21.7%			
2010	7.6%	19.5%	25.1%	26.9%	27.8%	29.4%	29.9%				
2011	9.6%	32.4%	36.3%	39.3%	40.2%	41.9%					
2012	18.6%	62.9%	71.3%	78.4%	84.3%						
2013	11.9%	24.5%	29.5%	33.9%							
2014	11.6%	26.3%	36.3%								
2015	14.7%	34.2%									
2016	14.7%										
Gross Case Incurred Losses											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	54,808	58,701	59,426	60,127	60,774	59,068	59,054	59,047	59,101	59,103	59,156
2007	27,032	27,582	27,545	27,433	27,317	27,312	27,378	27,435	27,442	27,730	
2008	22,039	33,893	33,479	33,070	33,003	32,824	32,811	32,854	32,840		
2009	24,148	25,058	24,894	24,965	24,817	25,241	25,486	25,477			
2010	34,266	40,784	45,250	45,508	45,910	47,191	52,767				
2011	53,818	74,289	74,118	76,213	76,142	78,231					
2012	173,779	216,768	219,248	226,118	234,342						
2013	84,149	104,404	112,615	124,113							
2014	96,691	151,317	167,250								
2015	155,820	212,341									
2016	167,449										
Case Incurred Loss Ratio											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	46.9%	50.2%	50.9%	51.5%	52.0%	50.6%	50.5%	50.5%	50.6%	50.6%	50.6%
2007	31.3%	32.0%	31.9%	31.8%	31.7%	31.6%	31.7%	31.8%	31.8%	32.1%	
2008	27.0%	41.6%	41.1%	40.6%	40.5%	40.3%	40.2%	40.3%	40.3%		
2009	21.3%	22.1%	22.0%	22.0%	21.9%	22.3%	22.5%	22.5%			
2010	21.7%	25.8%	28.6%	28.8%	29.0%	29.8%	33.4%				
2011	29.1%	40.2%	40.1%	41.3%	41.2%	42.3%					
2012	64.1%	79.9%	80.9%	83.4%	86.4%						
2013	26.2%	32.6%	35.1%	38.7%							
2014	24.9%	39.0%	43.1%								
2015	35.9%	48.9%									
2016	37.6%										

Property Insurance (including Programs) Reserving Notes

- We have provided accident year data for property and casualty insurance separately due to different development profiles, notwithstanding that they are managed on a combined basis.
- This reserving class accounts for 8.0% (2015: 7.4%) of gross reserves as at year-end 2016.
- The split of gross earned premium by territory was as follows:

Accident Year	Gross Earned Premium (\$000s)	UK	US
2006	116,839	38%	62%
2007	86,302	37%	63%
2008	81,544	44%	56%
2009	113,282	38%	62%
2010	158,156	40%	60%
2011	184,729	40%	60%
2012	271,161	27%	73%
2013	320,625	17%	83%
2014	387,956	16%	84%
2015	434,461	17%	83%
2016	445,732	18%	82%

- A major part of the case incurred development in year 2 of accident year 2008 was caused by Hurricane Ike.
- The 2010 accident year developed more in calendar year 2016 than seen historically due to a single large loss increase which was materially offset by increased reinsurance recoveries and can no longer deteriorate. We do not believe this represents a trend since there are no large losses with similar downside potential.
- The 2012 accident year had some Superstorm Sandy incurred movements with limited further net downside.

- A summary of major catastrophes is as follows:

USD '000s

Gross						Ceded						Net					
AY	Paid	Case	Incurred	IBNR	Ultimate	AY	Paid	Case	Incurred	IBNR	Ultimate	AY	Paid	Case	Incurred	IBNR	Ultimate
2006	-	-	-	-	-	2006	-	-	-	-	-	2006	-	-	-	-	-
2007	1,572	-	1,572	-	1,572	2007	-	-	-	-	-	2007	1,572	-	1,572	-	1,572
2008	15,893	-	15,893	-	15,893	2008	5,154	-	5,154	-	5,154	2008	10,739	-	10,739	-	10,739
2009	-	-	-	-	-	2009	-	-	-	-	-	2009	-	-	-	-	-
2010	-	-	-	-	-	2010	-	-	-	-	-	2010	-	-	-	-	-
2011	13,008	-	13,008	27	13,035	2011	3,510	-	3,510	27	3,537	2011	9,498	-	9,498	-	9,498
2012	84,460	133	84,594	7,850	92,444	2012	42,084	98	42,182	6,845	49,027	2012	42,376	35	42,412	1,005	43,416
2013	-	-	-	-	-	2013	-	-	-	-	-	2013	-	-	-	-	-
2014	-	-	-	-	-	2014	-	-	-	-	-	2014	-	-	-	-	-
2015	-	-	-	-	-	2015	-	-	-	-	-	2015	-	-	-	-	-
2016	-	-	-	-	-	2016	-	-	-	-	-	2016	-	-	-	-	-

Valuation Date: December 31, 2016		Casualty Insurance						Value in Thousands, USD	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Gross				= (2) + (3)		= (4) + (5)		= (6) / (1)	
Accident	Earned	Case		Case Incurred		Ultimate		Ultimate	
Year	Premium	Paid Losses	Reserves	Losses	IBNR	Losses	Loss Ratio		
2006	160,568	92,308	1,169	93,477					
2007	134,718	77,994	1,232	79,225					
2008	148,244	139,605	2,829	142,434					
2009	176,606	74,159	13,656	87,816					
2010	152,670	66,775	4,687	71,462					
2011	123,227	49,948	2,866	52,814					
2012	155,165	44,730	20,493	65,224					
2013	218,514	71,093	25,667	96,759					
2014	295,466	39,184	56,310	95,494					
2015	368,396	31,363	97,452	128,815					
2016	387,884	10,425	39,244	49,669					
Total	2,321,457	697,584	265,604	963,189	535,836	1,499,025	64.6%		
Ceded				= (9) + (10)		= (11) + (12)		= (13) / (8)	
Accident	Earned	Case		Case Incurred		Ultimate		Ultimate	
Year	Premium	Paid Losses	Reserves	Losses	IBNR	Losses	Loss Ratio		
2006	10,626	12,160	337	12,497					
2007	6,017	11,581	304	11,277					
2008	8,496	21,410	1,381	22,791					
2009	21,376	5,338	3,804	9,142					
2010	25,767	1,975	482	2,457					
2011	25,344	2,393	142	2,250					
2012	39,860	4,078	4,676	8,753					
2013	58,144	12,881	558	13,439					
2014	73,918	2,348	490	2,837					
2015	79,526	160	6,454	6,614					
2016	85,326	6	25	30					
Total	434,400	74,329	17,759	92,088	105,159	197,247	45.4%		
Net				= (16) + (17)		= (18) + (19)		= (20) / (15)	
Accident	Earned	Case		Case Incurred		Ultimate		Ultimate	
Year	Premium	Paid Losses	Reserves	Losses	IBNR	Losses	Loss Ratio		
2006	149,942	80,148	832	80,980					
2007	128,701	66,413	1,536	67,949					
2008	139,748	118,195	1,448	119,643					
2009	155,229	68,821	9,852	78,673					
2010	126,903	64,800	4,205	69,005					
2011	97,883	47,556	3,008	50,564					
2012	115,305	40,653	15,818	56,471					
2013	160,370	58,212	25,108	83,320					
2014	221,548	36,836	55,820	92,657					
2015	288,870	31,203	90,998	122,201					
2016	302,558	10,420	39,219	49,639					
Total	1,887,057	623,256	247,845	871,101	430,677	1,301,778	69.0%		

Casualty Insurance											
Valuation Date: December 31, 2016						Value in Thousands, USD					
Gross Paid Losses											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	2,322	14,042	31,407	54,474	71,774	81,937	87,313	90,524	90,516	91,335	92,308
2007	2,285	12,806	31,380	43,282	55,792	64,710	72,092	74,483	76,069	77,994	
2008	2,207	17,250	50,854	81,775	104,493	121,488	131,800	137,408	139,605		
2009	2,696	9,867	25,371	42,616	55,279	66,149	69,518	74,159			
2010	1,504	9,783	27,593	44,294	57,361	63,848	66,775				
2011	2,886	12,585	18,396	36,518	45,097	49,948					
2012	1,887	8,159	16,696	34,807	44,730						
2013	6,936	43,831	57,655	71,093							
2014	4,671	17,856	39,184								
2015	6,478	31,363									
2016	10,425										
Paid Loss Ratio											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	1.4%	8.7%	19.6%	33.9%	44.7%	51.0%	54.4%	56.4%	56.4%	56.9%	57.5%
2007	1.7%	9.5%	23.3%	32.1%	41.4%	48.0%	53.5%	55.3%	56.5%	57.9%	
2008	1.5%	11.6%	34.3%	55.2%	70.5%	82.0%	88.9%	92.7%	94.2%		
2009	1.5%	5.6%	14.4%	24.1%	31.3%	37.5%	39.4%	42.0%			
2010	1.0%	6.4%	18.1%	29.0%	37.6%	41.8%	43.7%				
2011	2.3%	10.2%	14.9%	29.6%	36.6%	40.5%					
2012	1.2%	5.3%	10.8%	22.4%	28.8%						
2013	3.2%	20.1%	26.4%	32.5%							
2014	1.6%	6.0%	13.3%								
2015	1.8%	8.5%									
2016	2.7%										
Gross Case Incurred Losses											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	40,020	57,427	66,149	82,939	90,729	92,083	92,553	92,740	92,428	93,457	93,477
2007	31,481	43,165	55,896	67,287	72,973	74,224	76,430	77,110	78,306	79,225	
2008	31,119	73,315	102,018	119,722	129,210	135,446	137,722	141,564	142,434		
2009	23,977	58,440	65,493	71,075	75,849	80,771	84,590	87,816			
2010	24,760	41,682	54,877	63,759	65,993	69,496	71,462				
2011	19,635	27,280	31,542	46,799	50,075	52,814					
2012	17,023	29,526	38,005	47,615	65,224						
2013	54,993	67,248	84,531	96,759							
2014	37,625	58,397	95,494								
2015	60,820	128,815									
2016	49,669										
Case Incurred Loss Ratio											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	24.9%	35.8%	41.2%	51.7%	56.5%	57.3%	57.6%	57.8%	57.6%	58.2%	58.2%
2007	23.4%	32.0%	41.5%	49.9%	54.2%	55.1%	56.7%	57.2%	58.1%	58.8%	
2008	21.0%	49.5%	68.8%	80.8%	87.2%	91.4%	92.9%	95.5%	96.1%		
2009	13.6%	33.1%	37.1%	40.2%	42.9%	45.7%	47.9%	49.7%			
2010	16.2%	27.3%	35.9%	41.8%	43.2%	45.5%	46.8%				
2011	15.9%	22.1%	25.6%	38.0%	40.6%	42.9%					
2012	11.0%	19.0%	24.5%	30.7%	42.0%						
2013	25.2%	30.8%	38.7%	44.3%							
2014	12.7%	19.8%	32.3%								
2015	16.5%	35.0%									
2016	12.8%										

Casualty Insurance Reserving Notes

- This reserving class accounts for 15.6% (2015: 13.9%) of gross reserves as at year-end 2016.
- There are three main components to casualty insurance – U.K. commercial liability business, U.S. primary casualty business and excess casualty business. The proportions have changed over the years with a larger weight on U.S. primary casualty business and lower weight on excess casualty.
- We note that over the year some underlying classes have been remapped from both UK Commercial and US Primary into Excess Casualty which we believe provides a more accurate split to that last year.

Accident Year	Gross Earned Premium (\$000s)	Proportion		
		UK Commercial Liability	US Primary Casualty	Excess Casualty
2006	160,568	61%	36%	3%
2007	134,718	49%	46%	5%
2008	148,244	34%	38%	27%
2009	176,606	23%	34%	44%
2010	152,670	22%	30%	47%
2011	123,227	25%	23%	52%
2012	155,165	27%	23%	50%
2013	218,514	31%	26%	43%
2014	295,466	32%	32%	36%
2015	368,396	30%	39%	30%
2016	387,884	30%	41%	30%

- The U.S. primary casualty insurance and the non-marine and transportation (written for a short period of time) element of excess casualty were the subject of detailed claims and actuarial reviews throughout 2010 which resulted in significant strengthening of reserves in particular in respect of exposure to New York contractors in U.S. primary casualty and trucking and pharmaceutical sub classes of the non-marine and transportation book. The experience since then has been better than we expected.
- Case reserving methodology in U.S. primary casualty Insurance was strengthened in 2010 which can be seen in the 2010 calendar year diagonal of the case incurred loss triangle which had stronger than typical expected development.
- The 2016 calendar year development was slightly heavier than seen for accident years 2012 to 2015 largely due to the emergence of a number of losses from the excess casualty account from specific IBNR into incurred claims.
- On a gross basis these claims can create volatile development since they tend to be large losses on a gross basis but are protected materially through quota share or excess of loss reinsurance.

- These developments described above were comfortably within reserving expectations.

Marine, Aviation & Energy								Value in Thousands, USD
Valuation Date: December 31, 2016								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Gross				= (2) + (3)		= (4) + (5)	= (6) / (1)	
Accident	Earned		Case	Case Incurred		Ultimate	Ultimate	
Year	Premium	Paid Losses	Reserves	Losses	IBNR	Losses	Loss Ratio	
2006	364,723	140,862	4,934	145,796				
2007	389,835	316,766	13,326	330,092				
2008	399,549	304,423	9,681	314,104				
2009	417,957	189,265	8,697	197,962				
2010	445,538	272,221	25,940	298,161				
2011	438,969	199,171	34,105	233,276				
2012	474,753	284,736	75,958	360,694				
2013	510,437	237,420	68,874	306,293				
2014	497,888	193,173	58,254	251,426				
2015	446,369	129,664	95,793	225,456				
2016	407,648	37,246	125,212	162,459				
Total	4,793,666	2,304,946	520,773	2,825,719	364,132	3,189,851	66.5%	
Ceded				= (9) + (10)		= (11) + (12)	= (13) / (8)	
Accident	Earned		Case	Case Incurred		Ultimate	Ultimate	
Year	Premium	Paid Losses	Reserves	Losses	IBNR	Losses	Loss Ratio	
2006	52,004	5,099	4	5,104				
2007	46,176	40,426	3,662	44,088				
2008	43,885	62,929	1,115	64,044				
2009	52,170	9,624	1,486	11,110				
2010	44,310	27,144	193	27,336				
2011	39,261	3,183	618	3,802				
2012	55,303	46,541	15,150	61,691				
2013	53,562	3,006	506	3,512				
2014	64,090	4,648	1,824	6,472				
2015	77,520	6,916	7,024	13,940				
2016	88,498	6,385	28,112	34,497				
Total	616,780	215,901	59,695	275,595	30,501	306,096	49.6%	
Net				= (16) + (17)		= (18) + (19)	= (20) / (15)	
Accident	Earned		Case	Case Incurred		Ultimate	Ultimate	
Year	Premium	Paid Losses	Reserves	Losses	IBNR	Losses	Loss Ratio	
2006	312,718	135,763	4,930	140,693				
2007	343,659	276,339	9,664	286,004				
2008	355,663	241,494	8,566	250,060				
2009	365,787	179,641	7,211	186,852				
2010	401,228	245,077	25,747	270,824				
2011	399,708	195,988	33,487	229,474				
2012	419,450	238,195	60,808	299,003				
2013	456,875	234,414	68,368	302,781				
2014	433,798	188,525	56,430	244,955				
2015	368,850	122,747	88,768	211,516				
2016	319,149	30,861	97,100	127,961				
Total	4,176,886	2,089,045	461,078	2,550,124	333,631	2,883,755	69.0%	

Marine, Aviation & Energy											
Valuation Date: December 31, 2016						Value in Thousands, USD					
Gross Paid Losses											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	41,427	74,168	94,564	113,501	126,583	130,762	132,269	135,876	137,107	140,468	140,862
2007	47,854	132,983	220,651	257,760	278,804	294,310	302,593	307,236	311,161	316,766	
2008	43,840	158,556	218,478	249,191	267,884	281,699	297,189	302,162	304,423		
2009	29,322	93,875	132,852	158,619	173,117	181,201	187,675	189,265			
2010	35,614	130,560	172,045	208,751	236,016	254,463	272,221				
2011	44,072	94,928	139,921	165,249	188,682	199,171					
2012	52,726	153,652	216,205	255,336	284,736						
2013	41,605	131,864	207,026	237,420							
2014	54,083	120,924	193,173								
2015	47,950	129,664									
2016	37,246										
Paid Loss Ratio											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	11.4%	20.3%	25.9%	31.1%	34.7%	35.9%	36.3%	37.3%	37.6%	38.5%	38.6%
2007	12.3%	34.1%	56.6%	66.1%	71.5%	75.5%	77.6%	78.8%	79.8%	81.3%	
2008	11.0%	39.7%	54.7%	62.4%	67.0%	70.5%	74.4%	75.6%	76.2%		
2009	7.0%	22.5%	31.8%	38.0%	41.4%	43.4%	44.9%	45.3%			
2010	8.0%	29.3%	38.6%	46.9%	53.0%	57.1%	61.1%				
2011	10.0%	21.6%	31.9%	37.6%	43.0%	45.4%					
2012	11.1%	32.4%	45.5%	53.8%	60.0%						
2013	8.2%	25.8%	40.6%	46.5%							
2014	10.9%	24.3%	38.8%								
2015	10.7%	29.0%									
2016	9.1%										
Gross Case Incurred Losses											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	87,098	123,173	139,323	150,321	153,114	147,915	143,344	144,622	143,801	145,147	145,796
2007	147,296	239,809	313,443	323,821	323,473	329,104	332,236	331,367	328,382	330,092	
2008	179,810	260,171	279,252	291,996	297,225	314,481	314,048	315,731	314,104		
2009	111,828	183,270	190,636	192,631	202,645	203,617	202,095	197,962			
2010	163,699	224,496	258,237	289,292	299,795	300,381	298,161				
2011	94,743	162,467	199,048	222,381	231,203	233,276					
2012	170,107	278,320	323,602	354,814	360,694						
2013	139,861	236,190	287,229	306,293							
2014	151,784	213,026	251,426								
2015	170,029	225,456									
2016	162,459										
Case Incurred Loss Ratio											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	23.9%	33.8%	38.2%	41.2%	42.0%	40.6%	39.3%	39.7%	39.4%	39.8%	40.0%
2007	37.8%	61.5%	80.4%	83.1%	83.0%	84.4%	85.2%	85.0%	84.2%	84.7%	
2008	45.0%	65.1%	69.9%	73.1%	74.4%	78.7%	78.6%	79.0%	78.6%		
2009	26.8%	43.8%	45.6%	46.1%	48.5%	48.7%	48.4%	47.4%			
2010	36.7%	50.4%	58.0%	64.9%	67.3%	67.4%	66.9%				
2011	21.6%	37.0%	45.3%	50.7%	52.7%	53.1%					
2012	35.8%	58.6%	68.2%	74.7%	76.0%						
2013	27.4%	46.3%	56.3%	60.0%							
2014	30.5%	42.8%	50.5%								
2015	38.1%	50.5%									
2016	39.9%										

Marine, Aviation & Energy Reserving Notes

- This reserving class accounts for 17.2% (2015: 18.8%) of gross reserves as at year-end 2016.
- The split of business into the major classes of business is as follows:

Accident Year	Gross Earned Premium (\$000s)	Marine and Energy Liability	Onshore Energy Physical Damage	OffShore Energy Physical Damage	Proportion			Inland Marine and Ocean Risks
					Marine Hull	Specie	Aviation	
2006	364,723	39%	0%	20%	14%	0%	27%	0%
2007	389,835	36%	0%	25%	14%	0%	24%	0%
2008	399,549	38%	0%	23%	15%	0%	24%	0%
2009	417,957	40%	0%	20%	14%	1%	25%	0%
2010	445,538	44%	0%	16%	13%	2%	25%	0%
2011	438,969	44%	0%	17%	10%	3%	25%	1%
2012	474,753	44%	0%	17%	9%	3%	23%	3%
2013	510,437	46%	1%	16%	8%	3%	20%	6%
2014	497,888	44%	6%	14%	8%	3%	16%	8%
2015	446,369	34%	13%	15%	9%	3%	17%	8%
2016	407,648	27%	18%	15%	9%	4%	17%	10%

- Several large events have impacted this reserving class, a summary of the major losses is as follows:
All in USD 000's

Gross						Ceded						Net					
AY	Paid	Case	Incurred	IBNR	Ultimate	AY	Paid	Case	Incurred	IBNR	Ultimate	AY	Paid	Case	Incurred	IBNR	Ultimate
2006	-	-	-	-	-	2006	-	-	-	-	-	2006	-	-	-	-	-
2007	60,479	4,150	64,630	-	64,630	2007	26,965	-	26,965	-	26,965	2007	33,514	4,150	37,664	-	37,664
2008	87,551	-	87,551	-	87,551	2008	63,553	788	64,342	-	64,342	2008	23,998	-	23,209	-	23,209
2009	-	-	-	-	-	2009	-	-	-	-	-	2009	-	-	-	-	-
2010	38	-	38	-	38	2010	-	-	-	-	-	2010	38	-	38	-	38
2011	2,021	75	2,096	14	2,110	2011	-	-	-	-	-	2011	2,021	75	2,096	14	2,110
2012	20,912	9,475	30,388	875	31,262	2012	8,545	9,100	17,646	1,250	18,895	2012	12,367	375	12,742	-	12,367
2013	-	-	-	-	-	2013	-	-	-	-	-	2013	-	-	-	-	-
2014	-	-	-	-	-	2014	-	-	-	-	-	2014	-	-	-	-	-
2015	-	-	-	-	-	2015	-	-	-	-	-	2015	-	-	-	-	-
2016	-	-	-	-	-	2016	-	-	-	-	-	2016	-	-	-	-	-

- The decreasing proportion of marine and energy liability, and the increasing proportion of onshore energy physical damage and inland marine books should see a significantly shorter tail and higher incurred values in the early years.
- There was a shift in the marine and energy liability case reserving philosophy which has significantly expedited the development to ultimate of incurred claims in the 2014 to 2016 accident years.

Valuation Date: December 31, 2016		Financial & Professional						Value in Thousands, USD	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)		
Gross				= (2) + (3)		= (4) + (5)	= (6) / (1)		
Accident	Earned	Case	Case Incurred	Case Incurred	IBNR	Ultimate	Ultimate		
Year	Premium	Paid Losses	Reserves	Losses	Losses	Losses	Loss Ratio		
2006	18,739	6,120	29	6,149					
2007	15,567	8,628	0	8,628					
2008	52,341	84,508	5,690	90,199					
2009	99,821	122,644	6,628	129,272					
2010	123,227	49,991	2,363	52,354					
2011	189,443	51,733	6,413	58,145					
2012	216,219	69,936	21,777	91,713					
2013	271,191	70,636	16,282	86,919					
2014	351,358	62,681	26,937	89,618					
2015	402,173	48,043	47,191	95,235					
2016	460,460	17,460	33,579	51,038					
Total	2,200,539	592,380	166,889	759,270	448,390	1,207,659	54.9%		
Ceded	(8)	(9)	(10)	(11)	(12)	(13)	(14)		
				= (9) + (10)		= (11) + (12)	= (13) / (8)		
Accident	Earned	Case	Case Incurred	Case Incurred	IBNR	Ultimate	Ultimate		
Year	Premium	Paid Losses	Reserves	Losses	Losses	Losses	Loss Ratio		
2006	0	0	-	0					
2007	205	51	-	51					
2008	15,698	22,102	3,448	25,550					
2009	28,112	51,776	1,674	53,449					
2010	31,461	1	530	531					
2011	39,078	9,063	52	9,011					
2012	45,404	5,751	6,241	11,992					
2013	61,997	5,898	11,576	17,474					
2014	71,284	9,942	5,688	15,630					
2015	73,129	4,873	4,865	9,739					
2016	87,882	2,637	6,198	8,835					
Total	454,249	112,094	40,169	152,262	74,744	227,006	50.0%		
Net	(15)	(16)	(17)	(18)	(19)	(20)	(21)		
				= (16) + (17)		= (18) + (19)	= (20) / (15)		
Accident	Earned	Case	Case Incurred	Case Incurred	IBNR	Ultimate	Ultimate		
Year	Premium	Paid Losses	Reserves	Losses	Losses	Losses	Loss Ratio		
2006	18,739	6,120	29	6,149					
2007	15,363	8,577	0	8,576					
2008	36,643	62,406	2,242	64,648					
2009	71,709	70,869	4,954	75,823					
2010	91,765	49,990	1,833	51,823					
2011	150,365	42,670	6,465	49,135					
2012	170,816	64,185	15,536	79,721					
2013	209,194	64,738	4,706	69,444					
2014	280,074	52,739	21,249	73,988					
2015	329,044	43,170	42,326	85,496					
2016	372,578	14,823	27,381	42,203					
Total	1,746,290	480,287	126,721	607,007	373,646	980,653	56.2%		

Financial & Professional											
Valuation Date: December 31, 2016						Value in Thousands, USD					
Gross Paid Losses											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	644	2,579	3,281	4,670	5,758	6,025	6,111	6,117	6,117	6,119	6,120
2007	570	4,283	5,721	7,039	8,480	8,633	8,637	8,629	8,628	8,628	
2008	565	3,921	12,345	24,886	42,959	61,036	83,030	83,947	84,508		
2009	2,083	18,139	35,948	75,195	88,124	102,201	116,565	122,644			
2010	2,954	9,244	27,698	38,594	46,011	49,703	49,991				
2011	2,765	16,522	29,852	42,178	51,274	51,733					
2012	25,557	43,354	55,642	64,064	69,936						
2013	8,670	22,625	33,588	70,636							
2014	3,056	36,422	62,681								
2015	15,949	48,043									
2016	17,460										
Paid Loss Ratio											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	3.4%	13.8%	17.5%	24.9%	30.7%	32.2%	32.6%	32.6%	32.6%	32.7%	32.7%
2007	3.7%	27.5%	36.8%	45.2%	54.5%	55.5%	55.5%	55.4%	55.4%	55.4%	
2008	1.1%	7.5%	23.6%	47.5%	82.1%	116.6%	158.6%	160.4%	161.5%		
2009	2.1%	18.2%	36.0%	75.3%	88.3%	102.4%	116.8%	122.9%			
2010	2.4%	7.5%	22.5%	31.3%	37.3%	40.3%	40.6%				
2011	1.5%	8.7%	15.8%	22.3%	27.1%	27.3%					
2012	11.8%	20.1%	25.7%	29.6%	32.3%						
2013	3.2%	8.3%	12.4%	26.0%							
2014	0.9%	10.4%	17.8%								
2015	4.0%	11.9%									
2016	3.8%										
Gross Case Incurred Losses											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	3,640	3,800	4,956	4,928	5,929	6,343	6,312	6,154	6,149	6,149	6,149
2007	2,941	6,381	7,983	8,610	9,261	8,988	8,808	8,629	8,628	8,628	
2008	4,488	34,444	46,148	69,309	80,812	82,091	90,512	89,927	90,199		
2009	44,917	78,113	99,176	114,057	111,990	126,020	130,376	129,272			
2010	9,638	33,239	40,711	44,720	50,978	56,503	52,354				
2011	13,685	34,463	46,005	52,800	54,045	58,145					
2012	40,877	57,517	75,646	85,976	91,713						
2013	22,741	39,439	56,121	86,919							
2014	21,542	66,832	89,618								
2015	26,320	95,235									
2016	51,038										
Case Incurred Loss Ratio											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	19.4%	20.3%	26.4%	26.3%	31.6%	33.8%	33.7%	32.8%	32.8%	32.8%	32.8%
2007	18.9%	41.0%	51.3%	55.3%	59.5%	57.7%	56.6%	55.4%	55.4%	55.4%	
2008	8.6%	65.8%	88.2%	132.4%	154.4%	156.8%	172.9%	171.8%	172.3%		
2009	45.0%	78.3%	99.4%	114.3%	112.2%	126.2%	130.6%	129.5%			
2010	7.8%	27.0%	33.0%	36.3%	41.4%	45.9%	42.5%				
2011	7.2%	18.2%	24.3%	27.9%	28.5%	30.7%					
2012	18.9%	26.6%	35.0%	39.8%	42.4%						
2013	8.4%	14.5%	20.7%	32.1%							
2014	6.1%	19.0%	25.5%								
2015	6.5%	23.7%									
2016	11.1%										

Financial and Professional Reserving Notes

- This reserving class accounts for 12.0% (2015: 11.1%) of gross reserves as at year-end 2016.
- The split of gross earned premium by sub-class is as follows:

Accident Year	Gross Earned Premium (\$000s)	Financial and Corporate Risks	Professional Liability	Management Liability	Proportion				
					Credit and Political Risks	Surety	Crisis Management	Technology Liability (Cyber Risks)	Accident and Health
2006	18,739	0%	100%	0%	0%	0%	0%	0%	0%
2007	15,567	0%	100%	0%	0%	0%	0%	0%	0%
2008	52,341	29%	53%	1%	17%	0%	0%	0%	0%
2009	99,821	28%	43%	5%	22%	0%	0%	2%	0%
2010	123,227	16%	40%	7%	27%	0%	5%	4%	0%
2011	189,443	13%	32%	6%	21%	0%	22%	5%	0%
2012	216,219	12%	33%	11%	19%	2%	17%	7%	0%
2013	271,191	10%	37%	14%	16%	5%	10%	8%	0%
2014	351,358	9%	40%	14%	13%	7%	9%	8%	0%
2015	402,173	8%	39%	14%	13%	8%	7%	11%	1%
2016	460,460	8%	36%	14%	13%	9%	4%	11%	4%

- This reserving class has been impacted by the 2008 financial crisis, in particular financial and corporate risks (FCR) and professional liability (PL). The policy coverages for FCR and PL are “claims made” during the policy period. The reserving issue is therefore to understand the potential for notified circumstances to develop into claims rather than the emergence of future claims. Our actuaries work closely with claims personnel to ensure that sufficient understanding of potential development is factored into determining the selected reserves in the accounts.
- The developments in 2008 and 2009 on the FCR and PL accounts stem from the economic downturn years and result from a small number of losses which have immaterial downside remaining net of reinsurance. A material quantum of the gross incurred claims movement in the triangle was offset via extra reinsurance recoveries and specific IBNR provisions.
- 2010 and subsequent years have had good loss experience in line with the benign economic environment.

Valuation Date: December 31, 2016		Reinsurance Total						Value in Thousands, USD
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Gross				= (2) + (3)		= (4) + (5)	= (6) / (1)	
Accident	Earned		Case	Case Incurred		Ultimate	Ultimate	
Year	Premium	Paid Losses	Reserves	Losses	IBNR	Losses	Loss Ratio	
2006	1,185,690	361,047	30,844	391,891				
2007	1,092,967	392,016	67,386	459,403				
2008	1,000,039	504,372	52,213	556,585				
2009	1,086,137	377,411	64,535	441,946				
2010	1,071,389	500,646	62,496	563,142				
2011	1,074,473	767,853	100,364	868,217				
2012	1,097,081	452,033	118,722	570,756				
2013	1,030,099	312,449	90,156	402,605				
2014	1,033,960	243,295	104,305	347,599				
2015	1,105,166	167,805	131,769	299,574				
2016	1,327,552	126,280	175,603	301,883				
Total	12,104,554	4,205,208	998,394	5,203,602	1,421,385	6,624,987	54.7%	
Ceded				= (9) + (10)		= (11) + (12)	= (13) / (8)	
Accident	Earned		Case	Case Incurred		Ultimate	Ultimate	
Year	Premium	Paid Losses	Reserves	Losses	IBNR	Losses	Loss Ratio	
2006	206,334	8,328	352	8,680				
2007	78,540	14,099	114	14,213				
2008	58,615	5,578	264	5,843				
2009	53,869	278	8	287				
2010	35,663	-	-	-				
2011	71,845	109,298	2,152	111,450				
2012	69,153	366	327	692				
2013	56,462	1,008	1,434	2,442				
2014	41,653	23	687	710				
2015	43,251	37	253	290				
2016	87,253	1,868	25,835	27,704				
Total	802,636	140,884	31,426	172,310	27,856	200,166	24.9%	
Net				= (16) + (17)		= (18) + (19)	= (20) / (15)	
Accident	Earned		Case	Case Incurred		Ultimate	Ultimate	
Year	Premium	Paid Losses	Reserves	Losses	IBNR	Losses	Loss Ratio	
2006	979,357	352,719	30,493	383,212				
2007	1,014,427	377,918	67,272	445,190				
2008	941,424	498,794	51,948	550,742				
2009	1,032,268	377,133	64,527	441,660				
2010	1,035,727	500,646	62,496	563,142				
2011	1,002,629	658,555	98,212	756,767				
2012	1,027,928	451,667	118,396	570,063				
2013	973,637	311,441	88,721	400,163				
2014	992,308	243,271	103,618	346,889				
2015	1,061,915	167,768	131,516	299,284				
2016	1,240,299	124,412	149,768	274,180				
Total	11,301,918	4,064,324	966,968	5,031,292	1,393,529	6,424,821	56.8%	

Reinsurance Total											
Valuation Date: December 31, 2016						Value in Thousands, USD					
Gross Paid Losses											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	47,743	136,568	189,569	226,869	264,545	290,578	313,087	327,056	337,264	349,623	361,047
2007	54,361	145,241	200,410	266,550	309,244	331,081	353,842	366,813	380,010	392,016	
2008	125,295	243,722	315,635	388,251	424,195	454,487	479,747	495,772	504,372		
2009	58,375	152,847	216,865	268,709	309,728	332,495	357,817	377,411			
2010	64,211	215,627	290,706	371,406	418,517	459,889	500,646				
2011	151,795	413,654	607,115	684,550	731,698	767,853					
2012	62,394	244,175	354,914	408,321	452,033						
2013	61,826	181,062	271,269	312,449							
2014	55,959	168,598	243,295								
2015	56,578	167,805									
2016	126,280										
Paid Loss Ratio											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	4.0%	11.5%	16.0%	19.1%	22.3%	24.5%	26.4%	27.6%	28.4%	29.5%	30.5%
2007	5.0%	13.3%	18.3%	24.4%	28.3%	30.3%	32.4%	33.6%	34.8%	35.9%	
2008	12.5%	24.4%	31.6%	38.8%	42.4%	45.4%	48.0%	49.6%	50.4%		
2009	5.4%	14.1%	20.0%	24.7%	28.5%	30.6%	32.9%	34.7%			
2010	6.0%	20.1%	27.1%	34.7%	39.1%	42.9%	46.7%				
2011	14.1%	38.5%	56.5%	63.7%	68.1%	71.5%					
2012	5.7%	22.3%	32.4%	37.2%	41.2%						
2013	6.0%	17.6%	26.3%	30.3%							
2014	5.4%	16.3%	23.5%								
2015	5.1%	15.2%									
2016	9.5%										
Gross Case Incurred Losses											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	150,868	235,282	285,832	317,054	364,492	371,116	375,970	383,234	386,361	392,688	391,891
2007	189,169	302,902	352,421	400,706	422,609	426,220	428,954	443,831	452,267	459,403	
2008	265,473	401,599	478,725	516,559	531,388	545,084	555,702	557,116	556,585		
2009	161,966	288,483	350,791	393,319	412,058	429,774	432,815	441,946			
2010	225,509	409,612	471,034	523,809	535,863	553,209	563,142				
2011	515,120	740,224	788,784	819,496	850,689	868,217					
2012	255,023	439,056	498,690	540,677	570,756						
2013	198,790	330,981	380,780	402,605							
2014	167,237	295,071	347,599								
2015	172,640	299,574									
2016	301,883										
Case Incurred Loss Ratio											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	12.7%	19.8%	24.1%	26.7%	30.7%	31.3%	31.7%	32.3%	32.6%	33.1%	33.1%
2007	17.3%	27.7%	32.2%	36.7%	38.7%	39.0%	39.2%	40.6%	41.4%	42.0%	
2008	26.5%	40.2%	47.9%	51.7%	53.1%	54.5%	55.6%	55.7%	55.7%		
2009	14.9%	26.6%	32.3%	36.2%	37.9%	39.6%	39.8%	40.7%			
2010	21.0%	38.2%	44.0%	48.9%	50.0%	51.6%	52.6%				
2011	47.9%	68.9%	73.4%	76.3%	79.2%	80.8%					
2012	23.2%	40.0%	45.5%	49.3%	52.0%						
2013	19.3%	32.1%	37.0%	39.1%							
2014	16.2%	28.5%	33.6%								
2015	15.6%	27.1%									
2016	22.7%										

Reinsurance - Property Catastrophe							Value in Thousands, USD						
Valuation Date: December 31, 2016							(1)	(2)	(3)	(4)	(5)	(6)	(7)
Gross								= (2) + (3)		= (4) + (5)		= (6) / (1)	
Accident	Year	Earned Premium	Paid Losses	Case Reserves	Case Incurred Losses	IBNR	Ultimate Losses	Ultimate Losses	Loss Ratio				
2006		252,972	15,586	96	15,682								
2007		250,107	36,419	319	36,738								
2008		237,067	141,740	329	142,069								
2009		237,716	15,221	145	15,366								
2010		261,825	151,708	9,273	160,982								
2011		267,523	263,342	26,701	290,043								
2012		285,049	100,053	26,843	126,895								
2013		253,811	53,606	3,462	57,068								
2014		258,278	21,895	3,089	24,984								
2015		261,284	10,421	5,107	15,528								
2016		259,190	18,913	22,264	41,178								
Total		2,824,821	828,905	97,628	926,534	49,617	976,151						34.6%
Ceded								= (9) + (10)		= (11) + (12)		= (13) / (8)	
Accident	Year	Earned Premium	Paid Losses	Case Reserves	Case Incurred Losses	IBNR	Ultimate Losses	Ultimate Losses	Loss Ratio				
2006		85,756	4,690	254	4,944								
2007		59,846	10,992	114	11,106								
2008		42,189	5,386	264	5,650								
2009		40,797	278	8	287								
2010		24,430	0	-	0								
2011		49,788	54,553	610	55,163								
2012		47,392	0	-	0								
2013		32,866	0	-	0								
2014		21,221	0	-	0								
2015		23,443	37	253	290								
2016		21,081	1,868	2,092	3,960								
Total		448,808	77,805	3,595	81,401	1,433	82,833						18.5%
Net								= (16) + (17)		= (18) + (19)		= (20) / (15)	
Accident	Year	Earned Premium	Paid Losses	Case Reserves	Case Incurred Losses	IBNR	Ultimate Losses	Ultimate Losses	Loss Ratio				
2006		167,216	10,896	-157	10,738								
2007		190,261	25,427	205	25,632								
2008		194,878	136,354	65	136,419								
2009		196,919	14,943	137	15,079								
2010		237,395	151,708	9,273	160,982								
2011		217,735	208,790	26,090	234,880								
2012		237,657	100,053	26,843	126,895								
2013		220,945	53,606	3,462	57,068								
2014		237,057	21,895	3,089	24,984								
2015		237,841	10,384	4,854	15,238								
2016		238,110	17,045	20,172	37,217								
Total		2,376,014	751,100	94,033	845,133	48,185	893,318						37.6%

Reinsurance - Property Catastrophe											
Valuation Date: December 31, 2016						Value in Thousands, USD					
Gross Paid Losses											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	8,243	17,084	14,659	15,088	15,165	15,359	15,532	15,550	15,563	15,580	15,586
2007	16,498	39,034	34,823	36,083	35,523	35,971	36,192	36,258	36,306	36,419	
2008	82,152	114,312	126,501	138,314	140,058	141,225	141,421	141,511	141,740		
2009	4,388	10,546	13,569	14,649	15,034	15,093	15,134	15,221			
2010	28,505	89,141	108,189	118,586	130,631	135,695	151,708				
2011	60,247	162,354	230,226	252,694	260,193	263,342					
2012	13,165	58,752	87,355	97,058	100,053						
2013	7,864	32,971	48,895	53,606							
2014	5,273	16,169	21,895								
2015	4,346	10,421									
2016	18,913										
Paid Loss Ratio											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	3.3%	6.8%	5.8%	6.0%	6.0%	6.1%	6.1%	6.1%	6.2%	6.2%	6.2%
2007	6.6%	15.6%	13.9%	14.4%	14.2%	14.4%	14.5%	14.5%	14.5%	14.6%	6.2%
2008	34.7%	48.2%	53.4%	58.3%	59.1%	59.6%	59.7%	59.7%	59.8%		
2009	1.8%	4.4%	5.7%	6.2%	6.3%	6.3%	6.4%	6.4%			
2010	10.9%	34.0%	41.3%	45.3%	49.9%	51.8%	57.9%				
2011	22.5%	60.7%	86.1%	94.5%	97.3%	98.4%					
2012	4.6%	20.6%	30.6%	34.0%	35.1%						
2013	3.1%	13.0%	19.3%	21.1%							
2014	2.0%	6.3%	8.5%								
2015	1.7%	4.0%									
2016	7.3%										
Gross Case Incurred Losses											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	10,496	18,359	15,821	15,919	15,704	15,779	15,699	15,673	15,658	15,675	15,682
2007	55,656	54,850	40,195	40,577	36,980	37,031	37,016	36,587	36,625	36,738	
2008	129,014	119,856	136,857	141,132	141,615	141,855	141,874	141,831	142,069		
2009	14,427	17,272	16,181	15,593	15,470	15,368	15,336	15,366			
2010	119,476	149,239	153,753	152,773	154,259	159,318	160,982				
2011	235,626	296,465	295,334	290,631	292,714	290,043					
2012	95,239	120,775	119,863	128,078	126,895						
2013	39,560	57,843	57,975	57,068							
2014	17,728	22,646	24,984								
2015	13,339	15,528									
2016	41,178										
Case Incurred Loss Ratio											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	4.1%	7.3%	6.3%	6.3%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%	6.2%
2007	22.3%	21.9%	16.1%	16.2%	14.8%	14.8%	14.8%	14.6%	14.6%	14.7%	
2008	54.4%	50.6%	57.7%	59.5%	59.7%	59.8%	59.8%	59.8%	59.9%		
2009	6.1%	7.3%	6.8%	6.6%	6.5%	6.5%	6.5%	6.5%			
2010	45.6%	57.0%	58.7%	58.3%	58.9%	60.8%	61.5%				
2011	88.1%	110.8%	110.4%	108.6%	109.4%	108.4%					
2012	33.4%	42.4%	42.0%	44.9%	44.5%						
2013	15.6%	22.8%	22.8%	22.5%							
2014	6.9%	8.8%	9.7%								
2015	5.1%	5.9%									
2016	15.9%										

Property Catastrophe Reinsurance Reserving Notes

- This reserving class accounts for 2.9% (2015: 3.2%) of gross reserves as at year-end 2016.
- The impact of large events is summarised in the following table:

All figures in USD 000's

Gross						Ceded						Net					
AY	Paid	Case	Incurred	IBNR	Ultimate	AY	Paid	Case	Incurred	IBNR	Ultimate	AY	Paid	Case	Incurred	IBNR	Ultimate
2006	-	-	-	-	-	2006	-	-	-	-	-	2006	-	-	-	-	-
2007	20,991	16	21,007	-	21,007	2007	-	-	-	-	-	2007	20,991	16	21,007	-	21,007
2008	120,370	1	120,371	2	120,374	2008	-	-	-	-	-	2008	120,370	1	120,371	2	120,374
2009	-	-	-	-	-	2009	-	-	-	-	-	2009	-	-	-	-	-
2010	140,356	7,758	148,114	3,953	152,067	2010	-	-	-	-	-	2010	140,356	7,758	148,114	3,953	152,067
2011	235,773	26,746	262,520	5,403	267,923	2011	54,683	391	55,074	11	55,085	2011	181,091	26,355	207,446	5,392	212,838
2012	89,009	26,518	115,526	2,955	118,481	2012	-	-	-	-	-	2012	89,009	26,518	115,526	2,955	118,481
2013	-	-	-	-	-	2013	-	-	-	-	-	2013	-	-	-	-	-
2014	-	-	-	-	-	2014	-	-	-	-	-	2014	-	-	-	-	-
2015	-	-	-	-	-	2015	-	-	-	-	-	2015	-	-	-	-	-
2016	-	-	-	-	-	2016	-	-	-	-	-	2016	-	-	-	-	-

- Case incurred claims of the 2007 year between months 24 and 36 reduced materially. This was primarily as a result of successful subrogation actions by the first party insurers in respect of California wildfires.
- The gross ultimate for the 2011 accident year was materially impacted by exchange rate movements in connection with the New Zealand earthquakes.
- The incurred claims development on the 2012 accident year between months 36 and 48 represented a movement on Superstorm Sandy which was mostly reserved for with a specific IBNR allowance at month 36.
- The 2016 Accident Year had a relatively high incurred loss ratio due to the frequency of small market catastrophe events during the year including the Alberta wildfires, Hurricane Matthew and the Kaikoura earthquake. We believe these catastrophes to have limited deterioration potential.

		Reinsurance - Other Property						
Valuation Date: December 31, 2016								Value in Thousands, USD
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	
Gross				= (2) + (3)		= (4) + (5)	= (6) / (1)	
Accident	Earned		Case	Case Incurred		Ultimate	Ultimate	
Year	Premium	Paid Losses	Reserves	Losses	IBNR	Losses	Loss Ratio	
2006	336,766	125,977	857	126,834				
2007	268,343	94,092	472	94,563				
2008	244,570	104,627	400	105,027				
2009	285,509	81,861	1,252	83,114				
2010	246,391	94,854	3,356	98,210				
2011	241,061	254,722	7,838	262,560				
2012	271,200	115,310	21,508	136,819				
2013	270,135	101,151	13,326	114,477				
2014	286,423	103,992	13,072	117,063				
2015	326,694	83,847	40,533	124,380				
2016	340,082	39,456	79,246	118,702				
Total	3,117,173	1,199,889	181,860	1,381,749	177,365	1,559,114	50.0%	
Ceded				= (9) + (10)		= (11) + (12)	= (13) / (8)	
Accident	Earned		Case	Case Incurred		Ultimate	Ultimate	
Year	Premium	Paid Losses	Reserves	Losses	IBNR	Losses	Loss Ratio	
2006	98,159	3,422	0	3,422				
2007	7,730	3,055	0	3,055				
2008	13,402	192	-	192				
2009	11,847	0	-	0				
2010	10,339	0	-	0				
2011	20,030	54,745	1,542	56,287				
2012	19,921	0	-	0				
2013	17,647	0	-	0				
2014	14,344	0	-	0				
2015	13,594	0	-	0				
2016	13,981	0	5,243	5,243				
Total	240,993	61,414	6,785	68,199	4,565	72,764	30.2%	
Net				= (16) + (17)		= (18) + (19)	= (20) / (15)	
Accident	Earned		Case	Case Incurred		Ultimate	Ultimate	
Year	Premium	Paid Losses	Reserves	Losses	IBNR	Losses	Loss Ratio	
2006	238,607	122,555	857	123,412				
2007	260,613	91,037	472	91,509				
2008	231,168	104,434	400	104,834				
2009	273,662	81,861	1,252	83,114				
2010	236,052	94,854	3,356	98,210				
2011	221,032	199,977	6,296	206,273				
2012	251,279	115,310	21,508	136,819				
2013	252,488	101,151	13,326	114,477				
2014	272,079	103,992	13,072	117,063				
2015	313,100	83,847	40,533	124,380				
2016	326,101	39,456	74,003	113,459				
Total	2,876,180	1,138,474	175,075	1,313,550	172,801	1,486,350	51.7%	

Reinsurance - Other Property											
Valuation Date: December 31, 2016						Value in Thousands, USD					
Gross Paid Losses											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	29,443	87,632	101,174	114,175	119,045	122,061	123,685	124,809	126,011	125,934	125,977
2007	25,267	61,035	80,576	88,857	91,240	91,703	92,691	93,903	93,924	94,092	
2008	26,510	68,554	87,448	96,101	99,217	103,580	104,070	104,185	104,627		
2009	25,321	56,183	70,943	76,861	79,163	79,944	80,598	81,861			
2010	22,300	62,578	80,955	88,904	91,177	92,614	94,854				
2011	59,129	159,685	234,093	245,583	249,186	254,722					
2012	22,297	76,096	100,369	110,816	115,310						
2013	26,094	63,006	94,199	101,151							
2014	31,978	83,554	103,992								
2015	31,492	83,847									
2016	39,456										
Paid Loss Ratio											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	8.7%	26.0%	30.0%	33.9%	35.3%	36.2%	36.7%	37.1%	37.4%	37.4%	37.4%
2007	9.4%	22.7%	30.0%	33.1%	34.0%	34.2%	34.5%	35.0%	35.0%	35.1%	
2008	10.8%	28.0%	35.8%	39.3%	40.6%	42.4%	42.6%	42.6%	42.8%		
2009	8.9%	19.7%	24.8%	26.9%	27.7%	28.0%	28.2%	28.7%			
2010	9.1%	25.4%	32.9%	36.1%	37.0%	37.6%	38.5%				
2011	24.5%	66.2%	97.1%	101.9%	103.4%	105.7%					
2012	8.2%	28.1%	37.0%	40.9%	42.5%						
2013	9.7%	23.3%	34.9%	37.4%							
2014	11.2%	29.2%	36.3%								
2015	9.6%	25.7%									
2016	11.6%										
Gross Case Incurred Losses											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	92,062	111,656	118,619	123,696	125,805	125,910	125,614	127,390	127,260	126,826	126,834
2007	58,385	95,882	97,859	96,066	95,575	95,560	93,919	94,951	94,521	94,563	
2008	67,722	106,129	107,083	106,114	104,890	104,957	105,300	104,744	105,027		
2009	56,333	78,238	81,758	81,518	82,038	82,493	82,464	83,114			
2010	57,185	94,872	96,811	97,412	97,880	99,264	98,210				
2011	189,020	260,716	262,318	261,750	261,088	262,560					
2012	83,439	120,375	123,369	124,272	136,819						
2013	83,231	109,880	115,555	114,477							
2014	77,051	123,655	117,063								
2015	88,966	124,380									
2016	118,702										
Case Incurred Loss Ratio											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	27.3%	33.2%	35.2%	36.7%	37.4%	37.4%	37.3%	37.8%	37.8%	37.7%	37.7%
2007	21.8%	35.7%	36.5%	35.8%	35.6%	35.6%	35.0%	35.4%	35.2%	35.2%	
2008	27.7%	43.4%	43.8%	43.4%	42.9%	42.9%	43.1%	42.8%	42.9%		
2009	19.7%	27.4%	28.6%	28.6%	28.7%	28.9%	28.9%	29.1%			
2010	23.2%	38.5%	39.3%	39.5%	39.7%	40.3%	39.9%				
2011	78.4%	108.2%	108.8%	108.6%	108.6%	108.9%					
2012	30.8%	44.4%	45.5%	45.8%	50.4%						
2013	30.8%	40.7%	42.8%	42.4%							
2014	26.9%	43.2%	40.9%								
2015	27.2%	38.1%									
2016	34.9%										

Other Property Reinsurance Reserving Notes

- This reserving class accounts for 7.0% (2015: 7.0%) of gross reserves as at year-end 2016.
- This class includes excess of loss, proportional treaties and facultative or single risk reinsurance.

Accident Year	Gross Earned Premium (\$000s)	Risk Excess	Proportion	
			Pro Rata	Property Fac
2006	336,766	54%	40%	5%
2007	268,343	46%	42%	12%
2008	244,570	39%	45%	15%
2009	285,509	33%	51%	16%
2010	246,391	33%	49%	18%
2011	241,061	29%	52%	19%
2012	271,200	26%	56%	18%
2013	270,135	28%	54%	17%
2014	286,423	28%	58%	14%
2015	326,694	25%	64%	10%
2016	340,082	21%	70%	10%

- The impact of large events is summarised in the following table:

All figures in USD 000's

Gross						Ceded						Net					
AY	Paid	Case	Incurred	IBNR	Ultimate	AY	Paid	Case	Incurred	IBNR	Ultimate	AY	Paid	Case	Incurred	IBNR	Ultimate
2006	-	-	-	-	-	2006	-	-	-	-	-	2006	-	-	-	-	-
2007	1,373	-	1,373	-	1,373	2007	-	-	-	-	-	2007	1,373	-	1,373	-	1,373
2008	22,012	0	22,012	-	22,012	2008	-	-	-	-	-	2008	22,012	0	22,012	-	22,012
2009	-	-	-	-	-	2009	-	-	-	-	-	2009	-	-	-	-	-
2010	3,301	6	3,307	5,155	8,462	2010	-	-	-	-	-	2010	3,301	6	3,307	5,155	8,462
2011	153,221	4,258	157,479	2,977	160,456	2011	40,086	988	41,073	29	41,102	2011	113,135	3,270	116,406	2,948	119,354
2012	12,037	16,093	28,130	38,922	67,052	2012	-	4,978	4,978	-	4,978	2012	12,037	11,115	23,152	38,922	62,074
2013	-	-	-	-	-	2013	-	-	-	-	-	2013	-	-	-	-	-
2014	-	-	-	-	-	2014	-	-	-	-	-	2014	-	-	-	-	-
2015	-	-	-	-	-	2015	-	-	-	-	-	2015	-	-	-	-	-
2016	-	-	-	-	-	2016	-	-	-	-	-	2016	-	-	-	-	-

- Due to the significant presence of proportional business, which is reviewed on an underwriting year basis, the method of allocation by accident year is subject to change. This may make comparisons to previous figures by year less relevant.
- The 2012 development in the 2016 calendar year resulted from a deterioration in Superstorm Sandy which was previously held in specific IBNR.
- The 2016 Accident Year had a relatively high incurred loss ratio due to the frequency of small market catastrophe events during the year and also a large property facultative claim which cannot deteriorate.
- These small cat events included Alberta Wildfires, Hurricane Matthew, Kumamoto Earthquake and Kaikoura Earthquake. We believe these to have limited deterioration potential.

		Reinsurance - Casualty					Value in Thousands, USD	
Valuation Date: December 31, 2016		(1)	(2)	(3)	(4)	(5)	(6)	(7)
Gross					= (2) + (3)		= (4) + (5)	= (6) / (1)
Accident	Earned		Case	Case	Case Incurred	IBNR	Ultimate	Ultimate
Year	Premium	Paid Losses	Reserves	Losses	Losses	Losses	Losses	Loss Ratio
2006	400,493	140,034	28,853	168,887				
2007	376,831	170,036	64,783	234,820				
2008	322,490	154,066	47,936	202,002				
2009	345,146	165,707	57,050	222,757				
2010	335,207	133,621	41,784	175,405				
2011	303,288	113,996	56,002	169,998				
2012	300,087	95,875	56,632	152,508				
2013	289,331	65,650	58,041	123,691				
2014	268,526	37,455	64,453	101,908				
2015	264,150	17,619	47,534	65,153				
2016	312,382	8,980	27,287	36,268				
Total	3,517,932	1,103,038	550,356	1,653,394	866,647	2,520,041	71.6%	
Ceded					= (9) + (10)		= (11) + (12)	= (13) / (8)
Accident	Earned		Case	Case	Case Incurred	IBNR	Ultimate	Ultimate
Year	Premium	Paid Losses	Reserves	Losses	Losses	Losses	Losses	Loss Ratio
2006	13,881	216	98	313				
2007	5,346	52	-	52				
2008	2,573	0	-	0				
2009	975	0	-	0				
2010	794	0	-	0				
2011	1,190	0	-	0				
2012	1,840	366	327	692				
2013	4,429	1,008	1,434	2,442				
2014	4,815	23	687	710				
2015	1,318	0	-	0				
2016	1,921	0	-	0				
Total	39,080	1,664	2,545	4,210	3,429	7,639	19.5%	
Net					= (16) + (17)		= (18) + (19)	= (20) / (15)
Accident	Earned		Case	Case	Case Incurred	IBNR	Ultimate	Ultimate
Year	Premium	Paid Losses	Reserves	Losses	Losses	Losses	Losses	Loss Ratio
2006	386,612	139,818	28,755	168,573				
2007	371,486	169,984	64,783	234,768				
2008	319,918	154,066	47,936	202,002				
2009	344,171	165,707	57,050	222,757				
2010	334,414	133,621	41,784	175,405				
2011	302,097	113,996	56,002	169,998				
2012	298,247	95,510	56,306	151,815				
2013	284,902	64,642	56,607	121,249				
2014	263,711	37,431	63,766	101,198				
2015	262,833	17,619	47,534	65,153				
2016	310,461	8,980	27,287	36,268				
Total	3,478,852	1,101,374	547,810	1,649,184	863,219	2,512,403	72.2%	

Reinsurance - Casualty											
Valuation Date: December 31, 2016						Value in Thousands, USD					
Gross Paid Losses											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	878	12,339	29,802	47,226	66,230	85,391	98,782	109,930	116,995	128,907	140,034
2007	2,600	11,881	35,278	69,151	100,717	118,650	135,729	146,032	158,670	170,036	
2008	1,983	11,160	34,494	65,222	91,770	110,359	131,960	146,591	154,066		
2009	3,022	17,542	41,939	80,049	109,928	128,727	150,002	165,707			
2010	2,689	15,322	40,991	69,106	97,949	116,722	133,621				
2011	5,523	18,810	43,528	66,545	91,142	113,996					
2012	2,222	17,467	41,710	64,961	95,875						
2013	3,402	16,124	43,303	65,650							
2014	2,505	13,633	37,455								
2015	3,352	17,619									
2016	8,980										
Paid Loss Ratio											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	0.2%	3.1%	7.4%	11.8%	16.5%	21.3%	24.7%	27.4%	29.2%	32.2%	35.0%
2007	0.7%	3.2%	9.4%	18.4%	26.7%	31.5%	36.0%	38.8%	42.1%	45.1%	
2008	0.6%	3.5%	10.7%	20.2%	28.5%	34.2%	40.9%	45.5%	47.8%		
2009	0.9%	5.1%	12.2%	23.2%	31.8%	37.3%	43.5%	48.0%			
2010	0.8%	4.6%	12.2%	20.6%	29.2%	34.8%	39.9%				
2011	1.8%	6.2%	14.4%	21.9%	30.1%	37.6%					
2012	0.7%	5.8%	13.9%	21.6%	31.9%						
2013	1.2%	5.6%	15.0%	22.7%							
2014	0.9%	5.1%	13.9%								
2015	1.3%	6.7%									
2016	2.9%										
Gross Case Incurred Losses											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	21,671	63,525	94,516	117,388	143,740	149,424	152,906	159,981	163,369	170,013	168,887
2007	55,138	100,746	151,021	177,470	194,027	201,988	204,100	218,455	227,762	234,820	
2008	43,001	96,064	138,830	168,107	180,507	188,689	199,566	202,821	202,002		
2009	33,148	90,176	138,978	184,265	198,290	215,302	216,169	222,757			
2010	25,747	79,813	127,816	145,246	157,440	167,951	175,405				
2011	26,641	69,702	109,882	132,539	152,385	169,998					
2012	30,037	67,291	106,889	132,742	152,508						
2013	26,807	71,572	103,095	123,691							
2014	27,829	69,007	101,908								
2015	27,778	65,153									
2016	36,268										
Case Incurred Loss Ratio											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	5.4%	15.9%	23.6%	29.3%	35.9%	37.3%	38.2%	39.9%	40.8%	42.5%	42.2%
2007	14.6%	26.7%	40.1%	47.1%	51.5%	53.6%	54.2%	58.0%	60.4%	62.3%	
2008	13.3%	29.8%	43.0%	52.1%	56.0%	58.5%	61.9%	62.9%	62.6%		
2009	9.6%	26.1%	40.3%	53.4%	57.5%	62.4%	62.6%	64.5%			
2010	7.7%	23.8%	38.1%	43.3%	47.0%	50.1%	52.3%				
2011	8.8%	23.0%	36.2%	43.7%	50.2%	56.1%					
2012	10.0%	22.4%	35.6%	44.2%	50.8%						
2013	9.3%	24.7%	35.6%	42.8%							
2014	10.4%	25.7%	38.0%								
2015	10.5%	24.7%									
2016	11.6%										

Casualty Reinsurance Reserving Notes

- This reserving class accounts for 27.6% (2015: 30.8%) of gross reserves as at year-end 2016 and is the largest class as measured by reserves held.
- We project 40 sub-sets of data which are grouped broadly into the classes below, all of which have different claim characteristics ranging from short-tail (i.e., workers' compensation catastrophe) through medium-tail (i.e., medical malpractice, professional indemnity, auto liability, cyber and other) to long-tail (i.e. general liability, umbrella and workers' compensation).
- A split of gross earned premium into these categories is as follows:

Accident Year	Gross Earned Premium (\$000s)	Workers Comp Catastrophe	Medical Malpractice	Professional Indemnity	Auto Liability	General Liability	Umbrella	Workers Compensation	Cyber	Other
2006	400,493	6%	13%	19%	4%	27%	2%	13%	0%	14%
2007	376,831	7%	13%	20%	4%	26%	2%	11%	0%	16%
2008	322,490	6%	13%	19%	4%	27%	6%	8%	0%	16%
2009	345,146	6%	12%	19%	6%	27%	9%	7%	1%	14%
2010	335,207	5%	10%	19%	6%	30%	9%	6%	1%	13%
2011	303,288	6%	10%	17%	7%	31%	10%	7%	1%	11%
2012	300,087	6%	10%	15%	7%	33%	10%	8%	2%	10%
2013	289,331	6%	9%	15%	6%	31%	10%	10%	2%	11%
2014	268,526	5%	9%	16%	7%	36%	9%	8%	2%	7%
2015	264,150	5%	10%	15%	10%	38%	9%	7%	1%	5%
2016	312,382	4%	9%	15%	12%	39%	9%	6%	3%	3%

Note: Other includes reinstatement premiums, modelled additional premiums on loss dependent contracts and commuted contracts.

- The 2007 to 2009 accident years were impacted by claims that may arise as a result of the 2008 global financial crisis. We have conducted detailed analyses of our cedants' exposures to these potential claims and established specific IBNR reserves. These exposures arise principally from excess of loss reinsurance provided to certain Lloyd's syndicates writing U.S. and international casualty accounts in the London market. Losses from the 2008 financial crisis were the main cause of the incurred development seen over the 2015 calendar year in these years.

- Within case reserves, we establish material amounts of reserves over and above those advised by our cedants. This arises where our claims professionals determine that the advised case reserves may be insufficient to meet the expected future settlement amount. This reserving action should shorten the development pattern of case incurred claims. As at December 31, 2016, additional case reserves in our casualty reinsurance sub-segment were as follows:

AY	Additional Case Reserves
	\$000s
2006	5,491
2007	23,657
2008	10,102
2009	7,468
2010	3,296
2011	10,610
2012	6,251
2013	7,565
2014	10,546
2015	8,769
2016	4,188

		Reinsurance - Specialty					Value in Thousands, USD	
Valuation Date: December 31, 2016		(1)	(2)	(3)	(4)	(5)	(6)	(7)
Gross				= (2) + (3)		= (4) + (5)		= (6) / (1)
Accident	Earned	Case		Case Incurred	Ultimate		Ultimate	
Year	Premium	Paid Losses	Reserves	Losses	IBNR	Losses	Loss Ratio	
2006	195,459	79,450	1,038	80,488				
2007	197,686	91,469	1,812	93,282				
2008	195,912	103,940	3,547	107,487				
2009	217,766	114,622	6,088	120,710				
2010	227,966	120,463	8,083	128,546				
2011	262,601	135,793	9,823	145,616				
2012	240,746	140,795	13,739	154,534				
2013	216,822	92,043	15,327	107,370				
2014	220,733	79,954	23,691	103,644				
2015	253,038	55,918	38,595	94,513				
2016	415,898	58,931	46,806	105,736				
Total	2,228,729	1,073,376	168,550	1,241,926	327,754	1,569,680	70.4%	
Ceded				= (9) + (10)		= (11) + (12)		= (13) / (8)
Accident	Earned	Case		Case Incurred	Ultimate		Ultimate	
Year	Premium	Paid Losses	Reserves	Losses	IBNR	Losses	Loss Ratio	
2006	8,539	0	-	0				
2007	5,618	0	-	0				
2008	452	0	-	0				
2009	250	0	-	0				
2010	100	0	-	0				
2011	836	0	-	0				
2012	0	0	-	0				
2013	1,520	0	-	0				
2014	1,273	0	-	0				
2015	4,896	0	-	0				
2016	50,271	0	18,500	18,500				
Total	73,755	0	18,500	18,500	18,429	36,930	50.1%	
Net				= (16) + (17)		= (18) + (19)		= (20) / (15)
Accident	Earned	Case		Case Incurred	Ultimate		Ultimate	
Year	Premium	Paid Losses	Reserves	Losses	IBNR	Losses	Loss Ratio	
2006	186,921	79,450	1,038	80,488				
2007	192,068	91,469	1,812	93,282				
2008	195,460	103,940	3,547	107,487				
2009	217,515	114,622	6,088	120,710				
2010	227,866	120,463	8,083	128,546				
2011	261,765	135,793	9,823	145,616				
2012	240,746	140,795	13,739	154,534				
2013	215,302	92,043	15,327	107,370				
2014	219,461	79,954	23,691	103,644				
2015	248,142	55,918	38,595	94,513				
2016	365,627	58,931	28,305	87,236				
Total	2,570,872	1,073,376	150,049	1,223,425	309,325	1,532,750	59.6%	

Reinsurance - Specialty											
Valuation Date: December 31, 2016						Value in Thousands, USD					
Gross Paid Losses											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	9,178	19,513	43,934	50,380	64,105	67,768	75,088	76,768	78,694	79,202	79,450
2007	9,996	33,291	49,733	72,459	81,763	84,757	89,229	90,620	91,110	91,469	
2008	14,651	49,696	67,192	88,614	93,150	99,323	102,295	103,486	103,940		
2009	25,645	68,575	90,413	97,151	105,603	108,732	112,083	114,622			
2010	10,716	48,586	60,571	94,810	98,759	114,859	120,463				
2011	26,896	72,805	99,268	119,728	131,177	135,793					
2012	24,710	91,860	125,480	135,486	140,795						
2013	24,465	68,961	84,872	92,043							
2014	16,203	55,242	79,954								
2015	17,389	55,918									
2016	58,931										
Paid Loss Ratio											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	4.7%	10.0%	22.5%	25.8%	32.8%	34.7%	38.4%	39.3%	40.3%	40.5%	40.6%
2007	5.1%	16.8%	25.2%	36.7%	41.4%	42.9%	45.1%	45.8%	46.1%	46.3%	
2008	7.5%	25.4%	34.3%	45.2%	47.5%	50.7%	52.2%	52.8%	53.1%		
2009	11.8%	31.5%	41.5%	44.6%	48.5%	49.9%	51.5%	52.6%			
2010	4.7%	21.3%	26.6%	41.6%	43.3%	50.4%	52.8%				
2011	10.2%	27.7%	37.8%	45.6%	50.0%	51.7%					
2012	10.3%	38.2%	52.1%	56.3%	58.5%						
2013	11.3%	31.8%	39.1%	42.5%							
2014	7.3%	25.0%	36.2%								
2015	6.9%	22.1%									
2016	14.2%										
Gross Case Incurred Losses											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	26,638	41,741	56,875	60,052	79,243	80,004	81,751	80,190	80,074	80,175	80,488
2007	19,990	51,424	63,346	86,592	96,026	91,640	93,919	93,837	93,359	93,282	
2008	25,736	79,549	95,955	101,205	104,376	109,583	108,961	107,721	107,487		
2009	58,057	102,796	113,875	111,942	116,260	116,612	118,846	120,710			
2010	23,101	85,687	92,654	128,377	126,284	126,676	128,546				
2011	63,833	113,342	121,250	134,576	144,502	145,616					
2012	46,308	130,616	148,569	155,584	154,534						
2013	49,192	91,686	104,155	107,370							
2014	44,629	79,762	103,644								
2015	42,557	94,513									
2016	105,736										
Case Incurred Loss Ratio											
Accident	Months										
Year	12	24	36	48	60	72	84	96	108	120	132
2006	13.6%	21.4%	29.1%	30.7%	40.5%	40.9%	41.8%	41.0%	41.0%	41.0%	41.2%
2007	10.1%	26.0%	32.0%	43.8%	48.6%	46.4%	47.5%	47.5%	47.2%	47.2%	
2008	13.1%	40.6%	49.0%	51.7%	53.3%	55.9%	55.6%	55.0%	54.9%		
2009	26.7%	47.2%	52.3%	51.4%	53.4%	53.5%	54.6%	55.4%			
2010	10.1%	37.6%	40.6%	56.3%	55.4%	55.6%	56.4%				
2011	24.3%	43.2%	46.2%	51.2%	55.0%						
2012	19.2%	54.3%	61.7%	64.6%	64.2%						
2013	22.7%	42.3%	48.0%	49.5%							
2014	20.2%	36.1%	47.0%								
2015	16.8%	37.4%									
2016	25.4%										

Specialty Reinsurance Reserving Notes

- This reserving class accounts for 10.0% (2015: 7.8%) of gross reserves as at year-end 2016.
- The mix of business between specialty lines is shown in the following table:

Accident Year	Gross Earned Premium (\$000s)	Proportion			
		Specialty Lines	Structured Risks	Credit & Surety	Agriculture
2006	195,459	46%	54%	0%	0%
2007	197,686	49%	51%	0%	0%
2008	195,912	49%	51%	0%	0%
2009	217,766	47%	45%	8%	0%
2010	227,966	46%	27%	22%	6%
2011	262,601	46%	20%	28%	6%
2012	240,746	54%	2%	34%	10%
2013	216,822	54%	0%	36%	10%
2014	220,733	51%	0%	35%	14%
2015	253,038	49%	0%	36%	15%
2016	415,898	31%	0%	27%	41%

- The development seen in accident year 2010 in between months 36 and 48 is from the commutation of a large contract. This is not expected to recur as we have no other contracts which have fixed commutation clauses in that class.
- The development seen in accident year 2012 in the second year is materially driven by Superstorm Sandy and Costa Concordia on the Specialty Marine account.
- The 2016 accident year incurred loss ratio was relatively higher due our acquisition of Agrilogic Holdings LLC and its subsidiaries ("Agrilogic"), a wholly owned specialist U.S. admitted crop intermediary with an integrated agricultural consultancy. This also explains the increase in ceded premiums and recoveries in the summary table. Without Agrilogic, the incurred loss ratio would have been one of the lowest incurred loss ratios for a number of years.
- Agrilogic will have a materially faster development pattern than the rest of the class.

- The impact of large events is summarised in the following table:

All in USD 000's

Gross						Ceded						Net					
AY	Paid	Case	Incurred	IBNR	Ultimate	AY	Paid	Case	Incurred	IBNR	Ultimate	AY	Paid	Case	Incurred	IBNR	Ultimate
2006	-	-	-	-	-	2006	-	-	-	-	-	2006	-	-	-	-	-
2007	5,793	0	5,793	-	5,793	2007	-	-	-	-	-	2007	5,793	0	5,793	-	5,793
2008	14,669	822	15,491	12	15,503	2008	-	-	-	-	-	2008	14,669	822	15,491	12	15,503
2009	-	-	-	-	-	2009	-	-	-	-	-	2009	-	-	-	-	-
2010	1,417	-	1,417	1	1,418	2010	-	-	-	-	-	2010	1,417	-	1,417	1	1,418
2011	9,523	144	9,667	19,886	29,553	2011	-	-	-	-	-	2011	9,523	144	9,667	19,886	29,553
2012	21,466	4,834	26,300	5,333	31,632	2012	-	-	-	-	-	2012	21,466	4,834	26,300	5,333	31,632
2013	-	-	-	-	-	2013	-	-	-	-	-	2013	-	-	-	-	-
2014	-	-	-	-	-	2014	-	-	-	-	-	2014	-	-	-	-	-
2015	-	-	-	-	-	2015	-	-	-	-	-	2015	-	-	-	-	-
2016	-	-	-	-	-	2016	-	-	-	-	-	2016	-	-	-	-	-

GLOSSARY

Accident Year means the year in which the event occurred that triggered a claim. All years referred to are years ending December 31st.

Additional Case Reserves are amounts that are held in addition to Case Reserves that result from our claims professionals determining that the established Case Reserves (which are often established by cedants or third parties) are expected to be insufficient to meet the expected future settlement amounts.

Case Incurred Losses is the sum of Paid Losses, plus Case Reserves and any Additional Case Reserves. This term has the same meaning as reported losses or simply incurred losses.

Case Incurred Loss Ratio is the ratio of Case Incurred Losses to Earned Premium, which shows the relationship between Case Incurred Losses and the associated premiums that are related to those losses.

Case Reserves are amounts set aside in relation to claims that have been made but not yet been paid and represent an assessment of the remaining amount to be paid in respect of each notified claim.

Ceded Claims are those amounts received or expected to be received from third party reinsurers to whom Aspen ceded premiums.

Ceded Premiums are those premiums payable by Aspen to third party reinsurers.

Diagonals in the triangle from bottom left to top right represent evaluation dates. For example, the last diagonal in our published triangles shows the position of each Accident Year as at December 31, 2015.

Earned Premium is the amount of policy premiums allocated between Accident Years in accordance with the assumed incidence of risk which results from insurance and reinsurance contracts that do not all commence at the start of a given Accident Year.

Gross Premiums and Gross Losses are shown before the impact of any third party outwards reinsurance.

Inception to Date means the period from 2005 through 2015, the 2002-2004 years are considered immaterial for the purposes of this document.

Incurred but not Reported (IBNR) means incurred but not reported reserve, or a reserve amount held to cover expected future settlements in relation to all claims that have occurred but have not yet been reported. This includes a reserve provision for claims which may have already occurred and expected development (upward or downward) in existing Case Reserves and Additional Case Reserves.

Loss Emergence is the change in ultimate losses from the previous development point. Loss emergence is shown separately for each accident year and calendar year.

Maturity is measured in months from the start of the Accident Year.

Net means the retained portion of premiums written or losses paid and incurred. Net Premium equals Gross Premium less Ceded Premium and Net Losses equals Gross Losses less Ceded Claims.

Paid Losses are claim amounts paid to insureds or ceding companies and include any expenses associated with settling the claim (sometime known as Allocated Loss Adjusted Expenses or ALAE).

Paid Loss Ratio is the ratio of Paid Losses to Earned Premium, which shows the relationship between paid losses and the associated premiums that are related to those losses.

Periodic Payment Orders (PPOs) are now increasingly being used to settle catastrophic injury claims in the UK. Compensation is paid to claimants at regular intervals, rather than in a single lump sum award. This transfers mortality and investment risk from the claimant to general insurers although claimants then take on the credit risk of the insurer defaulting at some time in the future when a payment is due

Report Year / Claims Made Year refers to the year in which a claim is reported. All years referred to are years ending December 31st.

Subrogation allows an insurer who has paid money to an insured to recoup all or some of that money from a third party who caused or contributed to the loss. This means that once an insurer has paid out under an insurance contract, the insurer can "step into the shoes" of the insured.

Total Reserves is the unpaid losses and loss adjustment expenses.

Triangle is a cross tabulation of data usually showing financial quantities in respect of periods of exposure (e.g. Accident Years), each evaluated at regular intervals (maturities).

Ultimate Loss is the total of all expected settlement amounts, whether paid or reserved together with any associated allocated and unallocated loss adjustment expenses and is the estimated total amount of loss at the measurement date. For the purposes of this report, Ultimate Loss is calculated by adding: Paid Losses, Case and Additional Case Reserves and IBNR.

Ultimate Loss Ratio is the ratio of Ultimate Loss to Earned Premium, which shows the relationship between expected losses and the associated premiums that are related to those losses.

Unallocated Loss Adjustment Expenses (ULAE) are all external, internal, and administrative claims handling expenses that are not included in the allocated loss adjustment expenses (ALAE).

Underwriting Year means the year during which the contract incepts. Exposure from contracts incepting during the current underwriting year will potentially affect both the current Accident Year as well as future Accident Years.