Aon Benfield
Analytics | Market Analysis

The Aon Benfield Aggregate

Results for the Six Months Ended June 30, 2016

Risk. Reinsurance. Human Resources.

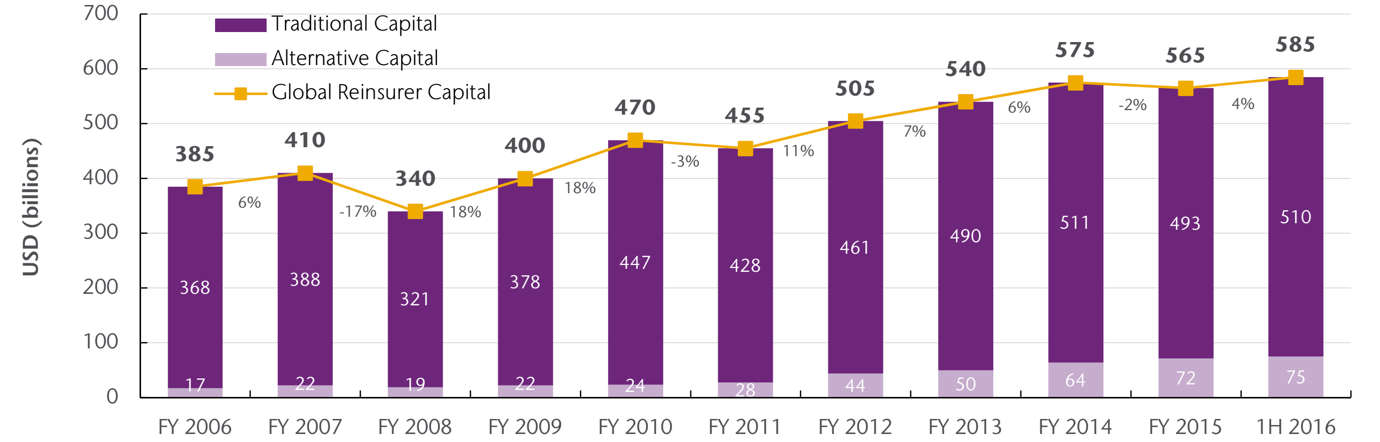
Empower Results®

Table of Contents

Global Reinsurer Capital

Aon Benfield estimates that global reinsurer capital rose by 4% to USD585 billion over the six months to June 30, 2016. This calculation is a broad measure of the capital available for insurers to trade risk with and includes both traditional and alternative forms of reinsurer capital.

Exhibit 1: Global Reinsurer Capital



Source: Company reports, Aon Benfield Analytics

Traditional capital rose by 3% to USD510 billion over the six months to June 30, 2016, driven primarily by unrealized gains on bond portfolios associated with declines in interest rates during the period. The contribution from the retained earnings of major insurers and reinsurers diminished due to the combined effects of reduced investment income, higher insured catastrophe losses and more active capital management.

Alternative capital rose by 5% to USD75 billion, principally reflecting additional deployment into collateralized reinsurance structures. The appeal of insurance risk for alternative investment managers has been enhanced by recent volatility in other asset classes and the weaker outlook for long-term interest rates. Expected returns have declined, but remain attractive relative to opportunities seen elsewhere and the lack of correlation with broader capital markets (except in the most extreme scenarios) remains key.

Evolution of the Aon Benfield Aggregate (ABA)

ABA reports are produced on a half-yearly basis, with the aim of highlighting current trends in the property and casualty (P&C) reinsurance marketplace. Following recent consolidation, the study now covers 23 major reinsurers domiciled in developed markets. On a combined basis, these companies write approximately 50% of global P&C reinsurance premium. Supporting financial data can be found at the back of this report.

Executive Summary

Aon Benfield estimates that global reinsurer capital rose by 4% to USD585 billion at June 30, 2016.

The shareholders' funds of the 23 ABA companies rose by 5% to USD202 billion (35% of the total) over the six months, driven primarily by unrealized gains on bond portfolios and modest strengthening of the Euro relative to the US Dollar.

The return of capital to ABA investors in the form of dividends and share buybacks accelerated to USD8.9 billion in the first half of 2016, representing almost 5% of opening capital.

Most reinsurers are deriving significant benefits from their ability to leverage alternative capital.

Reinsurers have been able to take advantage of lower catastrophe risk transfer costs through the formation of sidecar vehicles, sponsorship of catastrophe bonds and increased utilization of retrocession protection.

This has reduced the cost of their underwriting capital and allowed them to grow positions with key clients, while reducing many peak zone probable maximum losses (PMLs) relative to capital held.

Growing asset management mandates are allowing reinsurers to earn fee revenue, diversifying their earnings, while at the same time establishing capital market relationships that will be essential in a post-loss environment.

Premium growth is being achieved, despite difficult market conditions.

In original reporting currencies, two-thirds of the ABA companies achieved growth in property and casualty (P&C) premiums in the first half of 2016.

A majority reported growth in their reinsurance segments, driven by acquisitions, targeted growth in select specialty lines (notably mortgage business) and large customized transactions.

Most ABA companies continue to invest in building-out their specialty insurance franchises, notably in the US market. Few pure reinsurers remain in the P&C marketplace.

An average catastrophe load has highlighted the extent to which underwriting margins have been eroded.

The ABA combined ratio rose by 3.3 percentage points (pp) to 94.7% in the first half of 2016. Major losses remained within allocated budgets, contributing 5.5pp overall.

P&C underwriting profit fell by 35% to USD3.7 billion, of which USD3.2 billion was derived from favorable prior year loss reserve development (86% of the total).

Low interest rates continue to pressure investment returns, with little prospect of relief in the near term.

Total investment returns benefited from significant capital gains in the first half of 2016, which were largely linked to declines in interest rates.

The assumption of higher levels of asset risk has stabilized the annualized ordinary investment yield at 2.6%, but this remains 40% below the level seen prior to the financial crisis in 2008.

Reinsurers' profitability has declined but returns remain reasonable relative to current risk-free rates.

Net income attributable to common shareholders fell by 19% to USD8.5 billion in the first half of 2016, representing an annualized return on equity of 8.8%.

Earnings have become increasingly dependent on catastrophe experience and prior year loss reserve development; share prices show heightened sensitivity to reported results.

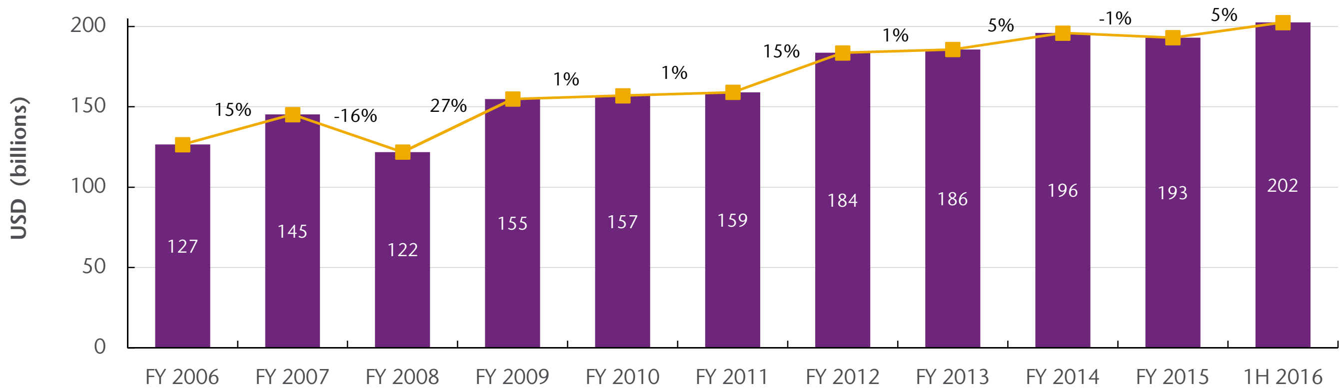
Growing pressure on earnings is expected to result in further sector consolidation.

The market dynamics that spurred a sequence of mergers in 2015 have not changed. Valuations have reduced and further deals are considered likely among companies struggling to meet their return hurdles.

ABA Capital

The reported shareholders' funds of the 23 ABA companies stood at USD202 billion at June 30, 2016, an increase of 5% since the end of 2015. The main driver was unrealized gains on bond portfolios, stemming from the decline in interest rates during the period. A secondary factor was modest strengthening of the Euro relative to the US Dollar.

Exhibit 2: ABA Shareholders' Funds (SHF)

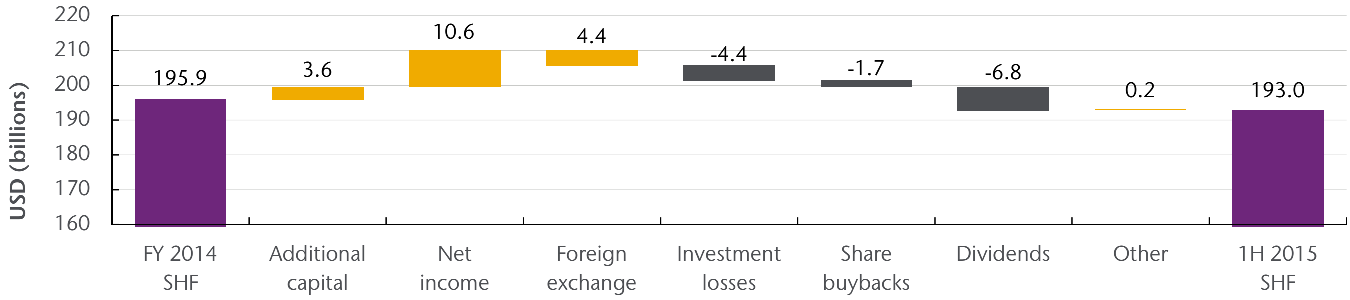


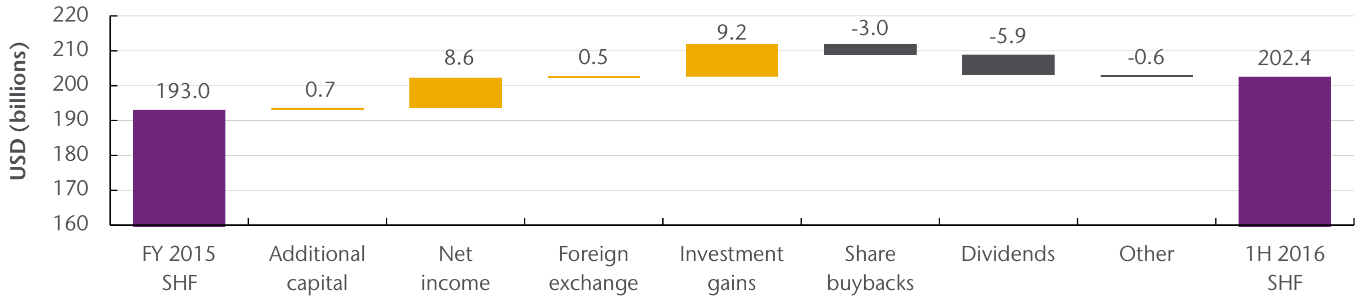
Source: Company reports, Aon Benfield Market Analysis

Capital Development

The lower section of Exhibit 3 shows the contributing factors towards the change in shareholders' funds over the six months to June 30, 2016. The overall increase of USD9.4 billion was almost entirely driven by unrealized investment gains, which were mainly generated by Swiss Re (USD3.7 billion), Munich Re (USD2.2 billion), Hannover Re (USD0.7 billion) and XL (USD0.7 billion). Net income for the period of USD8.6 billion was balanced by share buybacks of USD3.0 billion and dividends of USD5.9 billion.

Exhibit 3: Evolution of ABA Shareholders' Funds

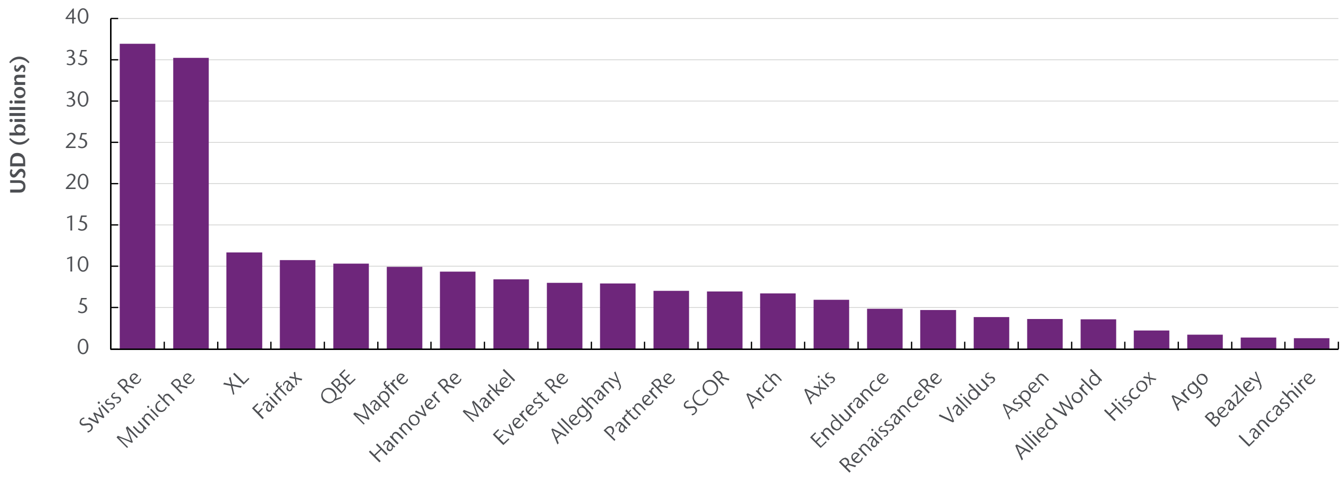




Source: Company reports, Aon Benfield Market Analysis

Exhibit 4 shows the reported shareholders' funds of the 23 ABA companies at June 30, 2016. On a combined basis, Swiss Re and Munich Re contributed USD72 billion, or 36% of the total. The median capital size was USD7 billion, with 14 ABA companies now exceeding USD5 billion.

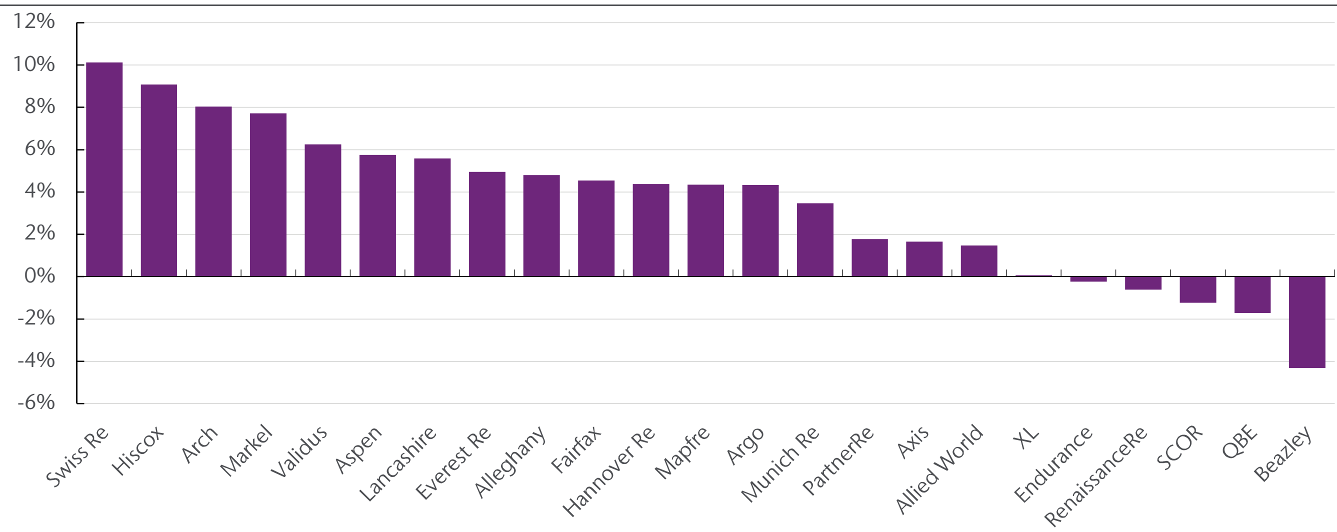
Exhibit 4: Shareholders' Funds at June 30, 2016



Source: Company reports, Aon Benfield Market Analysis

Exhibit 5 shows the year-to-date movement in the shareholder's funds of individual ABA companies, in original reporting currencies. The most notable increases were at Swiss Re (driven by unrealized gains), Hiscox (net income and foreign exchange gains) and Arch (net income and unrealized gains). Five ABA companies reported a decline in capital, the most significant being at Beazley (driven by the payment of a special dividend).

Exhibit 5: Growth in Shareholders' Funds (Original Reporting Currencies)

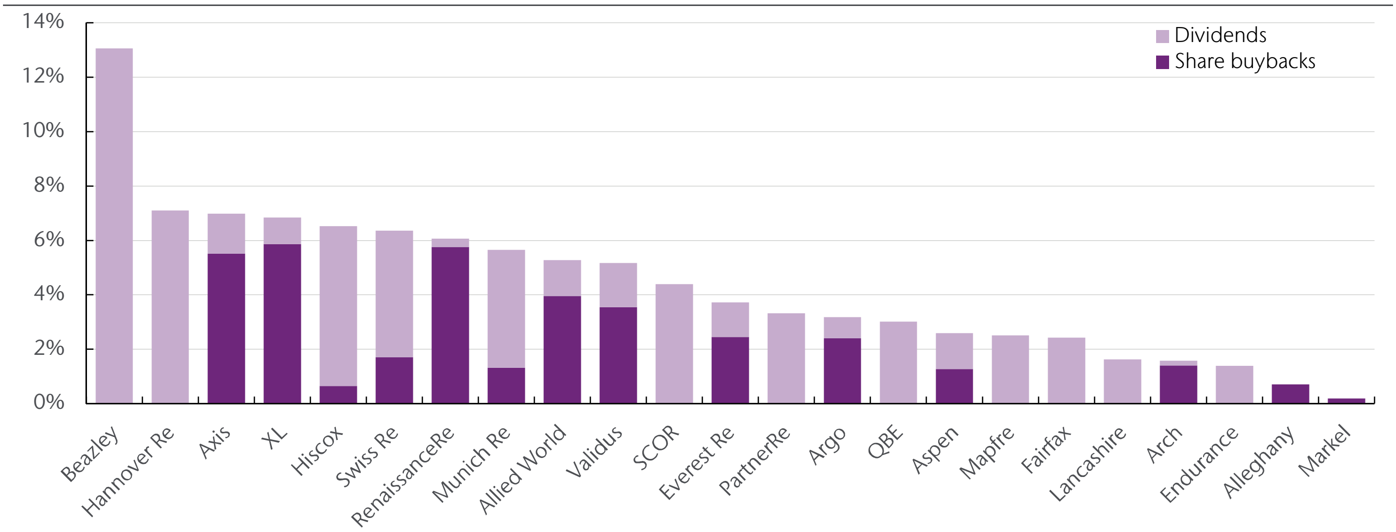


Source: Company reports, Aon Benfield Market Analysis

Capital Management

The return of capital to investors accelerated to USD8.9 billion in the first half of 2016, representing almost 5% of opening capital. Share buybacks rose by 75% to USD3.0 billion, the prior year period having been affected by consolidation activity. Dividend payments declined by 13% to USD5.9 billion, mainly because a special dividend of USD1.1 billion from Swiss Re was not repeated.

Exhibit 6: Dividends & Share Buybacks as a Percentage of Opening Capital



Source: Company reports, Aon Benfield Market Analysis

Business Model Evolution

A structural shift in the way capital is raised and deployed to mitigate insurance risk is underway. The pool of potential investors is broadening and new money is flowing towards structures offering access to quality business at relatively low cost. These changes have forced the ABA companies to re-evaluate their business models.

Who Are The New Investors?

Reinsurance as an asset class has performed relatively well in an environment of low interest rates and is viewed as having limited correlation with broader capital market movements. These attributes have attracted new investors such as pension funds, high net worth individuals and sovereign wealth funds, who typically:

- only enter the sector after extensive due diligence;
- invest a small percentage of the substantial assets at their disposal as a diversifying strategy;
- seek lower, more stable returns over longer timeframes than has historically been the case.

How Is New Money Being Deployed?

Much of the new capital is being channelled to specialist fund managers, who then deploy it into the insurance-linked securities (ILS) sector via catastrophe bonds or other ‘alternative’ structures such as industry loss warranties, sidecars and collateralized reinsurance. The current focus is property catastrophe and retrocession business, particularly in the US market where exposures tend to be best understood, although diversification into other lines and territories is underway.

Implications For ‘Traditional’ Reinsurers

New vehicles operating at a lower cost of capital are making inroads into higher-margin areas that remain a key driver of profits for ‘traditional’ reinsurers. These dynamics are forcing many ABA constituents to rethink their business models in the pursuit of differentiation and relevance in the market. In the catastrophe reinsurance space, this increasingly means being able to offer larger line sizes, a full product suite including collateralized limits and enhanced claims service. Companies that are successful in attracting and deploying third party capital will potentially be able to advance their client offering, reduce earnings volatility through fee income, lower their own risk transfer costs and manage their capital bases more effectively.

How Are The ABA Companies Responding?

Most ABA constituents are now moving strongly to incorporate alternative capital into their business models (see page 9 for a summary of recent activity). Many are now actively involved in raising and managing third party capital. Others have invested in strategic partnerships with established independent specialist fund managers. Sidecar structures that allow sponsors to grow their footprint in the market without assuming additional balance sheet risk continue to be in vogue.

The availability of lower cost capital has allowed most ABA companies to drive down their own risk transfer costs. Retrocession pricing has reduced and in some cases additional protection has been purchased, with consequent impact on disclosed modeled exposures.

Exhibit 7: Recent Incorporation of Alternative Capital

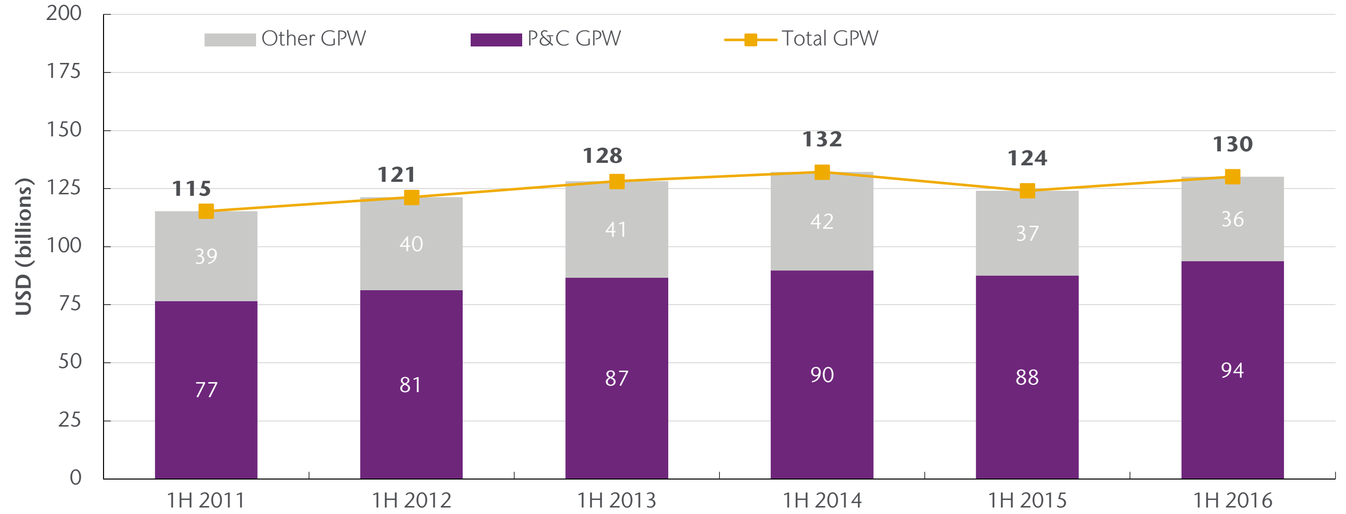
Company	Cat Bonds	Third Party Capital Vehicles	Other
Alleghany		TransRe operates the Pangaea Re sidecar series, which now provides more than $400m of reinsurance support.	TransRe Capital Partners, formed in 2013, is headed by Craig Hupper. The group's ownership of Pillar Capital increased to 50% in June 2014. Related investments contributed a return of $7m in 1H 2016 and were carried at $228m at June 30, 2016.
Allied World		AWAC has reduced its participation in Aeolus' collateralized reinsurance operations from $350m to $200m for 2016, as it seeks to reduce its own PMLs.	A collateralized property cat quota share with Aeolus Re generated $76m of assumed premium in 2015.
Arch		In 2014, Arch co-sponsored Watford Re with Highbridge Capital. Arch has an 11% interest, performs the underwriting and takes a 15% whole account quota share. Cessions to Watford Re totalled $173m in 1H 2016, or 67% of this affiliate's total business. A primary insurance platform is now being built-out.	Watford Re was backed by $1.1bn of capital at the end of 2015 and carries an 'A-' rating from A.M. Best.
Argo	Loma Re (Jun 2011, Dec 2011, Dec 2013)	The Harambee Re sidecar series.	Formed ILS fronting partnership with Horseshoe Re (March 2014).
Aspen		The Silverton Re sidecar series writes a collateralized quota share of Aspen Bermuda's property cat book (GPW of $39m in 2015). Committed capital rose from $85m in 2015 to $125m in 2016.	Aspen Capital Markets (ACM), formed in 2013, is headed by Brian Tobben. Leveraging ACM and purchasing additional retrocession cover has reduced PMLs across most perils.
Axis	Northshore Re (Aug 2013)	In July 2016, Axis and Blackstone co-sponsored Harrington Re, which is backed by ~$600m of capital and an 'A-' rating from A.M. Best. Class 3A insurer Axis Ventures Reinsurance Ltd provides fully collateralized reinsurance support (2015 cessions: $19m).	Axis Re Ventures, formed in 2013, is headed by Ben Rubin. Axis will source reinsurance business for Harrington Re, with the goal of building a diversified, multi-line book with limited property cat exposure.
Beazley		Special Purpose Syndicate 6107 (since 2010).	
Endurance		Blue Capital Reinsurance Holdings Ltd (BCRH) provides fully-collateralized property catastrophe reinsurance and invests in various insurance-linked securities through its wholly-owned Bermuda-based subsidiaries, Blue Capital Re Ltd and Blue Capital Re ILS Ltd. Third party AuM exceed $790m.	Blue Capital, formed in 2012, is led by Adam Szakmary. Endurance owns 33% of BCRH and 25% of Blue Capital Global Reinsurance Fund Ltd (BCGR). BCRH is managed by Blue Capital Management Ltd (BCML), which is wholly-owned by Endurance.
Everest Re	Kilimanjaro Re (Apr 2014, Nov 2014, Dec 2015)	The Mt. Logan Re sidecar writes property cat business ceded by Everest Re. AuM totalled $910m at June 30, 2016, up from $799m at the end of 2015.	Bermuda-based Class 3 segregated accounts company Mt Logan Re Ltd, formed in 2013, is managed independently and led by Rick Pagnani. Kilimanjaro cat bonds sponsored since April 2014 have provided $1.6bn of multi-year collateralized protection in North America.
Hannover Re	Eurus (Sep 2012)	Segregated accounts of Kaith Re Ltd and other external structured entities are used for securitized retrocessions of traditional and ILS covers. The internal ILS fund has been opened to third parties via Leine Investment since Jan 2013.	The 'K cession' is a modelled quota share covering worldwide cat, aviation and marine. Volume stands at ~$400m for 2016, up from $362m in 2015. Fully collateralized ceded exposure limits more than doubled to €1.9bn in 2015. Fronted limits rose by 52% to €4.7bn.
Hiscox		Kiskadee Re sidecars have provided collateralized reinsurance support since 2013. Bermuda SPI Cardinal Re, which uses a segregated cell structure to enable ILS investors to write insurance risks on a collateralized basis, has doubled in size to ~$100m since its launch in 2015. Special Purpose Syndicate 6104 (since 2008). Third parties continue to provide 27.5% of the capacity on Syndicate 33.	Kiskadee Investment Managers, formed in 2014, is led by Michael Jedraszak. AuM surpassed $1bn in June 2016. Around 12% of Hiscox Re's premium was ceded to Kiskadee in 2015.
Lancashire		Kinesis Re I Ltd has written multi-class reinsurance business on a fully-collateralized basis since 2013, deploying $300m of limit in 2015. Previous vehicles include Saltire Re (aggregate covers) and the Accordian Re series (property retro).	Kinesis Capital Management, formed in 2013, is led by Darren Redhead.
Markel		Class 3 insurer Markel CATCo Reinsurance Ltd provides fully collateralized property reinsurance and retrocession protection. The New Point Re sidecar series wrote property retrocession business on a fully collateralized basis until the end of 2015.	In December 2015, Markel acquired CATCo Investment Management, rebranding it Markel CATCo. The CEO is Tony Belisle. AuM rose to $3.4bn at June 30, 2016, from $2.6bn at the end of 2015. Markel has $200m invested in the CATCo funds.
Munich Re	Multiple sponsor	Property Cat XL capacity provided via the Eden Re sidecar program rose by $70m to $360m for 2015 and featured broader regional coverage.	In May 2016, Munich Re secured $190m of peak-zone risk limit via the Queen Street cat bond program, its largest ever transaction. This followed $200m of peak-zone risk limit secured in 2015 via two transactions.
PartnerRe		Lorenz Re was launched with $75m of capital in 2013 to take a collateralized retrocessional quota share of selected accounts in PartnerRe's catastrophe reinsurance book. Third party capital backing stood at $134m in July 2015, of which $84m was backing the sidecar arrangement. Segregated accounts are now being utilized to partner with new investors on retrocession protections and to augment capacity on certain reinsurance transactions.	The Head of Third Party Capital at PartnerRe is Herve Castella. PartnerRe maintains an internal cat bond fund (~$100m), which may be opened to third-party capital in the future.
QBE	VenTerra Re (Dec 2013)	Third party capital continues to provide 30% of the capacity on Syndicate 386.	
RenRe	Mona Lisa Re (Jul 2013)	RenRe Ventures manages two rated property cat-oriented joint ventures, namely DaVinci Re and Top Layer Re. RenRe Fund Management oversees the Medici and Upsilon Funds. Around $1.6bn of third-party capital is spread across these vehicles. Previous sidecar vehicles include Upsilon Re and Timicuan Re.	Managed cat premiums grew for the first time in several years in 2Q 2016, but increased retrocession purchases mean that net risk going into the Atlantic hurricane season is lower than it was a year ago.
SCOR	Multiple sponsor	Sidecar Atlas X ($56m of capital) provides 3 years of collateralized quota share capacity on the property cat book. The P&C Re segment is protected by $450m of cat bonds issued under the Atlas program. The L&H Re segment is protected by a $180m extreme mortality risk transfer contract, issued via Atlas IX.	SCOR Investment Partners, led by Vincent Prabis, has operated the Atropos ILS funds since 2011 (AuM ~$0.5bn). Around 30% of cat retrocession is placed with alternative market capacity. A EUR0.2bn contingent capital facility is designed to replenish equity in case of extreme events.
Swiss Re	Multiple sponsor	Sector Re V Ltd currently provides ~$375m of collateralized quota share support to the property cat and aviation books.	Within P&C Re, the Successor and Mythen cat bond series are currently dormant. The $100m Vita Capital VI Ltd mortality bond issued in Dec 2015 was the first deal sponsored by Swiss Re since July 2013.
Validus		AlphaCat Re and AlphaCat Master Fund respectively write collateralized reinsurance and invest in capital markets products. AlphaCat Re writes on behalf of AlphaCat sidecars and ILS funds, as well as for direct third party investors.	AlphaCat Managers Ltd, formed in 2008 and led by Lixin Zeng, had $2.5bn of AuM at July 1, 2016, up 21% from a year earlier, including $2.2bn from third parties. Limit in-force totalled $2.4bn.
XL Catlin	Galileo Re (Feb 2015)	Sidecar Vector Re has written global property cat business on a collateralized basis since 2014.	New Ocean Capital Management, formed as a joint veture with Stone Point in 2013, is led Chris McKeown and has ~$270m of AuM.

Source: Company reports, Aon Benfield Market Analysis *AuM = assets under management*

Premium Income

Total premiums written by the ABA companies rose by 5% to USD130 billion in the first half of 2016, the main driver being consolidation activity. The reduction in the prior year was heavily influenced by strengthening of the US Dollar relative to the Euro.

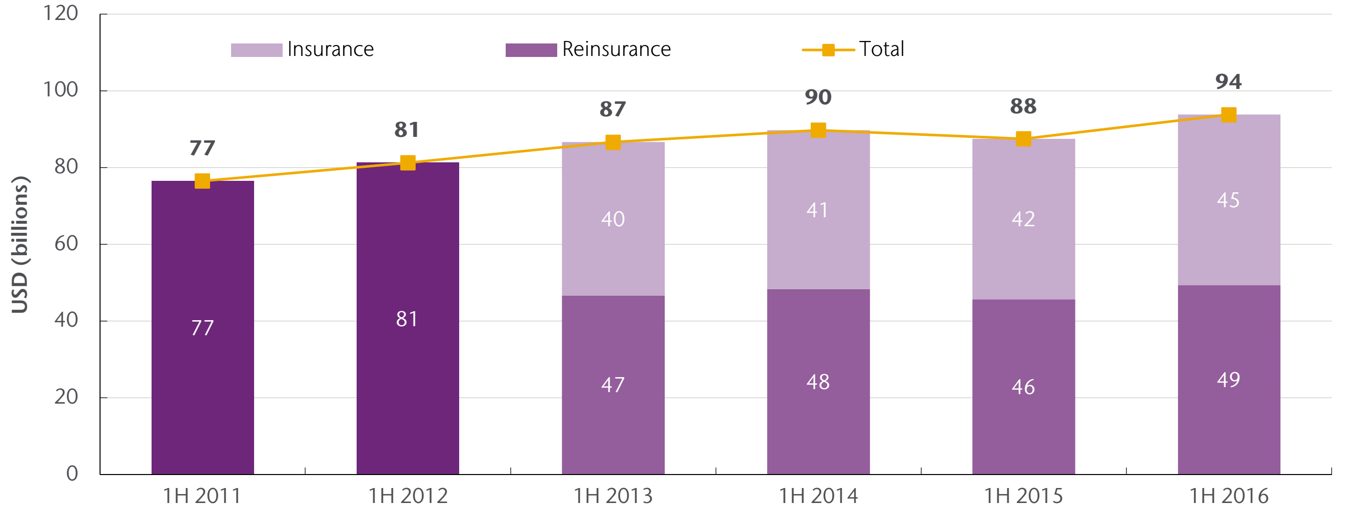
Exhibit 8: ABA Total Premiums Written



Source: Company reports, Aon Benfield Market Analysis

Property and casualty (P&C) premiums rose by 7% to USD94 billion, of which USD45 billion was direct insurance (48% of the total) and USD49 billion was assumed reinsurance (52%).

Exhibit 9: ABA P&C Gross Premiums Written

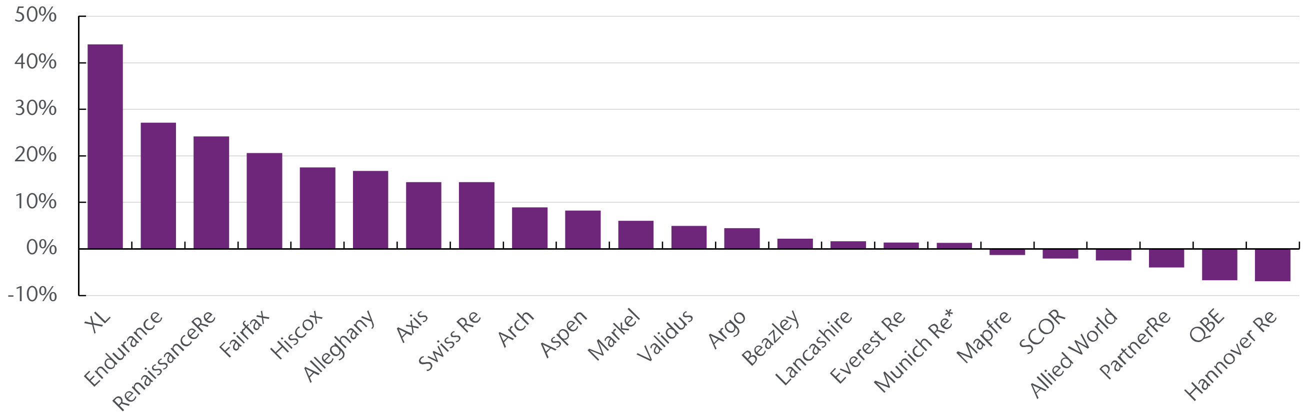


Source: Company reports, Aon Benfield Market Analysis

In original reporting currencies, 17 ABA companies achieved growth in P&C premiums in the first half of 2016, as shown in Exhibit 10. Acquisitions bolstered the figures at XL (Catlin from May 1, 2015), Endurance (Montpelier Re from July 31, 2015), RenaissanceRe (Platinum from March 2, 2015) and Fairfax (Brit from June 5, 2015).

Six ABA companies reported reductions in P&C premiums. At constant exchange rates, the decline at Hannover Re was 2%, while underlying volumes at QBE were flat.

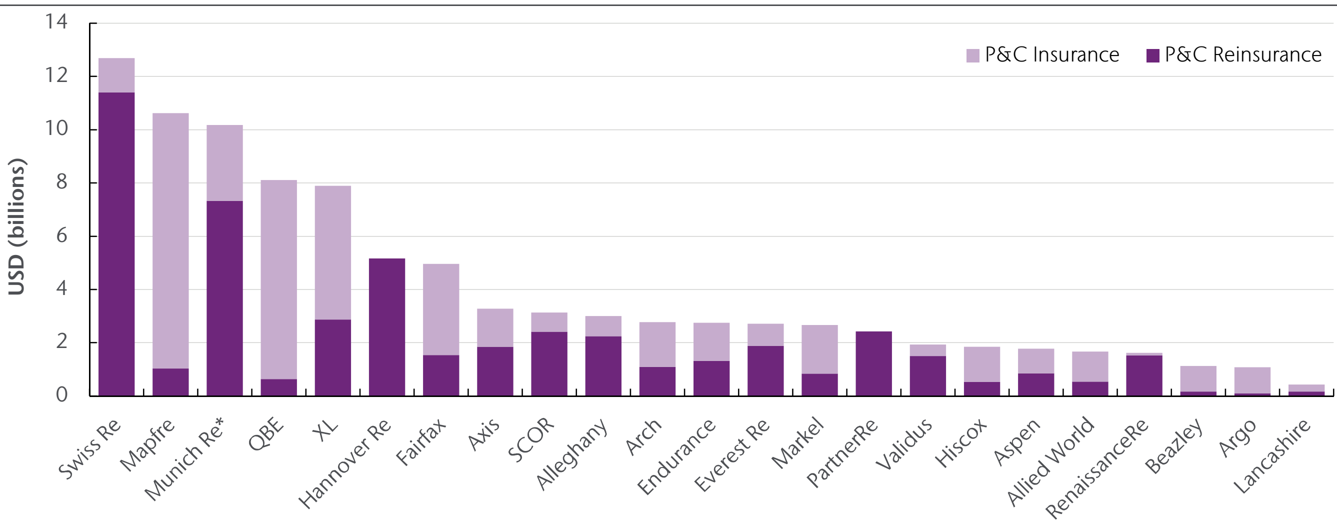
Exhibit 10: Growth in P&C Gross Premiums Written (Original Reporting Currencies)



Source: Company reports, Aon Benfield Market Analysis **P&C reinsurance segment only (as disclosed)*

Exhibit 11 shows the split of P&C premiums between primary insurance and assumed reinsurance across all of the ABA companies in the first half of 2016, based on our best interpretation of sometimes inconsistent/incomplete company disclosure.

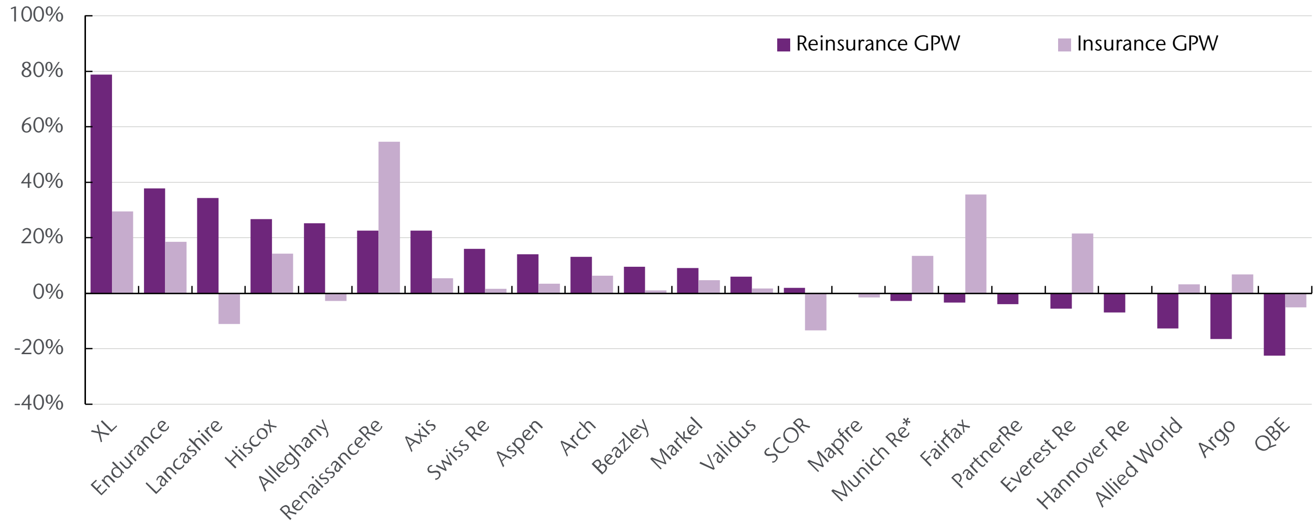
Exhibit 11: 1H 2016 P&C Segmental Splits



Source: Company reports, Aon Benfield Market Analysis ** P&C insurance relates to Risk Solutions (ERGO excluded)*

Exhibit 12 captures the growth/contraction in the primary insurance and assumed reinsurance segments of the ABA companies in the first half of 2016, based on our best interpretation of sometimes inconsistent/incomplete company disclosure.

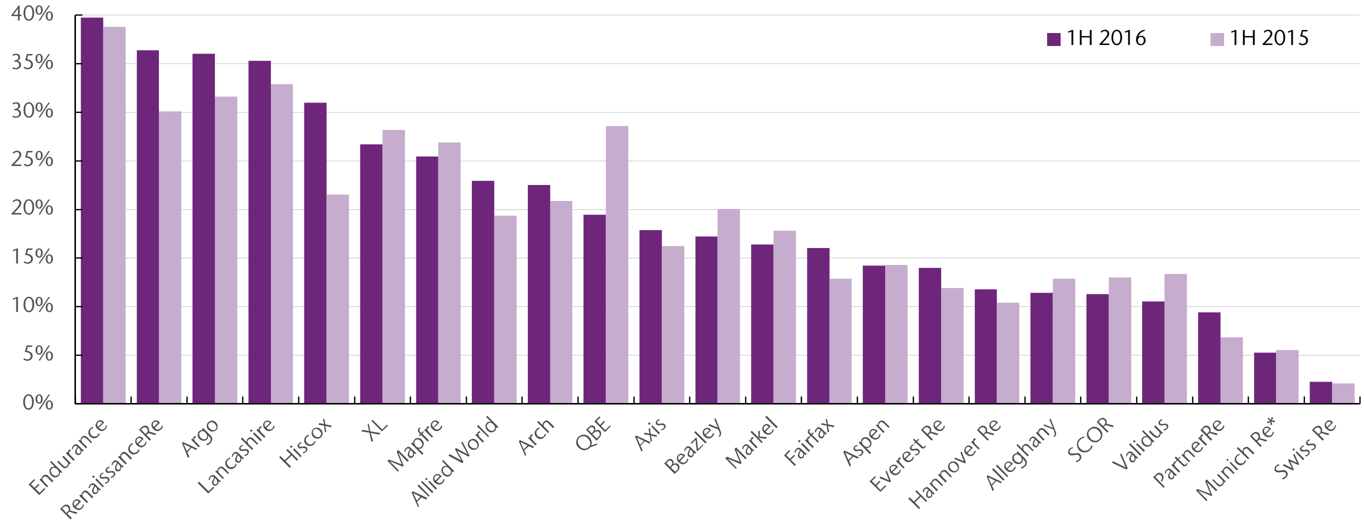
Exhibit 12: 1H 2016 P&C Segmental Growth (Original Reporting Currencies)



Source: Company reports, Aon Benfield Market Analysis ** P&C insurance relates to Risk Solutions (ERGO excluded)*

Net P&C premiums written by the ABA companies totalled USD78 billion in the first half of 2016. Excluding QBE, which terminated certain quota share treaties, the reinsurance cession ratio increased to 16.1%, from 15.4% in the prior year period, with many companies reporting increased utilization of retrocession protection.

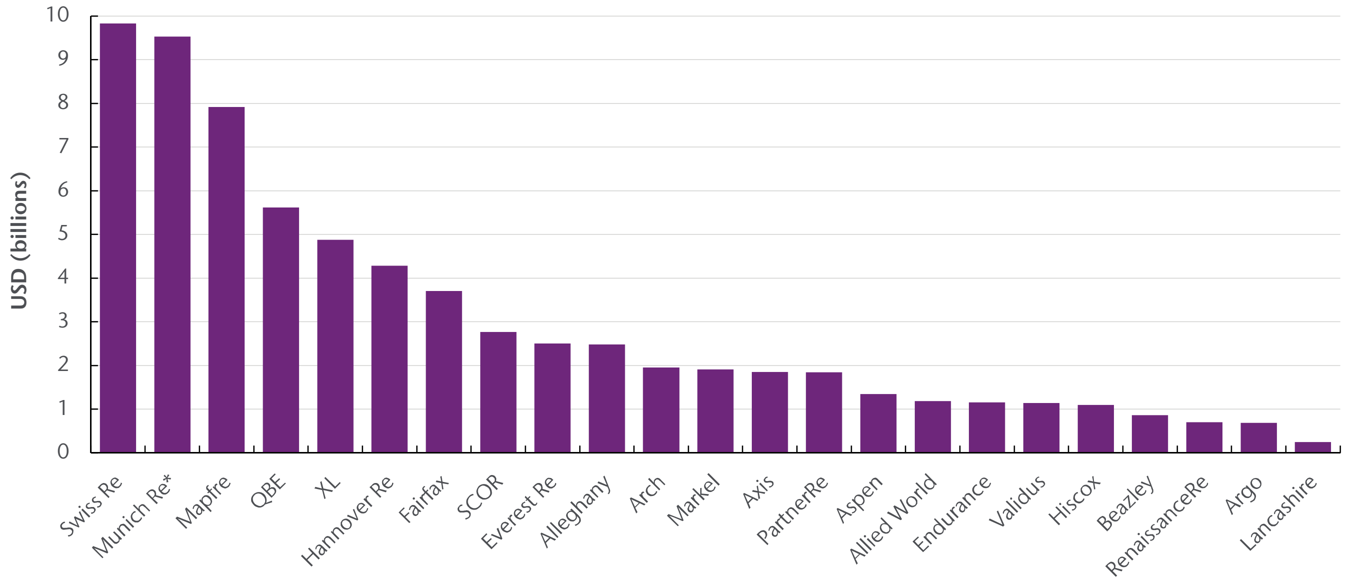
Exhibit 13: Reinsurance Cession Ratios



Source: Company reports, Aon Benfield Market Analysis **P&C reinsurance segment only (as disclosed)*

Total P&C net premiums earned by the ABA companies rose by 5% to USD70 billion in the first half of 2016. On a combined basis, Swiss Re, Munich Re and Mapfre contributed USD27 billion, or 39% of the total.

Exhibit 14: 1H 2016 P&C Net Premiums Earned

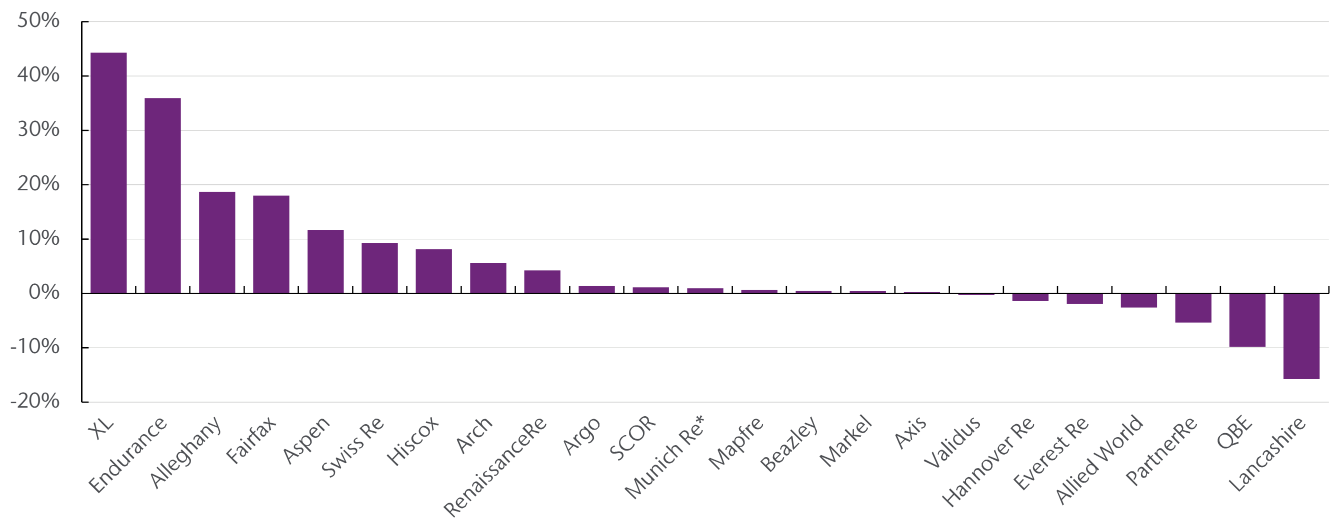


Source: Company reports, Aon Benfield Market Analysis **P&C reinsurance segment only (as disclosed)*

In original reporting currencies, 16 ABA companies reported growth in P&C net premiums earned in the first half of 2016. Significant expansion at XL, Endurance and Fairfax was fuelled by acquisitions, while the increase at Alleghany was heavily influenced by a large quota share contract written by Transatlantic Re in the final quarter of 2015.

Seven ABA companies reported a decline in P&C net premiums earned, greater reliance on reinsurance being an influence in the majority of cases. The 16% reduction at Lancashire was broad-based across the book. Excluding one-off factors, QBE reported 3% growth at constant exchange rates, largely reflecting a reduced reinsurance spend.

Exhibit 15: Growth in P&C Net Premiums Earned (Original Reporting Currencies)

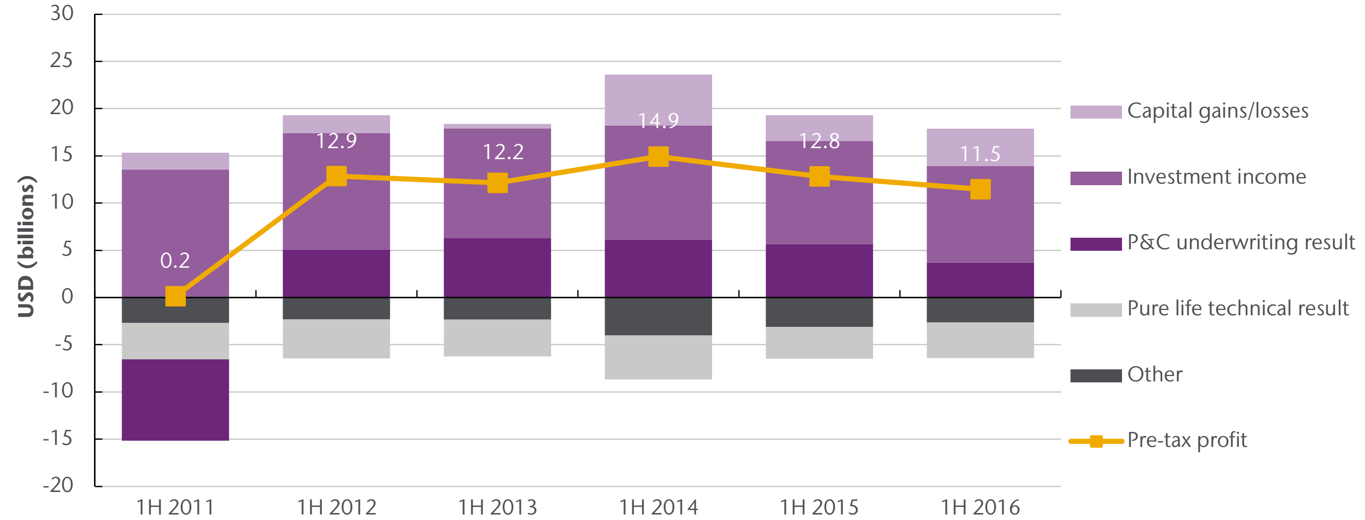


Source: Company reports, Aon Benfield Market Analysis **P&C reinsurance segment only (as disclosed)*

Earnings

Price competition and low interest rates have eroded profitability over the last two years. As a result, earnings have become increasingly dependent on catastrophe experience and the development of prior year loss reserves. While major losses generally remained within allocated budgets in the first half of 2016, return on equity declined to 8.8%.

Exhibit 16: ABA Pre-Tax Profit

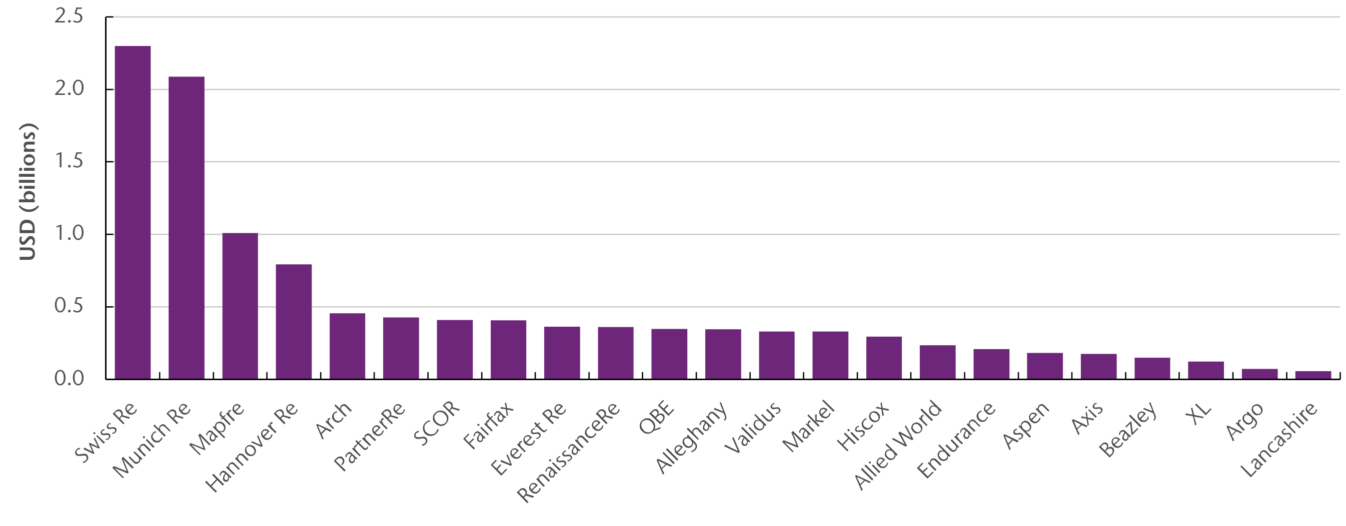


Source: Company reports, Aon Benfield Market Analysis

The ABA reported pre-tax profit of USD11.5 billion in the first half of 2016, a reduction of 11% relative to the prior year period. Ordinary investment income declined by 6% to USD10.2 billion, while capital gains rose by 47% to USD4.0 billion. P&C underwriting profit fell by 35% to USD3.7 billion, including USD3.2 billion of favorable prior year loss reserve development (86% of the total).

Exhibit 17 shows the distribution of reported pre-tax profits across all of the ABA companies. On a combined basis, Swiss Re and Munich Re contributed USD4.4 billion, or 38% of the total.

Exhibit 17: 1H 2016 Pre-Tax Results



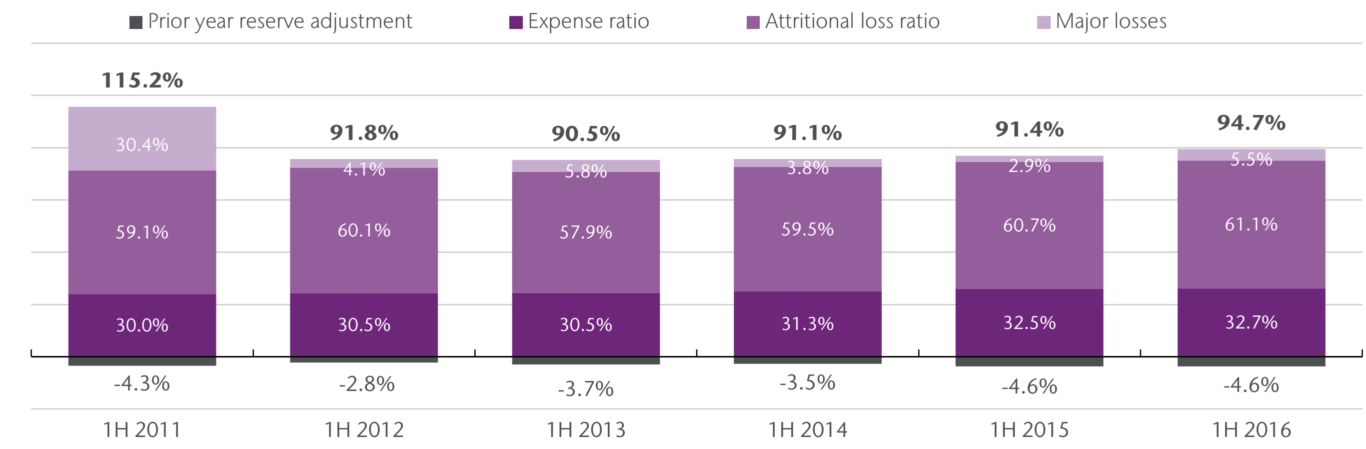
Source: Company reports, Aon Benfield Market Analysis

Underwriting Performance

On an accident year basis, the ABA combined ratio stood at 99.3% in the first half of 2016, up from 96.0% in the prior year period. The major loss burden doubled to USD3.8 billion, contributing 5.5pp, the most significant events being wildfires in Canada, earthquakes in Japan, floods in Europe and hailstorms in Texas. This was set alongside continued deterioration of the attritional loss and expense ratios.

The beneficial impact from the favorable development of prior year loss reserves was unchanged at 4.6 percentage points (pp). As a result, the calendar year combined ratio deteriorated by 3.3pp to 94.7%.

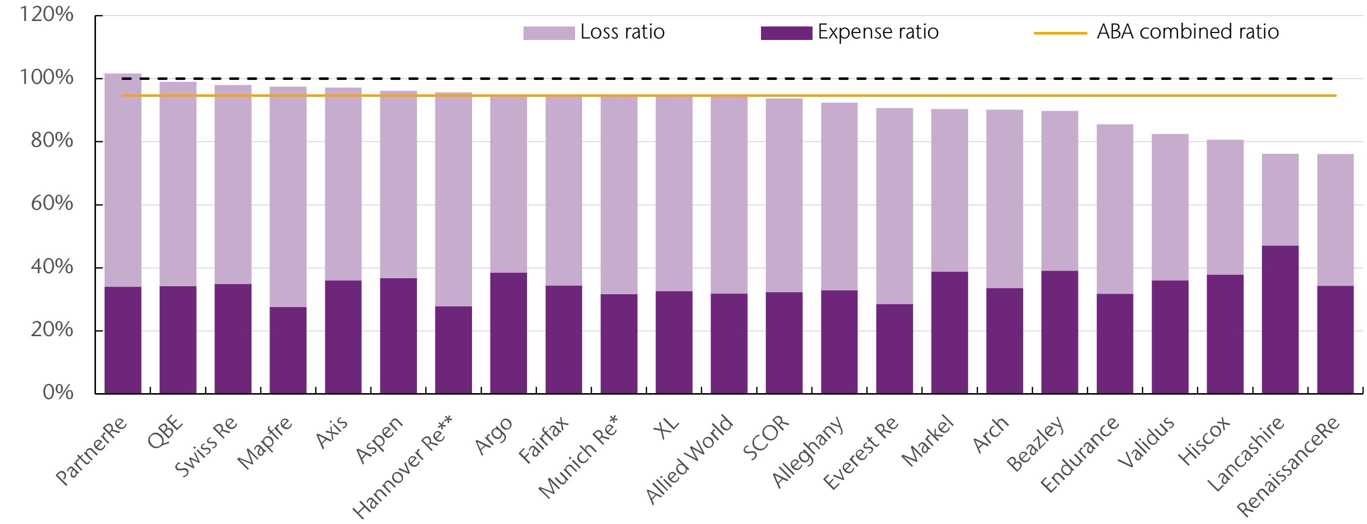
Exhibit 18: ABA Combined Ratio Composition



Source: Company reports, Aon Benfield Market Analysis

Exhibit 19 shows the distribution of reported combined ratios across the ABA companies in the first half of 2016. All except one were profitable on a calendar year basis, but only two reported stronger performance relative to the prior year period. The median outcome was 94.2%, up from 89.5% in the first half of 2015.

Exhibit 19: 1H 2016 Combined Ratios

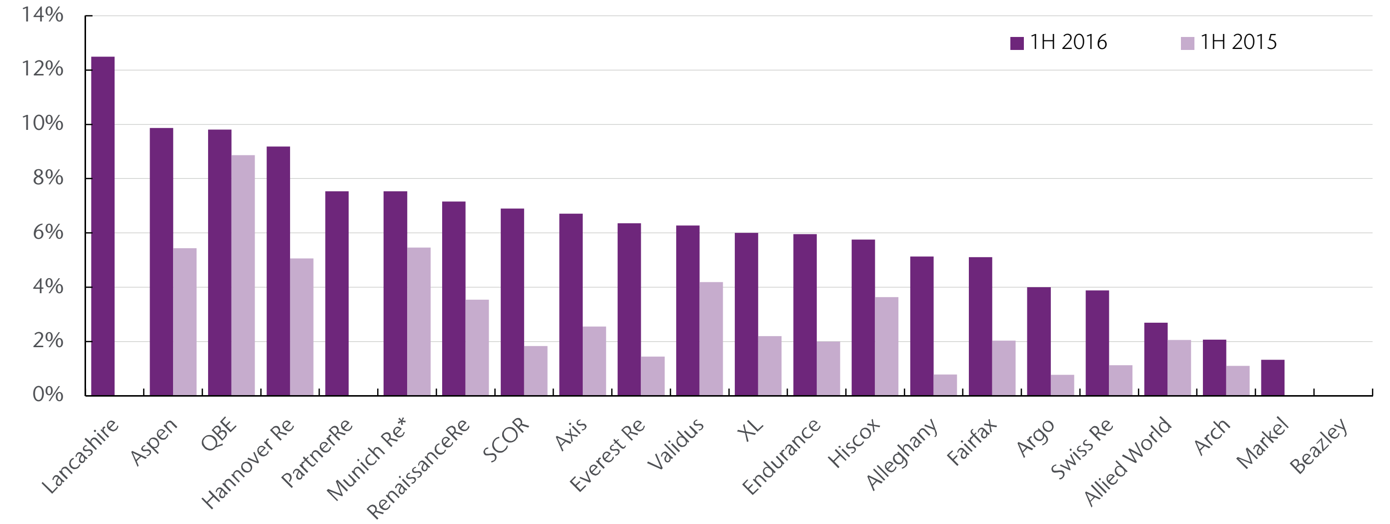


Source: Company reports, Aon Benfield Market Analysis

**P&C reinsurance segment only (as disclosed)*
***Excluding funds withheld*

Exhibit 20 shows major losses disclosed by the ABA companies as a percentage of P&C net premiums earned in the first half of the last two years. It should be noted that reporting thresholds vary across the industry.

Exhibit 20: Disclosed Major Losses (Combined Ratio Points)

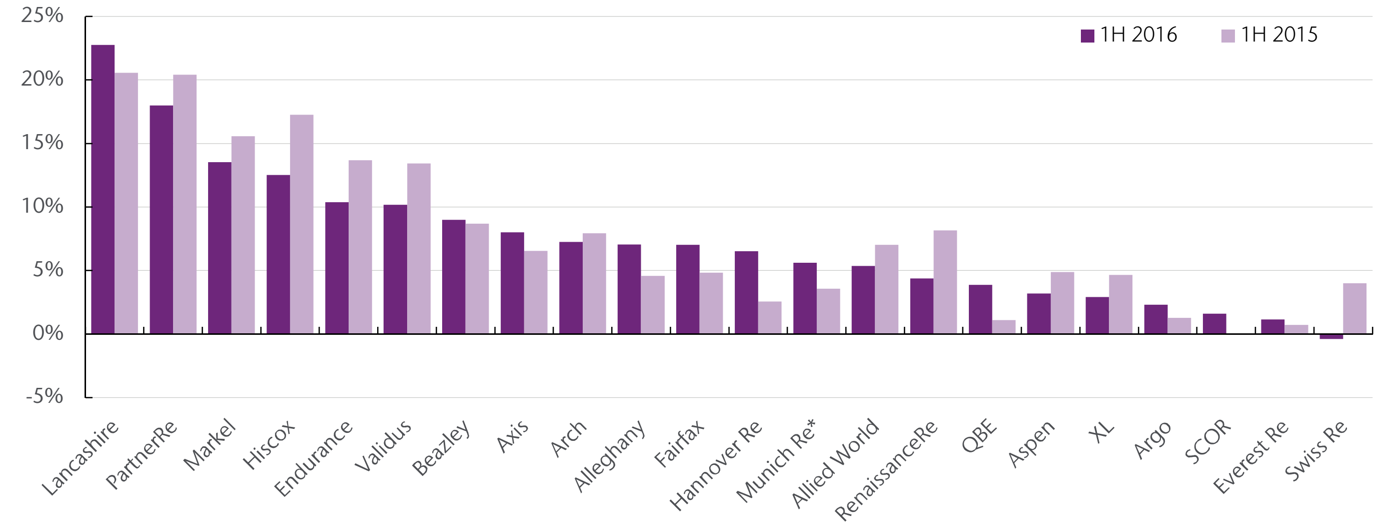


Source: Company reports, Aon Benfield Market Analysis

**P&C reinsurance segment only (as disclosed)*

Exhibit 21 shows prior year loss reserve development as a percentage of P&C net premiums earned by the ABA companies. Just under half reported higher releases in the first half of 2016, relative to the prior year period. Only Swiss Re reported a net addition to reserves, driven by two late-reported large casualty losses in the 2015 corporate solutions book.

Exhibit 21: Prior Year Loss Reserve Adjustments (Combined Ratio Points)

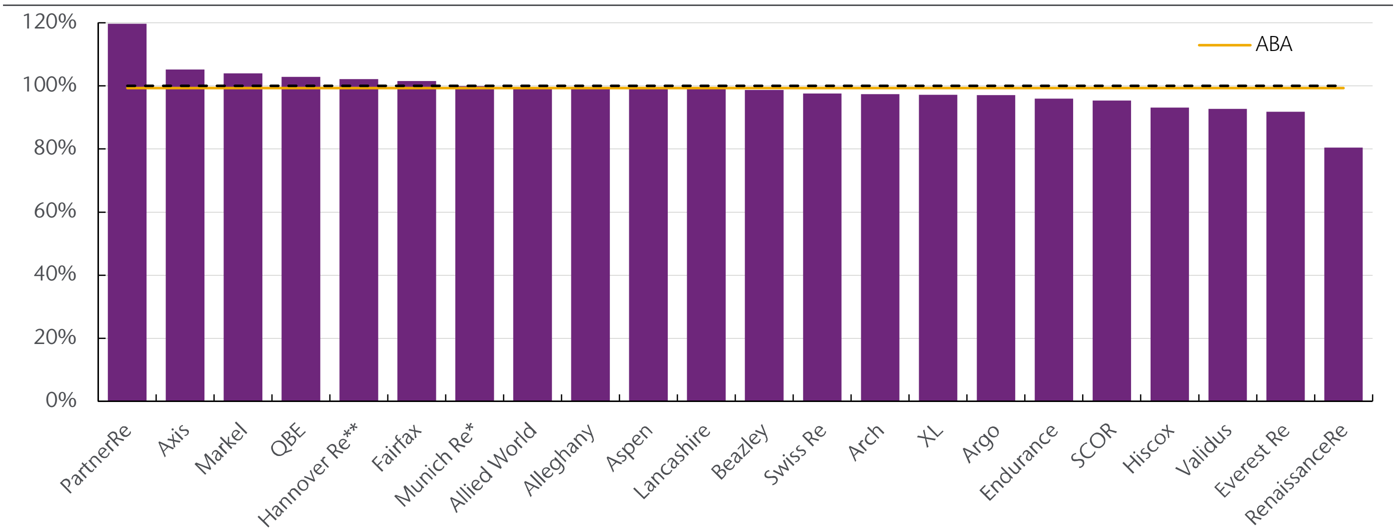


Source: Company reports, Aon Benfield Market Analysis

**P&C reinsurance segment only (as disclosed)*

Exhibit 22 shows the distribution of reported accident year combined ratios across the ABA companies in the first half of 2016. Six reported underwriting losses on this basis, up from four in the prior year period.

Exhibit 22: 1H 2016 Accident Year Combined Ratios



Source: Company reports, Aon Benfield Market Analysis

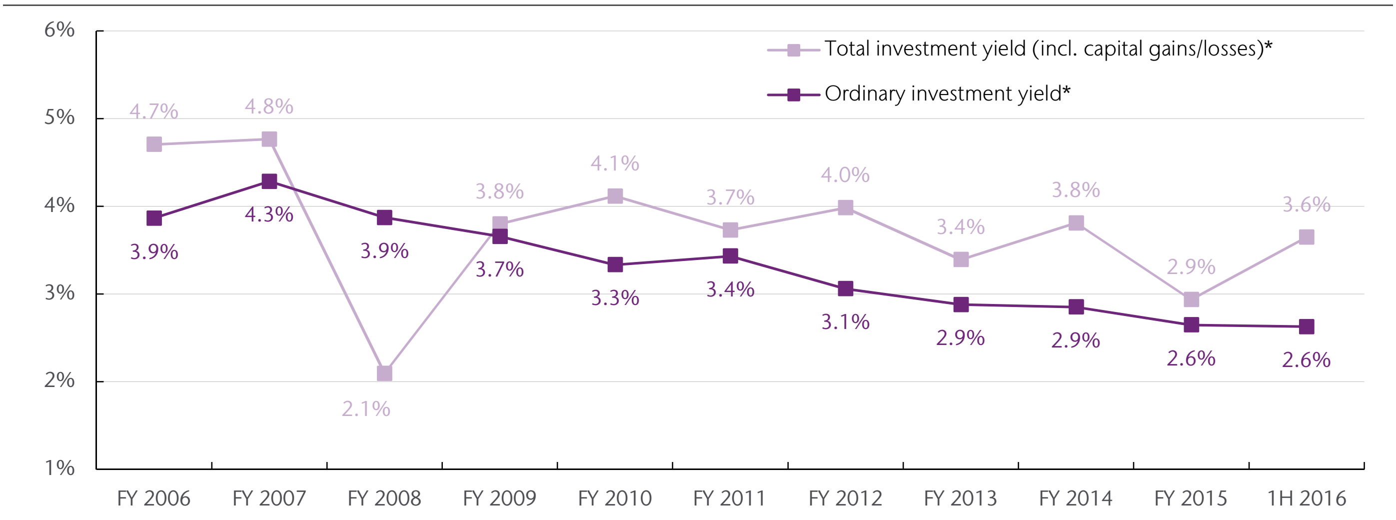
**P&C reinsurance segment only (as disclosed)*
***Excluding funds withheld*

Investment Results

The ABA reported cash and investments of USD798 billion at June 30, 2016, split fixed-income securities 66%, cash/short-term 9%, loans 8%, deposits with cedants 5%, equities 5% and other 7%.

The underlying and total investment yields reported through income statements since 2006 are captured in Exhibit 23. The former has fallen by more than a third since 2007, reflecting the impact of the low interest rate environment.

Exhibit 23: ABA Investment Yield

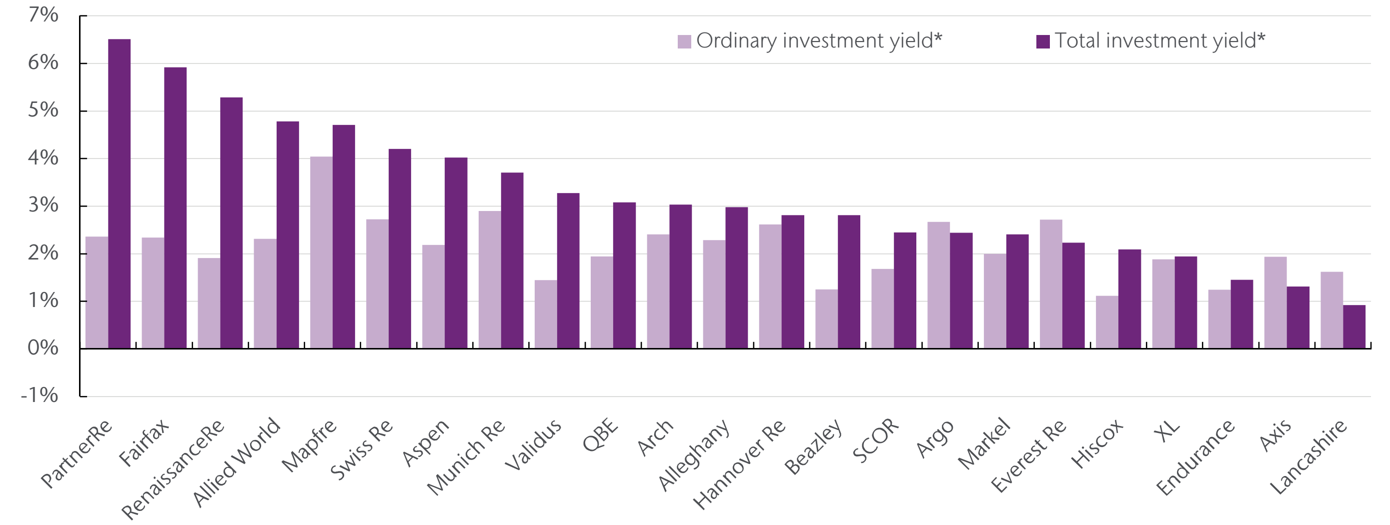


Source: Company reports, Aon Benfield Market Analysis

**Reported through income statements, excluding unit-linked and with-profit business*

Exhibit 24 shows the underlying and total investment yields reported by the ABA companies through their income statements in the first half of 2016. Investment classification varies and direct comparison of results can therefore be misleading.

Exhibit 24: 1H 2016 Investment Yields (Annualized)



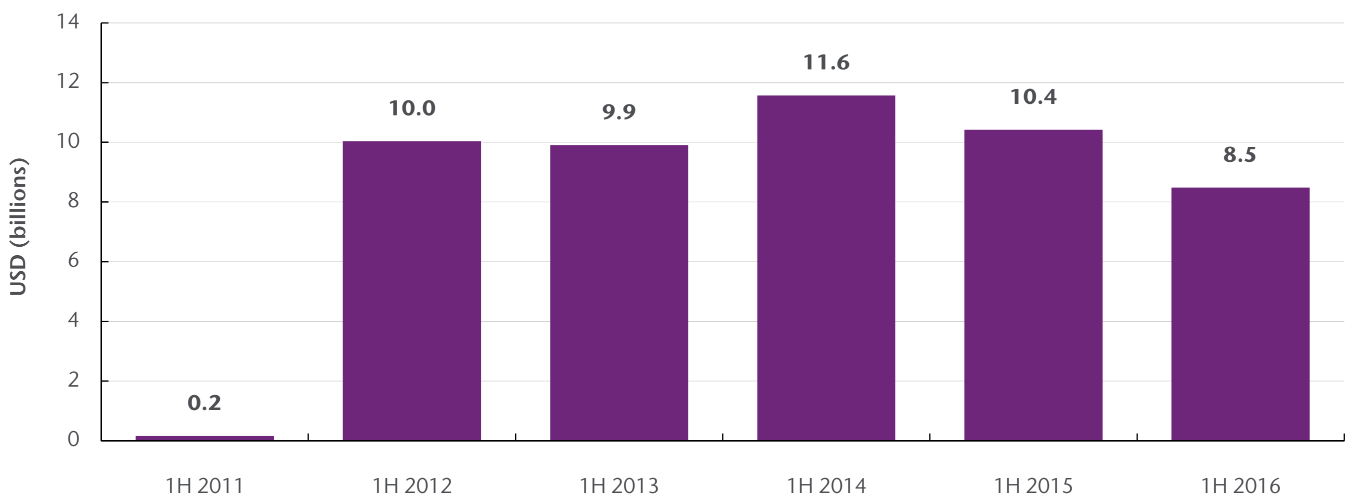
Source: Company reports, Aon Benfield Market Analysis

**Reported through income statements, excluding unit-linked and with-profit business*

Net Income

The ABA reported net income attributable to common shareholders of USD8.5 billion in the first half of 2016, a reduction of 19% relative to the prior year period.

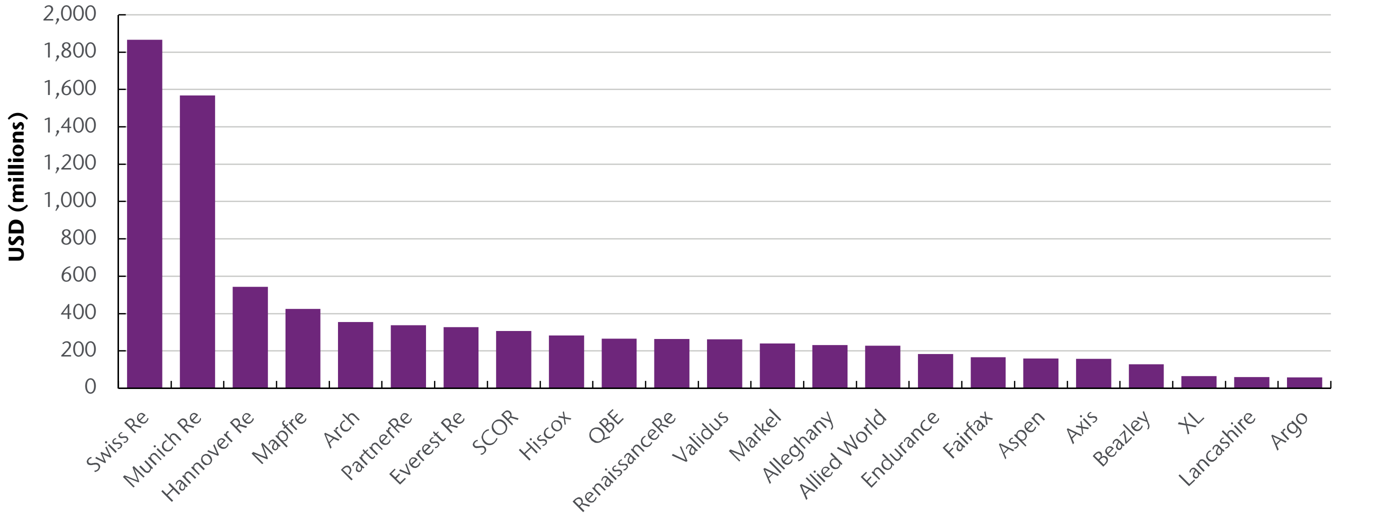
Exhibit 25: ABA Net Income Attributable to Common Shareholders



Source: Company reports, Aon Benfield Market Analysis

Exhibit 26 shows the distribution of net income by ABA constituent. The combined results of Swiss Re and Munich Re totalled USD3.4 billion, representing 40% of the total.

Exhibit 26: 1H 2016 Net Income Attributable to Common Shareholders

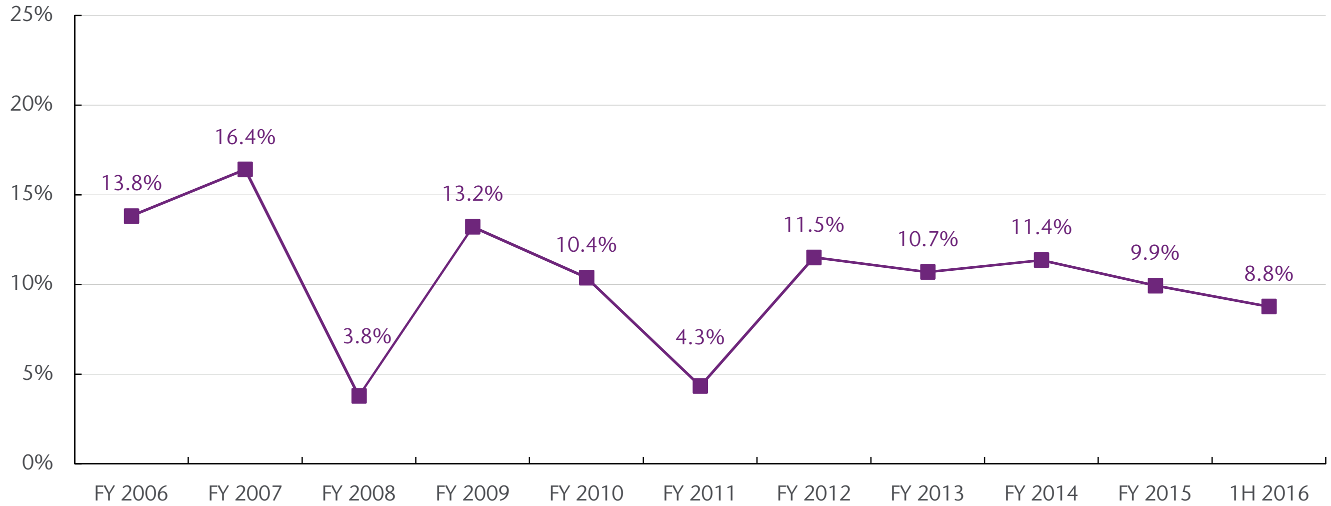


Source: Company reports, Aon Benfield Market Analysis

Return on Equity

Exhibit 27 shows the development of net income attributable to common shareholders relative to average common shareholders' funds across the ABA since 2006. Return on equity over this period (encompassing both the financial crisis and the record year for insured catastrophe losses) averaged 10.4%.

Exhibit 27: ABA Common Net Income ROE

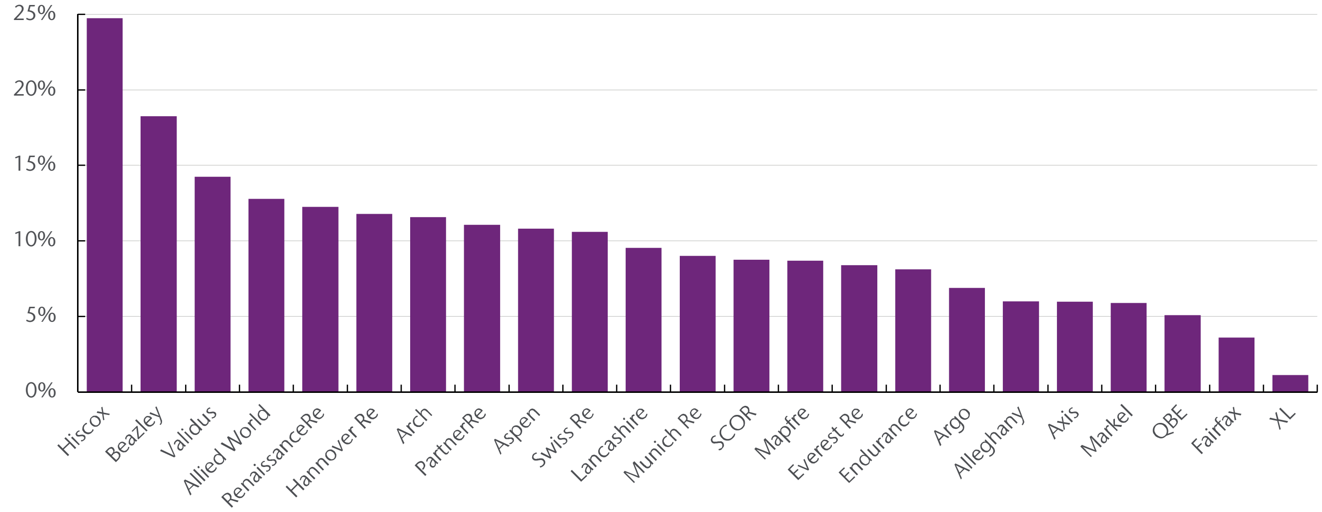


Source: Company reports, Aon Benfield Market Analysis

Exhibit 28 shows return on equity by ABA company, based on reported net income in the first half of 2016. Only six companies reported improved performance on this measure relative to the prior year period.

Hiscox is the only ABA company reporting in UK Sterling. Results were positively impacted by the devaluation following the 'Brexit' vote. Excluding foreign exchange movements, the disclosed return on equity was 15.8% on a pre-tax basis. At the other end of the spectrum, XL's reported results continue to be distorted by certain life retrocession arrangements. Based on operating income, the return on equity was placed at 3.6%.

Exhibit 28: 1H 2016 Common Net Income ROE (Annualized)



Source: Company reports, Aon Benfield Market Analysis

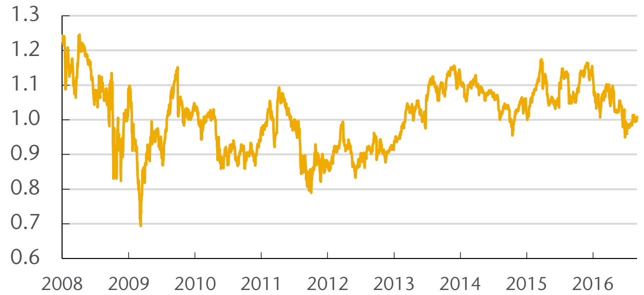
ABA Valuation

As at August 31, 2016, the overall market capitalization of the ABA companies had declined by 6% since the beginning of the year. The trailing price-to-book ratio reduced from 1.13x to 1.01x over the same period.

Exhibit 29: ABA Market Capitalization

Source: Bloomberg *Note: As of August 31, 2016*

Exhibit 31: ABA Trailing Price-to-Book Ratio

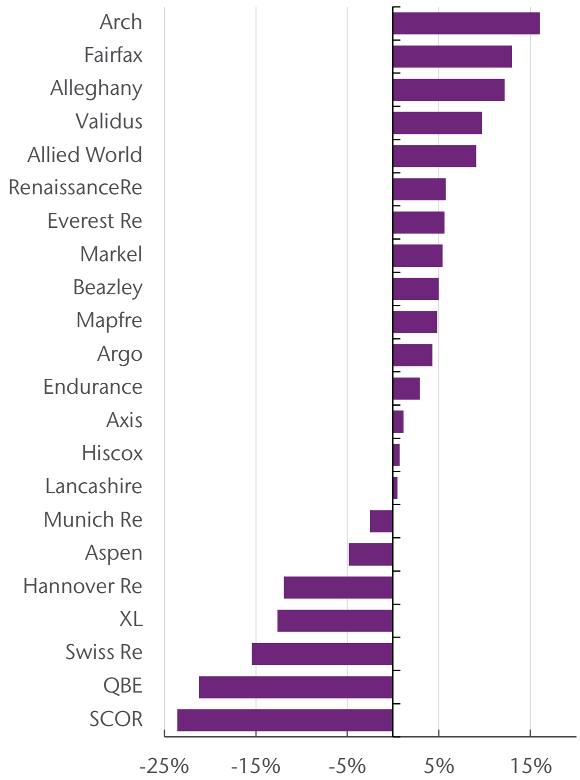


Source: Bloomberg *Note: As of August 31, 2016*

Exhibit 30 shows the share price development of individual ABA companies since the beginning of 2016.

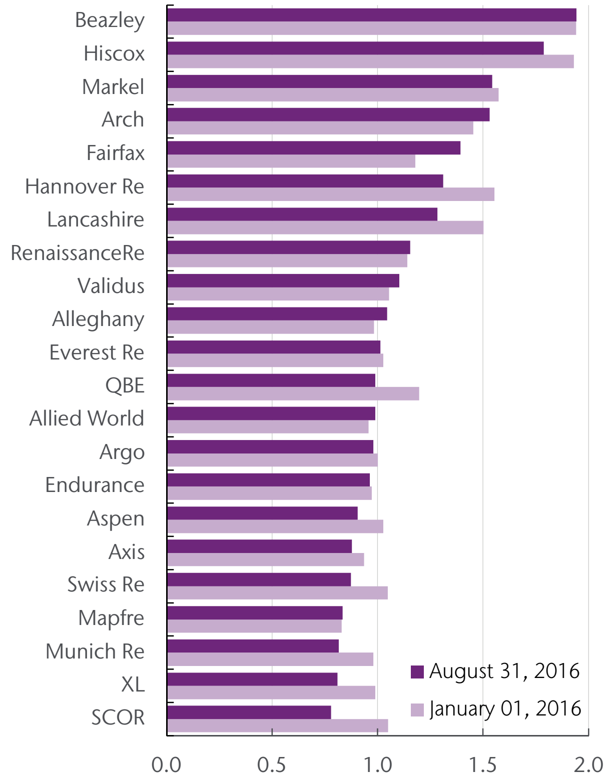
Exhibit 32 shows the evolution of the trailing price-to-book values of individual ABA companies since the beginning of 2016.

Exhibit 30: Share Price Development Since Jan 1, 2016



Source: Bloomberg *Note: As of August 31, 2016*

Exhibit 32: Trailing Price-to-Book Ratios



Source: Bloomberg

Financial Strength Ratings

Exhibit 33: Financial Strength Ratings

Main Operating Entity	A.M. Best		Standard & Poor's	
Allied World Assurance Co Ltd	A	Stable	A	Stable
Arch Reinsurance Ltd	A+	Under Review Developing	A+	Negative
Argo Re Ltd	A	Stable	-	-
Aspen Bermuda Ltd	A	Stable	A	Stable
Axis Specialty Ltd	A+	Stable	A+	Stable
Beazley Syndicate 2623 (Lloyd's)	A	Stable	A+	Stable
Endurance Specialty Insurance Ltd	A	Stable	A	Stable
Everest Reinsurance (Bermuda) Ltd	A+	Stable	A+	Stable
Hannover Rück SE	A+	Stable	AA-	Stable
Hiscox Insurance Company (Bermuda) Ltd	A	Stable	A	Stable
Lancashire Insurance Company Ltd	A	Stable	A-	Positive
MAPFRE Re, Compania de Reaseguros SA	A	Stable	A	Stable
Markel Bermuda Ltd	A	Stable	A	Positive
Munich Reinsurance Co	A+	Stable	AA-	Stable
Odyssey Reinsurance Company	A	Stable	A-	Stable
Partner Reinsurance Co Ltd	A	Stable	A+	Negative
QBE Re (Europe) Ltd	A	Stable	A+	Positive
Renaissance Reinsurance Ltd	A+	Negative	AA-	Stable
SCOR Global P&C SE	A	Positive	AA-	Stable
Swiss Reinsurance Co	A+	Stable	AA-	Stable
Transatlantic Reinsurance Co	A+	Stable	A+	Stable
Validus Reinsurance Ltd	A	Stable	A	Stable
XL Bermuda Ltd	A	Stable	A+	Positive

Source: A.M. Best, Standard & Poor's Ratings as at August 31, 2016

Upgrade / outlook raised since September 2015

Downgrade / outlook lowered since September 2015

New rating assigned March 18, 2016

Appendix : ABA Data

Exhibit 34: Results for the Six Months Ended June 30, 2016

Company	Reporting Currency (millions)	P&C Gross Premiums Written 1H 2015	P&C Gross Premiums Written 1H 2016	Change	P&C Net Premiums Earned 1H 2015	P&C Net Premiums Earned 1H 2016	Change
Alleghany	USD	2,568	2,999	17%	2,092	2,483	19%
Allied World	USD	1,707	1,664	-3%	1,215	1,183	-3%
Arch	USD	2,541	2,768	9%	1,854	1,958	6%
Argo	USD	1,035	1,080	4%	681	690	1%
Aspen	USD	1,642	1,777	8%	1,203	1,344	12%
Axis	USD	2,867	3,280	14%	1,845	1,849	0%
Beazley	USD	1,100	1,124	2%	858	861	0%
Endurance	USD	2,163	2,749	27%	848	1,153	36%
Everest Re	USD	2,680	2,717	1%	2,558	2,508	-2%
Fairfax	USD	4,117	4,964	21%	3,142	3,707	18%
Hannover Re	EUR	4,972	4,627	-7%	3,894	3,838	-1%
Hiscox	GBP	1,096	1,288	18%	710	768	8%
Lancashire	USD	424	431	2%	298	251	-16%
Mapfre	EUR	9,639	9,511	-1%	7,046	7,091	1%
Markel	USD	2,518	2,670	6%	1,901	1,909	0%
Munich Re[1]	EUR	9,002	9,117	1%	8,455	8,535	1%
PartnerRe	USD	2,522	2,422	-4%	1,948	1,844	-5%
QBE	USD	8,692	8,107	-7%	6,229	5,615	-10%
RenaissanceRe	USD	1,306	1,621	24%	677	705	4%
SCOR	EUR	2,859	2,801	-2%	2,450	2,477	1%
Swiss Re	USD	11,093	12,685	14%	8,995	9,832	9%
Validus	USD	1,845	1,937	5%	1,149	1,145	0%
XL	USD	5,482	7,890	44%	3,383	4,880	44%
ABA (Total)	USD	87,536	93,828	7%	66,352	69,518	5%

Source: Company reports, Aon Benfield Market Analysis
Figures in reporting currencies, but converted to USD (millions) for ABA lines

[1]*P&C reinsurance segment only (as disclosed)*

Exhibit 34: Results for the Six Months Ended June 30, 2016 (cont'd)

Company	Calendar Year						
	Loss Ratio 1H 2015	Loss Ratio 1H 2016	Expense Ratio 1H 2015	Expense Ratio 1H 2016	Combined Ratio 1H 2015	Combined Ratio 1H 2016	Change
Alleghany	54.6%	59.6%	33.8%	32.8%	88.4%	92.5%	4.0pp
Allied World	62.3%	62.4%	31.7%	31.8%	94.0%	94.2%	0.3pp
Arch	54.7%	56.6%	34.4%	33.6%	89.1%	90.2%	1.1pp
Argo	55.0%	56.3%	39.5%	38.5%	94.5%	94.8%	0.2pp
Aspen	55.4%	59.5%	35.8%	36.7%	91.2%	96.2%	5.0pp
Axis	59.2%	61.2%	36.1%	36.0%	95.3%	97.2%	1.9pp
Beazley	48.7%	50.6%	37.0%	39.1%	85.7%	89.7%	4.1pp
Endurance	48.5%	53.7%	35.6%	31.8%	84.1%	85.5%	1.5pp
Everest Re	58.4%	62.2%	27.1%	28.5%	85.5%	90.7%	5.1pp
Fairfax	59.0%	60.1%	32.6%	34.4%	91.6%	94.5%	2.9pp
Hannover Re[1]	69.9%	67.8%	25.7%	27.8%	95.6%	95.7%	0.1pp
Hiscox	35.7%	42.8%	46.8%	37.8%	82.5%	80.6%	-1.9pp
Lancashire	32.0%	29.1%	43.1%	47.1%	75.1%	76.2%	1.2pp
Mapfre	70.8%	69.9%	28.3%	27.6%	99.1%	97.5%	-1.6pp
Markel	51.7%	51.6%	37.9%	38.8%	89.6%	90.4%	0.8pp
Munich Re[2]	61.8%	62.7%	31.1%	31.6%	92.8%	94.3%	1.5pp
PartnerRe	55.8%	67.7%	30.9%	33.9%	86.7%	101.7%	15.0pp
QBE	59.8%	64.8%	35.5%	34.2%	95.3%	99.0%	3.7pp
RenaissanceRe	36.4%	41.8%	30.4%	34.3%	66.7%	76.1%	9.3pp
SCOR	59.3%	61.5%	31.6%	32.3%	90.9%	93.8%	2.9pp
Swiss Re	54.3%	63.1%	34.6%	34.9%	88.9%	98.0%	9.2pp
Validus	44.1%	46.4%	33.9%	36.1%	78.0%	82.5%	4.5pp
XL	56.8%	61.8%	32.7%	32.5%	89.5%	94.3%	4.8pp
ABA (Total)	59.0%	62.0%	32.5%	32.7%	91.4%	94.7%	3.2pp

Source: Company reports, Aon Benfield Market Analysis

[1]Excluding funds withheld
[2]P&C reinsurance segment only (as disclosed)

Exhibit 34: Results for the Six Months Ended June 30, 2016 (cont'd)

Company	Accident Year						
	Prior Year Reserve Adjustment 1H 2015	Prior Year Reserve Adjustment 1H 2016	Prior Year Reserve Adjustment as % of NPE 1H 2015	Prior Year Reserve Adjustment as % of NPE 1H 2016	Accident Year Combined Ratio 1H 2015	Accident Year Combined Ratio 1H 2016	Change
Alleghany	-96	-175	4.6%	7.1%	93.0%	99.5%	6.5pp
Allied World	-86	-63	7.0%	5.4%	101.0%	99.6%	-1.4pp
Arch	-147	-142	7.9%	7.3%	97.0%	97.4%	0.4pp
Argo	-9	-16	1.3%	2.3%	95.8%	97.1%	1.3pp
Aspen	-59	-43	4.9%	3.2%	96.1%	99.4%	3.3pp
Axis	-121	-148	6.5%	8.0%	101.9%	105.2%	3.3pp
Beazley	-75	-77	8.7%	9.0%	94.3%	98.7%	4.4pp
Endurance	-116	-120	13.7%	10.4%	97.7%	95.9%	-1.8pp
Everest Re	-18	-29	0.7%	1.2%	86.2%	91.8%	5.6pp
Fairfax	-152	-260	4.8%	7.0%	96.5%	101.5%	5.1pp
Hannover Re[1]	-100	-250	2.6%	6.5%	98.2%	102.2%	4.0pp
Hiscox	-123	-96	17.3%	12.5%	99.8%	93.1%	-6.6pp
Lancashire	-61	-57	20.6%	22.7%	95.6%	99.0%	3.4pp
Mapfre	0	0	0.0%	0.0%	99.1%	97.5%	-1.6pp
Markel	-296	-258	15.6%	13.5%	105.2%	103.9%	-1.2pp
Munich Re[2]	-301	-480	3.6%	5.6%	96.4%	100.0%	3.6pp
PartnerRe	-398	-332	20.4%	18.0%	107.1%	119.7%	12.6pp
QBE	-69	-218	1.1%	3.9%	96.4%	102.9%	6.4pp
RenaissanceRe	-55	-31	8.2%	4.4%	74.9%	80.4%	5.5pp
SCOR	0	-40	0.0%	1.6%	90.9%	95.4%	4.5pp
Swiss Re	-360	39	4.0%	-0.4%	92.9%	97.6%	4.8pp
Validus	-154	-117	13.4%	10.2%	91.5%	92.7%	1.2pp
XL	-157	-142	4.7%	2.9%	94.1%	97.2%	3.1pp
ABA (Total)	-3,062	-3,187	4.6%	4.6%	96.1%	99.3%	3.2pp

Source: Company reports, Aon Benfield Market Analysis
Figures in reporting currencies, but converted to USD (millions) for ABA lines

[1]Excluding funds withheld
[2]P&C reinsurance segment only (as disclosed)

Exhibit 34: Results for the Six Months Ended June 30, 2016 (cont'd)

Company	Net Investment Income 1H 2015	Net Investment Income 1H 2016	Capital Gains / Losses 1H 2015	Capital Gains / Losses 1H 2016	Total Investment Return 1H 2015	Total Investment Return 1H 2016	Change
Alleghany	216	212	70	63	286	275	-4%
Allied World	87	109	23	116	110	225	105%
Arch	188	197	46	51	234	249	7%
Argo	50	57	14	-5	64	52	-19%
Aspen	94	98	28	82	122	179	47%
Axis	181	141	-54	-45	126	96	-24%
Beazley	28	28	15	35	44	63	44%
Endurance	74	55	26	9	100	64	-36%
Everest Re	248	235	-35	-42	213	194	-9%
Fairfax	409	339	-512	518	-103	857	n.m.
Hannover Re	748	693	50	52	799	745	-7%
Hiscox	20	21	7	19	27	40	50%
Lancashire	20	17	0	-7	21	10	-53%
Mapfre	964	965	136	158	1,100	1,123	2%
Markel	183	186	12	38	195	225	15%
Munich Re	3,613	3,185	1,567	885	5,180	4,070	-21%
PartnerRe	225	204	-140	359	85	563	565%
QBE	290	255	282	149	572	404	-29%
RenaissanceRe	90	91	-1	160	89	251	181%
SCOR	264	246	110	112	374	358	-4%
Swiss Re	1,788	1,864	823	1,014	2,611	2,878	10%
Validus	68	64	5	81	73	145	100%
XL	401	349	9	11	410	360	-12%
ABA (Total)	10,914	10,215	2,701	3,963	13,615	14,177	4%

Source: Company reports, Aon Benfield Market Analysis
Figures in reporting currencies, but converted to USD (millions) for ABA lines
n.m. = not meaningful

Exhibit 34: Results for the Six Months Ended June 30, 2016 (cont'd)

Company	Pre-Tax Result 1H 2015	Pre-Tax Result 1H 2016	Change	Pre-Tax Return on Equity* 1H 2015	Pre-Tax Return on Equity* 1H 2016	Change
Alleghany	411	346	-16%	10.9%	8.9%	-2.0pp
Allied World	141	235	67%	7.6%	13.2%	5.6pp
Arch	454	455	0%	12.7%	12.3%	-0.5pp
Argo	97	73	-25%	11.7%	8.5%	-3.2pp
Aspen	184	183	-1%	10.9%	10.4%	-0.5pp
Axis	240	176	-27%	8.1%	6.0%	-2.2pp
Beazley	155	150	-3%	23.0%	21.3%	-1.7pp
Endurance	198	210	6%	12.2%	8.2%	-4.0pp
Everest Re	609	363	-40%	14.9%	9.3%	-5.6pp
Fairfax	-42	408	n.m.	-0.8%	6.6%	7.4pp
Hannover Re	741	709	-4%	17.9%	15.8%	-2.0pp
Hiscox	135	206	53%	18.8%	25.8%	6.9pp
Lancashire	89	57	-36%	13.2%	9.0%	-4.1pp
Mapfre	814	905	11%	14.5%	16.8%	2.2pp
Markel	340	330	-3%	8.8%	8.0%	-0.7pp
Munich Re	2,267	1,869	-18%	14.9%	11.9%	-3.0pp
PartnerRe	221	428	94%	6.2%	12.3%	6.1pp
QBE	681	347	-49%	12.3%	6.6%	-5.7pp
RenaissanceRe	254	360	42%	9.4%	12.4%	3.0pp
SCOR	455	366	-20%	15.5%	11.6%	-3.9pp
Swiss Re	2,859	2,298	-20%	16.5%	13.0%	-3.4pp
Validus	279	331	18%	13.9%	16.8%	2.9pp
XL	678	123	-82%	10.6%	1.8%	-8.8pp
ABA (Total)	12,830	11,466	-11%	12.6%	11.0%	-1.5pp

Source: Company reports, Aon Benfield Market Analysis
Figures in reporting currencies, but converted to USD (millions) for ABA lines
n.m. = not meaningful

**Pre-tax profit as a percentage of average total equity*

Exhibit 34: Results for the Six Months Ended June 30, 2016 (cont'd)

Company	Common Net Income 1H 2015	Common Net Income 1H 2016	Change	Post-Tax Return on Equity* 1H 2015	Post-Tax Return on Equity* 1H 2016	Change
Alleghany	308	232	-25%	8.1%	6.0%	-2.2pp
Allied World	134	228	70%	7.2%	12.8%	5.6pp
Arch	388	355	-9%	13.4%	11.6%	-1.8pp
Argo	87	59	-32%	10.5%	6.9%	-3.6pp
Aspen	158	160	2%	11.1%	10.8%	-0.3pp
Axis	219	158	-28%	8.3%	6.0%	-2.4pp
Beazley	133	129	-3%	19.8%	18.3%	-1.5pp
Endurance	176	183	4%	12.5%	8.1%	-4.4pp
Everest Re	532	327	-38%	14.0%	8.4%	-5.6pp
Fairfax	14	166	n.m.	0.3%	3.6%	3.3pp
Hannover Re	532	486	-9%	14.0%	11.8%	-2.2pp
Hiscox	129	198	53%	18.0%	24.7%	6.7pp
Lancashire	93	60	-35%	13.8%	9.5%	-4.2pp
Mapfre	316	380	21%	7.1%	8.7%	1.6pp
Markel	282	239	-15%	7.4%	5.9%	-1.5pp
Munich Re[1]	1,860	1,404	-25%	12.3%	9.0%	-3.3pp
PartnerRe	129	338	163%	4.1%	11.1%	6.9pp
QBE	490	265	-46%	8.9%	5.1%	-3.8pp
RenaissanceRe	241	264	10%	12.2%	12.2%	0.0pp
SCOR	327	275	-16%	11.2%	8.7%	-2.4pp
Swiss Re	2,269	1,866	-18%	13.1%	10.6%	-2.5pp
Validus	239	262	9%	13.2%	14.2%	1.0pp
XL	951	66	-93%	17.1%	1.1%	-16.0pp
ABA (Total)	10,428	8,481	-18.7%	11.0%	8.8%	-2.2pp

Source: Company reports, Aon Benfield Market Analysis
Figures in reporting currencies, but converted to USD (millions) for ABA lines
n.m. = not meaningful

**Common net income as a percentage of average common equity*

Exhibit 34: Results for the Six Months Ended June 30, 2016 (cont'd)

Company	Cash and Investments FY 2015	Cash and Investments 1H 2016	Change	Shareholders' Funds FY 2015	Shareholders' Funds 1H 2016	Change
Alleghany	18,308	18,665	2%	7,555	7,918	5%
Allied World	9,240	9,599	4%	3,533	3,584	1%
Arch	15,992	16,838	5%	6,205	6,704	8%
Argo	4,237	4,279	1%	1,668	1,740	4%
Aspen	8,848	8,988	2%	3,419	3,615	6%
Axis	14,550	14,531	0%	5,867	5,964	2%
Beazley	4,525	4,400	-3%	1,441	1,379	-4%
Endurance	8,945	8,748	-2%	4,856	4,845	0%
Everest Re	16,955	17,701	4%	7,609	7,985	5%
Fairfax	28,547	29,378	3%	10,287	10,754	5%
Hannover Re	53,298	52,632	-1%	8,068	8,421	4%
Hiscox	3,663	4,005	9%	1,528	1,667	9%
Lancashire	2,113	2,135	1%	1,220	1,289	6%
Mapfre	45,793	49,655	8%	8,574	8,946	4%
Markel	18,181	19,153	5%	7,834	8,438	8%
Munich Re	216,941	222,196	2%	30,667	31,730	3%
PartnerRe	17,113	17,510	2%	6,901	7,023	2%
QBE	26,721	25,770	-4%	10,505	10,325	-2%
RenaissanceRe	9,506	9,466	0%	4,732	4,703	-1%
SCOR	29,186	29,337	1%	6,330	6,252	-1%
Swiss Re	127,643	146,210	15%	33,517	36,913	10%
Validus	8,673	9,045	4%	3,639	3,866	6%
XL	36,972	37,087	0%	11,677	11,685	0%
ABA (Total)	758,699	797,785	5%	193,178	202,422	5%

Source: Company reports, Aon Benfield Market Analysis
Figures in reporting currencies, but converted to USD (millions) for ABA lines

Contacts

Mike Van Slooten
Head of Market Analysis - International
Aon Benfield Analytics
+44.207.522.8106
mike.vanslooten@aonbenfield.com

Mike McClane
Head of Market Analysis - Americas
Aon Benfield Analytics
+1.215.751.1596
michael.mcclane@aonbenfield.com

Marie Teissier
Senior Analyst - Market Analysis
Aon Benfield Analytics
+44.207.522.3951
marie.teissier@aonbenfield.com

Kathryn Moyse
Analyst - Market Analysis
Aon Benfield Analytics
+44.207.522.8173
kathryn.moyse@aonbenfield.com

Disclaimers

Best's Credit Ratings are under continuous review and subject to change and/or affirmation. For the latest Best's Credit Ratings and Best's Credit Reports (which include Best's Credit Ratings), visit the A.M. Best website at http://www.ambest.com. See Guide to Best's Credit Ratings for explanation of use and charges.

Best's Credit Ratings reproduced herein appear under license from A.M. Best and do not constitute, either expressly or impliedly, an endorsement of (Licensee's publication or service) or its recommendations, formulas, criteria or comparisons to any other ratings, rating scales or rating organizations which are published or referenced herein. A.M. Best is not responsible for transcription errors made in presenting Best's Credit Ratings. Best's Credit Ratings are proprietary and may not be reproduced or distributed without the express written permission of A.M. Best Company.

A Best's Financial Strength Rating opinion addresses the relative ability of an insurer to meet its ongoing insurance obligations. It is not a warranty of a company's financial strength and ability to meet its obligations to policyholders. View our Important Notice: Best's Credit Ratings for a disclaimer notice and complete details at http://www.ambest.com/ratings/notice.

Whilst care has been taken in the production of this report the information contained within it has been obtained from sources that Aon UK Limited believes to be reliable, Aon UK Limited does not warrant, represent or guarantee the accuracy, adequacy, completeness or fitness for any purpose of the report or any part of it and can accept no liability for any loss incurred in any way whatsoever by any person who may rely on it. In any case any recipient shall be entirely responsible for the use to which it puts this report.

Published by Aon UK Limited. Registered office: The Aon Centre, The Leadenhall Building, 122 Leadenhall Street London EC3V 4AN. Aon UK Limited is authorised and regulated by the Financial Conduct Authority.

About Aon

Aon plc (NYSE:AON) is a leading global provider of risk management, insurance brokerage and reinsurance brokerage, and human resources solutions and outsourcing services. Through its more than 72,000 colleagues worldwide, Aon unites to empower results for clients in over 120 countries via innovative risk and people solutions. For further information on our capabilities and to learn how we empower results for clients, please visit: http://aon.mediaroom.com.

Risk. Reinsurance. Human Resources.

Empower Results®