Willis Re

Reinsurance Market Report

Results for Half-Year 2017

September 2017

Contents

Key Findings

For the Willis Reinsurance Index* (INDEX):

- Shareholders' funds totalled USD 348.2B at HY 2017, a 1.2% increase from USD 344.1B at year-end 2016.
- Aggregate net income for HY 2017 reduced to USD 8.3B (HY 2016: USD 14.5B).
- Notably, the USD 10.8B of capital returned through dividends and share buybacks exceeded net income.
- Net income has been supported by realised investment gains of USD 3.4B (HY 2016: USD 3.8B).
- Growth of shareholders' funds was reliant on USD 8.3B of unrealised investment gains which were not reported within net income. This compares to unrealised investment gains of USD 9.6B at HY 2016.
- The aggregate RoE for the INDEX reduced to 4.6% (HY 2016: 8.3%), largely due to the accounting of a significant adverse development cover written by National Indemnity.
- The reported combined ratio for the INDEX at HY 2017 increased to 95.0% (HY 2016: 94.1%), despite a significant reduction in both Natural and Man-Made Catastrophe losses and continued substantial reserve releases, albeit reduced from HY 2016 due to the Ogden rate change**.

For the SUBSET*** within the INDEX that breaks out the relevant disclosure:

- Reported RoE of 8.4% at HY 2017 for the SUBSET, down from 8.9% at HY 2016.
- Underlying RoE for the SUBSET decreased to 3.7% at HY 2017, continuing the downward trend from 4.5% at HY 2016 and 4.9% at HY 2015.
- The HY 2017 reported combined ratio for the SUBSET increased marginally to 94.0% (HY 2016: 93.7%).
- Aggregate net income for HY 2017 reduced to USD 8.0B (HY 2016: USD 8.5B).
- Profitability continues to be reliant on releases of prior year reserves. As shown in Chart 7, reserve releases accounted for 26.2% of net income, a significant reduction from 36% at HY 2016.

Alternative capital increased to USD 75B**** from USD 70B at HY 2016.

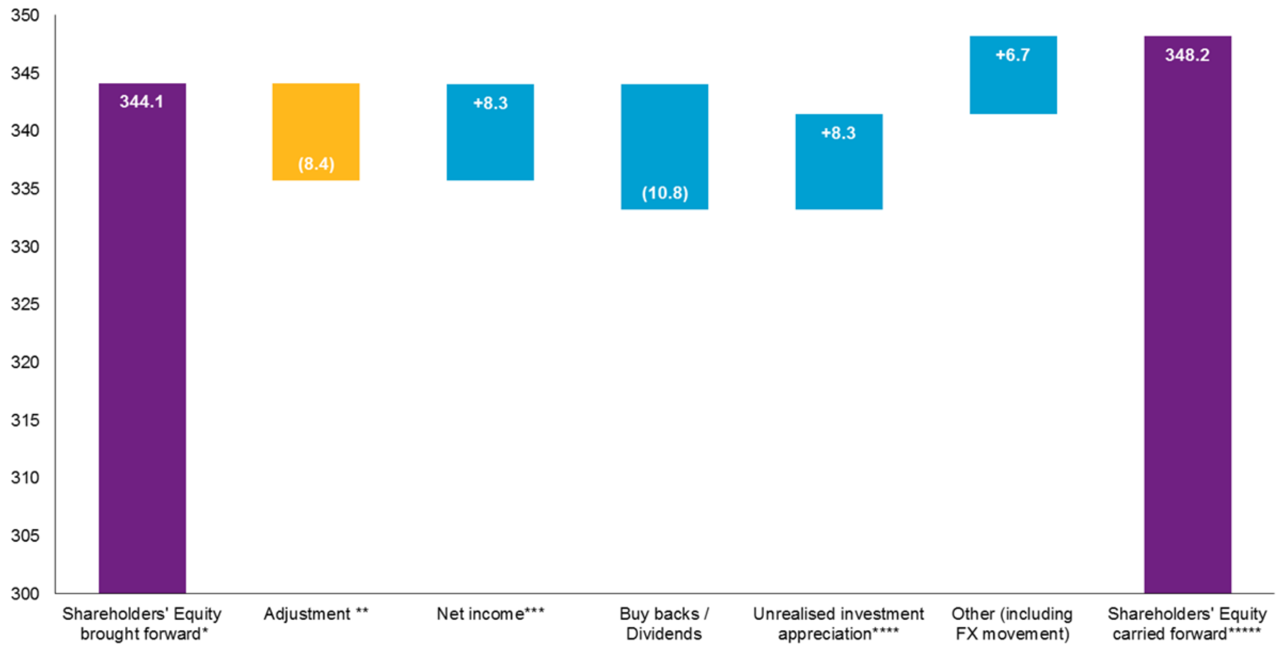
*- INDEX relates to those companies listed within Appendix 1 of this report.
- **Ogden rate change relates to the March 2017 changes to U.K.-specific discount rates in the government's actuarial "Ogden Tables". The Ogden rate is currently under review by the U.K. government.
***- SUBSET is defined as those companies that make the relevant disclosure in relation to cat losses and prior year reserve releases. All constituents of the SUBSET are publicly listed groups that comprise 56% of the aggregate capital INDEX
****- Capital Markets commentary provided by Willis Towers Watson Securities
http://www.willis.com/client_solutions/services/wcma/

Summary

Capital

For the INDEX:

- Aggregate shareholders' funds totalled USD 348.2B at HY 2017, a 1.2% increase since our year-end 2016 report.



* *As per latest financial statements issued since date of previous Willis Re report, generally as at half year ending Jun 30, 2017.*
** *Removal of Endurance and Allied World from the INDEX due to their acquisition by Sompo and Fairfax respectively.*
*** *Net income of USD 8.3B includes a significant level of realised investment gains (USD 3.4B).*
**** *Unrealised investment appreciation that is not reported within net income.*
***** *As per latest financial statements issued by Aug 21, 2017 generally as at half year ending Jun 30, 2017.*

- Growth in shareholders' funds was supported by net income of USD 8.3B (HY 2016: USD 14.5B).
- Continued active capital management returned USD 10.8B through share buybacks and dividends (HY 2016: USD 10.6B).
- The USD 4.1B increase in shareholders' funds was reliant on unrealised investment gains of USD 8.3B which were not reported within net income.
- The USD 8.4B adjustment is made to reflect the removal of Allied World and Endurance from the INDEX.
- Including other major regional and local reinsurers, and a pro-rated portion of capital within major groups whose reinsurance portfolio is <10% of their total premium, we derive an estimate of USD 378.0B (Year-end 2016: USD 374B) of aggregate shareholders' equity for the traditional reinsurance market.
- Including capital from alternative markets the figure of USD 378.0B increases by USD 75B to approximately USD 453.0B (Year-end 2016: USD 449B).
- If 100% of the capital within the major groups above is included the figure is estimated at USD 546.7B
- Including capital from alternative markets the figure of USD 546.7B increases by USD 75B to approximately USD 621.7B (Year-end 2016: USD 668B).

Return of Capital

For the INDEX:

- Share buybacks returned USD 3.4B of capital, equivalent to 1.0% of aggregate opening shareholders' equity (HY 2016: USD 3.1B, 1.0%).
- USD 7.4B returned through ordinary or special dividends, or 2.2% of aggregate opening shareholders' funds (HY 2016: USD 7.5B, 2.3%).
- A total of USD 10.8B was returned to shareholders, accounting for approximately 121% of net income (HY 2016: 10.6B, 84%).

For the SUBSET:

- Share buybacks returned USD 2.1B of capital, equivalent to 1.1% of aggregate opening shareholders' equity (HY 2016: USD 3.2B, 1.7%).
- USD 5.2B returned through ordinary or special dividends, or 2.7% of aggregate opening shareholders' funds (HY 2016, USD 5.2B, 2.9%).
- A total of USD 7.3B was returned to shareholders', accounting for 92% of HY net income (HY 2016, USD 8.4B, 98%).

Return on Equity

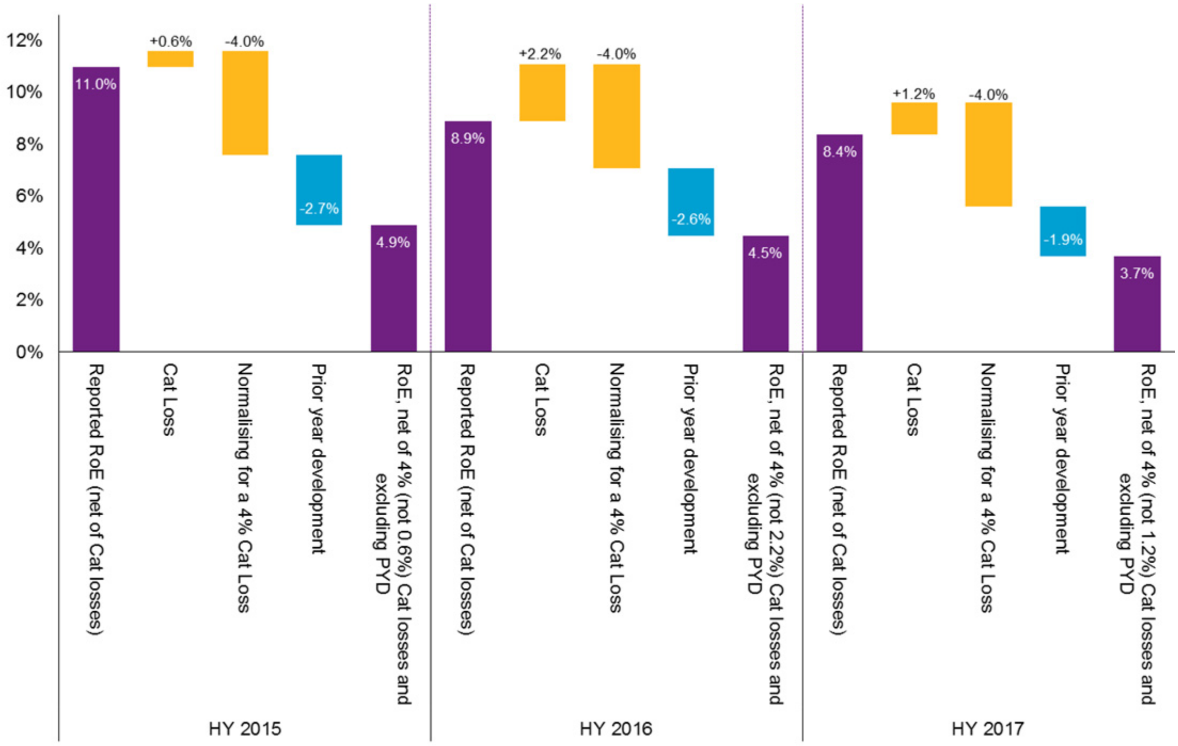
For the INDEX:

- The aggregate RoE for the INDEX reduced to 4.6% (HY 2016: 8.3%), largely due to the accounting of a significant adverse development cover written by National Indemnity.
- Excluding National Indemnity, on a like for like basis the remaining INDEX constituents returned an aggregate RoE of 7.8% (HY 2016: 8.7%).
- This deterioration in reported ROEs was despite a significant reduction in both Natural and Man-made Catastrophe losses and continued significant reserve releases.
- Investment yields reduced to 2.8% from 3.1% at HY 2016.

For the SUBSET:

- As the RoE analysis for the SUBSET shows, the reported RoE was 8.4% (HY 2016: 8.9%).
- If we normalise for a more typical catastrophe load (equivalent to a c. 4% impact on RoE) and exclude the benefit provided by reserve releases, underlying profitability deteriorates to 3.7%, continuing the downward trend from 4.5% at HY 2016 and 4.9% at HY 2015.

RoE analysis for the SUBSET



Note: Recalibrated due to adjustment of methodology and composition of the INDEX.

Underwriting

For the INDEX:

- The aggregate reported net written premium (NWP) rose by 2.0% to USD 129.8B (HY 2016: USD 127.3B).
- Ongoing rate pressure has resulted in further efforts to diversify underwriting platforms. Target reinsurance growth areas have included structured P&C, life, health, and certain specialty lines such as cyber and mortgage business. Premium growth for some constituents of the INDEX has been supported by further allocation of capital to primary business.
- The reported combined ratio for the INDEX increased to 95.0% (HY 2016: 94.1%).

For the SUBSET:

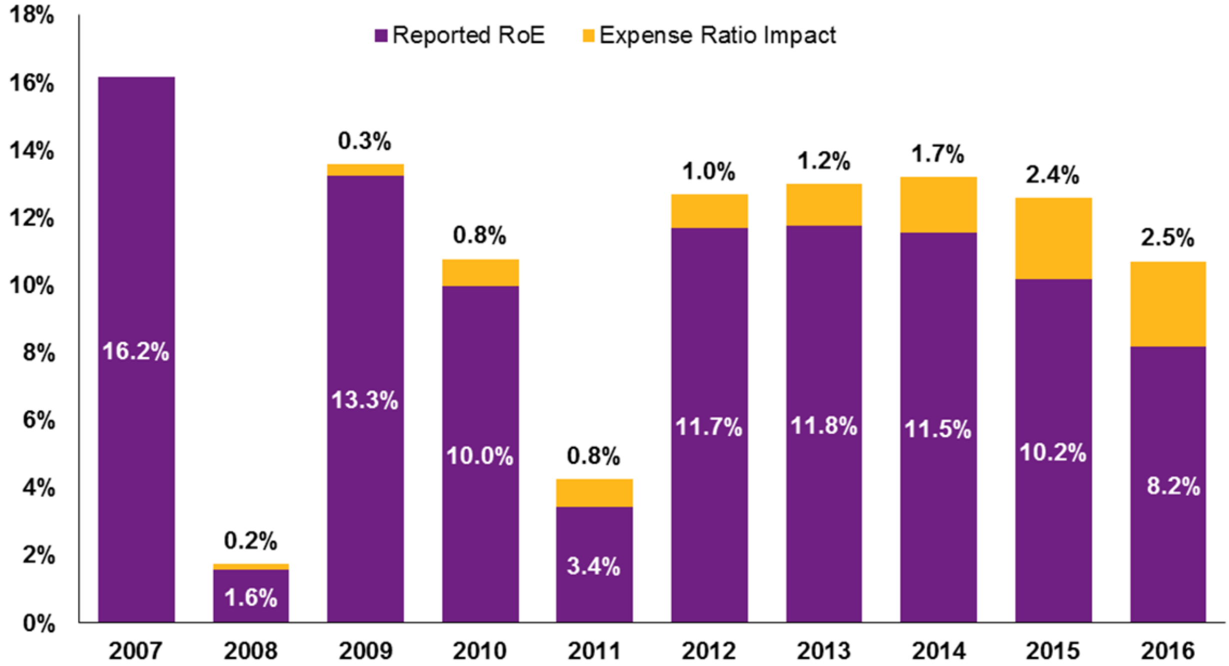
- The reported combined ratio for the SUBSET increased marginally to 94.0% (HY 2016: 93.7%), despite a 2.3 percentage point drop in the impact from Natural Catastrophe losses.
- The benefit provided by reserve releases decreased to 3.6 percentage points (HY 2016: 5.2 percentage points), largely due to the impact of the Ogden rate change.
- Excluding Natural Catastrophe losses and prior year reserve releases, the Ex-Cat Accident Year combined ratio increased to 95.3% (HY 2016: 94.3%).

Combined Ratio analysis for the SUBSET

	Weighted Average	
SUBSET	**HY 2016**	**HY 2017**
Reported Combined Ratio	93.7%	94.0%
Favourable Development of Prior Years	5.2%	3.6%
Accident Year Combined Ratio	98.9%	97.6%
Catastrophe Loss	4.6%	2.3%
Ex-Cat Accident Year Combined Ratio	94.3%	95.3%

Expense Ratios as at year-end 2016 report

Impact of Expense Ratio Movement on RoE for the SUBSET (Base Year – 2007)



Source: SNL Financial and Willis Towers Watson Market Security

As highlighted in our year-end 2016 report, if each of the constituents of the SUBSET had been able to maintain an expense ratio at their respective 2007 levels, the aggregate RoE of 8.2% reported at FY 2016 would have been approximately 2.5 percentage points higher.

Catastrophe Loss

- Global insured catastrophe losses reduced to USD 23B (HY 2016: USD 36B), largely due to a reduction in insured Natural Catastrophe losses to USD 20B (HY 2016: USD 30B), significantly below the 10 year average of USD 29B. (Swiss Re Sigma figures).
- Natural Catastrophe losses for the SUBSET approximately halved to USD 1.3B.
- This equates to 2.3% of aggregate net earned premium (NEP) (HY 2016: 4.6%) or approximately a 1.2 percentage point impact after tax on the aggregate annualised RoE (HY 2016: 2.2 percentage points).

Note: For the purposes of this report the term catastrophe loss reflects generally large single event claims as reported by the companies themselves. A catastrophe related loss may therefore not appear in our numbers as 'Cat Loss' unless it reaches a value that exceeds the company's own threshold for disclosure.

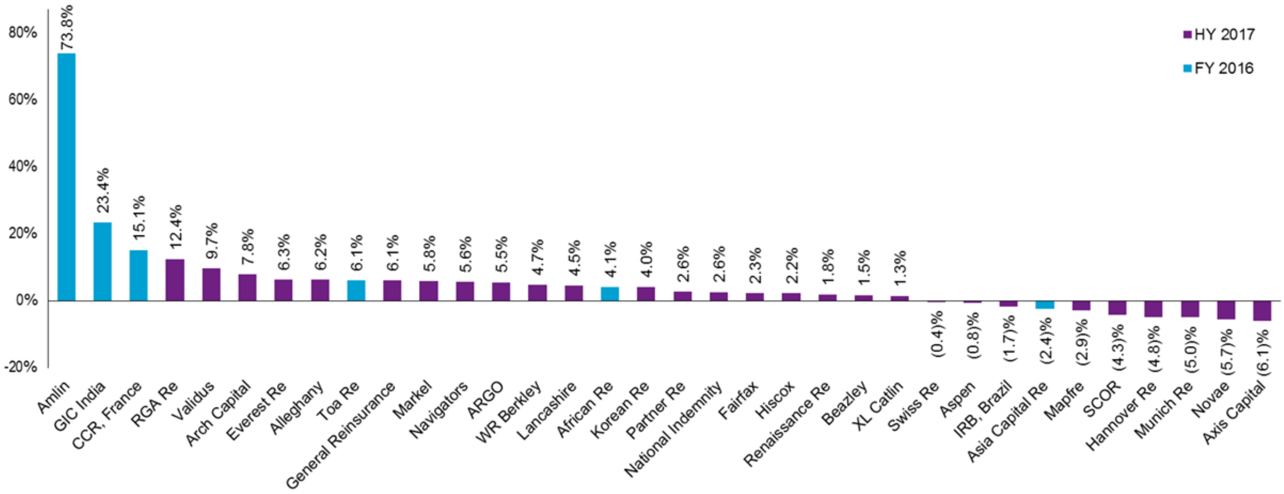
Capital

Highlights for the INDEX

- Shareholders' equity increased to USD 348.2B, a 1.2% increase from USD 344.1B at year-end 2016.
- Active capital management has continued with reinsurers returning USD 10.8B to shareholders through share buy-backs and dividends.
- A USD 8.4B adjustment is made to reflect the removal of Allied World and Endurance from the INDEX.
- The aggregate RoE for the INDEX reduced to 4.6% (HY 2016: 8.3%), largely due to the accounting of a significant adverse development cover written by National Indemnity.
- Excluding National Indemnity, on a like for like basis the remaining INDEX constituents returned an aggregate RoE of 7.8% (HY 2016: 8.7%).

As Chart 1 shows for the INDEX, there was considerable variation in shareholders' equity movements on a company by company basis.

Chart 1: Movement in consolidated shareholders' equity, reported as at HY 2017 for the INDEX



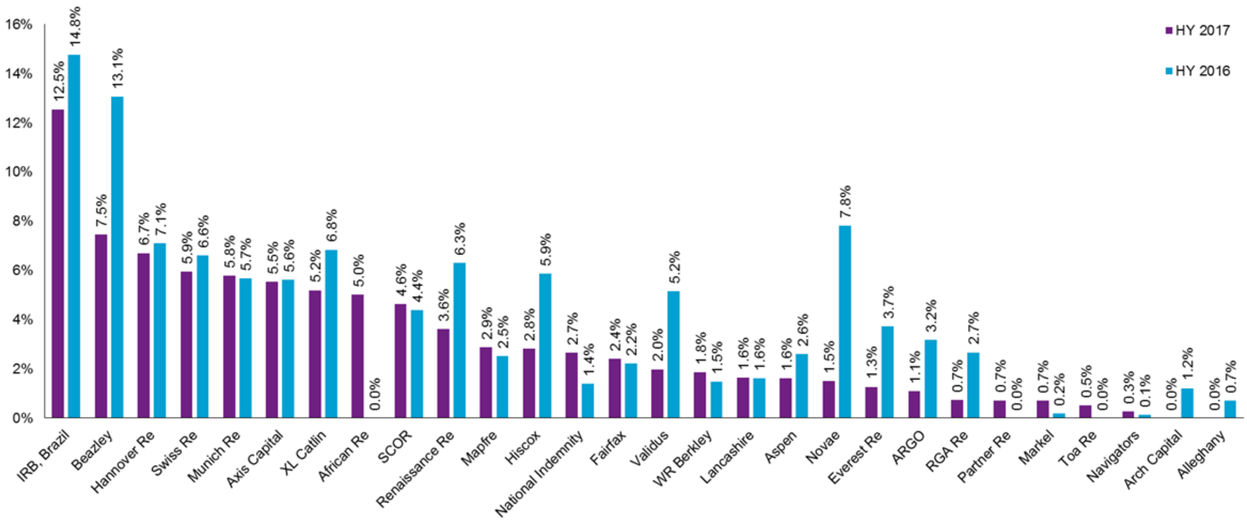
The 1.2% increase in shareholders' equity was supported by net income of USD 8.3B (HY 2016: USD 14.5B) which benefited from continued substantial reserve releases and a significant reduction in both Natural and Man-Made Catastrophe losses. In addition, net income benefited from realised investment gains of USD 3.4B (HY 2016: USD 3.8B). Aggregate shareholders' funds also benefited from a USD 8.3B increase in unrealised investment gains which were not reported within net income.

Partially offsetting these positive contributions, the adjustment of USD 8.4B reflected the removal of Allied World and Endurance from the INDEX. Reinsurers continued to return capital through share buybacks and dividends of USD 10.8B (HY 2016: USD 10.6B).

Active Capital Management

The ongoing challenge of profitably deploying capital has seen continued focus on active capital management. Share buybacks have continued due to remaining capacity from buyback programs issued in prior periods in addition to further new authorisations from several reinsurers. Continued pricing pressure for property catastrophe business has seen further capital allocation to other reinsurance classes including structured P&C, life, health, and certain specialty lines including cyber and mortgage business. Some constituents of the INDEX have also increased their allocation of capital to primary business.

Chart 2: Capital returned through share buybacks and ordinary and special dividends for the INDEX



The constituents of our INDEX returned USD 10.8B of capital through share buybacks and dividends compared to USD 10.6B at HY 2016. Ordinary and special dividends accounted for USD 7.4B (HY 2016: USD 7.5B). Share buybacks increased marginally to USD 3.4B (HY 2016: USD 3.1B).

As shown in Table 1, new authorisations for large share buyback programs continued in HY 2017. Due to the continued challenge of significant excess capacity we expect share buybacks to remain an important part of capital management for the constituents of our INDEX for the remainder of 2017.

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Table 1: Recent announcements of share repurchase programs for the INDEX

Company	Date	Action	Capacity outstanding as % of Shareholders' Equity, Dec 31, 2016
Everest Re	19-Nov-14	Approved increase in share repurchase authorisation by a further 30 million shares.	4.9%
WR Berkley	02-Jun-15	Share repurchase authorisation increased to 10 million shares of common stock, of which 6.85 million remain available as at June 30, 2017.	5.6%
Alleghany	Nov-15	USD 400M repurchase program authorised upon completion of the 2014 program. As at June 30, 2017, USD 379.2M remains outstanding.	4.5%
Argo	03-May-16	Authorised a repurchase of up to USD 150M of common shares which supersedes all previous authorisations. As at June 30, 2017, USD 127.5M remains outstanding.	6.7%
Fairfax	28-Sep-16	Normal course issuer bid commenced which authorised acquisition of up to 800,000 subordinate voting shares until expiry on September 27, 2017.	3.1%
Axis	09-Dec-16	Repurchase plan authorised for up to USD 1B of common shares during 2017, replacing the previous plan which had USD 253M available through to the end of 2016. USD 739M remained outstanding as at August 8, 2017.	12.5%
RGA Re	26-Jan-17	Authorised a repurchase program of up to USD 400M of common stock, effective immediately and without expiration date. This replaced the 2016 repurchase authority.	5.0%
Aspen	08-Feb-17	Approved new share repurchase authorisation program of up to USD 250M over a two year period. USD 10M was repurchased by June 30, 2017.	6.6%
XL Catlin	17-Feb-17	New program authorised for the repurchase of up to USD 1B of shares, replacing the May 2016 program which had USD 349M remaining. By June 30, 2017, repurchases of USD 350M had been made under the new program.	5.9%
Swiss Re	23-Feb-17	New public share buy-back program of up to CHF 1B authorised. CHF 1B of repurchases were made in the period between November 4, 2016 to February 9, 2017 to conclude the previous program.	2.8%
Munich Re	15-Mar-17	Repurchase programme authorised for up to EUR 1B in the period between April 27, 2017 and 25 April, 2018. EUR 138m utilised by June 30, 2017.	2.9%
Lancashire	03-May-17	Shareholders approved renewal of a repurchase programme of up to 20 million shares.	
Renaissance Re	17-May-17	Share repurchase program authorised for an aggregate amount of up to USD 500M.	9.8%
Validus	30-Jun-17	Announced that USD 306M remains under its authorised share repurchase program.	7.3%
Scor	26-Jul-17	Announced buyback program of up to EUR 200M over the next 24 months such that its holding in its treasury stock does not exceed 10% of its share capital.	3.1%

Summary and Outlook

The constituents of the INDEX continue to face the challenge of significant excess capacity which has been further exacerbated by a USD 4.1B increase in shareholders' equity at HY 2017.

Reported RoEs decreased significantly, largely due to the accounting of a substantial adverse development cover written by National Indemnity. Excluding National Indemnity, on a like for like basis the aggregate RoE for the remaining INDEX constituents deteriorated to 7.8% (HY 2016: 8.7%) despite a reduction in insured Natural Catastrophe losses to USD 20B (HY 2016: USD 30B), significantly below the 10 year average of USD 29B. Profitability also benefited from a reduction in insured Man-made Catastrophe losses to USD 3B compared to USD 6B at HY 2016. (Swiss Re Sigma figures). Reinsurers also continue to bolster profitability through substantial reserve releases, albeit reduced from HY 2016 due to the Ogden rate change.

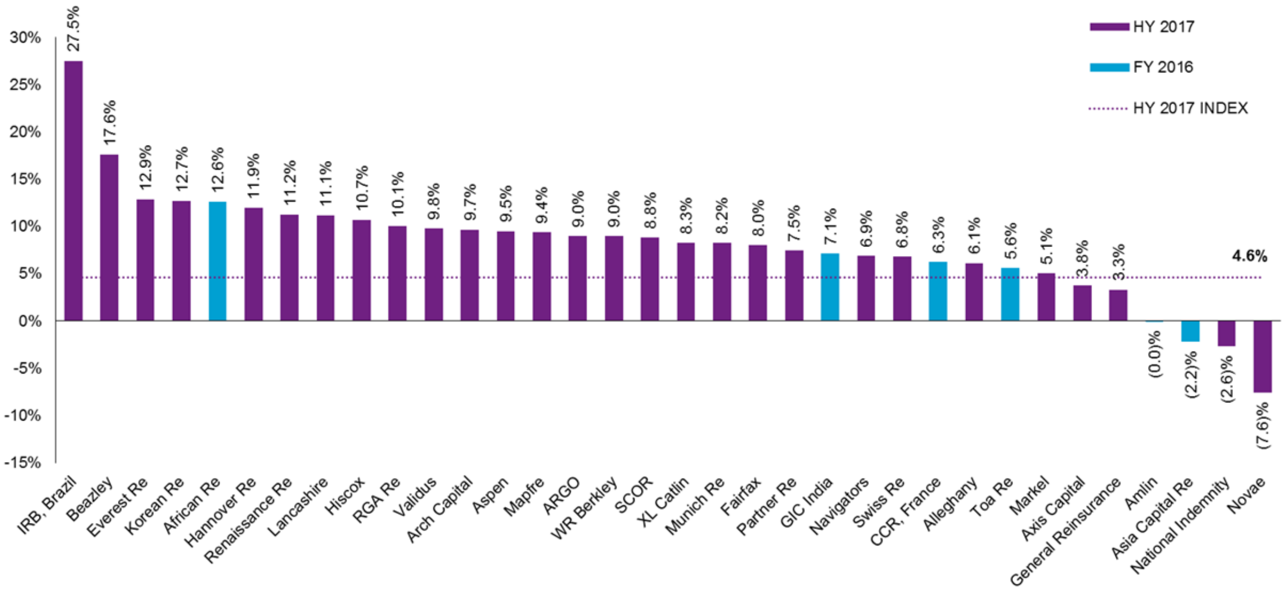
Going forward, RoEs may come under further pressure in the event of a normalisation of Natural Catastrophe losses or a reduction in the quantum of reserve releases reported in recent periods.

Earnings

For the INDEX:

- As shown in Chart 3, the RoE for the INDEX weakened to 4.6% (HY 2016: 8.3%), largely due to the accounting of a significant adverse development cover written by National Indemnity.
- Excluding National Indemnity, on a like for like basis the remaining INDEX constituents returned an aggregate RoE of 7.8% (HY 2016: 8.7%).
- Investment yields reduced to 2.8% from 3.1% at HY 2016. As shown in Chart 12, investment yields achieved by a significant number of INDEX constituents were lower than this average.
- The aggregate reported combined ratio for the INDEX increased to 95.0% (HY 2016: 94.1%).
- Earnings also benefited from one off support provided from realised investment gains of USD 3.4B (HY 2016: USD 3.8B).

Chart 3: HY 2017 net income as % of average shareholders' equity (RoE) for the INDEX



For the SUBSET:

- Despite a significant reduction in Natural Catastrophe losses, the reported RoE of the SUBSET deteriorated to 8.4% compared with 8.9% at HY 2016.
- This result continued to rely on substantial reserve releases which provided 1.9 percentage point uplift to RoE (HY 2016: 2.6 percentage points).
- The underlying RoE for the SUBSET decreased to 3.7%, continuing the downward trend from 4.5% at HY 2016 and 4.9% at HY 2015.

Underwriting Performance

For the INDEX:

- Due to ongoing pricing pressure, reinsurers continue to moderate their exposure to catastrophe exposed business, including for their U.S. business.
- Diversification of reinsurance portfolios has continued with growth targeted in structured P&C, life, health, and certain specialty lines such as cyber and mortgage business. Premium growth for some constituents of the INDEX has been supported by further allocation of capital to primary business.
- Premium levels for some constituents of the INDEX benefited from large structured reinsurance transactions.
- Reported combined ratios have increased to 95.0% (HY 2016: 94.1%) despite a significant reduction in both Natural and Man-Made Catastrophe losses and continued substantial reserve releases.
- Rising expense bases also continue to apply downward pressure on underwriting returns.

For the SUBSET:

- Excluding Natural Catastrophe losses and prior year reserve releases, the Ex-Cat Accident Year combined ratio deteriorated to 95.3% (HY 2016: 94.3%).

	Weighted Average		
SUBSET	**HY 2015**	**HY 2016**	**HY 2017**
Reported Combined Ratio	90.0%	93.7%	94.0%
Favourable Development of Prior Years	5.5%	5.2%	3.6%
Accident Year Combined Ratio	95.5%	98.9%	97.6%
Catastrophe Loss	1.3%	4.6%	2.3%
Ex-Cat Accident Year Combined Ratio	94.2%	94.3%	95.3%

Premium Volumes

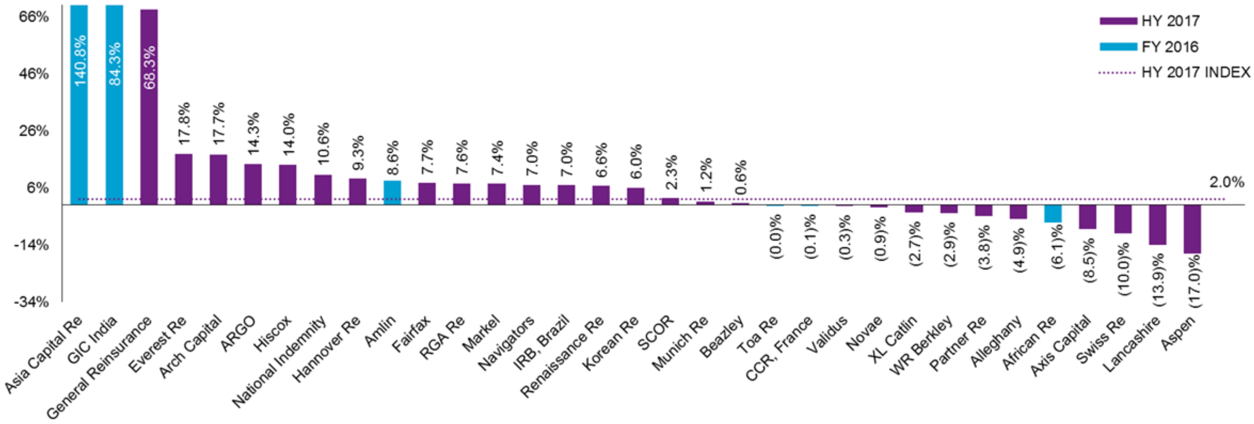
Chart 4 shows that HY 2017 NWP for the INDEX increased by approximately 2.0% from HY 2016. We continue to see significant variation between the constituents of the INDEX.

Factors influencing this growth include:

- Premium growth for a number of the INDEX constituents has been supported through mergers or acquisitions, including Arch Capital (acquired United Guaranty), ARGO (Ariel Re), and Fairfax (Allied World).
- The substantial growth of 140.8% reported by Asia Capital Re largely reflected a change in financial year-end.
- Factors supporting the 84.3% growth reported by GIC India included significant growth in the domestic insurance market as well as expansion of its overseas business. The 68.3% growth reported by General Reinsurance reflected a change in distribution arrangements.
- Some INDEX constituents have achieved premium growth through significant individual structured reinsurance transactions or increased pro rata business.
- The INDEX constituents continue to diversify their underwriting, targeting reinsurance growth in structured P&C, life, health and certain specialty lines including cyber and mortgage business. Some reinsurers have also targeted further growth in primary business.

- Premiums have been reduced by a number of reinsurers due to continued pricing pressure, including for U.S. catastrophe business. Double digit premium reductions were reported by Swiss Re, Lancashire and Aspen.

Chart 4: HY 2017 movement in net written premium for the INDEX



Combined Ratios

Reported combined ratios for the INDEX increased marginally despite a significant reduction in both Natural and Man-made Catastrophe losses and continued substantial support from reserve releases.

For the INDEX:

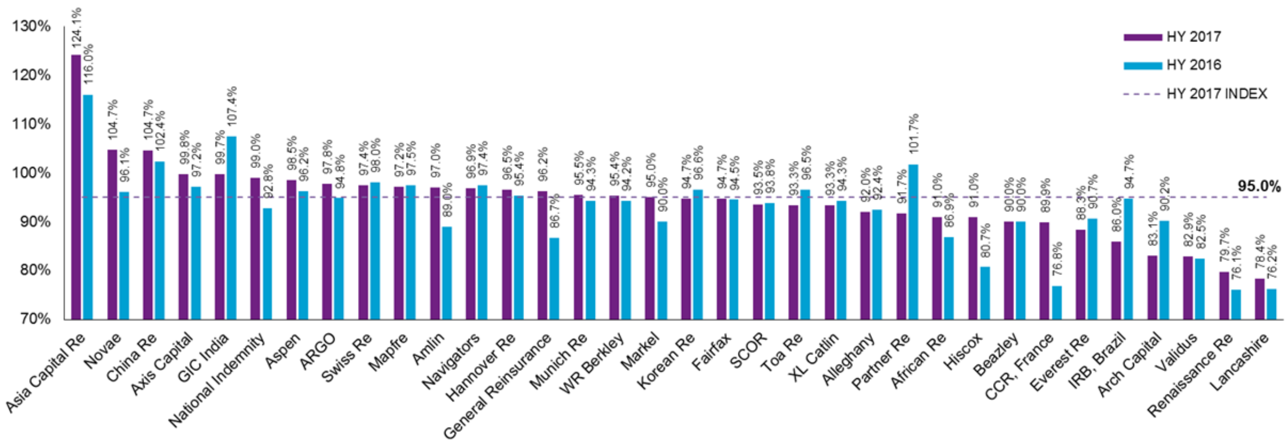
- The reported combined ratio increased to 95.0% (HY 2016: 94.1%) despite benign Natural Catastrophe experience.
- This level of profitability remained heavily reliant on substantial reserve releases, albeit reduced from HY 2016 due to the Ogden rate change. One off support to profitability was also provided by significant realised investment gains.

For the SUBSET:

- The reported combined ratio for the SUBSET increased marginally to 94.0% (HY 2016: 93.7%), despite a 2.3 percentage point reduction in the impact from Natural Catastrophe losses.
- Although still substantial, the benefit provided by reserve releases decreased to 3.6 percentage points (HY 2016: 5.2 percentage points), largely due to the Ogden rate change.
- Excluding Natural Catastrophe losses and prior year reserve releases, the Ex-Cat Accident Year combined ratio increased to 95.3% (HY 2016: 94.3%).
- Continued pockets of adverse reserve development were reported by a number of reinsurers, including for US asbestos and other casualty lines of business.

Chart 5 shows the reported combined ratio for the INDEX constituents at HY 2017 compared to HY 2016. The reported combined ratio increased to 95.0% (HY 2016: 94.1%) despite a significant reduction in both Natural and Man-made Catastrophe losses. This level of profitability remains dependent on substantial reserve releases. It also benefits from the one off support provided by significant realised investment gains.

Chart 5: HY 2017 reported combined ratios for the INDEX



In the subsections below we discuss the key components of the combined ratio for the SUBSET:

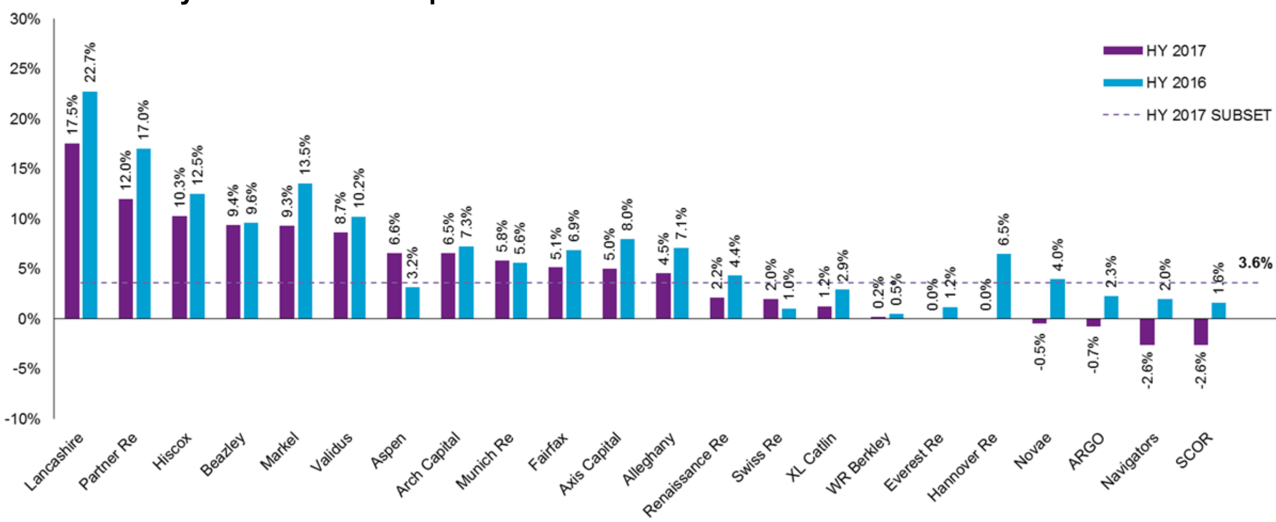
- Impact of prior year loss reserve development
- Catastrophe loss component
- Underlying accident year combined ratio (i.e. excluding the above two components).

Prior Year Loss Development

At HY 2017 the aggregate combined ratio for the SUBSET benefited by 3.6 percentage points due to continued significant reserve releases (HY 2016: 5.2 percentage points). This reduction was largely due to the Ogden rate change.

Chart 6 shows the effect of reserve releases on the SUBSET:

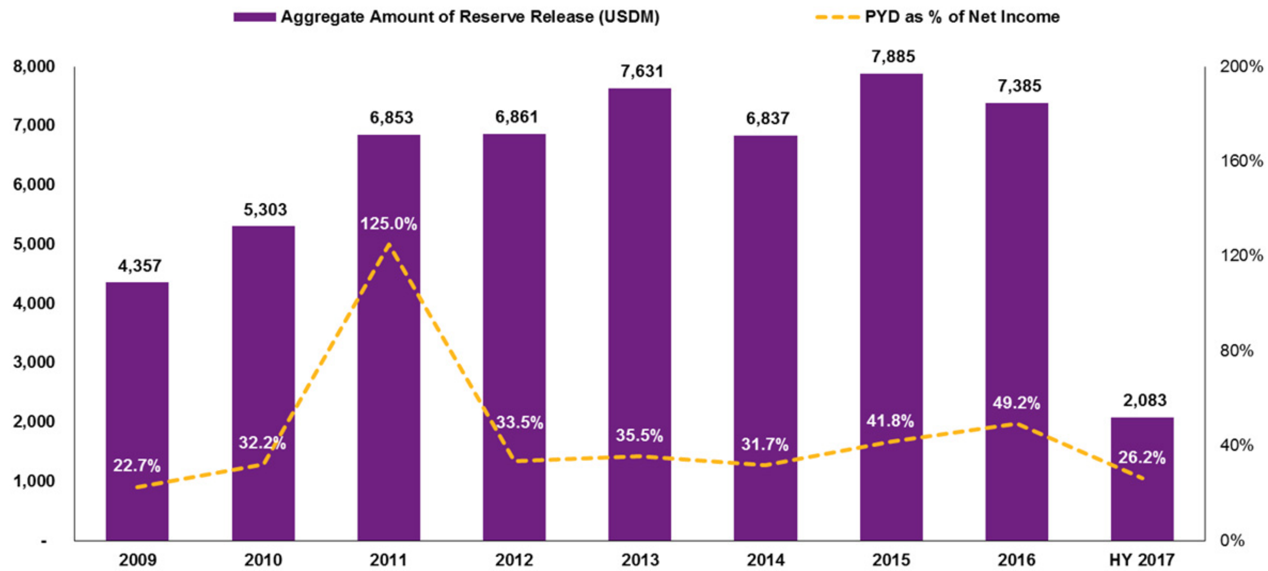
Chart 6: Prior year reserve development as % NEP for the SUBSET



Overall reserve releases continued to be significant, albeit reduced due to the Ogden rate change. Further pockets of adverse reserve development were reported at HY 2017, including for US asbestos and other casualty lines of business.

As shown in Chart 7, reserve releases accounted for 26.2% of net income for the SUBSET, a significant reduction from 36% at HY 2016.

Chart 7: Reserve Release Development across the SUBSET



Note: Aggregate reserve release calculated before tax. (HY 2017 reserve release estimate was 28.4% of aggregate net income on an after-tax basis).

Catastrophe Losses

Global insured catastrophe losses reduced significantly to USD 23B (HY 2016: USD 36B), largely due to a drop in Natural Catastrophe losses to USD 20B (HY 2016: USD 30B). (Swiss Re Sigma figures). Man-made Catastrophe losses reduced to USD 3B compared to USD 6B at HY 2016. Profitability may come under further pressure in future periods in the event of a normalisation in catastrophe losses.

As shown in Table 2, the costliest insured events included thunderstorm, hail and tornado losses in the U.S. in addition to cyclone Debbie in Australia.

Table 2: Major Losses HY 2017

(Insured loss estimate USD millions)

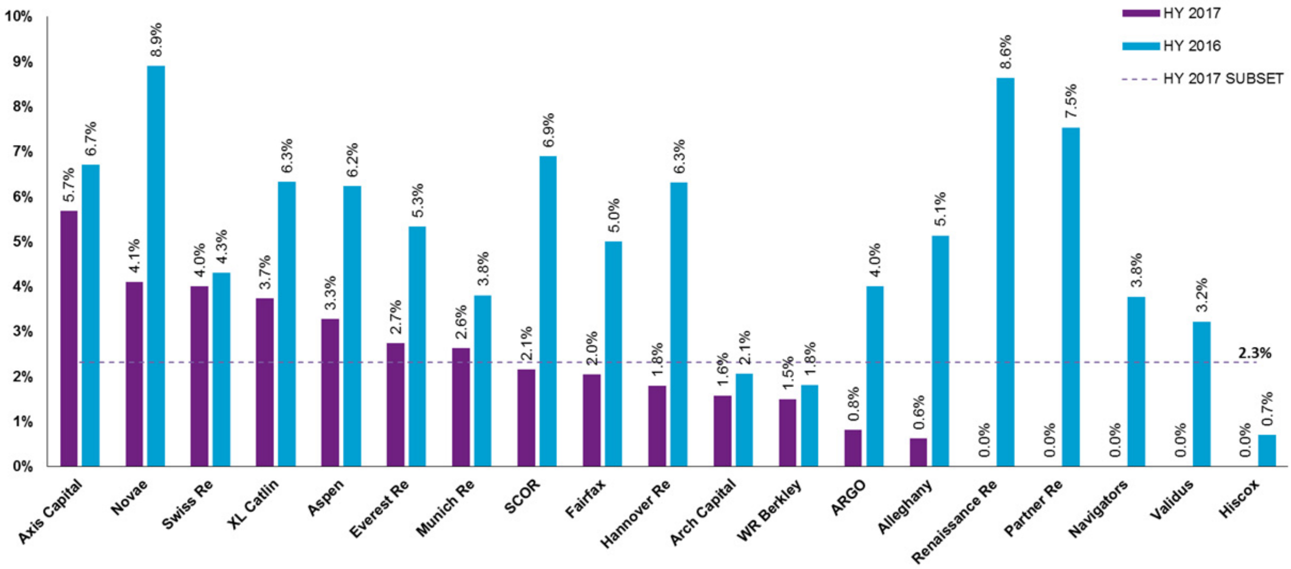
Natural Catastrophe Losses		
Date	**Description**	**Estimate**
8-11 May	Colorado Hail Storm Central Severe Weather, USA	1,800 - 1,900
6-9 March	South/Southeast Severe Weather, USA	1,600
28 Feb - 2 March	Midwest Tornado Outbreak, USA	1,400 - 1,500
25-28 March	Central/Southeast Tornado Outbreak, USA	1,400 - 1,500
27 March – 6 April	Cyclone Debbie, Australia	1,300 - 1,400
12- 14 June	Minnesota Hail Storm and Upper Midwest Severe Weather, USA	1,000
12 Jan – 7 March	European Windstorms – France, Germany, UK	680

Large Man-Made Losses		
Date	**Description**	**Estimate**
11 January	Takreer Ruwais refinery fire, Abu Dhabi	800 -1,000
5 January	Mexico riots	200 - 250
14 June	Grenfell Tower fire, UK	50 - 200

Loss estimates shown are taken from public sources and should not be taken as confirmation by Willis Towers Watson of reported losses

As shown in Chart 8, the weighted average combined ratio of the SUBSET included 2.3 percentage points due to catastrophe losses, a significant reduction from 4.6 percentage points at HY 2016.

Chart 8: Catastrophe loss component of combined ratio as % NEP for the SUBSET



Accident Year Performance, ex Catastrophe

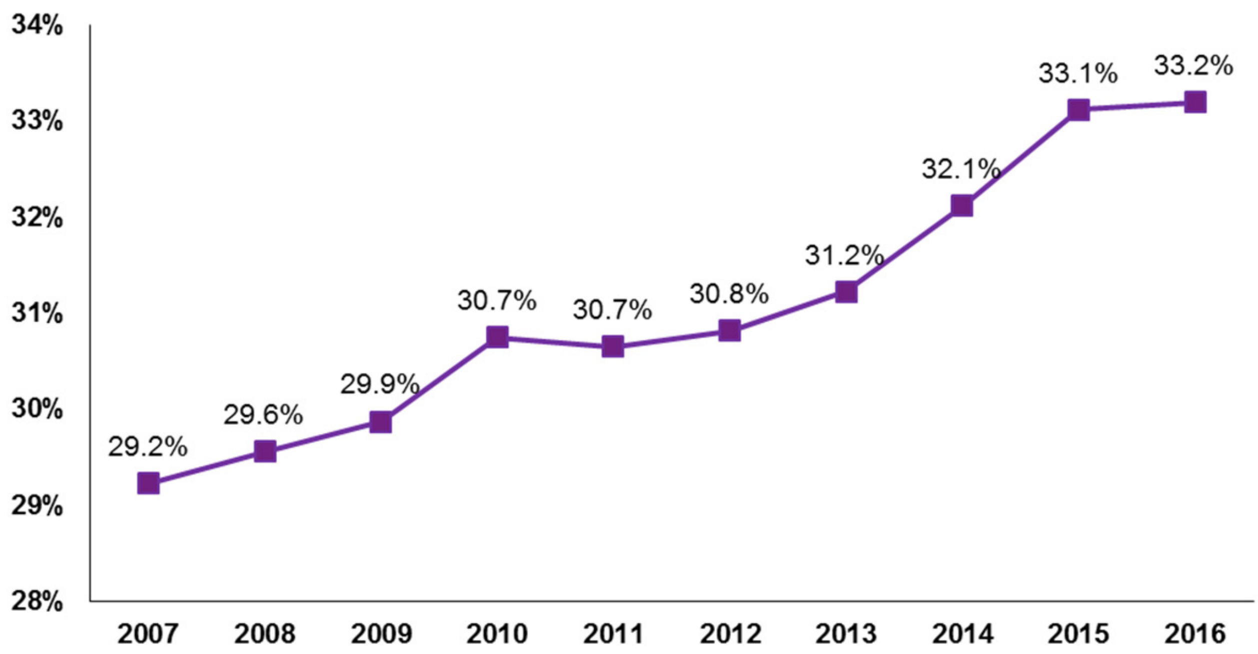
Excluding Natural Catastrophe losses and prior year reserve releases, the accident year combined ratio for the SUBSET deteriorated to 95.3% (HY 2016: 94.3%).

Chart 9: Ex Catastrophe accident year combined ratios for the SUBSET

Expense Ratios for the SUBSET as at year-end 2016 report

As noted in our year-end 2016 report, the expense ratio for the SUBSET increased marginally to 33.2% at FY 2016 (FY 2015: 33.1%). The aggregate expense ratio for the SUBSET has risen by 4.0 percentage points during 2007-2016.

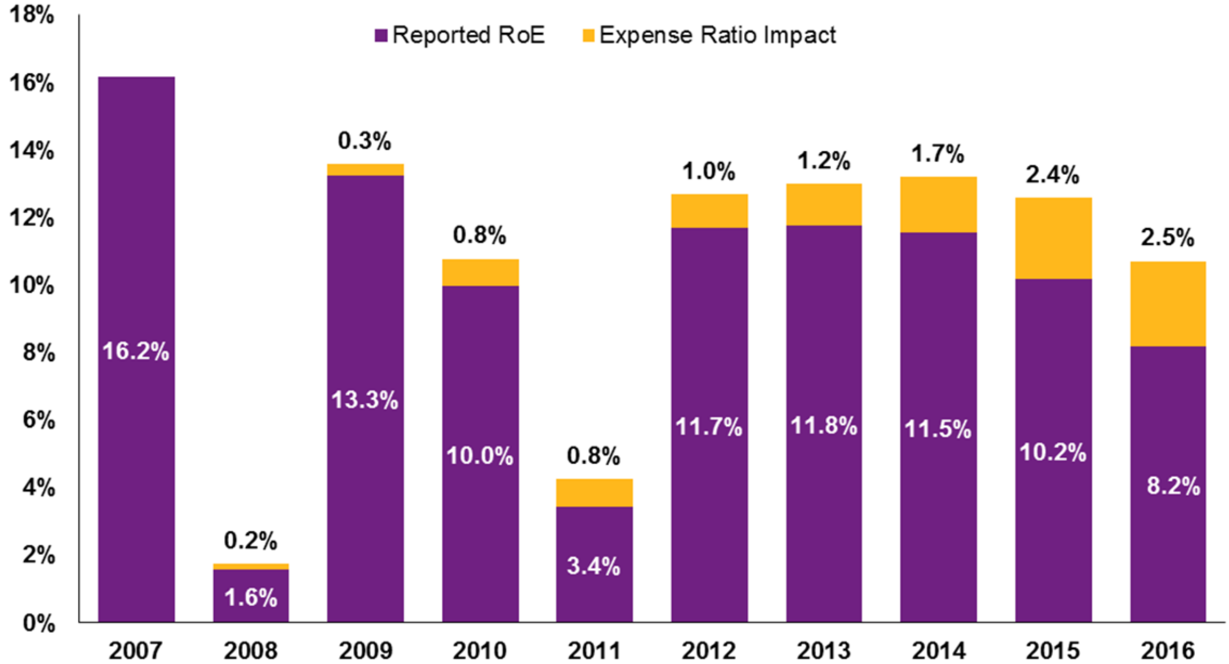
Chart 10: Weighted Average Expense Ratio for the SUBSET



Source: SNL Financial and Willis Towers Watson Market Security

- The factors outlined in our year-end 2016 report remain relevant with overall expense ratios increasing based upon the upward pressure in expenses and the continued reduction in reinsurance premiums.
- If each of the constituents of the SUBSET had been able to maintain an expense ratio at their respective 2007 levels, the aggregate RoE of 8.2% reported at FY 2016 would have been approximately 2.5 percentage points higher.

Chart 11: Impact of Expense Ratio Movement on RoE (Base Year – 2007) for the SUBSET as at year-end 2016 report



Source: SNL Financial and Willis Towers Watson Market Security

We continue to monitor this trend. A further review of the expense ratio will be undertaken in our year-end 2017 report.

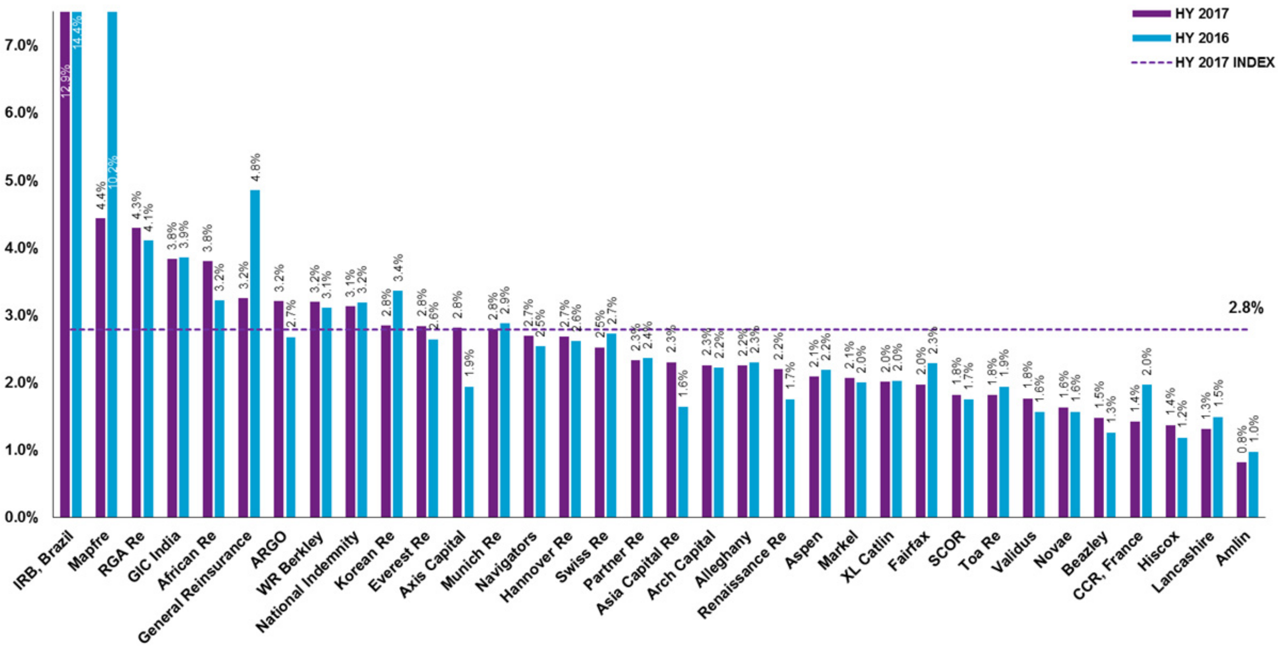
Modest Investment Returns

As shown in Chart 12, the weighted average investment return for the INDEX, excluding realised and unrealised gains, reduced to 2.8% from 3.1% at HY 2016.

Reinsurers with longer tail portfolios continue to face the challenge of reinvestment risk as they replace maturing investments with lower yielding bonds. Returns for reinsurers with shorter tail portfolios have been buoyed by realised gains due to continued strong equity performance, particularly in U.S. markets. In addition, a significant portion of the unrealised gains for the INDEX was due to increasing equity values.

In the remainder of 2017 and further ahead, ongoing low interest rates continue to exert downward pressure on investment returns. However, some relief will be provided by the further increase in U.S. interest rates in June 2017. Despite continued pressure on underwriting profits, INDEX constituents have not materially increased investment risk, partly due to near-term macroeconomic concerns.

Chart 12: Investment yield (net investment income as % of cash and invested assets) for the INDEX



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Appendices

1. **Half Year 2017 results summary for the Willis Reinsurance Index**

WILLIS TOWERS WATSON - MARKET SECURITY GROUP
Group consolidated Half Year 2017 Results Table

Consolidated Data (Millions)	Notes	Ccy	Shareholders' Equity					Net Written Premium					Net Income							Combined Ratio				
			HY 2017	HY 2016	FY 2016	FY 2015	Δ 6 mth	HY 2017	HY 2016	FY 2016	FY 2015	Δ HY / HY	HY 2017	HY 2016	FY 2016	FY 2015	Δ HY / HY	% Sh Equity * HY 2017	% Sh Equity * HY 2016	HY 2017	HY 2016	FY 2016	FY 2015	Ppts better HY / HY
African Re		USD			812	780				557	593	-			100	104						91.0%	86.9%	
Alleghany		USD	8,435	7,918	7,940	7,555	6.2%	2,526	2,657	5,092	4,489	-4.9%	251	232	457	560	8.4%	6.1%	6.0%	92.0%	92.4%	91.9%	89.0%	0.4 ppts
Amlin		GBP			3,209	1,846				2,654	2,445				- 0	237						97.0%	89.0%	
Arch Capital		USD	8,899	6,666	8,254	6,205	7.8%	2,525	2,145	4,031	3,818	17.7%	416	366	693	538	13.6%	9.7%	11.4%	83.1%	89.7%	89.9%	89.5%	6.6 ppts
ARGO		USD	1,891	1,740	1,793	1,668	5.5%	791	691	1,440	1,402	14.3%	83	59	147	163	41.1%	9.0%	6.9%	97.8%	94.8%	96.2%	95.2%	-3.0 ppts
Asia Capital Re	(2)	USD			772	791				298	124				- 17	- 38						124.1%	112.0%	0.0 ppts
Aspen		USD	3,619	3,615	3,647	3,419	-0.8%	1,265	1,525	2,594	2,646	-17.0%	172	179	203	323	-3.9%	9.5%	10.2%	98.5%	96.2%	98.1%	91.9%	-2.3 ppts
Axis Capital		USD	5,893	5,964	6,272	5,867	-6.1%	2,465	2,693	3,753	3,675	-8.5%	116	178	513	642	-35.0%	3.8%	6.0%	99.8%	97.2%	95.9%	94.7%	-2.6 ppts
Beazley		USD	1,506	1,379	1,484	1,441	1.5%	936	930	1,854	1,713	0.6%	132	129	251	249	2.3%	17.6%	18.3%	90.0%	90.0%	89.0%	87.0%	0.0 ppts
CCR France	(1)	EUR			2,400	2,085				1,281	1,253				141	216						89.9%	76.8%	
China Re	(1)(4)	CNY		69,326	71,182	70,187			48,159	83,140	74,679			2,699	5,146	7,579			3.9%		95.4%	102.5%	102.4%	
Everest Re		USD	8,585	7,985	8,075	7,609	6.3%	2,753	2,336	5,271	5,378	17.8%	537	327	996	978	64.1%	12.9%	8.4%	88.3%	90.7%	87.0%	83.4%	2.4 ppts
Fairfax		USD	10,048	10,754	9,820	10,287	2.3%	4,489	4,169	8,088	7,521	7.7%	394	188	- 513	568	110.0%	7.9%	3.6%	94.7%	94.5%	92.5%	89.9%	-0.2 ppts
General Reinsurance**		USD	11,311	11,105	10,661	11,051	6.1%	438	260	550	548	68.3%	183	609	742	571	-70.0%	3.3%	11.0%	95.2%	84.6%	92.5%	95.5%	-10.6 ppts
GIC India	(1)	INR			484,821	392,826				301,746	163,748		-	-	31,278	28,485						99.7%	107.4%	
Hannover Re	(1)	EUR	8,562	8,421	8,997	8,068	-4.8%	8,123	7,435	14,604	14,850	9.3%	535	488	1,171	1,151	9.6%	12.2%	11.8%	96.5%	95.4%	93.7%	94.4%	-1.1 ppts
Hiscox		GBP	1,858	1,667	1,818	1,528	2.2%	1,014	889	1,788	1,572	14.0%	98	198	337	210	-50.5%	10.7%	24.7%	91.0%	80.7%	84.4%	85.0%	-10.3 ppts
IRB Brazil	(3)(4)	BRL	3,272	3,046	3,328	3,175	-1.7%	1,926	1,801	3,543	2,457	6.9%	454	414	850	764	9.7%	27.5%	26.6%	83.6%	88.0%	82.0%	83.8%	4.4 ppts
Korean Re	(1)	KRWbn	2,202	2,147	2,112	2,015	4.3%	2,498	2,356	4,698	4,369	6.0%	135	108	160	186	25.5%	12.5%	10.3%	94.7%	96.6%	98.8%	97.3%	1.9 ppts
Lancashire		USD	1,261	1,289	1,207	1,220	4.5%	240	279	459	482	-13.9%	69	60	154	181	14.5%	11.1%	9.5%	78.4%	76.2%	76.5%	72.1%	-2.2 ppts
Mapfre	(3)	EUR	8,860	8,946	9,127	8,574	-2.9%	9,875	9,487	19,038	17,988	4.1%	415	380	776	709	9.1%	9.2%	8.7%	97.2%	97.5%	97.4%	98.6%	0.3 ppts
Markel		USD	8,954	8,438	8,461	7,834	5.8%	2,398	2,233	4,001	3,819	7.4%	220	239	456	583	-8.2%	5.0%	5.9%	95.0%	90.0%	92.0%	89.0%	-5.0 ppts
Munich Re	(1)(5)	EUR	29,947	31,729	31,516	30,668	-5.0%	23,923	23,640	47,325	48,505	1.2%	1,283	1,404	2,580	3,107	-8.6%	8.3%	9.0%	95.5%	94.3%	95.7%	89.7%	-1.2 ppts
National Indemnity**		USD	103,904	90,361	101,286	89,829	2.6%	11,246	10,167	20,030	18,457	10.6%	- 1,347	2,805	7,577	7,271	-148.0%	-2.6%	6.2%	99.0%	92.8%	95.2%	93.2%	-6.3 ppts
Navigators		USD	1,244	1,182	1,178	1,096	5.6%	670	626	1,186	1,044	7.0%	42	39	83	81	6.4%	6.9%	6.9%	96.9%	97.4%	96.7%	94.1%	0.5 ppts
Novae		GBP	303	359	322	350	-5.7%	351	354	664	638	-0.9%	- 12	58	22	52	-120.2%	-7.6%	32.9%	104.7%	95.7%	103.6%	90.8%	-9.0 ppts
Partner Re		USD	6,865	7,023	6,688	6,901	2.6%	2,650	2,755	4,954	5,230	-3.8%	252	367	447	104	-31.2%	7.4%	10.5%	91.7%	101.7%	93.6%	85.6%	10.0 ppts
Renaissance Re		USD	4,955	4,703	4,867	4,732	1.8%	1,100	1,032	1,535	1,416	6.6%	275	276	503	431	-0.3%	11.2%	11.7%	79.7%	76.1%	72.5%	64.7%	-3.6 ppts
RGA Re	(1)(3)	USD	7,971	7,581	7,093	6,135	12.4%	4,846	4,504	9,249	8,571	7.6%	378	313	701	502	20.8%	10.0%	9.1%					
SCOR		EUR	6,374	6,252	6,661	6,330	-4.3%	6,893	6,138	12,577	12,077	12.3%	292	275	603	642	6.2%	9.0%	8.7%	93.5%	93.8%	93.1%	91.1%	0.3 ppts
Sirius		USD			2,208	2,183				938	847				87	325						95.1%	81.5%	
Swiss Re	(5)	USD	35,475	36,913	35,634	33,517	-0.4%	16,817	18,681	33,570	30,442	-10.0%	1,211	1,866	3,558	4,597	-35.1%	6.8%	10.6%	97.4%	97.2%	93.5%	87.4%	-0.2 ppts
Toa Re	(2)(4)	JPYbn		164	192	181			107	224	224			9	11	6			10.0%		88.9%	93.3%	96.5%	
Validus		USD	4,211	3,866	3,838	3,639	9.7%	1,727	1,733	2,359	2,229	-0.3%	196	262	359	375	-25.3%	9.7%	14.0%	82.9%	82.5%	84.2%	79.7%	-0.4 ppts
WR Berkley		USD	5,287	4,903	5,047	4,600	4.7%	3,211	3,306	6,424	6,190	-2.9%	232	228	602	504	1.7%	9.0%	9.6%	95.4%	94.2%	94.3%	93.7%	-1.2 ppts
XL Catlin		USD	11,081	11,685	10,939	11,677	1.3%	5,632	5,791	10,243	7,951	-2.7%	454	66	441	1,207	592.1%	8.3%	1.1%	93.3%	94.3%	94.2%	92.0%	1.0 ppts
Aggregate***		USD	318,448	314,027	338,553	316,941	-5.9%	135,006	141,563	271,266	278,254	-4.6%	7,512	12,667	26,248	29,886	-40.7%	4.8%	8.2%	94.6%	93.9%	94.4%	91.7%	-0.7 ppts

NB : Shaded rows in the above summary denote SUBSET groups.

*   *Full year Net Income as % of Average Shareholders' Equity.*

**   *General Reinsurance and National Indemnity: Numbers are sourced from unconsolidated financial statements.*

*** *Aggregate = Total of numbers reported, converted to USD at exchange rates prevailing at end of reporting period.*

(1) NWP includes both Life and Non-Life business.

(2) GIC India, Toa Re: Each has a March 31 financial year-end. Data for the year ended March 31, 2017 is included in the column headed Dec 31, 2016 (and similar for prior years).

(3) Figures for net premiums are Net Earned Premium, not Net Written Premiums.

(4) Combined ratios are Willis Towers Watson Market Security Calculations.

(5) Munich Re, Swiss Re: Combined Ratios are in respect of the P&C Reinsurance division only.

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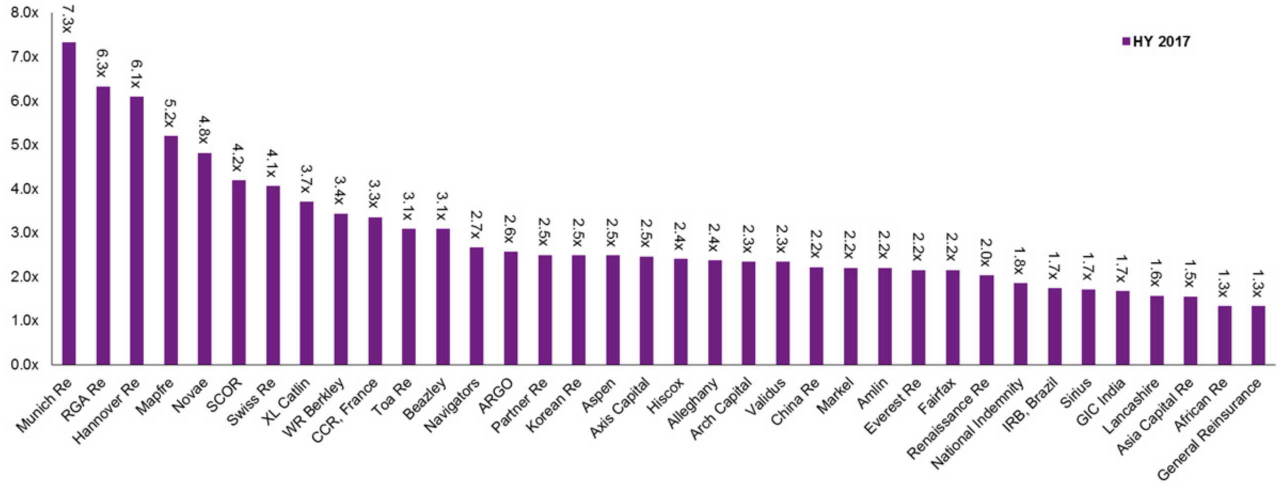
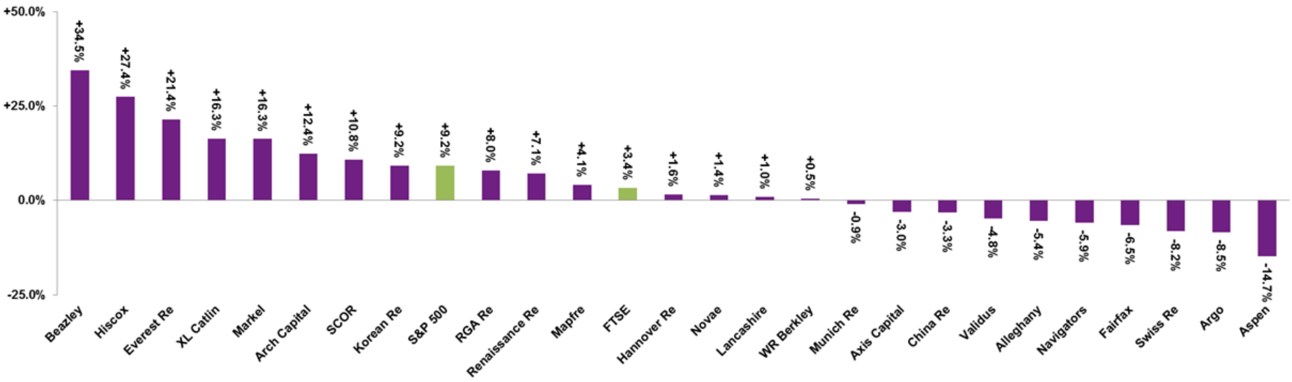
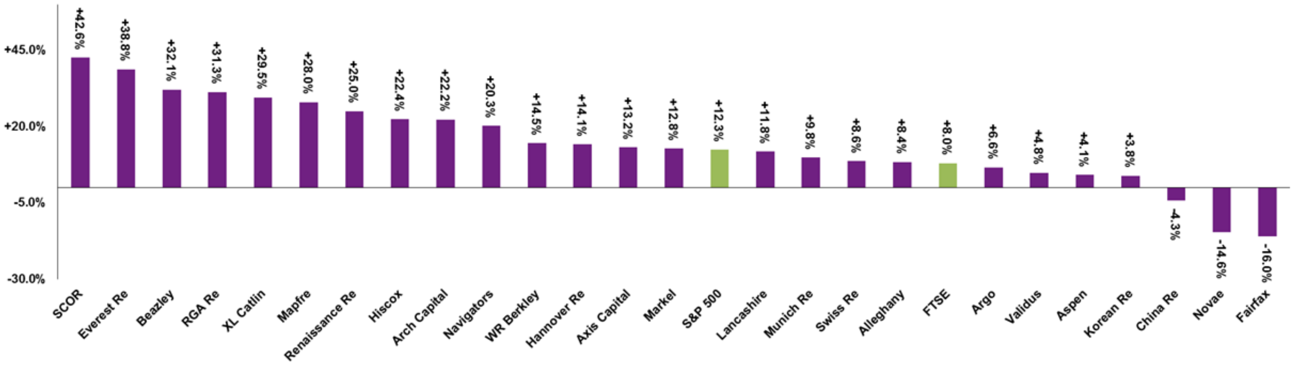
2. Investment leverage: cash & invested assets / shareholders' equity



3a. Share price development – YTD 2017 – Jan 1, 2017 to August 23, 2017



3b. Share price development – Past 12 months to August 23, 2017



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