MOODY'S INVESTORS SERVICE

CREDIT OPINION
22 December 2017

Update

Rate this Research

RATINGS

**Swiss Reinsurance Company Ltd**

| | |
|---|---|
| Domicile | Zurich, Switzerland |
| Long Term Rating | Aa3 |
| Type | Insurance Financial Strength |
| Outlook | Stable |

*Please see the ratings section at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.*


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# Swiss Reinsurance Company Ltd

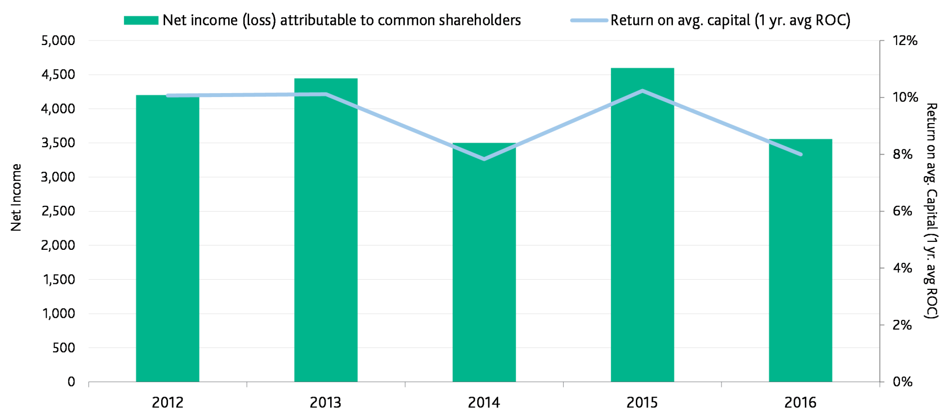
## Update following rating affirmation


## Summary

The Aa3 (stable outlook) insurance financial strength (IFS) rating of Swiss Reinsurance Company Ltd (SRZ) and its core operating subsidiaries reflects its excellent market position and extensive diversification by geography and line of business, very strong capital adequacy and good reserve adequacy. These strengths are partially offset by the challenges of a difficult trading environment and the inherent volatility of its catastrophe exposed business.

SRZ is the lead reinsurer of Swiss Re Ltd ("Swiss Re", or "the Group"), one of the leading global reinsurance groups.


Exhibit 1
**Net Income and Return on Capital (1 yr. avg.)**




*Company filings, Moody's Investors Service*

## Credit Strengths

» Leading global reinsurer – very strong reinsurance franchise across all major lines, supported by very strong capitalization

» Very well diversified business profile, across product/ risk type, geography and access point (i.e. reinsurance, primary, closed block)

» Very strong capital adequacy and high quality investment portfolio

» Significant scale, diversification, and technical expertise assist in addressing industry changes

## Credit Challenges

» Challenging trading environment for reinsurers: underwriting profits under pressure from price softening, while investment income under pressure from low interest rates

» Inherent volatility of catastrophe exposed business and long-tailed lines of business (including life reinsurance)

## Outlook

The outlook is stable, reflecting the Group's very strong market position, extensive diversification and very strong capitalisation.

## Factors that Could Lead to an Upgrade

Although there is limited potential for further upward pressure on the ratings over the next 12 to 18 months, the following factors would further augment the Group's credit profile:

» Sustained strong core earnings with return on capital above 12% over the underwriting cycle

» Financial and total leverage consistently below 20%, with earnings coverage over 10x through the cycle

» Enhanced capital adequacy including gross underwriting leverage sustainably below 2.5x over the cycle

» Material improvement in the business environment, including P&C reinsurance pricing and interest rates

## Factors that Could Lead to a Downgrade

The following factors could place negative pressure on Swiss Re's ratings:

» Sustained deterioration in financial flexibility, including financial leverage above 25% and earnings coverage below 6x

» Average return on capital below 6% on a through-the-cycle basis

» Material deterioration in asset quality

» Meaningful and sustained adverse reserve development

» Reduction in shareholders' equity of greater than 10% over a rolling 12 month period due to catastrophe losses or poor operating results

## Key indicators

Exhibit 2

| Swiss Reinsurance Company Ltd [1][2] | 2016 | 2015 | 2014 | 2013 | 2012 |
|---|---|---|---|---|---|
| **As Reported (USD Millions)** | | | | | |
| Total Assets | 215,065 | 196,135 | 204,461 | 213,520 | 221,503 |
| Total Shareholders' Equity | 35,716 | 33,606 | 36,041 | 32,977 | 34,026 |
| Net income (loss) attributable to common shareholders | 3,558 | 4,597 | 3,500 | 4,444 | 4,201 |
| Gross Premiums Written | 35,622 | 32,249 | 33,276 | 32,934 | 31,723 |
| Net Premiums Written | 33,570 | 30,442 | 31,640 | 30,478 | 25,344 |
| **Moody's Adjusted Ratios** | | | | | |
| High Risk Assets % Shareholders' Equity | 33.0% | 34.7% | 29.0% | 42.9% | 29.0% |
| Reinsurance Recoverable % Shareholders' Equity | 20.9% | 19.3% | 19.4% | 25.3% | 29.8% |
| Goodwill & Intangibles % Shareholders' Equity | 33.3% | 35.0% | 32.3% | 35.7% | 31.5% |
| Gross Underwriting Leverage | 2.4x | 2.3x | 2.2x | 2.6x | 2.5x |
| Return on avg. capital (1 yr. avg ROC) | 8.0% | 10.2% | 7.8% | 10.1% | 10.1% |
| Sharpe Ratio of ROC (5 yr. avg) | 756.0% | 556.0% | 235.3% | NA | NA |
| Adv./(Fav.) Loss Dev. % Beg. Reserves (1 yr. avg) | -2.3% | -3.3% | -1.9% | -3.0% | -3.1% |
| Financial Leverage | 18.4% | 18.8% | 18.6% | 19.4% | 21.8% |
| Total Leverage | 24.4% | 26.6% | 26.7% | 30.8% | 32.9% |
| Earnings Coverage (1 yr.) | 12.7x | 13.6x | 10.4x | 12.2x | 16.2x |

[1] Information based on US GAAP financial statements as of Fiscal YE December 31 [2] Certain items may have been relabeled and/or reclassified for global consistency
*Source: Moody's Investors Service; Company Filings*

## Profile

SRZ, which is a direct subsidiary of listed holding company, Swiss Re Ltd ("Swiss Re", or "the Group"), is the main operating company of Swiss Re, one of the world's leading reinsurers. For 2016, the Group's net earned premiums and policyholders' fee income was split 51% P&C reinsurance, 35% Life & Health reinsurance (L&H Re), 10% Corporate Solutions, and 4% Life Capital. In terms of geographic diversification, for YE16 33% of total premiums earned were originated in EMEA, 45% in the Americas, and 22% in Asia-Pacific.

## Detailed credit considerations

Moody's rates Swiss Re Aa3 for insurance financial strength, which is in line with the rating indicated by Moody's insurance financial strength rating scorecard.

Moody's assigns IFS ratings to insurance operating companies which are analysed at an "analytic unit" level. For some complex insurance groups which comprise more than one analytic unit, Moody's supports its analysis by also preparing a Moody's insurance financial strength rating scorecard using consolidated group financial information. The consolidated scorecard facilitates a holistic view of the group and improves transparency of key credit strengths and weaknesses. The scorecard, shown and discussed below, produces a notional group IFSR which may differ from ratings assigned to any particular operating companies in the group. The Aa3 notional group IFS rating for Swiss Reinsurance Company Ltd is in line with the adjusted rating indicated by the Moody's insurance financial strength rating scorecard below (exhibit 4).

### Insurance Financial Strength Rating

The key factors currently influencing the rating and outlook are:

### Market Position and Brand: Excellent market position provides resilience in difficult operating environment

Swiss Re is one of the leading global reinsurers with an excellent market position and brand across both non-Life and Life & Health reinsurance. The Group writes a significant portion of its business directly, frequently being the lead reinsurer on programs. Around 50% of Swiss Re's non-Life reinsurance business is placed directly with the client and the group enjoys excellent relationships with most of the large primary insurers globally. Swiss Re's life reinsurance business has traditionally focused on providing mortality protection, but has written longevity risk business in recent years.

Swiss Re’s position as a top tier global reinsurer, supported by its leading research and development capabilities, depth and breadth of reinsurance capacity and excellent levels of client service, differentiate its market position from lower tier reinsurers, and increase its resilience to headwinds in facing the reinsurance sector. The group's market position is further diversified and strengthened by the primary insurance business underwritten by Corporate Solutions, and its Life Capital division, incorporating ReAssure which manages closed and open life and health books.

### Product Focus and Diversification: Global diversification across life and non-life insurance, with growing presence in primary commercial lines

Swiss Re's business is very well diversified, with very strong geographic and product diversification across both life and non-life reinsurance as well as a strengthening presence in primary insurance. The Group has a growing presence in primary commercial insurance through Swiss Re Corporate Solutions (Corporate Solutions, Aa3 stable), and a leading life closed book consolidation platform and growing primary life open book in its Life Capital division. In addition, the Group also participates in the insurance-linked securities market, whereby it is able to offer its clients risk-transfer solutions that include an aspect of alternative capital.

For 2016, the P&C and L&H reinsurance business segments contributed 51% and 35% of the Group's net premiums earned and policyholders' fee income respectively. The main lines of business within the P&C reinsurance segment were Property (39% of P&C reinsurance net premiums earned), Casualty (47%) and Specialty (14%). For the L&H reinsurance segment, the main lines of business were Life (68% of L&H reinsurance net premiums earned and fee income from policyholders) and Health (32%). Given the current soft pricing on Property reinsurance lines, the Group has grown more rapidly into the Casualty reinsurance line (CAGR of 14% between 2013 and 2016) and has expanded into the primary commercial insurance business via Corporate Solutions division (CAGR of 12% since 2013), which accounted for around 10% of the Group's net premiums earned and policyholders' fee income in 2016. In 2016, the Life Capital business segment contributed 4% to the Group's net premiums earned and policyholders' fee income.

In terms of geographic diversification, for YE16 33% (YE15: 34%) of total premiums earned originated in EMEA, 45% (44%) in the Americas, and 22% (22%) in Asia-Pacific. The largest single-country contributors to premium were the USA (37%), the UK (11%), China (7%) and Australia (6%). Net premium and fee income earned in China has increased by a multiple of 3.5x since 2010, in-line with the Group’s aspiration of generating 30% of its premium in High Growth Markets (HGM) by 2020, up from 25% in 2015, including principal investments.

The substantial North American Life business provides good diversification against the Group’s P&C exposures, which we view in a positive light given the low correlation between L&H and P&C risks. That notwithstanding, we remain mindful of the meaningful risks associated with the life business, including mortality mispricing and life catastrophe or pandemic risk. As of YE16, Swiss Re estimated the economic impact, to the Group, of a 1-in-200 year lethal pandemic as USD2.4bn. Acting as a natural hedge to a portion of the group’s mortality risk, is its growing longevity exposure.

### Asset Quality: High quality and stable investment portfolio

We consider Swiss Re's investment portfolio to be of high quality, with 51% of its overall investment portfolio invested in cash, short-term investments or government bonds as of YE16 (YE15: 52%). At YE16, Swiss Re’s high-risk asset amount (HRA, which includes equity, real estate and non-investment grade securities) was 33.0% of adjusted shareholders’ equity (YE15: 34.7%). The Group’s HRA ratio has increased moderately since 2014 (29%), due to a combination of modestly higher allocations to equities and real estate during 2015, along with an increase in credit assets as a result of the Guardian acquisition, and its large fixed income portfolio.

Recently, the Group announced that it had adopted investment return benchmarks that integrated environmental, social and governance (ESG) criteria. The Group believes that managing their portfolio against ESG-focused benchmarks will reduce downside risk in its portfolio, particularly over the longer-term.

As at YE16, reinsurance recoverable amounts remained stable at around 21% of shareholders' equity, consistent with a Aaa rating level. Goodwill & intangibles as a % of equity decreased to around 33% from 35% at YE15, mostly driven by the increase in shareholders' equity.

### Capital Adequacy: Very strong capital adequacy with SST coverage above management targets

We consider the Group's capital adequacy to be very strong, both in absolute terms and compared to peers. The Group's regulatory and economic capital ratio under the Swiss Solvency Test (SST) was 262% at year-end 2016, and well above its target level of 220%. That said, we expect the Group's SST coverage to drift down slightly, as the Group continues its planned returns of excess capital, including the $1 billion share buyback program, despite significantly lower full-year profitability expected as a result of the Q3 catastrophe losses.

The Group's capital adequacy is bolstered by approximately $2.7 billion in pre-funded facilities, that are convertible into subordinated debt at the Group's option, with a coupon deferral available after conversion. While this amount is not material in the context of the Group's current capital levels, it strengthens the Group's financial flexibility and could become a material source of capital in a stress event.

The Group's 2017 SST ratio (262%) is significantly higher than the 2016 SST ratio (223%), however the increase is mainly driven by the changes implemented by the Swiss Financial Markets Supervisory Authority (FINMA) to align the SST ratio more closely with Solvency II; without the FINMA changes, SST 2017 would be at 224% just one percentage point above the 2016 level. During 2016, the Group estimated the 2016 223% SST ratio to be equivalent to a Solvency II coverage ratio of approximately 312%. While the current level of regulatory capital is above the Group's adjusted respectability level of 220% (from 185%), we do not expect meaningful reduction below 220%, despite the authorized share buyback program and capital levels being above target.

Meaningful share buy-backs and dividends – fully funded by earnings – have been a consistent feature of Swiss Re's capital management practice, with approximately USD14.8 billion returned to shareholders since 2012. In April 2017, a share buy-back program of up to CHF1bn was approved to be executed before the April 2018 AGM - this was in addition to the existing buyback program of CHF1bn that was completed in February 2017. The Group has stated that it plans to continue the 2017/18 buy-back program, despite the severe third quarter catastrophe losses.

### Profitability: Strong through the cycle profitability but susceptible to volatility

Swiss Re's profitability is strong, although it experienced significant underwriting losses in the third quarter of this year as a result of severe natural catastrophes. Driven by catastrophe losses of approximately $3.6 billion (net of retrocession) in the third-quarter, the Group reported a net loss of $468 million for the first nine months of 2017 (9M 2017 combined ratio: 114.1% versus 93.5% for full year 2016). For the full-year we expect the Group to report a modest net income, unless the Group experiences higher than expected losses in the fourth quarter, including the possibility of higher than expected losses from the California wildfires that have occurred during the fourth quarter.

The Group's profitability target for its P&C Re and L&H Re businesses are 10%-15% and 10%-12%, respectively, on a through-the-cycle basis. Due to the recent large losses and difficult environment, P&C Re reported an annualised ROE of -7.5% for 9M17 (16.1% for 9M16), which is below the Group's over the cycle ROE target for P&C Re of 10% to 15%. However, offsetting some of the weaker performance in the P&C Re business, actions the company has taken to improve profitability in the L&H Re business, including profitable new business, have resulted in an annualised ROE of 14.3% for 9M17 (12.5% for 9M16), slightly above the 10-12% segment ROE target.

Looking ahead, we believe the Group is well positioned to meet its profitability targets over the longer-term, given its strategic positioning and top tier franchise. In addition, we expect Swiss Re, and some of its peers, will benefit from price increases for reinsurance, particularly on US and Caribbean wind exposure. However, we expect price hardening to be dampened by the availability of alternative capital in the market, and for profitability to remain firmly below pre-2013 levels.

### Reserve Adequacy: Reserve adequacy remains good but expected to drift down slightly as older accident years run-off

Moody's views Swiss Re's reserve adequacy as good, benefiting from strong reserving practices and consistent prior-year reserve releases since 2010. The Group's 2016 combined ratio benefited from lower reserve release with USD0.9bn comparing with USD1.4bn in 2015. We expect reserve releases to continue, albeit at a slightly reduced rate due to change in business mix and softer pricing.

However, the increase in the Group's exposure to casualty business, which comprised c.24% of its 2016 premiums earned, up from 18% in 2011 increases the level of reserve risk due to the longer-tail nature of casualty business.

### Financial Flexibility: Moderate financial leverage supports strong financial flexibility and quality of capital

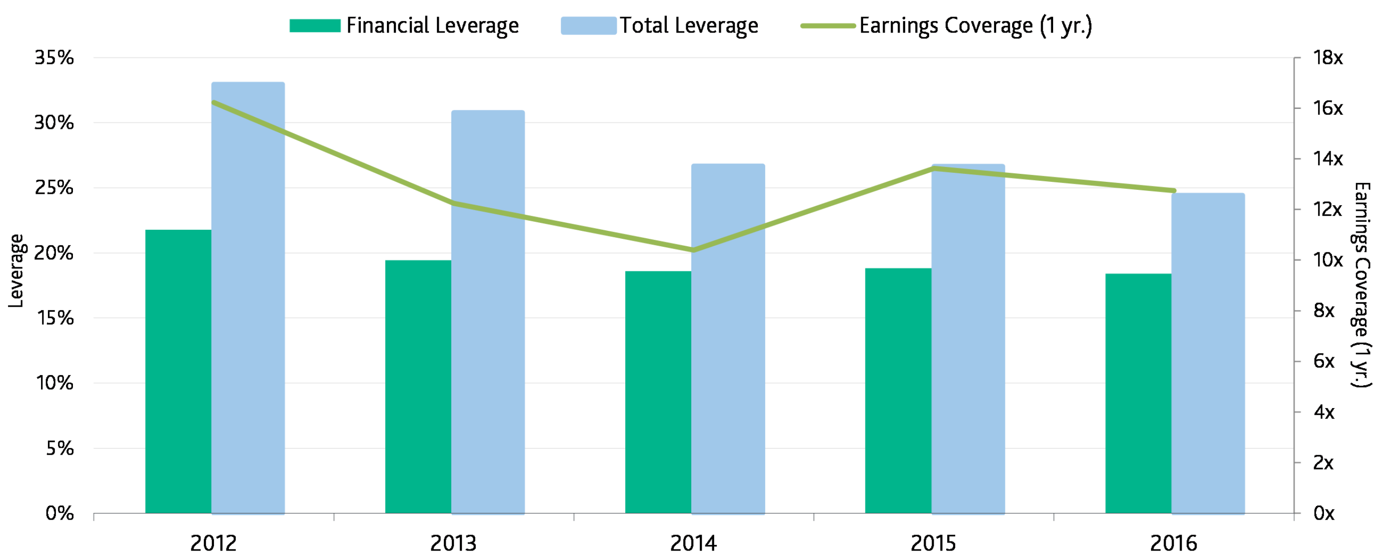
Swiss Re's adjusted financial leverage is relatively low at 18.4% as of YE16 (YE15: 18.8%), and remains comfortably within Moody's Aa range. The slight reduction in financial leverage over 2016 is mainly driven by a 6% increase in reported shareholders' equity. While financial leverage is relatively low, Swiss Re's total leverage is moderately higher, at 24.4%, primarily due the Group's use of subordinated debt in its capital structure, which receives only partial equity credit for financial leverage. That said, the Group's total leverage remains significantly lower than its peak of 45.5% in 2010.

Swiss Re's capital structure includes approximately $4.6bn in contingent capital as of the end of July 2017, $2.7bn of which includes pre-funded subordinated debt facilities which are not reflected in our metrics for financial flexibility or capital. We expect that these off-balance sheet contingent capital facilities will secure access to fresh capital in times of potential distress, and thereby enhance resilience of the Group's balance sheet. However, drawing on these facilities would increase leverage, partially offsetting some of the benefit they provide.

The Group's earnings coverage at YE16 deteriorated slightly, to 12.7x from 13.6x at YE15, reflecting pressure on earnings during the soft reinsurance market. We expect the Group's earnings coverage to deteriorate sharply in 2017, due to the severe catastrophe losses in Q32017, however we expect the Group to maintain strong earnings coverage on a through-the-cycle basis.

The Group's financial flexibility continues to be enhanced by its very good and frequent access to capital markets, illustrated by the innovative issuances of pre-funded off-balance sheet contingent capital facilities, that total $2.7bn as of July 2017, including a recent $750m facility issued in July 2017.

Exhibit 3
**Financial Flexibility**




*Company filings, Moody's Investors Service*

## Liquidity profile

Based on the Group's liquidity stress tests, we expect total unencumbered resources (including stressed asset sales) to be sufficient to cover funding requirements even under extreme scenarios. The Group's funding requirements consist of committed requirements (fixed obligations) and contingent requirements (uncertain with respect to timing and/or amount). In the event that these funding requirements emerge greater than expected and if external funding is not available, Swiss Re may have to sell some assets at a discount to market value to meet its liquidity needs. However, we think the need for stressed asset sales is very remote given the current level of spot liquidity and the de-risking of legacy activities.

As at YE16, the spot liquidity held in the Swiss Reinsurance Company Ltd liquidity pool, which is the primary liquidity pool of the Group, reduced to USD13.4bn (YE15: USD14bn). These spot liquidity sources consisted of cash and short term investments and reverse repurchase agreements (42%), government bonds AAA rated & US (41%), other developed market government bonds investment grade (9%), and developed market supranational, agencies and municipal bonds (8%).

## Support and structural considerations

Swiss Reinsurance Company Ltd (SRZ) is the main operating company of the Group. In line with our notching practice for reinsurance operating companies, we rate SRZ's senior debt at the same level as its IFS rating, whereas its subordinated debt rating is positioned two notches lower.

## Rating Methodology and Scorecard Factors

Exhibit 4

| Financial Strength Rating Scorecard [1][2] | Aaa | Aa | A | Baa | Ba | B | Caa | Score | Adj Score |
|---|---|---|---|---|---|---|---|---|---|
| **Business Profile** | | | | | | | | Aa | Aa |
| **Market Position and Brand (20%)** | | | | | | | | Aa | Aa |
| - Relative Market Share Ratio | X | | | | | | | | |
| - Business profile - reinsurance - direct premiums % | | X | | | | | | | |
| **Product Focus and Diversification (15%)** | | | | | | | | Aaa | Aa |
| - Business and Geographic Diversification | X | | | | | | | | |
| **Financial Profile** | | | | | | | | Aa | Aa |
| **Asset Quality (10%)** | | | | | | | | Aa | Aa |
| - High Risk Assets % Shareholders' Equity | | 33.0% | | | | | | | |
| - Reinsurance Recoverable % Shareholders' Equity | 20.9% | | | | | | | | |
| - Goodwill & Intangibles % Shareholders' Equity | | | 33.3% | | | | | | |
| **Capital Adequacy (20%)** | | | | | | | | Aa | Aa |
| - Gross Underwriting Leverage | | 2.4x | | | | | | | |
| - Gross Natural Catastrophe Exposure | | X | | | | | | | |
| - Net Natural Catastrophe Exposure | | X | | | | | | | |
| **Profitability (10%)** | | | | | | | | Aa | A |
| - Return on Capital (5 yr. avg) | | | 9.2% | | | | | | |
| - Sharpe Ratio of ROC (5 yr. avg) | 756.0% | | | | | | | | |
| **Reserve Adequacy (10%)** | | | | | | | | A | A |
| - Adverse (favorable) development % Beg. Reserves (7 | | | -2.5% | | | | | | |
| **Financial Flexibility (15%)** | | | | | | | | Aa | Aa |
| - Financial Leverage | | 18.4% | | | | | | | |
| - Total Leverage | | 24.4% | | | | | | | |
| - Earnings Coverage (5 yr. avg) | | 13.0x | | | | | | | |
| **Operating Environment** | | | | | | | | Aaa - A | Aaa - A |
| **Aggregate Profile** | | | | | | | | Aa2 | Aa3 |

[1] Information based on US GAAP financial statements as of Fiscal YE December 31 [2] The Scorecard rating is an important component of the company's published rating, reflecting the stand-alone financial strength before other considerations (discussed above) are incorporated into the analysis
*Source: Moody's Investors Service; Company Filings*

## Ratings

Exhibit 5

| Category | Moody's Rating |
|---|---|
| **SWISS REINSURANCE COMPANY LTD** | |
| Rating Outlook | STA |
| Insurance Financial Strength | Aa3 |
| Senior Unsecured | Aa3 |
| Senior Unsecured MTN | (P)Aa3 |
| Subordinate | A2 (hyb) |

*Source: Moody's Investors Service*

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## CLIENT SERVICES


| | |
|---|---|
| Americas | 1-212-553-1653 |
| Asia Pacific | 852-3551-3077 |
| Japan | 81-3-5408-4100 |
| EMEA | 44-20-7772-5454 |


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