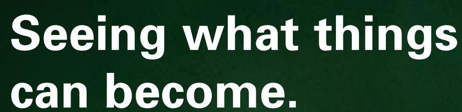
STANDARD & POOR'S

Global Reinsurance Highlights

2006 Edition

Standard & Poor's voted winner for a fourth year Reactions magazine's Rating Agency Of The Year Award

A Reactions publication



Our world is changing. Our knowledge and experience enable us to recognise problems at an early stage and develop coverage concepts that are viable for the future. In doing so, we offer security today for tomorrow's world.

"Best Reinsurer Overall"* – Life and Non-Life Europe 2006

*by cedant vote

PREFERRED PARTNER IN RISK
www.munichre.com

STANDARD
& POOR'S

Global Reinsurance Highlights

2006 Edition

For further details on any aspect of the work of Standard & Poor's Ratings Services, please contact:

Peter Hughes
Standard & Poor's Ratings Services
20 Canada Square
Canary Wharf
London E14 5LH
Main Tel: (44) 20-7176-3800
Direct Tel: (44) 20-7176-7016
Fax: (44) 20-7176-7201
peter_hughes@standardandpoors.com

Darryl Carpenter
Standard & Poor's Ratings Services
55 Water Street
New York, NY 10041
Direct Tel: (1) 212-438-7177
Fax: (1) 212-438-7195
darryl_carpenter@standardandpoors.com

www.standardandpoors.com

Immobile? No, firmly rooted. We use our strong financial base with entrepreneurial flair and problem-solving expertise to flexibly exploit profitable market opportunities. Even in impassable terrain we can thus diversify into lucrative niches. And each time we branch out we grow stronger and better. Discover this link between our optimal risk diversification and excellent financial strength and you will understand even better why we are one of the world's most successful reinsurers. www.hannover-re.com
hannover re
somewhat different
www.kirchhoff.de

Project Leader
Simon Marshall, London

Contributors
Steven Ader, New York
James Brender, New York
Laline Carvalho, New York
Rodney Clark, New York
Steve Dreyer, New York
David Ingram, New York
Rob Jones, London
Yann Le Pallec, Paris
Simon Marshall, London
Grace Osborne, New York
Miroslav Petkov, London
Mark Puccia, New York
Wolfgang Rief, Frankfurt
Marcus Rivaldi, London
Laura Santori, Paris
Thomas Upton, New York

Data Team
Julie Herman, New York
Kristina Koltunicki, New York
Peggy Lin, Melbourne
Eoin Naughton, London
Lucy Stupples, London
Chikako Yoshinaga, Tokyo

Editorial Project Coordinator
Marion Kerfoot, London

Editorial Team
Marion Kerfoot, London
Edward Lazellari, New York
Isobel McCalman, London
Greg Paula, New York

For Reactions Publishing Group

Publisher
John Walsh Tel: (44) 20-7779-8184 jwalsh@euromoneyplc.com

Senior Sales Executive—U.S., Bermuda, Latin America
Goran Pandzic Tel: (1) 212-224-3711 gpandzic@euromoneyny.com

Senior Sales Executive
Adi Haller Tel: (1) 212-224-3173 ahaller@euromoneyny.com

Associate Publisher—U.S., Bermuda, Latin America
David Samuel Tel: (1) 212-224-3466 dsamuel@euromoneyny.com

Production & Design
Tina Eldred (44) 1985-844-699 tina@eldreddesign.co.uk

Although Euromoney Institutional Investor PLC has made every effort to ensure the accuracy of this publication, neither it nor any contributor can accept any legal responsibility whatsoever for consequences that may arise from errors or omissions or any opinions or advice given. This publication is not a substitute for professional advice on a specific transaction.

Directors:
PM Fallon, chairman and editor-in-chief;
The Viscount Rothermere, joint president; Sir Patrick Sergeant, joint president; PR Ensor, managing director;
D Alfano; JC Botts; E Bounous; SM Brady; CR Brown; MJ Carroll; DC Cohen; CHC Fordham; J Gonzalez; CR Jones; RT Lamont; G Mueller;
NF Osborn; CJFS Sinclair; JP Williams.

Published in part by Standard & Poor's, a division of The McGraw-Hill Companies, Inc.
Executive offices: 1221 Avenue of the Americas, New York, NY 10020.
Editorial offices: 55 Water Street, New York, NY 10041.

Copyright 2006 by The McGraw-Hill Companies, Inc.
Reproduction in whole or in part prohibited except by permission. All rights reserved. Information has been obtained by Standard & Poor's from sources believed to be reliable. However, because of the possibility of human or mechanical error by our sources, Standard & Poor's or others, Standard & Poor's does not guarantee the accuracy, adequacy, or completeness of any information and is not responsible for any errors or omissions or the result obtained from the use of such information. Ratings are statements of opinion, not statements of fact or recommendations to buy, hold, or sell any securities. All advertising content has been sourced and placed by Reactions Publishing Group. Standard & Poor's receives no fee for the content of this publication.

STANDARD & POOR'S

Global Reinsurance Highlights

2006 Edition

8 Foreword
Risk Management To The Fore

10 Global Overview
Outlook On Global Reinsurance Sector Remains Stable

20 Life Reinsurance
Life Reinsurance Consolidations Stimulate Dynamic Global Environment In 2006

24 Top 40 Global Reinsurance Groups

26 Global Reinsurer List By Country

48 Industry Risk
Property/Casualty Reinsurers' Financial Strength Has Suffered In The Face Of Higher Industry Risk

52 Solvency II
Credit FAQ: The Impact Of Solvency II On The European Insurance Market

55 Reinsurance Start-Ups
Credit FAQ: Rating The Reinsurance Start-Ups

58 International Insurance Centers
The Rise Of The Global Nomad

61 Retrocession
Responding To The Retrocessional Squeeze

66 Enterprise Risk Management
Credit FAQ: Enterprise Risk Management One Year On

69 Insurance Ratings Definitions

Are you getting the most from your Reactions subscription?

The financial magazine for the global insurance market.

As part of your subscription package, you also have access to:

Sign up to receive your digital copy of Reactions at: www.reactionsnet.com/digital

Just think about the benefits for you and your business:

- Fully interactive contents – go straight to the page you want, zoom into the details
- Automatic delivery straight to your desktop – every issue with you up to 10 days before the print version
- Add searchable notes to articles, highlight points of interest
- Print notes and articles for colleagues
- Turn digital pages as easily as the print version
- Easy and unlimited access anytime, anywhere.

Reactionsnet.com

At www.reactionsnet.com, subscribers can access an archive of Reactions content going back to 1990.
Use our search facility to locate the information you want.

You can also access:

- **Online supplements and articles of specific interest**
  Browse through special publications such as:
  The Reactions Guide to Terror Risk Insurance; Standard & Poor's Global Reinsurance Highlights; The Reactions Awards.

- **Reactions conference newsletters**

- **Reactions Insurance Books**
  Reactions publishes a series of Insurance books, including:
  Reinsurance 4th Edition; Modern ART Practice; International Insurance Regulation.
  Visit **www.insurancebooks.com** for regular offers on selected titles.

- **Reactions weekly news**

Contact your Customer Services team to maximise your subscription package:
Email: customerservices@euromoneyplc.com or Tel: (+44) 20 7779 8610 (UK)

STANDARD & POOR'S

Risk Management To The Fore

The (re)insurance industry is relearning risk management. In essence, risk management is about avoiding, or limiting the impact of, unpleasant surprises. In recent years, the industry has suffered from its fair share of shocks as a consequence of poor management of pricing, accumulations, reserving, and asset-liability matching. Understandably, therefore, risk management is an issue that underlies many of the themes discussed in this year's *Global Reinsurance Highlights*.

The continuing and multifaceted impact of the 2005 North American hurricane season has certainly shown the property/casualty reinsurance industry's risk-management practices to be wanting. The financial strength of the industry emerged largely intact from the storms since the cyclical timing was fortuitous, but its shape has been altered, perhaps permanently. In "Outlook On Global Reinsurance Sector Remains Stable," we look back on the lessons learned from 2005 and envision future prospects for the industry *(see page 10)*. In contrast, the life reinsurance industry's track record is relatively unblemished, but it is now highly consolidated *(see "Life Reinsurance Consolidations Stimulate Dynamic Global Environment In 2006" on page 20)*.

(Re)insurers have largely practised risk management in silos until recently, but the most sophisticated are now taking it to new levels in the form of enterprisewide risk management. Leading practitioners are using complex economic capital models to inform capital optimization, capital allocation, pricing, risk-adjusted performance measurement, and management compensation structures. Our article "Credit FAQ: Enterprise Risk Management One Year On" summarizes the approach of Standard & Poor's Ratings Services to enterprise risk management analysis and our findings so far *(see page 66)*.

Solvency II will revolutionize the European (re)insurance market. While many European reinsurers are already utilizing, or at least implementing, the risk-based enterprisewide risk-management approaches incentivized by Solvency II, the majority of their cedents are less advanced and, partly as a consequence, may be facing large-scale consolidation. In "Credit FAQ: The Impact Of Solvency II On The European Insurance Market," we answer the key questions surrounding the impact of Solvency II *(see page 52)*.

Reinsurers' exposure to large catastrophe losses is one of the drivers behind the reduced financial strength of the industry, which leaves our ratings on reinsurers at levels lower than those on many primary insurers. In "Property/Casualty Reinsurers' Financial Strength Has Suffered In The Face Of Higher Industry Risk," we look at the industry risk factors that have contributed to this trend and consider what the future holds *(see page 48)*.

The retrocession market was hugely affected by the 2005 storms, and capacity is scarce, pricing prohibitive. This has implications for many reinsurers, whose risk mitigation is dependent on this capacity. Some business models have necessarily changed, while capital markets have filled some of the void by providing alternatives to retrocession. In "Responding To The Retrocessional Squeeze," we discuss our approach to analyzing sidecars and catastrophe bonds *(see page 61)*.

The aftermath of the storm losses saw the formation of many start-up reinsurers. Standard & Poor's has not yet rated any of the genuine start-ups in the Class of 2005. In "Credit FAQ: Rating The Reinsurance Start-Ups," we describe how we assess the financial strength of start-ups, explain why the coveted 'A-' target rating is so elusive for them so early in their formative period, and look back on the companies formed in the wake of Sept. 11, 2001, which were subsequently rated *(see page 55)*.

The emergence of a new class of start-ups brought into sharp focus the competing attractions of Bermuda and London as international insurance centers. In "The Rise Of The Global Nomad", we compare the two centers and also assess the challenge from Dublin *(see page 58)*. Our conclusion is that, far from competing, these centers are complementary, and reinsurers can optimize their costs and franchises by a presence that may span several centers.

We think that *Global Reinsurance Highlights* captures the dynamic state of the reinsurance industry. We hope that you enjoy the 2006 edition. Please contact us if you have any feedback that may help us to enhance our commentaries in future years.

Rob Jones,
London
(44) 20-7176-7041
rob_jones@standardandpoors.com

WeberHarbeke

Take a closer look.

Today, risk diversification is key to success. As a mid-sized independent multi-line reinsurer, we understand your needs, and we are familiar with your markets. In the Motor business line, for example, you benefit from Converium's extensive know-how and superior intellectual capital – from product structuring, risk assessment and pricing to risk modelling. These skills, combined with our financial strength, our commitment to high-quality services and our responsiveness make Converium a genuine and attractive alternative in the market. For more information visit www.converium.com

Converium AG,
Zürich
Phone +41 44 639 9393
Fax +41 44 639 9090

Converium Rückversicherung
(Deutschland) AG, Köln
Phone +49 221 539 0
Fax +49 221 539 2022

Outlook On Global Reinsurance Sector Remains Stable

Standard & Poor's Ratings Services is maintaining its stable outlook on the global reinsurance market, but the fallout from the 2005 losses means there are still plenty of challenges in this dynamic sector.

As we enter the fall of 2006, Standard & Poor's is maintaining its stable outlook on the global reinsurance sector. This reflects our expectation that the number of reinsurer rating downgrades and upgrades will be in relative equilibrium through the remainder of 2006 and into early 2007. In addition, Standard & Poor's does not expect a large number of rating changes during this period, as reflected in the stable outlook currently enjoyed by the vast majority of rated reinsurers.

Behind this veil of stability, however, lies a very dynamic sector. Following substantial losses in 2005 because of high storm activity, the past 12 months have been witness to:

- Numerous capital-raising initiatives by existing players.
- Several new company formations.
- Increasing usage of alternative forms of capital, such as sidecars and catastrophe bonds.
- Substantially improved pricing and terms and conditions in catastrophe-exposed lines of business such as property, marine, and energy.

Amid this change, it seems there will be relatively stable renewal rates for other lines of business.

Global reinsurers are not without challenges in coming years, with the net losses amassed by the sector in 2005 adding one more year to a string of challenging years during the past decade. Last year was also a sore reminder of the high degree of volatility inherent in the reinsurance business model. If changing weather patterns do indeed lead the world into a period of increased frequency of severe natural catastrophe events as currently predicted by many experts, the degree of volatility to which global reinsurers may be exposed in coming years could increase even further. This very concern is leading to a substantial tightening of reinsurance and retrocession capacity for property catastrophe risk, making it difficult for primary companies and reinsurers more reliant on reinsurance and retrocessional coverage to renew their protection programs.

These concerns are partially offset by improved risk management and risk modeling among companies in the sector as reinsurers seek to improve their methods to address these uncertainties (see table 1). Standard & Poor's also believes that management teams have meaningfully changed their operating philosophy, with much increased emphasis on achieving bottom-line operating performance and lesser focus

Table 1: Major Rating Factors Affecting The Global Non-Life Reinsurance Sector

Strengths	Weaknesses
Continuation of strong pricing environment	Poor historical operating performance and high earnings volatility
Improved risk-management and risk-modeling processes	Potential increase in frequency of large natural catastrophe events
Continued strong investor support	Significant retrocession capacity squeeze
Moderating reserve-strengthening trends	Potential over-reliance on capital markets for capital support
Expectation of reduced cyclicality driven by increased focus on profitability	Continued low barriers to entry

on market share competition. This change is a fundamental building block if the sector is to achieve and maintain much-needed improved operating performance in coming years. Standard & Poor's current ratings on reinsurers are based on the premise that managements' changed focus is likely to lead to more prudent underwriting decisions in the future, reducing the chance that the market might once again witness the type of chronic underpricing seen in the late 1990s. Lastly, but perhaps most important, global reinsurers continue to benefit from the unrelenting support of the capital markets, which once again helped companies recapitalize in 2005 and backed the formation of a new class of entrants over the past year. This continued market support remains in many ways the lifeblood of the sector.

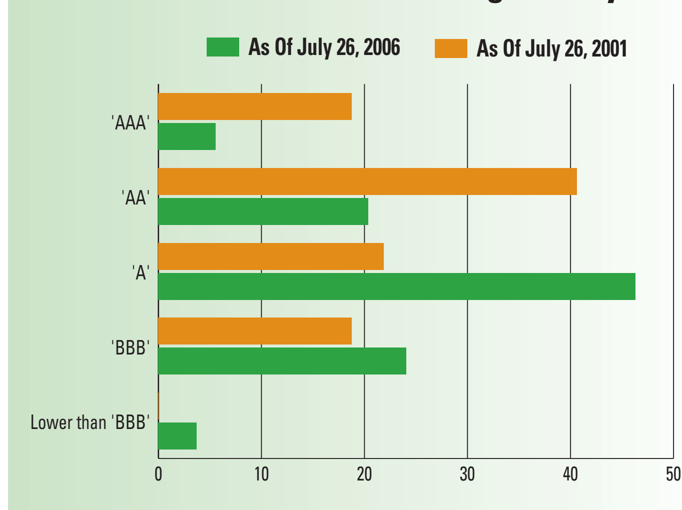
Industry's Financial Strength Remains Strong But Has Declined

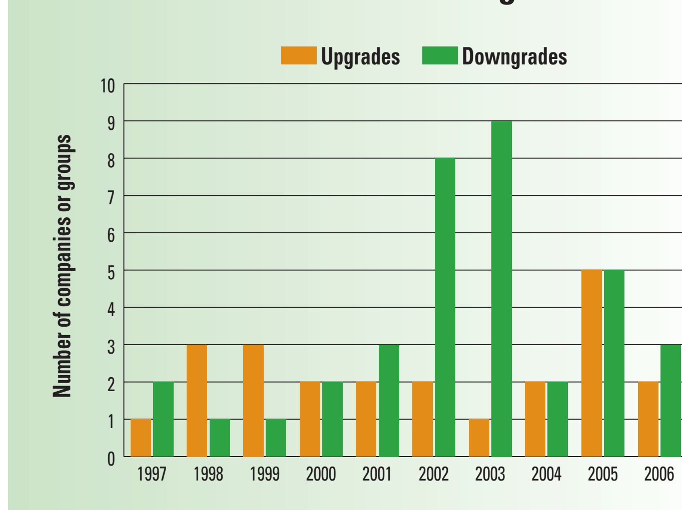
Global reinsurers continue to offer strong financial security to their cedents. This is demonstrated by the significant number of companies rated in the 'A' and 'AA' rating categories (46% and 20%, respectively) in addition to the very small number of reinsurers rated in the speculative-grade range (only 4%) as of July 26, 2006 (see chart 1). That said, the sector's overall financial strength ratings have declined meaningfully since 2001, which is illustrated by the string of downgrades in recent years (see chart 2). Reinsurer downgrades were particularly significant in 2002 and 2003, when the sector's operating performance was heavily affected by substantial reserve additions for U.S. business written in the late 1990s as well as for asbestos claims.

Following this period, ratings in the sector began to stabilize, with the exception of an uptick in rating downgrades in the second half of 2005 and into early 2006, which led to rating actions on a number of groups, including XL, IPCRe, PXRE, and Transatlantic. The outlooks on a few other groups, such as Aspen and Montpelier, were revised to negative. In all of these cases, losses incurred because of severe U.S. hurricanes in the second half of 2005 were either the main reason or a contributing factor to the rating actions. One exception to this relates to the more recent downgrade of Swiss Re in June 2006, which was caused by Standard & Poor's view of potential challenges related to this group's acquisition of U.S.-based GE Insurance Solutions Corp. (GEIS).

The sector's lower financial strength is not without consequences to ceding companies, with fewer choices of higher rated reinsurers for the primary market. With the exception of the Berkshire Hathaway group, which is rated 'AAA', the highest stand-alone Standard & Poor's financial strength rating on non-life reinsurers is currently 'AA-', and the bulk of companies in the sector are rated in the 'A' range. This means that although primary companies previously benefited from placing reinsurance programs with reinsurers often of substantially higher financial strength than that of the cedent, today these cedents need to contend with a choice of reinsurance security that might include reinsurers of equal or lesser financial strength than the cedent itself. This concern—in combination with the exit of numerous players from the reinsurance market over the past five years and the continued entrance of start-up players into the sector—is, not surprisingly, leading primary companies to an all-time-high interest in reinsurance security.

Many primary insurance carriers have substantially enhanced their reinsurance security departments to determine which reinsurers constitute acceptable security for their individual reinsurance needs as well as to monitor exposure to reinsurance recoverables. Primary





"Over the past five years, U.S.-based reinsurers significantly underperformed other regions."

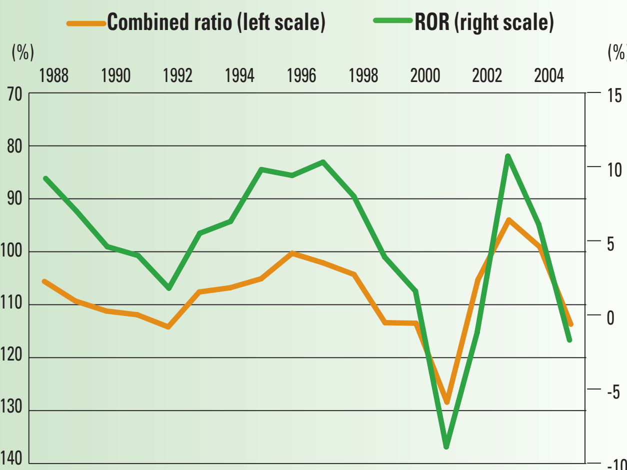
companies have also placed increased emphasis on maintaining a diversified portfolio of companies participating in their reinsurance programs, in itself an increasing challenge given the continued consolidation in the reinsurance marketplace.

Operating Performance Inconsistent With Risk Profile

Global reinsurers' continued failure to produce strong operating results remains the leading cause for downgrades in the sector (see chart 3). As clearly seen through the devastation caused by Hurricane Katrina in 2005, the widespread effects of the Sept. 11, 2001, terrorist attacks, and the continued increase in the estimates for many lines of U.S. casualty claims incurred prior to 2002, reinsurers' results can be extremely volatile on a year-to-year basis given the sector's exposure to unexpected and extreme events.

This type of high risk profile should demand high reward from investors and is at odds with the sector's meager operating performance during the past two decades. Over the past 18 years, starting in 1988 (when Standard & Poor's began compiling data on the industry), global reinsurers posted RORs of more than 10% in only two of these years: 11% in 2003 (the industry's best performance-year during the entire 18-year period) and 10.3% in 1997. In both of these years, reinsurers benefited from an abnormally low level of catastrophe losses. On an average basis, the sector's ROR during the past five years (2001-2005) was a meager 2%. Longer term operating results are not much better, with the sector's 10-year ROR at an unimpressive 5.2% and the 18-year ROR at 5.3%.

From a combined ratio perspective, global reinsurers only managed to achieve underwriting profitability in one out of the past 18 years, with a 95.3% combined ratio in 2003. The next best year was 2004, when the industry displayed a combined ratio close to 100%. In all the other years going back to 1988, reinsurers posted an underwriting loss, and investment income was the key determinant of net earnings. This sub-par operating performance has led to numerous exits from the reinsurance sector in recent years, with a particularly steep number of run-offs, failures, and exits of reinsurers based in the U.S. This reflects this market's burden as the source of the deepest losses suffered by the reinsurance sector over the past decade.



Because of a combination of significant reserve strengthening for casualty business and asbestos claims, as well as an unprecedented number of losses from large natural and man-made catastrophes in the U.S. over the past five years, U.S.-based reinsurers significantly underperformed other regions during this period, with an average combined ratio of 123% and an ROR of negative 6%. This compares with an average combined ratio of 108% and an ROR of 1% for global reinsurers as a whole during the same period.

The operating difficulties encountered in this market have been the source of a declining number of U.S.-based reinsurers as well as falling gross premium production, as investors have chosen to support new and existing reinsurers based in other domiciles, such as Bermuda. It is also clear that the volatile nature of U.S.-based risk is a better fit as part of a diversified global portfolio, as demonstrated by no stand-alone U.S.-based reinsurer remaining, with the entire market today consisting of subsidiaries of larger conglomerates based in Europe, Bermuda, and—to a lesser extent—the U.S.

Despite this lackluster performance, Standard & Poor's ratings are prospective in nature, and current ratings on global reinsurers are based on the assumption that they will post improving operating performance in coming years as a reflection of substantially improved risk-management capabilities and, most importantly, increased focus on bottom-line profitability.

2005 In Retrospect

The sheer magnitude of insured catastrophe losses produced in 2005 set the year apart, with current global loss estimates of about $80 billion-$90 billion. This dwarfs anything ever experienced by the global insurance and reinsurance markets in the past. Hurricane Katrina, which hit the U.S. Gulf Coast in August 2005, is alone expected to account for about $50 billion-$60 billion of these losses, which is nearly double the estimated figures for the Sept. 11 events.

Although 2004 also turned out to be a heavy catastrophe year, with estimated insured losses of about $48 million (according to Swiss Re's sigma study), the nature of incurred losses in 2004 differed from 2005 in that the smaller size of each of the four major hurricanes hitting the U.S. coast in 2004 (Charley, Frances, Ivan, and Jeanne) caused the bulk of the losses from these events to be contained within primary companies'

retention layers. In 2005, however, the severe nature of the three hurricanes hitting the U.S. seaboard (particularly Katrina) led to the bulk of the losses hitting reinsurance and retrocessional layers. Consequently, global reinsurers posted a consolidated pretax operating loss (including non-life and life results) of $240 million in 2005, compared with pretax operating gains of $15 billion in 2004.

Despite the disappointing results, there are several aspects of 2005 that warrant mentioning. First, there were no reinsurance failures as a result of the 2005 catastrophes. Although PXRE and Quanta's severe hurricane losses in 2005 led these companies to substantially exit the reinsurance marketplace, these did not constitute insolvency situations. This speaks well for the sector's improved risk-management capabilities and risk-diversification efforts since Hurricane Andrew in 1992, when severe losses from this event led to a large number of insolvencies.

Second, although 2005 catastrophe losses were substantially higher than in 2001, the sector's consolidated combined ratio of 114% in 2005 is significantly lower than the 128% reported by the sector in 2001. This partially reflects a higher premium base from which global reinsurers started in 2005 as a result of substantially improved premium rates and terms and conditions in nearly all lines of business relative to 2001. In addition, while reinsurers' losses from the Sept. 11 events were topped by substantial adverse reserve development and investment losses, the sector enjoyed a substantially stronger balance-sheet position in 2005, with a more favorable investment environment and reduced impact of reserve-strengthening actions in the sector's earnings and capital base. These factors proved valuable in helping reinsurers cope with the unprecedented level of catastrophe losses in 2005.

Diversification Paid Off

It is also worth noting that although a substantial number of reinsurers posted a net loss in 2005, the magnitude of loss differed among market participants, with a marked distinction between large multiline reinsurers and smaller property catastrophe specialists. The diversified companies lost 0%-25% of their June 30, 2005, capital base as a result of aggregate losses from hurricanes Katrina, Rita, and Wilma (KRW) in the second half of 2005. Full-year 2005 operating results for these companies ranged from moderate net income to a moderate net loss. Specialized property catastrophe players, on the other hand, lost 40%-100% of their June 30, 2005, capital base with the storms and the equivalent of many years of earnings.

Large diversified reinsurers such as Munich Re and Swiss Re managed to close 2005 with operating profits, largely because of their ability to offset losses from the 2005 hurricanes with profits from other operating divisions including life and (in the case of Munich Re) primary insurance operations. In addition, these companies write substantial amounts of non-catastrophe-exposed property/casualty business around the world (with a substantial amount of writings outside of the U.S. market), providing them with a significantly enhanced level of diversification, both geographically and by line of business. This level of diversification should afford a more stable earnings and balance-sheet position, as indeed was seen in Munich Re's and Swiss Re's ability to absorb more than $5 billion in (combined) catastrophe losses from the 2005 storms while posting net profits for the full year.

In contrast with this picture, most U.S. and Bermuda reinsurers reported significantly weaker results in 2005, with the Bermuda market amassing an aggregate net loss of approximately $2.8 billion and U.S. reinsurers reporting a consolidated net loss of about $2 billion. This clearly shows the key role of these markets in backing up U.S. risks. In addition, although reinsurers in these two regions have continued to increase their writings outside of the U.S. and expand their primary insurance operations, the level of diversification on their business portfolios is not as broad as that of giants Munich Re and Swiss Re. The vast majority of U.S. and Bermuda reinsurers also focus on non-life business, so they are not able to offset volatile property/casualty losses with a more predictable life (re)insurance income stream. That said, most midsize global reinsurers such as Hannover Re, Everest Re, PartnerRe, Transatlantic Re, and Lloyd's managed to post results ranging from breakeven to moderate net losses in 2005, a relatively respectable performance given the extreme nature of the 2005 events. Some—such as AXIS and Arch—managed to post moderate operating profits for 2005 because of well-executed diversification and risk-mitigation strategies.

Undoubtedly, the most challenged reinsurers in 2005 were property catastrophe specialists such as Montpelier, IPCRe, and PXRE. Given their focus on underwriting lines directly affected by the hurricanes in 2005, these companies posted the deepest losses in the market and needed to tap the capital markets to recapitalize after losing a significant proportion of their equity base due to KRW.

In the case of PXRE, the loss of the equivalent of this group's entire equity base because of these storms led to a slew of downgrades in early 2006 and a substantial loss of its business and client base over the past months, a harsh blow to a group that had actively participated in the property catastrophe and retrocessional markets for more than 23 years.

Business Models Come Under Pressure

The 2005 experience, however, is not proof that the largest global reinsurers necessarily have the best business model. Last year was an interesting reversal of fortunes in that up until then, the more nimble midsize and small reinsurers, particularly those with a more substantial focus on property and other short-tail lines of business, largely outperformed the sector from an earnings perspective. It is well known that the largest global reinsurance groups, which

"The 2005 experience … is not proof that the largest global reinsurers necessarily have the best business model."

"All in all, although there appears to be no ideal business model in reinsurance, one could conclude that some reasonable level of diversification could provide certain advantages to companies in what could be an increasingly volatile pattern of natural and man-made catastrophe losses in coming years."

typically write substantial amounts of casualty business, underperformed the market over the past decade and suffered some of the deepest losses from the fiasco of the late 1990s U.S. casualty business, in addition to holding substantial exposure to asbestos claims. Many left the market after substantial losses, including groups such as Gerling Global.

Among the most significant challenges encountered by large global groups in the past decade were:

- Difficulties in properly controlling numerous subsidiaries in distant geographic areas.
- Finding the right balance between maintaining significant market shares in different markets and walking away from underpriced business when the conditions warranted.
- The need to update numerous technology platforms to improve transparency and monitoring of data and exposures within the organization.
- Challenges related to incorporating different organizational cultures following a frenzy of acquisitions throughout the late 1990s and into early 2001.

Most groups have addressed these challenges head on in recent years and substantially improved their organizational controls and underwriting standards to avoid similar operating performance problems in the future. The question does remain, however, as to whether giants Munich Re and Swiss Re will manage to leverage their dominating market position to outperform the market in future years or if they will—despite their best efforts—perform just like the market average as a simple reflection of their sizable market shares.

On the opposite side of the spectrum, property catastrophe specialists could be particularly challenged in coming years if indeed the frequency and severity of natural catastrophe events increase. This is not to say these companies will not be able to succeed, but their management teams will undoubtedly have a higher burden to price correctly and appropriately determine capital needs while producing appropriate levels of returns to their shareholders commensurate with their more volatile risk profile. Despite these challenges, many of the Class of 2005/2006 start-ups are strategically building their business plans with a focus on property catastrophe and other catastrophe-exposed lines of business such as marine and energy, given the strong current demand for this type of capacity.

All in all, although there appears to be no ideal business model in reinsurance, one could conclude that some reasonable level of diversification could provide certain advantages to companies in what could be an increasingly volatile pattern of natural and man-made catastrophe losses in coming years.

Is Over-Reliance On The Capital Markets A Key Weakness?

One feature that cannot be overlooked in the reinsurance sector is its continued dependence on the capital markets to fund capital shortfalls and future growth. Given the industry's weak earnings track record, many reinsurers have been unable to generate enough internal capital to fund their operational needs over a sustained period of time, being particularly dependent on the markets to replenish capital after a large catastrophe event.

Luckily, to date, investor interest in reinsurance has remained fairly strong. In 2005, KRW sparked a large number of capital-market activities, with existing U.S. and Bermudian reinsurers raising about US$10 billion in new funds through a series of common share, preferred share, and debt issuances throughout the end of 2005 and the beginning of 2006. In addition, another $10 billion-$12 billion of mostly private equity capital has been and is in the process of being raised to fund a surprisingly high number of new reinsurance ventures, including more than a dozen start-up reinsurers and a handful (and growing number) of so-called sidecar vehicles.

From the perspective of many investors, reinsurance is a source of uncorrelated risk relative to other industry sectors. In addition, investors are keen to participate in reinsurance after a large catastrophe event given the attraction of substantially improved premium rates and terms and conditions that typically follow. The problem, however, is that although many investors are well versed on the risks of reinsurance, among those enthusiastically backing the reinsurance sector in recent years (including the recent wave of sidecars) are some new investors who might or might not be prepared for the potential volatility inherent in the sector. The patience of the more knowledgeable investors could also be tested if there are further capital calls triggered by large events during the remainder of 2006. Thus, it is not possible to know how the capital markets might react if 2006 and 2007 turn out to be severe catastrophe years.

Although it would seem unlikely that the capital markets' appetite to support reinsurers would change overnight, one should question whether there's a fundamental weakness in the sector in its over-reliance on this continued investor support. Most reinsurers today recognize this risk and are actively looking to decrease their susceptibility of a large capital loss from any one large loss event. Although prior to the experience of Hurricane Katrina, many reinsurers felt comfortable exposing as much as 40%-60% of their capital base to a very large catastrophe loss, most management teams now seem to think that 20% or lower is probably more suitable and reduces the potentially life-threatening risk (to the company) of an unsuccessful capital raise following a large event.

Reinsurers' more conservative operating approach can also be seen in their reluctance to increase catastrophe-risk exposure on their balance sheet despite extremely strong pricing and terms and conditions in property, marine, energy, and other catastrophe-exposed lines of business in the U.S. market. Despite existing reinsurers' relatively strong balance sheets and ability to raise more capital to take on more risk, most management teams are

instead focusing on reducing the volatility of their balance sheets and reducing catastrophe exposure rather than increasing it. This behavior is also influenced by scarce retrocession capacity.

The New Market Entrants

The January 2006 renewal season was greeted with a flurry of new formation activity, as many new market entrants looked to take advantage of substantially improved pricing conditions in property and other catastrophe-exposed lines of business in the U.S. market. Coupled with existing reinsurers' reluctance to increase catastrophe risk on their own balance sheets and primary companies' increasing demand for catastrophe risk coverage, the conditions seemed to be right for a new class of start-ups to be formed.

Despite these factors, Standard & Poor's believes the Class of 2005/2006 start-ups are likely to face several challenges that could make it more difficult for these companies to succeed compared with previous formations in the sector. Perhaps most importantly, with the exception of the substantial demand for reinsurance and retrocessional capacity for U.S. peak catastrophe-zone exposures, there is not nearly as much demand for additional capacity in other lines of business as was the case when the Class of 2001/2002 start-ups were formed. Contrary to the 2001/2002 period, when substantial operating losses and restructuring actions impaired the ability of many existing reinsurers to write business, reinsurers currently enjoy a much stronger balance-sheet position and are able and willing to write business. Consequently, the Class of 2005/2006 might have difficulty in expanding its profile beyond the initial focus displayed by most of the start-ups on writing property catastrophe, marine, energy, and other short-tail catastrophe-exposed lines. This narrow focus, particularly in lines of business that could be subject to an increasing number of large natural catastrophe losses in coming years, could make these companies' balance sheets and income streams quite volatile.

Standard & Poor's also believes the Class of 2005/2006 could have difficulty in filling its senior management and staff ranks with the type of depth and breadth seen in prior formations, as talent is being spread thinly among so many new reinsurers breaking ground since 2001. The new start-ups will also face at least some competition from other sources of alternative capital, such as sidecars and catastrophe bonds, which have seen increased interest by investors and users over the past year.

Sidecars are a creative alternative for investors wishing to participate in the reinsurance market for a short period of time. These third-party vehicles will typically enter into a two- to three-year agreement with a sponsoring reinsurer, in which the sidecar will quota share a portion of the reinsurers' book of business. This typically consists of short-tail business such as property, marine, and energy, where the market is experiencing significant hardening of premium rates and terms and conditions, and there is substantial need for additional capacity. From the reinsurers' perspective, these vehicles provide a good alternative for offloading catastrophe risk out of their balance sheets, particularly given the extreme shortage of traditional retrocession capacity in the marketplace.

Although many sidecars have been formed in the past year, such as Flatiron Re Ltd. (sponsored by Arch Group Ltd.) and Cyrus Reinsurance Ltd. (XL Ltd.), the sidecar is not exactly a new idea. Similar types of arrangements were in place prior to 2005, including Hannover Re's use of its so-called K1, K2, K3, C1, and K5 vehicles, and RenaissanceRe's formation of DaVinci Reinsurance Ltd. and Top Layer Reinsurance Ltd. with partial third-party funding. Although these vehicles provide the reinsurance sector with a good source of additional retrocession capacity, they have risk of their own, as seen in the recent troubles with Folksamerica Reinsurance Co.'s sidecar, Olympus Reinsurance Co.

As closed private equity investments, sidecars do not have the usual financial flexibility of traditional companies to raise additional funds in case of severe losses, unless their private equity investors decide to voluntarily infuse further funds into the vehicle. In addition, although sidecars typically offer strong levels of collateral to their sponsoring reinsurers, the level of collateral varies and does not always equal full contract limits. Thus, if losses in the sidecar exceed its capital base, the sponsoring reinsurer could be exposed to unrecoverable reinsurance from the sidecar. Despite this potential risk, sidecars are likely to remain a good source of retrocessional coverage in the sector, at least over the short term.

Risk Management Takes Front And Center

Given the many challenges driving the reinsurance industry, it is not surprising that risk management has come to the forefront of the agenda for most reinsurance management teams. Regardless of size, line of business focus, or geographic span, most reinsurers realize that improved risk monitoring and modeling is needed. This is particularly crucial if the next few years are to witness an increasing pattern of severe natural catastrophe events.

The magnitude of the losses incurred by reinsurers because of the 2005 storms certainly exceeded the level expected by many management teams and investors, highlighting the known fact that catastrophe models—however sophisticated—are not foolproof. In fact, several reinsurers surprised themselves with the size of their losses to KRW because they underestimated the correlation embedded in their lines of business. For reinsurers offering both reinsurance and retrocessional coverages, it can be particularly challenging to control aggregation and correlation between these lines. Reinsurers also have the additional challenge of correctly reserving for catastrophe losses when they first occur because by providing reinsurance and retrocessional coverage, they are several steps further removed from the actual risk and original cedent than are primary insurers.

"The Class of 2005/2006 might have difficulty in expanding its profile beyond the initial focus displayed by most of the start-ups on writing property catastrophe, marine, energy, and other short-tail catastrophe-exposed lines."

Table 2: Top 10 Non-Life Reinsurance Groups

Ranking	Group	Country	Gross Non-Life Reinsurance Premiums Written (Mil. $) 2005	2004
1	Munich Re	Germany	16,223.2	19,079.6
2	Swiss Re	Switzerland	13,915.1	17,667.4
3	Lloyd's	U.K.	9,051.0	8,219.0
4	Hannover Re	Germany	8,578.1	10,080.1
5	Berkshire Hathaway Re[1]	U.S.	7,736.0	8,555.0
6	GE Insurance Solutions	U.S.	6,276.0	7,221.0
7	Everest Re	Bermuda	4,108.6	4,704.1
8	Transatlantic Holdings Inc.	U.S.	3,887.7	4,141.2
9	XL Re	Bermuda	3,411.1	3,456.5
10	PartnerRe	Bermuda	3,217.2	3,470.5

1. Premium figures relate to net premiums written.

"Standard & Poor's believes reinsurance management teams are truly committed to underwriting profitability as their key operating goal, as reinsurers and their investors are keenly aware that another decade of poor operating returns is not sustainable for the sector."

In addition to significant modeling enhancements seen over the past 12 months, the more model-focused reinsurers are reinstituting some old-fashioned underwriting disciplines placing greater emphasis on underwriting judgment, including absolute limits of exposure rather than just modeled probable maximum losses. Several companies are also in the process of refining their internal reporting and monitoring processes, with several reinsurers recently hiring chief risk officers to head up the oversight of risk management at the enterprise level.

This enhanced emphasis on risk management as well as the fear that catastrophe losses could be on the rise are certainly strong forces driving the significant shortage of reinsurance and retrocessional capacity for catastrophe risks, particularly in the U.S. Although rate increases for property and other short-tail risks were more moderate in the Jan. 1, 2006, renewal season, the July 1 renewals saw very strong double-digit rate increases across the board for U.S. catastrophe-exposed risks. In numerous cases, reinsurance programs were just partially filled, with capacity shortages of as much as 30%-35% for certain risks. More interesting, despite double-digit rate increases for property and a complete reunderwriting of certain lines, such as marine and energy (with effective rate increases of more than 400%), reinsurers have been fairly strict about sticking to their maximum risk limits per zone. In addition, they have refused to take further risk beyond their internal predetermined limits, regardless of price.

Primary companies have therefore been left with having to pay a lot more this year for quite a bit less reinsurance, as retention levels have increased and program limits have gone down. The effect of these changes should be a de-leveraging of catastrophe risk at the reinsurance level, with a substantial amount of this risk being pushed back down to the primary insurance sector. As a result, under a similar loss scenario in 2006 as incurred in 2005, Standard & Poor's would expect the magnitude of loss borne by the global reinsurance sector to be substantially reduced, with larger losses expected to be incurred by primary insurance companies.

Although these appear to be positive developments for the reinsurance sector, one needs to remember that premium rates in property and short-tail lines outside of the U.S. remain competitive, and although casualty rates have remained flat so far, it is not clear whether competition will once again restart in these lines as 2007 approaches. Lastly, risk-management improvements cannot be effective unless management is willing to talk the talk. There's not much value in instituting newly improved underwriting guidelines unless underwriters and management teams are willing to stick with technically indicated premium rates and terms and conditions rather than succumb to market pressure.

Following the experience of the last decade, however, Standard & Poor's believes reinsurance management teams are truly committed to underwriting profitability as their key operating goal, as reinsurers and their investors are keenly aware that another decade of poor operating returns is not sustainable for the sector. Standard & Poor's current ratings on reinsurers are strongly underpinned by this assumption, and if reinsurance pricing and terms and conditions were to deteriorate substantially in coming years, this would warrant reconsideration of the stable outlook for the sector.

Collateral

After years of debate, international reinsurers seem to have finally made progress in convincing U.S. regulators to reconsider the standing rule of requiring non-U.S.-based reinsurers to post 100% collateral to conduct

business with primary companies in the U.S. (U.S.-based reinsurers are not required to post any collateral). Although hard to believe just a few years ago, U.S. regulators are seriously considering changing this rule, switching to a different system in which all reinsurers would be required to post different levels of collateral based on the credit rating on each reinsurer. With this debate picking up steam in 2006, the potential implementation of such a change could be very real.

In many ways, the removal of collateral might not be a bad thing for U.S. primary companies. Collateral can provide a false sense of security by removing an incentive for ceding companies to make thoughtful decisions about selecting reinsurers. In addition, collateral is established only after a claim is recognized. If a contracted reinsurer encounters financial difficulty, it might not be able to post 100% collateral when such collateral is most needed. History has shown that the best protection against uncollectible reinsurance is to select a diverse group of stable, reliable reinsurance providers in the first place and not to rely on backstops like collateral.

Standard & Poor's believes a change in collateral requirements such as described above would have little effect on reinsurer ratings. However, it would certainly improve liquidity and have positive cost implications for non-U.S. reinsurers in reducing their expenses for the posting of LOCs. In Standard & Poor's view, however, these costs have never been burdensome to the sector, and reinsurers have typically been successful in securing LOCs. In addition, any such collateral changes are not expected to change global reinsurers' desire to maintain U.S.-based reinsurance subsidiaries. The incentive of maintaining such operations has always been less related to collateralization requirements but more related to global reinsurers' intent to be in close contact with the U.S. market and U.S. clients, which can be best done with local U.S. operations. In addition, non-U.S. reinsurers are not allowed to perform underwriting and claims audits on U.S. insureds, a key function that only U.S.-based reinsurers can perform.

Consolidation And Other Market Trends

A quick look at the main global non-life reinsurance groups over the past 10 years shows a significant change in market participants, a clear testimony of the difficulties encountered by the sector during this period. A listing of non-life global reinsurance groups of just five years ago shows many names that went into run-off. Among these are groups such as AXA Re, Overseas Partners, Centre Solutions, and Trenwick. It also includes the names of many larger insurance groups or other conglomerates that simply decided to exit the reinsurance market because of poor results, such as St. Paul and CNA. Other reinsurers left the list because of the heavy amount of consolidation experienced by the market, particularly in the late 1990s.

Following several years of substantial reserve strengthening, particularly among reinsurers with U.S.

Chart 4: Business Concentration Of Non-Life Reinsurers Based On 2005 Market Share

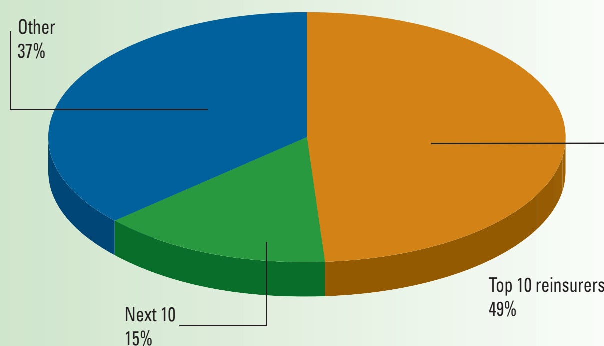
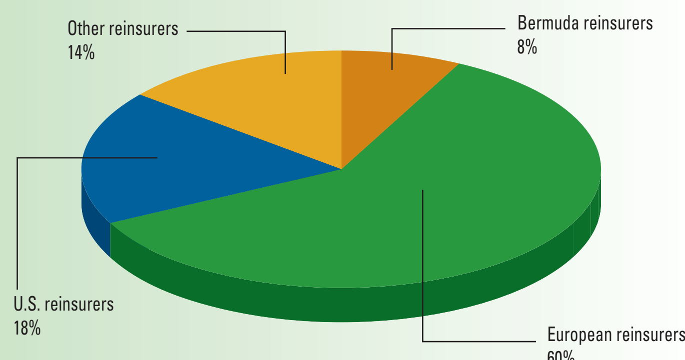


Chart 5: 2005 Geographic Concentration Of Global Non-Life Reinsurers



casualty exposure in 2000-2005, full balance-sheet acquisitions in the non-life reinsurance sector almost came to a standstill, given the lack of confidence in any potential acquiree's loss-reserve position. The sector turned instead to the acquisition of renewal rights from companies exiting the market. Against this backdrop, Swiss Re's acquisition of GEIS is the first material acquisition in quite a few years in the non-life reinsurance sector.

It is interesting to note that although market players in the reinsurance market have changed substantially, the top global reinsurance groups have remained unchanged, with Munich Re, Swiss Re, Berkshire Hathaway, Hannover Re, and Lloyd's consistently ranking among the top six global players (see table 2). Munich Re and Swiss Re alone held an impressive 30% market share among the top 40 largest non-life and life global reinsurance groups at year-end 2005. The top five held nearly 40% of the market (see charts 4 and 5). This is expected to increase in 2006, reflecting Swiss Re's increased market share to an estimated 25% of

“The jury is still out … as to the sector’s ability to produce operating results in line with the complexity and riskiness of its products.”

global life and 14% of global non-life premiums following the GEIS acquisition.

In addition to continued consolidation over the past decade, the size of the top reinsurance players has increased substantially in recent years. As recently as 2001, only the top 17 global reinsurance groups wrote more than $1 billion in net reinsurance premiums, but at year-end 2005, nearly all of the top 40 global reinsurance groups had writings above $1 billion. This trend is expected to continue, as the “ticket” to a meaningful participation in the sector continues to increase.

At this stage, Standard & Poor’s does not expect the GEIS acquisition to be followed by a new wave of full balance-sheet acquisitions, at least over the medium term. As expected, concerns over U.S. casualty reserves have indeed become less of an issue affecting global groups’ balance sheets and income streams. Standard & Poor’s expects global reinsurers to report fairly low adverse reserve development for business written in the late 1990s in coming years. In addition, the more recent accident years (particularly 2003-2004) are expected to produce favorable loss-reserve development. Despite this encouraging news, management teams today are busy with other concerns, including the need to meaningfully turn around subpar operating results, improve monitoring systems, and reduce balance-sheet and income-statement volatility. Standard & Poor’s believes when reinsurers are through with this process, acquisitions are likely to pick up again, albeit at a more cautious pace than what was seen in the late 1990s. Among most likely acquisition candidates are the smaller players with more volatile business profiles, which could encounter greater difficulty in operating as stand-alone entities. Given the large number of start-ups in Bermuda since 2001, it is likely that this market will see some more merger activity.

Conclusion

Assuming the sector experiences a normalized level of catastrophe losses, global reinsurers are well positioned for very strong operating results in 2006 and 2007. Substantially improved pricing and terms and conditions for U.S. catastrophe-exposed risks, relatively flat to softening pricing conditions in other lines of business, and reduced concerns on adverse reserve development for U.S. casualty business should enable the industry to post an aggregate combined ratio of about 95% or better in 2006—as long as the winds blow benignly over the Atlantic Ocean this fall. U.S. and Bermuda reinsurers reporting first-half 2006 results so far are posting very strong combined ratios in the mid-80% to low-90% range, reflective of very low catastrophe activity during the first six months of the year.

The jury is still out, however, as to the sector’s ability to produce operating results in line with the complexity and riskiness of its products. Key determinants as to whether reinsurance management teams will succeed or fail in this quest include their commitment to prudent pricing practices, improved underwriting and modeling skills, enhanced risk controls, reduced risk exposures, and last but not least, how weather patterns develop over the next few years.

Laline Carvalho,
New York
(1) 212-438-7178
laline_carvalho@standardandpoors.com

Rob Jones,
London
(44) 20-7176-7041
rob_jones@standardandpoors.com

Simon Marshall,
London
(44) 20-7176-7080
simon_marshall@standardandpoors.com

The McGraw·Hill Companies

I'm counting on CLASSIC*DIRECT*®

As a security department analyst, it's my job to monitor the exposures presented to my company by the insurers and reinsurers to which we're ceding business. Often I'm faced with difficult credit decisions. To help me make the right decision, I use Standard & Poor's **CLASSIC*DIRECT*®**.

CLASSIC*DIRECT*® gives me real-time internet access to information on over 11,000 insurance and reinsurance companies globally, and alerts me to any new credit rating action taken by Standard & Poor's. This online database gives me all Standard & Poor's insurance ratings and research in one place. That's why, when I'm making a credit decision, I'm counting on **CLASSIC*DIRECT*®**.

RATINGS | RISK SOLUTIONS | EQUITY RESEARCH | INDICES | CORPORATE VALUE CONSULTING

Classic*Direct*® provides access to Standard & Poor's objective analytical information on the global insurance market. It provides a ratings rationale, analytic history and ownership details for each rated entity and, where available, at least five years financial data. The system also allows the flexibility to export data to clients own systems.

STANDARD & POOR'S

Email: classicdirect@standardandpoors.com
Telephone: +44 (0)20 7176 7029 / 7434
www.europeinsurance.standardandpoors.com

Analytic services provided by Standard & Poor's Ratings Services are the result of separate activities designed to preserve the independence and objectivity of ratings opinions. Ratings are statements of opinion, not statements of fact or recommendations to buy, hold, or sell any securities. Standard & Poor's has established policies and procedures to maintain the confidentiality of non- public information received during the ratings process.

Life Reinsurance Consolidations Stimulate Dynamic Global Environment In 2006

The life reinsurance market has changed as a result of two major acquisitions this year. The question, looking forward, is whether there is enough profitable business for the established companies as well as the new players in the sector.

With consolidation continuing, profits up, but suspect prospects for growth, a challenging environment awaits life reinsurers for the remainder of 2006. The stable outlook for the sector reflects improved new business profits and improving availability of capital at low cost through the growing securitization market, but the arrival of new entrants and waning growth prospects in the largest markets might put the squeeze on profits by late 2007. Meanwhile, risk management and careful risk selection will continue the stable trend for most of the leading companies in the sector.

Life Reinsurer Consolidation: Down To The Final Deal

Two more major life reinsurance acquisitions were announced in the past year, continuing the multiyear global consolidation of the sector. First, Swiss Re announced in November 2005 its acquisition of GE Insurance Solutions (GEIS; all except the North American life and health reinsurance business). This transaction was largely focused on GEIS' property/casualty reinsurance operations, allowing Swiss Re to pass Munich Re as the world's largest reinsurer. But the acquisition will also reinforce Swiss Re's global life reinsurance leadership, notably by making it the largest life and health reinsurer in the U.K. and providing a solid footing in Germany, a market where it has struggled to gain a presence.

The second major announcement in July 2006 was that SCOR S.A. will acquire Revios Rückversicherung AG, consolidating their position in the top 10, with substantial positions in Continental Europe and improved scale in the U.K. and U.S. This ends four years of speculation as to Revios' long-term ownership, and makes SCOR into (possibly) the only global reinsurer with more life than non-life business. These transactions could indicate an end of consolidation in the sector.

Following these two transactions, there have been not fewer than seven significant life reinsurance acquisitions in the past decade. During that time, major names such as Lincoln Re, Allianz Life Re, and ING Re have been essentially wiped from the map. As a result, only five active companies had in-force market share of 5% or more in the U.S. in 2005 (based on the Society of Actuaries {SOA} study conducted by Munich Re). Given this level of consolidation—and the resulting improvement in margins—there is likely room for only modest further consolidation in the sector. Certain names will always be rumored due to lack of a clear strategic fit with larger global groups or financial impairment, but no further scurries for the exit are likely.

Where Has All The Business Gone?

The overall reinsurance market has continued to shrink in the two largest life reinsurance markets—the U.S. and U.K. In the U.S., per the SOA study, the cession rate (percentage of total life insurance risk reinsured) decreased to less than 50% in 2005–the lowest level in eight years. At the same time, no major block acquisition transactions were made by the life reinsurers—an area that had been a solid if erratic source of growth in recent years.

Top 10 Life Reinsurance Groups

Ranking	Group	Country	Gross Life Reinsurance Premiums Written (Mil. $) 2005	2004
1	Swiss Re	Switzerland	9,209.6	10,356.1
2	Munich Re	Germany	8,233.0	8,979.2
3	Reinsurance Group of America Inc.	U.S.	4,218.0	3,644.5
4	Hannover Re	Germany	2,872.0	2,968.7
5	Berkshire Hathaway Re[1]	U.S.	2,305.0	2,025.0
6	GE Insurance Solutions	U.S.	2,289.0	2,410.0
7	XL Re	Bermuda	2,274.5	1,397.5
8	Transamerica Re (AEGON)[2]	U.S.	2,109.3	1,567.5
9	Scottish Re Group Ltd.[1]	Bermuda	1,933.9	589.4
10	Revios Re[1]	Germany	1,272.8	1,420.6

1. Premium figures relate to net premiums written.
2. Figures are based on regulatory data.

Pricing is part of the problem. Many ceding companies have reported increased reinsurance pricing of up to 10%. This is in spite of what has been a continued improvement in mortality for the population as a whole. The causes come from a few areas. First of all, aggressive competition among reinsurers in the early part of the decade led to pricing that was no doubt irrational. Reinsurers have simply come back to their senses. Second, reinsurers are tying up increasing amounts of their costs and capital in collateral to cover Triple-X reserves, and they have done a better job of reflecting this in pricing. Third, the reduction in reinsurer capacity due to consolidation means far greater pricing power for the remaining reinsurers. This improved pricing power means far better profit margins on newer business, but it is harder to come by.

Cedents are coping in a number of ways. Unable to pass the reinsurer price increases on in the competitive primary market, they must seek alternatives to maintain their own margins. One way is by simply retaining more. Whereas first dollar original terms coinsurance had been the norm (for example, reinsuring 90% of every risk on every term life insurance policy sold), the market norm is now excess of retention (reinsuring 100% of all risk above a fixed retention of $1 million or $2 million per life). This means that the reserve strain on the retained risk can be substantial.

However, increased availability of collateral sources has made this strain much easier to absorb. For the largest companies, this often means securitization of the excess reserve requirements. But for smaller companies, LOCs have become an increasingly viable option. Most of the top 30 U.S. life insurers now have an offshore captive reinsurer to accept their excess reserve needs, collateralized by LOCs. European banks in particular have been willing to provide that collateral, with five-, seven-, or even 10-year LOC facilities now available for barely more than what a one-year LOC cost just a few years ago.

The growth story for reinsurers is not much better in the second-largest life reinsurance market, the U.K. Here, growth in the primary protection market—the bread and butter of the life reinsurance sector—has been restrained in the past two years as rising interest rates have driven down mortgage activity, which spurs most new protection sales. At the same time, guaranteed critical illness (CI) rates have risen substantially due to the hard stand on this cover taken by certain life reinsurers, resulting in sales declines in both the primary and reinsurance markets. Here, new entrants have begun to pick up some of the slack, and there are signs that the market could begin to heat up again by 2007. Even some old players, such as Swiss Re and Munich Re, could be relaxing their objection to guaranteed rate CI, meaning renewed competition could be ahead.

Going East To Find Growth

With tough times finding growth in the world's two largest life reinsurance markets, companies are looking to new markets in unexpected places. Suddenly, Continental

> *"Asia remains another market with great potential, but opportunities have been slow to develop. Most Asian markets are dominated by large domestic companies that have historically made little use of reinsurance. However, life reinsurers are using new strategies to break into these markets."*

Europe, and Germany in particular, are seen as attractive opportunities, with Solvency II seen as a key driver. Germany has historically been a very tight market, with a handful of local reinsurers (Munich Re, Hannover Re, GE Frankona, and Revios key among them) dominating the scene through long-standing relationships often many decades old. But there are signs that the cartel might be breaking.

Although the ultimate impact of Solvency II is not yet known, the expectation is that capital requirements will increase for many life insurance products, which will spur German and other EU life insurers to use more reinsurance than today. More importantly, capital requirements under Solvency II are expected to encourage diversification of reinsurance programs, which up to now has been far less common on the continent than in the U.S. or U.K. In the future, a German company may be penalized for heavy reliance on only one or two reinsurers, creating opportunity for others. This factor could be one motivation of Swiss Re's acquisition of GEIS, helping them to make a strong surge in this elusive market. At the same time, many North American and other life reinsurers are intensely looking at emerging opportunities in the German market. Today, most of the activity is merely positioning, but expect a changing sales environment to have an impact in 2008 and beyond. There is no guarantee that new entrants will have significant success in the market, but at a minimum the stranglehold of the big German reinsurers is more vulnerable than in the past.

Asia remains another market with great potential, but opportunities have been slow to develop. Most Asian markets are dominated by large domestic companies that have historically made little use of reinsurance. However, life reinsurers are using new strategies to break into these markets. Specialized services are becoming the gateway for many companies. For some, facultative underwriting has been a way in, bringing the latest U.S.-style medical underwriting techniques. For others, product development services have been the path, delivering Western-style CI products, among others, and receiving a significant share of the reinsurance as compensation. Such arrangements are helping reinsurers to break into this high-potential market that today constitutes less than 5% of global life reinsurance business.

New Entrants Having An Impact

With improved profits and constrained capacity, new market entrants are beginning to have an impact, though it has been relatively small so far. ACE Tempest Life Re (ACE), XL Life Re (XL), and Wilton Re have all entered the market to offer life reinsurance in the past 18 months. ACE and XL represent the expansion of historically non-life insurers into the life reinsurance realm, although both have dabbled in some specialty life reinsurance risk in the past. Wilton Re is the first significant start-up life reinsurer to secure capital and enter the market in the past several years.

The approaches of these start-ups have been different, but their impact is increasingly being felt. XL began in earnest in the U.K. in late 2002, by acquiring large payout annuity books, filling a capacity void in the market. Because of constrained capacity in the traditional market, however, the company started engaging in traditional life reinsurance business in the U.K. in 2005, and began staffing up late in the year for an entry into the U.S. market.

ACE has been in the life reinsurance market for several years, though restricting itself to the specific niche of reinsuring variable annuity guarantees. In this way, the company exploited an area with extremely limited capacity. However, ACE also built from this niche by beginning to offer traditional life reinsurance in 2005. It is early to tell, but a small number of additional non-life reinsurers might look to enter or expand life reinsurance offerings and to exploit the perceived diversification benefits in the coming year, which should increase competition over the medium term.

The acquisition of closed books is another lucrative area for life reinsurers that has seen increased competition in recent years. Wilton Re, a 2005 start-up, entered the fray by cooperating with Protective Life Insurance Corp. to acquire the life insurance business of Chase N.A. In the U.K., Resolution PLC came into the market in 2005, acquiring Britannic Group PLC, and in 2006 announced its impending acquisition of the life insurance business of Abbey National PLC. Meanwhile, Swiss Re, a pioneer in the acquisition of closed books, did not manage to complete any significant acquisitions in 2005 and 2006. This new competition is likely to be a positive for the primary market–especially those companies with businesses to

"Standard & Poor's regularly reviews the latest research on the area of pandemic mortality and continues to be skeptical of some of the most severe scenarios. In particular, the U.S. government's strategic plan (released May 3, 2006) for coping with a pandemic has a worst-case scenario of up to two million U.S. deaths, which most critics have seen as unlikely."

divest–while encouraging Swiss Re and others to sharpen their pencils if they want to stay relevant in this niche market area.

Pandemic Risk: The Big Unknown

One of the biggest topics of interest for the sector this year has been the possibility of pandemic mortality. The most obvious risk that has received the greatest attention has been the H5N1 avian flu virus. Standard & Poor's Ratings Services continues to believe that the risk of human-to-human transmission of H5N1 remains low, but given the potential impact on life reinsurer capital, contingency planning is prudent.

Standard & Poor's regularly reviews the latest research on the area of pandemic mortality and continues to be skeptical of some of the most severe scenarios. In particular, the U.S. government's strategic plan (released May 3, 2006) for coping with a pandemic has a worst-case scenario of up to two million U.S. deaths, which most critics have seen as unlikely. In its assessment, Standard & Poor's has considered a worst case, using the 1918 flu and other research as a basis, to be in the range of 30%-50% additional deaths in a one- to two-year period, or as many as 1.2 million additional deaths in the U.S. In our view, such a risk could be borne by most life insurers—particularly well-diversified ones–with only a moderate impairment to capital.

Life reinsurers, particularly those who focus purely on mortality risk, would be the most at risk and could become financially impaired by a major pandemic–which could have an impact on the primary companies that rely on them. Despite the low likelihood, the significant severity of such an event means that preparation is sensible, and the capital markets have stepped up to make this possible. Swiss Re bought $762 million in protection against extreme mortality events in its two Vita Capital transactions in 2003 and 2005. Scottish Re Group Ltd. entered into a similar facility through Tartan Capital Ltd. in 2006, raising $155 million of protection. Such capital market transactions are likely to evolve further–particularly as market makers match up parties that are long on mortality exposure (life insurers and reinsurers) with those long on longevity (annuity providers). A vibrant market for insurance-related securitization is becoming a strong risk-management tool for this sector. Meanwhile, the major reinsurers themselves are becoming much more comfortable with longevity risk as pricing has improved in recent years.

Conclusion

A number of risks—within their products and in the competitive environment—will impact the life reinsurance sector for 2006 and 2007. The industry at large is strongly positioned to maintain financial strength, particularly given improved profitability of recent new business and diversity of capital-raising options. Further review will focus on whether increasing competition results in irrational pricing or whether lessons from the last cycle will keep the industry disciplined in 2007.

Rodney Clark,
New York
(1) 212-438-7245
rodney_clark@standardandpoors.com

Miroslav Petkov,
London
(44) 20-7176-7043
miroslav_petkov@standardandpoors.com

Top 40 Global Reinsurance Groups

Top 40 Global Reinsurance Groups Ranked By Net Reinsurance Premiums Written

Ranking	Group	Country	Net Reinsurance Premiums Written (Mil. $) 2005	2004
1	Munich Re	Germany	22,602.8	26,400.1
2	Swiss Re[1]	Switzerland	21,203.6	25,766.9
3	Berkshire Hathaway Re	U.S.	10,041.0	10,580.0
4	Hannover Re	Germany	9,190.8	10,125.9
5	GE Insurance Solutions[1]	U.S.	6,697.0	8,173.0
6	Lloyd's[2]	U.K.	6,566.8	6,375.7
7	XL Re	Bermuda	5,012.9	4,149.3
8	Everest Re	Bermuda	3,972.0	4,531.5
9	Reinsurance Group of America Inc.	U.S.	3,863.0	3,342.5
10	PartnerRe	Bermuda	3,615.9	3,852.7
11	Transatlantic Holdings Inc.	U.S.	3,466.4	3,749.3
12	Tokio Marine & Nichido Fire Insurance Co. Ltd.	Japan	2,789.3	3,455.1
13	SCOR	France	2,691.8	3,329.5
14	Odyssey Re	U.S.	2,301.7	2,361.8
15	Korean Re	Korea	1,946.7	1,678.4
16	Scottish Re Group Ltd.	Cayman Islands	1,933.9	589.4
17	Converium	Switzerland	1,815.7	3,726.1
18	Sompo Japan Insurance Inc.	Japan	1,803.9	2,052.8
19	Transamerica Re (AEGON)[3]	U.S.	1,741.0	953.8
20	Platinum Underwriters Holdings Ltd.	Bermuda	1,717.7	1,646.0
21	Mitsui Sumitomo Insurance Co. Ltd.	Japan	1,712.6	1,956.1
22	Arch Capital Group Ltd.	U.S.	1,657.5	1,588.0
23	ACE Tempest Re	Bermuda	1,545.7	1,524.6
24	Axis Capital Holdings Ltd.	Bermuda	1,491.2	1,060.4
25	Caisse Centrale de Réassurance	France	1,475.5	1,718.1
26	AXA Re	France	1,380.3	1,149.0
27	Endurance Specialty Holdings Ltd.	Bermuda	1,322.9	1,290.8
28	White Mountains Re	Bermuda	1,304.3	1,246.3
29	Revios Re[4]	Germany	1,272.8	1,420.6
30	Toa Re Co. Ltd.	Japan	1,210.6	1,310.3
31	QBE Insurance Group Ltd.	Australia	1,190.1	1,305.0
32	RenaissanceRe Holdings Ltd.	Bermuda	1,165.6	1,114.5
33	Aioi Insurance Co. Ltd.	Japan	1,152.1	1,370.4
34	Aspen Insurance Holdings Ltd.	Bermuda	1,129.0	1,009.1
35	General Insurance Corp. of India	India	1,120.5	1,053.6
36	Mapfre Re	Spain	1,081.9	1,053.1
37	Manulife Financial Corp. (reinsurance division)	Canada	1,043.7	815.1
38	Chubb Re[5]	U.S.	904.0	1,138.7
39	Alea Group Holdings (Bermuda) Ltd.	Bermuda	736.5	1,296.2
40	Montpelier Re Holdings Ltd.	Bermuda	723.1	749.3

1. In 2006, Swiss Re acquired GE Insurance Solutions.
2. Net premiums written and the combined ratio relate to reinsurance business only; all other items include direct business.
3. Figures are based on regulatory data and refer to the reinsurance division only.
4. Figures are based on unaudited financial data.
5. In 2006, Chubb Corp. sold its reinsurance business to Harbor Point Ltd.

Net reinsurance premiums written = gross reinsurance premiums written less reinsurance premiums ceded; relate to a company's or group's reinsurance business only, unless where separately indicated.

Pretax operating income = underwriting profit (or loss) + net investment income + other income. Net realized and unrealized gains/losses are excluded from this item.

STANDARD & POOR'S

Pretax Operating Income (Mil. $)		Expense Ratio (%)		Loss Ratio (%)		Total Adjusted Shareholders' Funds (Mil. $)		ROR (%)	
2005	2004	2005	2004	2005	2004	2005	2004	2005	2004
572.0	2,688.4	27.9	26.9	84.7	72.6	31,269.2	31,311.9	2.2	9.0
84.4	1,778.6	27.3	26.7	85.8	73.3	19,990.0	20,610.5	0.3	5.7
N.A.	N.A.	26.0	24.3	91.5	70.3	52,476.0	48,486.0	N.A.	N.A.
-152.4	400.1	27.0	20.2	85.7	81.6	3,740.3	4,169.0	-1.5	3.4
-3,253.0	-271.0	18.5	17.1	164.5	91.4	8,251.0	8,248.0	-37.5	-2.7
-378.5	2,767.9	31.5	31.1	103.2	63.2	18,048.7	22,465.1	-1.7	11.1
N.A.	N.A.	27.3	28.7	99.7	66.3	N.A.	N.A.	N.A.	N.A.
-371.2	470.1	26.2	24.5	94.0	74.4	4,139.7	3,712.5	-8.3	9.6
345.3	341.8	N.M.	N.M.	N.M.	N.M.	2,527.5	2,279.0	7.6	8.6
-235.0	382.6	29.0	28.9	87.0	65.4	3,092.8	3,351.9	-5.9	9.4
-86.0	254.0	27.2	26.0	85.0	75.2	2,544.0	2,587.1	-2.3	6.4
768.7	503.1	N.A.	N.A.	N.A.	N.A.	34,542.1	30,678.3	18.3	9.4
56.8	136.4	33.3	33.6	74.1	69.4	2,035.7	1,820.9	1.9	3.5
-244.5	185.3	27.1	27.3	90.5	69.9	1,623.4	1,555.0	-9.5	7.1
85.7	73.0	27.2	29.5	69.7	67.3	716.4	623.1	4.4	4.4
113.6	55.5	N.M.	N.M.	N.M.	N.M.	1,271.7	862.7	4.9	6.8
58.8	-427.7	30.4	28.3	75.3	87.1	1,653.4	1,734.8	2.2	-10.2
596.5	738.2	31.9	32.6	25.3	68.3	19,615.6	15,613.9	21.3	21.6
959.5	1,402.3	N.M.	N.M.	N.M.	N.M.	7,079.0	7,328.2	4.4	5.3
-159.4	113.2	27.5	27.2	87.6	70.4	1,540.2	1,133.0	-8.6	7.4
979.8	770.0	31.8	32.3	63.2	68.8	20,963.3	18,177.9	6.5	4.4
272.2	186.5	31.2	28.9	66.3	63.5	2,116.4	2,005.1	15.2	11.0
-71.8	213.5	24.0	24.1	91.6	69.7	N.A.	N.A.	-4.2	14.0
N.A.	N.A.	19.7	21.1	86.4	63.4	3,512.4	3,238.1	N.A.	N.A.
338.4	225.5	11.4	11.0	73.8	73.5	1,687.8	2,476.8	20.6	12.1
-42.0	142.3	33.1	40.1	88.3	61.0	1,406.0	1,521.9	-2.7	9.1
-263.4	339.7	31.3	30.4	96.8	57.3	1,872.5	1,862.7	-16.8	25.0
-93.6	66.4	28.2	31.2	90.2	72.6	1,971.3	1,873.3	-6.0	4.7
89.1	66.4	N.M.	N.M.	N.M.	N.M.	707.5	722.1	5.9	4.0
-127.4	-12.6	28.9	29.7	90.4	88.5	2,309.4	2,143.5	-8.2	-0.8
69.1	123.4	30.1	32.2	71.8	64.9	899.6	776.4	3.2	7.8
-274.5	109.7	23.1	22.5	116.6	81.9	1,753.8	2,144.0	-16.8	7.2
154.5	20.0	34.0	34.1	60.9	64.8	7,233.6	6,243.1	N.A.	N.A.
-156.0	266.7	27.2	25.1	100.8	59.6	2,039.8	1,481.5	-9.5	20.5
131.6	182.7	28.4	28.4	94.5	84.7	1,049.1	973.6	9.1	13.9
63.0	103.8	32.0	33.2	67.6	58.5	737.4	732.5	6.0	11.3
-76.3	261.5	N.M.	N.M.	N.M.	N.M.	N.A.	N.A.	-6.2	26.1
N.A.	N.A.	34.7	32.4	61.5	62.2	N.A.	N.A.	N.A.	N.A.
-213.9	6.7	39.7	32.7	84.6	71.9	490.4	716.5	-18.1	0.5
-794.5	233.2	22.7	26.4	178.0	51.4	1,057.7	1,751.9	-85.8	27.0

Expense ratio = net underwriting expenses/net premiums earned.

Loss ratio = net losses incurred/net premiums earned.

Total adjusted shareholders' funds = capital + shareholders' reserves (including claims-equalization reserve and any excess or deficiency of market value of investments over the balance sheet value).

ROR = pretax operating income/total revenue. (Total revenue = net premiums earned + net investment income + other income.)

N.A.—Not available.
N.M.—Not meaningful.

Global Reinsurer List By Country

To bring you the 2006 edition of *Global Reinsurance Highlights*, Standard & Poor's Ratings Services collected data on approximately 220 reinsurance organizations from 48 countries. In a change from previous years, when data was derived from surveys completed by global groups and non-U.S. operating companies, Standard & Poor's obtained the data for this year's publication from each group's or company's annual report and accounts, where possible, to ensure the consistency of information. The data for U.S.-domiciled operating entities is based upon statutory returns. Likewise, the data for U.K.-domiciled operating entities is derived from the Financial Services Authority returns. Where it has not been possible to obtain the report and accounts, Standard & Poor's has surveyed each company or group.

Rating As Of Aug. 4, 2006	Company	Net Reinsurance Premiums Written (Mil. $) 2005	2004	Change (%)
ALGERIA				
NR	Compagnie Centrale de Réassurance[1]	31.1	26.6	N.A.
	Total	**31.1**	**26.6**	**N.A.**
AUSTRALIA				
NR	Hannover Life Re of Australasia Ltd.	195.8	192.6	1.7
AA-	Swiss Re Life & Health Australia Ltd.	189.6	178.2	6.4
A+	Munich Re Co. of Australasia Ltd.[2]	95.4	189.3	-49.6
AAA	General Re Life Australia Ltd.	76.2	63.1	20.6
AAA	General Re Australia Ltd.	33.8	43.0	-21.5
	Total	**590.7**	**666.2**	**-11.3**
AUSTRIA				
NR	Generali Holding Vienna AG	747.1	746.6	0.1
A-	UNIQA Versicherungen AG	681.2	736.9	-7.6
NR	Generali Rück AG	117.3	136.2	-13.9
	Total	**1,545.6**	**1,619.7**	**-4.6**
BAHRAIN				
BBB	Arab Insurance Group (B.S.C.)	154.0	121.0	27.2
NR	Trust International Insurance Co.[3]	96.9	9.2	957.1
	Total	**250.9**	**130.2**	**92.7**

As in 2005, Standard & Poor's has endeavored to collect the underlying data behind each group's or entity's combined ratio in order to calculate these ratios in a comparable manner. The combined ratios presented in *Global Reinsurance Highlights* have been calculated as: (net losses incurred + net underwriting expenses)/net premiums earned. The combined ratio of any entity that writes purely life reinsurance has been marked as "N.M." (not meaningful), as Standard & Poor's does not consider this to be an accurate measure of a life reinsurer's profitability. For those groups or entities writing both non-life and life reinsurance business, the combined ratio reflects non-life business only.

One of the challenges has been to convince some companies to separate the reinsurance numbers from their primary insurance business, especially when the reinsurance operation is a division within a company and not a distinct operating entity that files its own financial results. While generally speaking all the premium data relates to a company's reinsurance premiums written, in some cases the other ratios and data items will also include primary business.

The main group and country listing for each entity surveyed is representative of that group's or company's total reinsurance business written, whether life, non-life, or a combination of both. A separate listing of the top 10 groups based on gross life reinsurance premiums written can be found on page 21.

Finally, to ensure that the whole reinsurance market has been captured, companies and groups that ceased underwriting and/or were placed into run-off during 2005 have also been included. The status of these companies and groups is provided in the footnotes.

Lucy Stupples,
London
(44) 20-7176-7083
lucy_stupples@standardandpoors.com

Pretax Operating Income (Mil. $)		Combined Ratio (%)		Total Adjusted Shareholders' Funds (Mil. $)			ROR (%)	
2005	2004	2005	2004	2005	2004	Change (%)	2005	2004
N.A.	7.6	N.A.	70.9	N.A.	57.7	N.A.	N.A.	20.7
N.A.	**7.6**	**N.A.**	**70.9**	**N.A.**	**57.7**	**N.A.**	**N.A.**	**20.7**
24.7	15.6	N.M.	N.M.	121.5	147.9	-17.8	11.0	7.5
26.2	34.1	N.M.	N.M.	102.3	95.5	7.2	11.4	15.7
13.2	35.1	N.M.	93.0	95.2	217.6	-56.2	5.5	3.3
5.7	7.6	N.M.	N.M.	30.1	30.7	-2.1	6.9	11.2
49.7	-1.4	14.0	122.5	201.5	175.6	14.8	69.7	-1.6
119.5	**90.9**	**14.0**	**98.5**	**550.7**	**667.3**	**-17.5**	**13.0**	**8.2**
40.1	50.3	105.7	100.9	2,179.8	2,585.3	-15.7	4.8	6.2
148.2	86.5	102.1	102.1	2,270.7	2,420.4	-6.2	17.1	10.1
28.8	10.8	85.0	100.8	878.4	949.8	-7.5	21.4	7.0
217.1	**147.6**	**102.6**	**101.5**	**5,329.0**	**5,955.5**	**-10.5**	**-10.5**	**11.5**
9.0	11.5	110.3	91.3	326.6	222.2	47.0	6.0	9.9
18.3	9.3	90.2	56.2	251.6	169.8	48.2	17.4	62.1
27.3	**20.8**	**102.5**	**88.8**	**578.2**	**392.0**	**47.5**	**10.4**	**13.6**

Global Reinsurer List By Country

Rating As Of Aug. 4, 2006	Company	Net Reinsurance Premiums Written (Mil. $) 2005	2004	Change (%)
BARBADOS				
NR	Imagine Insurance Co. Ltd.	516.4	506.3	2.0
AA-	Royal Bank of Canada Insurance Co. Ltd.	366.6	496.0	-26.1
NR	Revios Re International Barbados Ltd.[4]	155.5	96.3	61.4
NR	London Life and Casualty Re Corp.	92.5	246.8	-62.5
NR	European International Re Co. Ltd.	0.2	1.5	-88.2
	Total	**1,132.2**	**1,346.8**	**-16.0**
BELGIUM				
A+	Secura N.V.	259.6	338.9	-23.4
	Total	**259.6**	**338.9**	**-23.4**
BERMUDA				
A+	XL Re Ltd.	3,125.6	2,326.2	34.4
AA-	PartnerRe Ltd.	2,139.7	2,030.9	5.4
AA-	Everest Re (Bermuda) Ltd.	1,382.8	1,418.8	-2.5
A+	ACE Tempest Re Ltd.	1,288.3	1,127.6	14.3
NR	Platinum Underwriters Bermuda Ltd.	1,039.1	854.0	21.7
A-	Arch Re Ltd.	1,004.5	820.4	22.4
A+	Renaissance Re Ltd.	797.5	732.2	8.9
A-	Montpelier Re Ltd.	723.1	749.3	-3.5
A	AXIS Specialty Ltd.	646.9	536.4	20.6
NR	Max Re Ltd.	534.9	531.8	0.6
A-	Allied World Assurance Co. Ltd.	494.0	394.0	25.4
A-	Endurance Specialty Insurance Ltd.	467.2	483.3	-3.3
A	IPCRe Ltd.	450.8	358.3	25.8
A	Aspen Insurance Ltd.	430.3	31.1	N.M.
NR	PXRE Re Ltd.	400.1	265.0	51.0
AA-	Hannover Re Bermuda Ltd.	259.4	252.8	2.6
A+	ACE Tempest Life Re Ltd.	231.2	220.5	4.9
AA	Transamerica International Re (Bermuda) Ltd.	229.8	116.5	97.2
A	DaVinci Re Ltd.	226.5	198.8	14.0
A-	Catlin Insurance Co. Ltd.	150.9	124.3	21.4
AA-	Tokio Millennium Re Ltd.	115.4	102.3	12.8
AA-	MS Frontier Re Ltd.	39.1	19.8	97.5
AA	Top Layer Re Ltd.	28.4	41.3	-31.3
NR	ESG Re Bermuda Ltd.	21.8	38.1	-42.7
	Total	**16,227.4**	**13,773.4**	**17.8**

Pretax Operating Income (Mil. $)		Combined Ratio (%)		Total Adjusted Shareholders' Funds (Mil. $)			ROR (%)	
2005	2004	2005	2004	2005	2004	Change (%)	2005	2004
-18.0	40.0	122.4	107.0	573.0	524.2	9.3	-3.2	6.1
71.6	216.1	N.M.	N.M.	529.0	562.9	-6.0	13.8	42.3
6.0	21.7	N.M.	N.M.	15.1	32.0	-52.9	3.9	13.0
42.4	-25.7	N.M.	N.M.	286.1	262.1	9.1	21.2	-7.0
45.3	10.3	N.M.	N.M.	321.0	341.6	-6.0	78.4	22.8
147.2	**262.3**	**122.4**	**107.0**	**1,724.2**	**1,722.8**	**0.1**	**5.3**	**17.6**
35.8	37.9	96.5	97.0	229.1	216.2	6.0	11.9	10.0
35.8	**37.9**	**96.5**	**97.0**	**229.1**	**216.2**	**6.0**	**11.9**	**10.0**
N.A.	N.A.	146.2	101.1	N.A.	N.A.	N.A.	N.A.	N.A.
-152.5	473.6	118.6	80.6	2,574.0	2,357.2	9.2	-6.6	22.5
-230.0	213.9	130.2	96.5	1,522.5	1,486.9	2.4	-15.0	13.2
-41.0	248.5	118.9	89.8	3,575.5	3,284.6	8.9	-2.8	21.5
-65.2	27.2	113.2	101.3	967.4	561.8	72.2	-6.1	3.6
218.1	186.5	100.4	85.4	1,895.2	1,808.7	4.8	19.5	19.4
-122.5	206.3	134.8	89.0	1,300.0	1,455.0	-10.7	-14.4	24.4
-794.5	233.2	200.7	77.8	1,057.7	1,751.9	-39.6	-85.8	27.0
N.A.	N.A.	110.9	68.3	2,998.8	2,501.2	19.9	N.A.	N.A.
23.4	53.8	104.9	95.5	1,198.9	919.0	30.4	3.8	8.3
-162.0	142.0	137.6	100.8	1,732.0	1,925.0	-10.0	-12.1	10.5
-58.5	392.7	112.6	65.1	2,250.0	1,966.3	14.4	-9.0	67.9
-616.1	130.5	245.7	71.4	1,621.6	1,669.0	-2.8	-120.0	31.7
-204.6	12.1	188.3	111.5	944.6	602.7	56.7	-66.0	26.5
-552.0	48.2	254.9	84.6	530.8	749.1	-29.1	-132.1	17.8
69.4	101.7	90.9	67.4	1,060.3	1,294.9	-18.1	24.5	35.0
98.9	47.4	N.M.	N.M.	2,165.3	1,308.9	65.4	38.1	19.3
39.5	22.3	N.M.	N.M.	1,071.1	1,081.2	-0.9	13.4	14.5
-194.5	-53.1	201.7	134.9	681.1	565.0	20.5	-79.2	-23.5
31.5	113.0	88.9	79.7	889.6	896.4	-0.8	5.0	29.9
-50.0	26.2	172.7	106.1	685.1	595.3	15.1	-38.3	16.8
-40.7	14.8	221.7	25.5	178.9	220.3	-18.8	-94.0	81.3
25.8	34.4	16.0	17.6	52.4	62.0	-15.4	76.5	83.5
-6.5	-9.0	122.4	119.9	10.4	19.2	-45.6	-6.7	-10.3
-2,783.9	**2,666.0**	**137.6**	**89.1**	**30,963.3**	**29,081.3**	**6.5**	**-19.8**	**20.5**

Global Reinsurer List By Country

Rating As Of Aug. 4, 2006	Company	Net Reinsurance Premiums Written (Mil. $) 2005	2004	Change (%)
BOSNIA				
NR	Bosna Re	8.0	4.8	67.6
	Total	**8.0**	**4.8**	**67.6**
BRAZIL				
NR	IRB-Brasil Resseguros S.A.	525.9	536.8	-2.0
	Total	**525.9**	**536.8**	**-2.0**
CANADA				
AA-	RGA Life Re Co. of Canada	343.1	253.9	35.2
A+	Munich Re Co. of Canada	185.2	273.5	-32.3
AA-	Swiss Re Co. Canada	95.2	137.4	-30.8
A-	SCOR Canada Re Co.	73.7	48.5	51.9
AA-	Swiss Re Life & Health Canada	44.1	149.1	-70.4
NR	Revios Re Canada Ltd.	10.7	6.7	59.6
	Total	**752.0**	**869.2**	**-13.5**
CAYMAN ISLANDS				
BBB+	Scottish Annuity & Life Insurance Co. (Cayman) Ltd.	1,840.2	492.0	274.0
	Total	**1,840.2**	**492.0**	**274.0**
CROATIA				
NR	Croatia Lloyd	22.3	22.8	-2.0
	Total	**22.3**	**22.8**	**-2.0**
CYPRUS				
BBB	Alliance International Re Public Co. Ltd.	29.6	32.7	-9.6
	Total	**29.6**	**32.7**	**-9.6**
DENMARK				
A	GE Frankona Re A/S	158.6	227.6	-30.3
NR	KaB International	0.7	2.9	-76.6
	Total	**159.2**	**230.4**	**-30.9**

STANDARD & POOR'S

Pretax Operating Income (Mil. $)		Combined Ratio (%)		Total Adjusted Shareholders' Funds (Mil. $)			ROR (%)	
2005	2004	2005	2004	2005	2004	Change (%)	2005	2004
1.5	1.0	113.3	87.4	7.4	7.3	0.5	15.6	20.5
1.5	**1.0**	**113.3**	**87.4**	**7.4**	**7.3**	**0.5**	**15.6**	**20.5**
186.8	126.2	68.4	83.3	520.5	518.2	0.4	42.6	38.0
186.8	**126.2**	**68.4**	**83.3**	**520.5**	**518.2**	**0.4**	**42.6**	**38.0**
83.0	62.0	N.M.	N.M.	N.A.	N.A.	N.A.	17.7	17.0
44.1	47.2	89.7	92.0	305.4	303.5	0.6	18.8	14.8
24.0	27.6	86.1	88.9	124.0	126.7	-2.2	20.5	19.1
9.3	16.3	105.6	95.3	137.9	129.6	6.5	11.9	21.1
75.0	22.8	N.M.	N.M.	239.7	186.2	28.8	41.8	8.3
-5.5	3.9	N.M.	N.M.	24.0	53.8	-55.4	-67.8	37.8
229.9	**179.8**	**92.0**	**91.4**	**831.0**	**799.8**	**3.9**	**18.0**	**15.5**
126.6	58.6	N.M.	N.M.	1,304.7	988.2	32.0	5.8	8.3
126.6	**58.6**	**N.M.**	**N.M.**	**1,304.7**	**988.2**	**32.0**	**5.8**	**8.3**
7.5	6.6	83.1	86.7	37.3	42.0	-11.4	30.2	25.9
7.5	**6.6**	**83.1**	**86.7**	**37.3**	**42.0**	**-11.4**	**30.2**	**25.9**
2.8	3.1	102.3	99.3	54.6	59.6	-8.4	9.1	8.8
2.8	**3.1**	**102.3**	**99.3**	**54.6**	**59.6**	**-8.4**	**9.1**	**8.8**
-3.3	-12.6	102.4	72.8	217.0	428.0	-49.3	-2.0	-4.9
-0.1	-1.3	178.1	168.0	15.4	14.1	9.5	-9.4	-34.3
-3.4	**-13.8**	**102.7**	**72.4**	**232.4**	**442.1**	**-47.4**	**-2.0**	**-5.3**

Global Reinsurer List By Country

Rating As Of Aug. 4, 2006	Company	Net Reinsurance Premiums Written (Mil. $) 2005	2004	Change (%)
EGYPT				
NR	Egyptian Re Co.	46.6	43.3	7.7
	Total	**46.6**	**43.3**	**7.7**
FRANCE				
AAA	Caisse Centrale de Réassurance	1,475.5	1,718.1	-14.1
AA-	AXA Re	1,380.3	1,149.0	20.1
AA-	PartnerRe S.A.[1]	1,204.9	1,029.8	17.0
A-	SCOR S.A.	1,127.4	765.8	47.2
NR	Mutuelle Centrale de Réassurance[1]	347.4	296.9	17.0
A+	XL Re Europe	197.0	284.9	-30.9
	Total	**5,732.6**	**5,244.7**	**9.3**
GERMANY				
A+	Munich Re Co.	21,150.0	24,729.0	-14.5
AA-	Hannover Rück AG[5]	5,131.6	5,638.2	-9.0
AAA	Kölnische Rück Ges AG	2,229.9	2,216.7	0.6
AA-	E+S Rück AG[5]	1,635.4	1,807.7	-9.5
A	GE Frankona Rück AG[5]	849.7	1,525.1	-44.3
A-	Revios Rück AG	761.9	732.4	4.0
A+	R+V Versicherung AG	706.8	1,182.0	-40.2
AA-	Swiss Re Germany AG	624.5	1,369.5	-54.4
BBB+	Converium Rück (Deutschland) AG	507.1	532.0	4.7
A+	Deutsche Rück AG	350.0	407.8	-14.2
BBB	Wüstenrot & Württembergische AG	293.1	374.3	-21.7
NR	Versicherungskammer Bayern Konzern-Rück AG	264.2	322.1	-18.0
A-	SCOR Deutschland Rück AG	86.5	97.9	-11.6
NR	Hanseatica Rück AG	0.2	0.3	-31.4
	Total	**34,590.8**	**40,934.9**	**-15.5**
HONG KONG				
A-	China International Re Co. Ltd.	133.9	117.3	14.1
	Total	**133.9**	**117.3**	**14.1**
INDIA				
NR	General Insurance Corp. of India	1,120.5	1,053.6	6.3
	Total	**1,120.5**	**1,053.6**	**6.3**

Pretax Operating Income (Mil. $) 2005	2004	Combined Ratio (%) 2005	2004	Total Adjusted Shareholders' Funds (Mil. $) 2005	2004	Change (%)	ROR (%) 2005	2004
22.4	12.5	128.8	142.1	153.5	129.2	18.8	21.7	15.6
22.4	**12.5**	**128.8**	**142.1**	**153.5**	**129.2**	**18.8**	**21.7**	**15.6**
338.4	225.5	85.2	84.4	1,687.8	2,476.8	-31.9	20.6	12.1
-42.0	142.3	121.4	104.2	1,406.0	1,521.9	-7.6	-2.7	9.1
N.A.	17.2	N.A.	111.0	N.A.	677.6	N.A.	N.A.	1.5
214.4	154.1	97.1	110.6	1,258.9	1,126.7	11.7	17.9	15.9
N.A.	32.0	N.A.	96.3	N.A.	285.3	N.A.	N.A.	9.8
67.4	86.5	84.2	82.2	522.4	524.3	-0.4	29.1	26.7
578.2	**657.6**	**100.3**	**98.4**	**4,875.2**	**6,612.7**	**-13.7**	**12.5**	**10.6**
-283.1	-879.1	116.8	96.5	32,595.7	35,695.6	-8.7	-1.3	-3.3
240.1	424.1	85.5	87.8	4,754.3	4,958.1	-4.1	4.5	7.3
358.0	194.3	89.4	101.5	1,653.6	1,583.2	4.4	14.8	7.9
59.0	214.3	95.5	90.0	1,600.5	1,695.0	-5.6	3.4	10.8
-248.7	117.1	145.1	108.7	1,390.7	1,720.6	-19.2	-21.8	7.0
25.6	1.5	N.M.	N.M.	582.5	642.5	-9.3	2.6	0.2
174.1	123.7	102.6	102.9	3,618.5	2,102.7	72.1	18.2	9.1
-65.4	344.3	120.7	89.2	1,287.8	2,042.5	-37.0	-8.8	21.4
17.1	35.1	101.4	95.0	330.1	346.0	-4.6	3.0	5.7
42.4	62.4	92.3	81.3	384.5	393.0	-2.2	11.2	13.9
152.3	-14.1	97.5	106.6	3,945.5	4,458.2	-11.5	34.3	-3.6
51.9	49.7	82.7	81.7	258.3	243.6	6.1	18.2	14.4
7.9	19.4	99.3	102.9	155.0	169.0	-8.3	8.7	16.0
-1.4	-1.2	384.6	504.3	15.5	18.8	-17.4	N.M.	-116.1
529.7	**691.6**	**108.7**	**95.5**	**52,572.5**	**56,068.9**	**-5.7**	**1.3**	**1.5**
N.A.	14.2	104.0	98.1	179.3	176.8	1.4	N.A.	10.9
N.A.	**14.2**	**104.0**	**98.1**	**179.3**	**176.8**	**1.4**	**N.A.**	**10.9**
131.6	182.7	122.9	113.1	1,049.1	973.6	7.8	9.1	13.9
131.6	**182.7**	**122.9**	**113.1**	**1,049.1**	**973.6**	**7.8**	**9.1**	**13.9**

Global Reinsurer List By Country

Rating As Of Aug. 4, 2006	Company	Net Reinsurance Premiums Written (Mil. $) 2005	2004	Change (%)
IRELAND				
NR	Scottish Re (Dublin) Ltd.	1,308.5	234.6	457.7
NR	Hannover Life Re (Ireland) Ltd.	524.0	399.7	31.1
A	Atradius Re Ltd.	394.9	209.0	88.9
AA-	Hannover Re (Ireland) Ltd.[6]	362.4	449.7	-19.4
AA-	Hannover Re (Dublin) Ltd.[6]	235.8	227.5	3.6
A	GE ERC Strategic Re Ltd.[6]	153.0	133.3	14.8
A	Cologne Re of Dublin (The)[6]	142.5	256.6	-44.4
AA-	E+S Re (Ireland) Ltd.[6]	100.8	129.1	-21.9
AA-	Mitsui Sumitomo Re Ltd.	90.4	66.4	36.0
A-	Revios Re Ireland Ltd.	83.0	34.3	141.6
AA-	Tokio Marine Global Re Ltd.	82.3	82.1	0.3
NR	London Life & General Re Co.	51.2	371.5	-86.2
A+	QBE Re (Europe) Ltd.	46.3	74.2	-37.6
NR	RBC Re (Ireland) Ltd.	41.2	7.2	469.1
AA-	Swiss Re Ireland Ltd.[6]	34.5	162.1	-78.7
	Total	**3,650.8**	**2,837.4**	**28.7**
ITALY				
A+	Münchener Rück Italia SpA	429.8	539.3	-20.3
A-	SCOR Italia Riassicurazioni SpA	98.7	137.4	-28.2
	Total	**528.5**	**676.7**	**-21.9**
JAPAN				
AA-	Tokio Marine & Nichido Fire Insurance Co. Ltd.	2,789.3	3,455.1	-19.3
AA-	Sompo Japan Insurance Inc.	1,803.9	2,052.8	-12.1
AA-	Mitsui Sumitomo Insurance Co. Ltd.	1,712.6	1,956.1	-12.4
A	Aioi Insurance Co. Ltd.	1,168.2	1,393.0	-16.1
AA-	Toa Re Co.	947.3	998.1	-5.1
A+	NIPPONKOA Insurance Co. Ltd.	830.5	995.3	-16.6
A+	Nissay Dowa General Insurance Co. Ltd.	352.4	408.5	-13.7
BBB+	Fuji Fire & Marine Insurance Co.	324.3	381.4	-15.0
BBB+	Kyoei Fire & Marine Insurance Co.	192.5	232.7	-17.3
A	Nisshin Fire & Marine Insurance Co. Ltd.	164.7	183.3	-10.2
A-	ACE Insurance	15.6	22.7	-31.4
	Total	**10,301.3**	**12,079.0**	**-14.7**

STANDARD & POOR'S

Pretax Operating Income (Mil. $) 2005	2004	Combined Ratio (%) 2005	2004	Total Adjusted Shareholders' Funds (Mil. $) 2005	2004	Change (%)	ROR (%) 2005	2004
4.3	-58.2	N.M.	N.M.	28.2	-55.0	-151.3	0.3	-16.9
19.6	11.8	N.M.	N.M.	216.8	149.5	45.0	3.2	2.6
94.5	38.7	78.0	84.2	348.6	136.1	156.1	24.3	18.0
75.0	38.7	135.6	138.2	583.1	742.1	-21.4	13.4	5.4
32.8	50.0	110.7	109.5	236.2	317.6	-25.6	11.6	16.4
5.1	43.1	98.6	100.9	476.5	580.0	-17.8	3.4	30.3
9.8	3.0	112.1	110.8	208.9	203.8	2.5	4.6	1.1
4.2	13.6	163.0	164.3	181.8	221.9	-18.1	2.5	5.7
1.7	-4.9	108.0	97.1	88.7	100.5	-11.8	2.3	-7.9
11.1	1.1	N.M.	N.M.	88.5	90.8	-2.5	12.0	8.8
2.9	-13.9	102.4	121.5	52.9	56.8	-6.9	3.2	-15.8
-27.2	6.8	N.M.	N.M.	112.4	91.7	22.6	-43.2	1.8
-0.6	-1.3	122.8	114.9	256.0	253.7	0.9	-0.6	-0.8
34.0	0.9	306.5	68.2	69.4	5.2	N.M.	52.0	33.7
43.0	-56.7	104.2	137.5	137.0	325.6	-57.9	57.3	-11.5
310.1	**72.7**	**104.7**	**115.5**	**3,084.9**	**3,220.6**	**-4.2**	**6.6**	**3.3**
18.6	-12.1	109.1	106.4	262.7	286.4	-8.3	4.7	-2.3
8.6	7.8	98.6	105.2	54.7	58.2	-5.9	7.1	4.9
27.1	**-4.3**	**107.2**	**106.1**	**317.4**	**344.5**	**-7.9**	**5.1**	**-0.8**
768.7	503.1	N.A.	95.7	34,542.1	30,678.3	12.6	18.3	9.4
596.5	738.2	57.2	101.0	19,615.6	15,613.9	25.6	21.3	21.6
979.8	770.0	95.0	101.1	20,963.3	18,177.9	15.3	6.5	4.4
152.1	14.9	94.8	98.8	7,287.1	6,308.0	15.5	N.A.	N.A.
-126.2	-7.9	121.9	119.6	2,161.1	2,040.7	5.9	-10.3	-0.6
155.8	-254.1	99.7	103.3	8,858.0	8,053.7	10.0	2.0	-2.5
N.A.	N.A.	85.5	78.4	4,049.5	3,705.0	9.3	N.A.	N.A.
N.A.	N.A.	95.4	78.9	2,283.6	2,184.5	4.5	N.A.	N.A.
-26.5	-36.9	99.3	100.1	1,195.8	1,191.9	0.3	-1.3	-1.6
9.6	42.9	97.3	99.7	1,544.0	1,392.9	10.9	N.A.	N.A.
-1.9	0.8	117.2	102.0	145.4	156.8	-7.3	-12.6	3.1
2,507.8	**1,770.9**	**89.6**	**99.5**	**102,645.6**	**89,503.6**	**14.7**	**11.1**	**8.4**

Global Reinsurer List By Country

Rating As Of Aug. 4, 2006	Company	Net Reinsurance Premiums Written (Mil. $) 2005	2004	Change (%)
JORDAN				
NR	International General Insurance Co. Ltd. Jordan	37.7	16.6	126.5
	Total	**37.7**	**16.6**	**126.5**
KENYA				
NR	Kenya Re Corp.	31.4	24.1	30.6
NR	PTA Re Co.	19.0	18.8	1.0
NR	East Africa Re Co. Ltd.	13.9	11.8	17.3
	Total	**64.3**	**54.7**	**17.5**
KOREA				
BBB+	Korean Re Co.	1,946.7	1,678.4	16.0
	Total	**1,946.7**	**1,678.4**	**16.0**
KUWAIT				
BBB	Kuwait Re Co. K.S.C.	26.2	20.7	27.1
	Total	**26.2**	**20.7**	**27.1**
LEBANON				
NR	Arab Re Co.[1]	23.9	20.4	17.0
	Total	**23.9**	**20.4**	**17.0**
MALAYSIA				
NR	Malaysian Re Bhd.	146.5	137.1	6.8
NR	Labuan Reinsurance (L) Ltd.	126.4	116.5	8.5
	Total	**272.8**	**253.6**	**7.6**
MEXICO				
mxAA-	QBE del Istmo Mexico, Cia. de Reaseguros, S.A. de C.V.	7.4	9.4	-21.1
	Total	**7.4**	**9.4**	**-21.1**
MOROCCO				
NR	Société Centrale de Réassurance	185.3	195.7	-5.3
	Total	**185.3**	**195.7**	**-5.3**

STANDARD & POOR'S

Pretax Operating Income (Mil. $)		Combined Ratio (%)		Total Adjusted Shareholders' Funds (Mil. $)			ROR (%)	
2005	2004	2005	2004	2005	2004	Change (%)	2005	2004
0.7	5.1	112.1	69.3	144.7	66.1	118.9	3.4	38.1
0.7	**5.1**	**112.1**	**69.3**	**144.7**	**66.1**	**118.9**	**3.4**	**38.1**
9.4	8.2	77.1	79.8	78.2	56.2	39.2	28.6	28.4
1.8	2.0	90.9	87.6	15.0	12.4	21.0	9.2	10.5
1.0	0.6	90.3	104.9	10.3	9.3	11.3	6.3	6.0
12.2	**10.9**	**84.1**	**87.9**	**103.6**	**77.9**	**33.0**	**18.1**	**17.4**
85.7	73.0	96.9	96.8	716.4	623.1	15.0	4.4	4.4
85.7	**73.0**	**96.9**	**96.8**	**716.4**	**623.1**	**15.0**	**4.4**	**4.4**
2.9	2.4	104.5	104.2	107.3	95.5	12.4	9.8	10.3
2.9	**2.4**	**104.5**	**104.2**	**107.3**	**95.5**	**12.4**	**9.8**	**10.3**
N.A.	3.7	N.A.	104.8	N.A.	38.2	N.A.	N.A.	13.8
N.A.	**3.7**	**N.A.**	**104.8**	**N.A.**	**38.2**	**N.A.**	**N.A.**	**13.8**
33.4	33.4	88.6	87.9	186.3	164.2	13.4	18.2	19.0
8.7	9.0	99.6	96.6	160.6	150.1	7.0	6.8	7.6
42.1	**42.4**	**93.7**	**91.9**	**346.9**	**314.4**	**10.4**	**12.9**	**13.8**
0.1	0.3	78.9	78.1	3.9	3.3	16.8	1.7	3.8
0.1	**0.3**	**78.9**	**78.1**	**3.9**	**3.3**	**16.8**	**1.7**	**3.8**
21.1	19.9	112.9	103.5	122.8	81.0	51.7	10.3	9.9
21.1	**19.9**	**112.9**	**103.5**	**122.8**	**81.0**	**51.7**	**10.3**	**9.9**

Global Reinsurer List By Country

Rating As Of Aug. 4, 2006	Company	Net Reinsurance Premiums Written (Mil. $) 2005	2004	Change (%)
NETHERLANDS				
AA-	Swiss Re Life & Health Nederland N.V.	217.1	256.9	-15.5
	Total	**217.1**	**256.9**	**-15.5**
NIGERIA				
BBB+	African Re Corp.	295.5	269.0	9.9
	Total	**295.5**	**269.0**	**9.9**
PANAMA				
NR	QBE del Istmo, Cia. de Reaseguros	60.0	40.5	48.1
	Total	**60.0**	**40.5**	**48.1**
POLAND				
BBB-	Polskie Towarzystwo Reasekuracji S.A.	60.0	68.2	-12.1
	Total	**60.0**	**68.2**	**-12.1**
RUSSIA				
BB+	Ingosstrakh Insurance Co.	66.2	76.5	-13.5
B+	Moscow Re Co.	31.3	27.0	16.1
NR	Transsib Re	10.6	12.7	-16.3
NR	Russian Re Co. Ltd.	7.2	6.5	9.3
B+	RESO-Re	2.1	1.4	54.9
	Total	**117.4**	**124.1**	**-5.4**
SINGAPORE				
A-	SCOR Re Asia-Pacific	117.4	80.7	45.6
NR	Singapore Re Corp. Ltd.	21.2	36.1	-41.3
	Total	**138.6**	**116.7**	**18.8**
SLOVENIA				
BBB+	Pozavarovalnica Sava, d.d.	88.5	94.6	-6.5
	Total	**88.5**	**94.6**	**-6.5**

STANDARD
& POOR'S

Pretax Operating Income (Mil. $)		Combined Ratio (%)		Total Adjusted Shareholders' Funds (Mil. $)			ROR (%)	
2005	2004	2005	2004	2005	2004	Change (%)	2005	2004
41.1	38.3	N.M.	N.M.	225.1	255.3	-11.8	12.6	10.2
41.1	**38.3**	**N.M.**	**N.M.**	**225.1**	**255.3**	**-11.8**	**12.6**	**10.2**
17.2	10.4	99.0	99.4	168.6	139.5	20.9	5.9	4.6
17.2	**10.4**	**99.0**	**99.4**	**168.6**	**139.5**	**20.9**	**5.9**	**4.6**
3.6	2.4	90.1	93.7	28.4	25.3	12.2	5.9	5.7
3.6	**2.4**	**90.1**	**93.7**	**28.4**	**25.3**	**12.2**	**5.9**	**5.7**
5.9	1.2	101.8	99.2	41.1	41.7	-1.3	8.9	1.8
5.9	**1.2**	**101.8**	**99.2**	**41.1**	**41.7**	**-1.3**	**8.9**	**1.8**
N.A.	N.A.	118.8	88.1	N.A.	N.A.	N.A.	N.A.	N.A.
3.6	0.0	97.0	89.2	28.2	28.7	-2.0	11.3	0.1
1.6	1.1	88.2	97.0	6.0	4.3	40.7	14.2	9.9
1.5	1.7	84.2	75.6	6.7	4.9	35.8	21.1	28.2
0.3	0.7	127.8	20.2	11.3	11.5	-1.4	11.2	70.1
7.0	**3.6**	**108.3**	**87.8**	**52.1**	**49.3**	**5.6**	**13.3**	**8.6**
-8.2	11.6	113.2	84.5	140.3	147.9	-5.1	-7.0	11.8
11.9	9.8	94.3	99.5	98.7	90.3	9.4	31.7	21.3
3.7	**21.4**	**110.3**	**98.2**	**239.1**	**238.2**	**0.4**	**-1.1**	**14.7**
8.1	11.3	103.5	102.1	137.0	144.0	-4.8	8.1	10.9
8.1	**11.3**	**103.5**	**102.1**	**137.0**	**144.0**	**-4.8**	**8.1**	**10.9**

Global Reinsurer List By Country

Rating As Of Aug. 4, 2006	Company	Net Reinsurance Premiums Written (Mil. $) 2005	2004	Change (%)
SOUTH AFRICA				
A-	Munich Re Co. of Africa Ltd.	202.1	198.7	1.7
NR	Swiss Re Life & Health Africa Ltd.	140.9	167.9	-16.1
AAA	General Re Africa Ltd.	84.0	74.7	12.5
BBB	Hannover Re Africa Ltd.	82.9	102.4	-19.1
NR	Swiss Re Africa Ltd.	82.5	161.2	-48.8
NR	Hannover Life Reassurance Africa Ltd.	69.0	69.3	-0.4
NR	African Re Corp. (South Africa) Ltd.	27.4	25.1	9.3
	Total	**688.8**	**799.3**	**-13.8**
SPAIN				
AA	Mapfre Re Compañía de Reaseguros, S.A.	1,026.6	963.0	6.6
A	Nacional de Reaseguros S.A.	277.9	282.5	-1.6
	Total	**1,304.5**	**1,245.4**	**4.7**
SWEDEN				
A-	Sirius International Insurance Corp.	526.0	546.9	-3.8
A-	Revios Sweden Re Co. Ltd.	88.2	102.1	-13.7
	Total	**614.2**	**649.0**	**-5.4**
SWITZERLAND				
AA-	Swiss Re Co.[5]	13,577.7	15,628.2	-13.1
BBB+	Converium AG	1,195.7	2,683.4	-55.4
A+	New Re Co.	630.0	594.4	6.0
A	Deutsche Rück Schweiz AG	346.8	298.2	16.3
AA-	Trans Re Zurich	343.3	409.8	-16.2
A+	XL Re Latin America Ltd.	173.2	158.5	9.3
A-	Revios Rück Schweiz AG	52.7	59.9	-12.1
NR	The Toa 21st Century Re Co. Ltd.	11.4	11.5	-1.3
AA-	European Re Co. of Zurich[7]	-679.4	3,210.1	N.M.
	Total	**15,651.4**	**23,054.0**	**-32.1**
TAIWAN				
BBB+	Central Re Corp.	382.1	358.6	6.6
	Total	**382.1**	**358.6**	**6.6**

STANDARD
& POOR'S

Pretax Operating Income (Mil. $)		Combined Ratio (%)		Total Adjusted Shareholders' Funds (Mil. $)			ROR (%)	
2005	2004	2005	2004	2005	2004	Change (%)	2005	2004
40.3	41.5	76.7	84.1	187.1	155.5	20.3	17.9	19.1
34.2	42.6	N.M.	N.M.	141.0	143.0	-1.5	17.3	19.1
18.6	18.6	90.3	47.4	44.3	42.8	3.7	20.1	21.6
17.5	19.7	90.7	96.3	71.8	66.3	8.2	18.5	16.3
18.8	1.5	91.0	109.4	63.5	56.6	12.2	19.0	0.9
3.1	1.0	N.M.	N.M.	12.5	7.7	62.8	4.1	1.4
3.9	1.1	94.2	101.5	18.3	15.4	19.0	13.6	5.2
136.3	**126.1**	**85.0**	**89.5**	**538.4**	**487.3**	**10.5**	**16.7**	**13.3**
66.4	114.6	98.9	89.5	639.8	607.5	5.3	6.8	13.9
11.9	6.7	97.1	101.4	156.5	130.1	20.3	4.7	2.5
78.3	**121.4**	**98.5**	**92.2**	**796.4**	**737.6**	**8.0**	**6.3**	**11.3**
60.0	79.1	99.4	95.7	1,068.9	1,245.8	-14.2	9.2	12.9
7.1	10.5	N.M.	N.M.	44.1	43.1	2.4	7.6	9.8
67.1	**89.6**	**99.4**	**95.7**	**1,113.1**	**1,288.9**	**-13.6**	**8.9**	**12.4**
15.2	1,106.2	113.6	103.9	9,728.6	10,803.1	-9.9	0.1	6.5
133.3	-797.5	102.5	101.6	1,593.7	1,572.8	1.3	6.8	-28.6
2.3	54.2	137.4	97.0	316.8	353.1	-10.3	0.3	7.9
1.6	1.4	102.2	102.1	90.2	64.1	40.6	0.5	0.5
-9.3	31.5	102.7	102.1	82.7	84.7	-2.4	-2.7	7.4
N.A.	N.A.	102.0	110.4	N.A.	N.A.	N.A.	N.A.	N.A.
7.6	3.9	N.M.	N.M.	22.8	18.6	22.6	12.0	4.9
12.7	2.3	-19.5	107.9	172.4	186.0	-7.3	46.0	13.3
80.6	257.1	N.M.	98.0	1,731.1	1,028.4	68.3	N.M.	7.4
244.0	**659.1**	**113.0**	**102.6**	**13,738.4**	**14,110.9**	**-2.6**	**0.6**	**2.5**
25.3	25.9	94.4	97.5	199.3	165.3	20.6	6.6	6.9
25.3	**25.9**	**94.4**	**97.5**	**199.3**	**165.3**	**20.6**	**6.6**	**6.9**

Global Reinsurer List By Country

Rating As Of Aug. 4, 2006	Company	Net Reinsurance Premiums Written (Mil. $) 2005	2004	Change (%)
THAILAND				
BBB+	Thai Re Public Co. Ltd.	62.1	58.4	6.2
	Total	**62.1**	**58.4**	**6.2**
TUNISIA				
BBB	B.E.S.T. Re Co.	95.3	67.8	40.5
NR	Société Tunisienne de Réassurance[1]	16.2	13.8	17.0
	Total	**111.5**	**81.7**	**36.5**
TURKEY				
NR	Milli Reasurans T.A.S.	467.9	365.0	28.2
	Total	**467.9**	**365.0**	**28.2**
U.K.				
A	Lloyd's[8]	6,566.8	6,375.7	3.0
A	GE Frankona Reassurance Ltd.	865.7	843.6	2.6
AA-	Swiss Re Life & Health Ltd.	573.1	621.2	-7.7
A	Aspen Insurance U.K. Ltd.[8]	562.3	790.1	-28.8
A	GE Frankona Re Ltd.[9]	280.5	413.3	-32.1
A-	Endurance Worldwide Insurance Ltd.[9]	242.4	169.9	42.7
A+	QBE Insurance (Europe) Ltd.	231.5	319.2	-27.5
NR	BRIT Insurance Ltd.[8]	225.3	354.2	-36.4
AA-	Swiss Re Co. U.K. Ltd.	167.9	212.9	-21.2
AAA	Faraday Re Co. Ltd.	153.5	131.2	17.0
AAA	General Reinsurance U.K. Ltd.	133.8	96.6	38.5
NR	Alea London Ltd.[9]	88.9	367.7	-75.8
NR	Hannover Life Reassurance (U.K.) Ltd.	83.3	-32.4	-357.0
AA-	Tokio Marine Global Ltd.[10]	74.1	-0.2	N.M.
A	Liberty Mutual Insurance Europe Ltd.[10]	73.5	46.2	N.M.
NR	Platinum Re (U.K.) Ltd.	70.4	80.8	-12.9
BBB+	Scottish Re Ltd.	67.4	113.4	-40.6
A-	SCOR U.K. Co. Ltd.	63.5	54.8	15.8
A-	Revios Re U.K. Ltd.	40.5	20.8	94.2
NR	Markel International Insurance Co. Ltd.[8]	15.8	66.4	-76.2
NR	Kyoei Mutual Fire & Marine Insurance Co. (U.K.) Ltd.[8]	1.4	1.7	-18.1
A+	Great Lakes Re (U.K.) PLC[8, 11]	-10.0	49.7	-120.2
	Total	**10,571.5**	**11,096.9**	**-4.7**

Pretax Operating Income (Mil. $)		Combined Ratio (%)		Total Adjusted Shareholders' Funds (Mil. $)			ROR (%)	
2005	2004	2005	2004	2005	2004	Change (%)	2005	2004
10.5	13.1	45.1	82.0	57.6	60.5	-4.8	16.6	21.5
10.5	**13.1**	**45.1**	**82.0**	**57.6**	**60.5**	**-4.8**	**16.6**	**21.5**
7.1	4.7	89.8	86.4	71.9	65.3	10.2	7.0	6.8
N.A.	1.9	N.A.	106.5	N.A.	29.9	N.A.	N.A.	12.2
7.1	**6.6**	**89.8**	**89.8**	**71.9**	**95.2**	**N.M.**	**7.0**	**7.7**
31.1	52.7	98.6	102.7	343.8	258.7	32.9	6.4	13.1
31.1	**52.7**	**98.6**	**102.7**	**343.8**	**258.7**	**32.9**	**6.4**	**13.1**
-378.5	2,767.9	135.1	94.3	18,048.7	22,465.1	-19.7	-1.7	11.1
23.4	19.4	N.M.	N.M.	910.8	1,081.2	-15.8	2.6	2.2
198.9	402.6	N.M.	N.M.	1,246.3	1,039.8	19.9	38.1	64.0
69.4	262.0	81.9	82.7	827.8	988.9	-16.3	6.8	23.9
-75.3	59.5	191.4	86.5	577.3	669.4	-13.8	-18.7	11.4
-65.7	-1.7	134.8	107.9	99.9	183.5	-45.6	-28.8	-1.4
59.6	-0.1	100.5	109.0	509.3	542.9	-6.2	11.4	0.0
19.5	112.5	141.2	89.3	600.8	694.1	-13.4	2.0	12.9
108.5	-16.9	69.2	136.8	453.9	399.9	13.5	48.3	-6.2
52.8	44.2	94.7	100.4	228.1	222.5	2.5	30.7	23.8
44.4	47.6	65.2	90.0	423.0	399.0	6.0	37.3	33.7
-77.4	-6.8	181.6	108.4	84.9	186.4	-54.5	-92.0	-1.7
7.9	-2.2	N.M.	N.M.	87.6	71.7	22.1	8.0	20.1
11.5	-0.7	110.4	-110.2	228.7	341.6	-33.1	27.2	100.0
63.3	52.4	76.0	100.3	382.5	307.6	24.4	28.2	12.4
-12.1	5.5	155.5	86.6	157.3	188.5	-16.6	-12.8	7.2
-34.5	-6.1	N.M.	N.M.	66.4	75.3	-11.8	-44.6	-5.3
13.4	24.9	97.3	71.8	115.2	109.9	4.9	17.8	38.8
-10.2	-19.6	N.M.	N.M.	97.0	97.0	0.0	-32.0	264.5
21.7	18.6	84.0	123.5	287.6	246.0	16.9	6.1	4.9
-0.1	-0.2	167.8	157.8	17.8	19.9	-10.5	-3.4	-6.3
74.7	38.3	156.7	105.0	371.0	330.6	12.2	22.4	39.6
115.2	**3,801.2**	**129.3**	**95.2**	**25,821.9**	**30,660.9**	**-15.8**	**1.8**	**14.3**

Global Reinsurer List By Country

Rating As Of Aug. 4, 2006	Company	Net Reinsurance Premiums Written (Mil. $) 2005	2004	Change (%)
U.S.				
AA-	RGA Re Co.	3,557.0	1,773.0	100.6
AA-	Transatlantic Re Co.	2,935.2	3,223.6	-8.9
AAA	National Indemnity Co.[12]	2,902.6	2,577.2	12.6
AA-	Everest Re Co.	2,283.3	2,795.5	-18.3
AA-	Swiss Re Life & Health America Inc.	2,190.8	2,168.6	1.0
AA-	Swiss Re America Corp.	2,031.2	2,139.1	-5.0
A-	Odyssey America Re Corp.	1,875.2	1,986.3	-5.6
A+	Munich American Reassurance Co.	1,802.6	1,268.8	42.1
A+	Employers Re Corp.	1,762.2	2,755.7	-36.1
A+	Berkley Insurance Co.	1,738.9	1,599.3	8.7
BBB+	Scottish Re (U.S.) Inc.	1,618.9	1,046.5	54.7
AAA	General Re Corp.[12]	1,600.8	2,262.4	-29.2
A+	American Re Co.[13]	1,208.3	1,805.7	-33.1
AA	Transamerica Occidental Life Insurance Co.	1,141.1	635.5	79.6
AAA	General Re Life Corp.	1,120.4	1,020.7	9.8
NR	Hannover Life Reassurance Co. of America	758.7	741.5	2.3
A-	Folksamerica Re Co.	732.3	986.9	-25.8
AA-	Partner Re Co. of U.S.	678.3	877.4	-22.7
NR	Platinum Underwriters Re Inc.	601.8	715.4	-15.9
AA	Transamerica Financial Life Insurance Co.	600.0	318.3	88.5
A+	XL Re America Inc.	463.3	546.0	-15.1
A	AXIS Re Co.	440.1	336.0	31.0
A+	QBE Re Corp.	428.5	446.7	-4.1
Api	American Agricultural Insurance Co.	427.3	470.2	-9.1
A+	GE Re Corp.	392.0	486.1	-19.4
A	Generali USA Life Reassurance Co.	376.2	369.5	1.8
AA-	Toa Re Co. of America	275.4	283.0	-2.7
A-	SCOR Life U.S. Re Co.	262.6	384.3	-31.7
AA	Reliastar Life Insurance Co.	235.1	169.7	38.5
A-	Endurance Re Corp. of America	218.9	290.1	-24.5
AAA	Berkshire Hathaway Life Insurance Co. of NE	183.9	199.3	-7.7
AA-	Putnam Re Co.	154.5	169.7	-8.9
BBB+	Scottish Re Life Corp.	134.7	-41.9	-421.5
A-	SCOR Re Co.	122.4	127.1	-3.7
NR	Wilton Reassurance (U.S.)	70.6	N.A.	N.A.
A-	Arch Re Co.	65.4	74.9	-12.7
AA-	Mapfre Re Corp.	59.0	76.3	-22.6
NR	London Life Re Co.	42.3	55.2	23.4
NR	Atrium Insurance Corp.	41.9	45.0	-6.9
R	Converium Re (North America) Inc.	32.4	348.3	-90.7
NR	Revios Re U.S. Inc.	25.1	57.0	-55.9
NR	PXRE Re Co.	12.0	45.5	-73.5

STANDARD & POOR'S

Pretax Operating Income (Mil. $)		Combined Ratio (%)		Total Adjusted Shareholders' Funds (Mil. $)			ROR (%)	
2005	2004	2005	2004	2005	2004	Change (%)	2005	2004
-18.8	200.4	N.M.	N.M.	975.1	869.4	12.2	-0.4	2.3
-89.8	192.8	113.5	102.4	2,618.0	1,944.5	34.6	-2.8	5.7
-427.5	2,227.0	113.1	64.9	28,720.4	27,224.8	5.5	-4.3	56.0
-93.9	272.1	117.1	101.2	2,327.6	2,093.2	11.2	-3.6	9.0
410.6	77.2	N.M.	N.M.	2,341.3	2,006.6	16.7	12.4	2.4
45.1	-124.6	115.2	117.8	2,775.8	2,647.7	4.8	1.9	-5.6
-218.9	175.9	116.9	95.7	2,071.3	1,675.9	23.6	-11.1	8.6
-51.5	1.1	N.M.	N.M.	532.2	495.8	7.4	-3.9	0.1
-1,589.5	-443.8	196.8	131.3	5,388.9	5,513.1	-2.3	-58.4	-12.1
242.5	199.4	99.3	97.4	1,785.2	1,511.6	18.1	13.1	11.5
-206.5	-12.8	N.M.	N.M.	491.1	227.9	115.5	-42.0	-1.2
351.3	376.9	114.5	108.6	7,894.1	7,159.0	10.3	14.1	12.3
-1,376.1	-146.2	221.0	125.6	3,041.4	3,304.7	-8.0	-112.0	-7.0
-247.1	458.0	N.M.	N.M.	2,132.7	2,742.1	-22.2	-6.6	9.2
26.7	34.3	N.M.	N.M.	368.4	355.9	3.5	2.3	3.6
2.9	-1.7	N.M.	N.M.	113.1	85.9	31.7	0.7	-0.4
-151.8	-7.6	126.7	105.5	1,074.2	917.4	17.1	-16.9	-0.8
-45.2	-5.1	118.0	108.0	565.6	586.5	-3.6	-5.8	-0.5
-24.8	51.1	110.9	101.4	447.2	403.1	10.9	-3.6	7.1
150.2	126.1	N.M.	N.M.	802.1	690.7	16.1	4.8	4.5
89.0	121.5	105.4	90.4	1,856.2	1,775.4	4.5	14.2	20.9
N.A.	N.A.	126.4	115.1	524.1	517.0	1.4	N.A.	N.A.
37.9	42.3	96.2	94.9	539.5	435.6	23.9	5.2	5.9
39.4	13.8	97.4	102.0	459.0	331.9	38.3	8.7	2.8
-706.3	-167.2	267.2	144.4	1,041.4	689.1	51.1	-130.7	-27.8
-12.0	-1.0	N.M.	N.M.	244.9	239.8	2.1	-4.2	-0.3
-10.5	-10.8	116.3	115.6	340.1	330.0	3.1	-3.5	-3.5
17.5	-13.5	N.M.	N.M.	107.1	48.7	119.9	5.0	-2.8
294.7	262.5	N.M.	N.M.	1,880.1	1,538.5	22.2	6.9	5.8
-64.3	-42.0	145.7	131.4	514.8	504.5	2.1	-21.6	-14.9
72.7	-45.0	N.M.	N.M.	479.1	566.9	-15.5	20.7	-13.3
-2.4	12.3	113.5	102.4	114.2	125.6	-9.1	-1.4	6.8
7.9	-69.7	N.M.	N.M.	74.3	68.6	8.4	4.9	-378.1
-25.2	-36.1	152.9	148.5	462.5	505.8	-8.6	-15.7	-17.7
-23.9	0.2	N.M.	N.M.	54.4	9.4	481.3	-30.6	73.3
31.5	41.0	68.9	55.4	636.4	479.4	32.7	40.7	50.7
-6.7	-1.0	122.8	109.5	147.3	151.3	-2.7	-9.8	-1.3
4.6	3.1	N.M.	N.M.	69.6	68.0	2.4	1.2	0.3
39.0	37.2	23.6	22.9	85.6	64.7	32.3	79.7	78.3
39.3	-310.7	122.9	162.5	394.8	349.3	13.0	25.4	-50.5
2.3	-29.6	N.M.	N.M.	61.4	37.4	63.9	2.9	-30.1
-102.3	-8.5	964.2	128.4	127.0	224.9	-43.5	-442.6	-16.7

Global Reinsurer List By Country

Rating As Of Aug. 4, 2006	Company	Net Reinsurance Premiums Written (Mil. $) 2005	2004	Change (%)
U.S. (CONTINUED)				
A	Employers Reassurance Corp.	-148.8	1,030.3	-114.4
AA-	Reassure America Life Insurance Co.	-930.8	-123.8	651.6
	Total	**36,523.4**	**38,541.8**	**-5.2**
ZIMBABWE				
NR	Zimbabwe Re Co. Ltd.[1]	23.3	19.9	17.0
	Total	**23.3**	**19.9**	**17.0**
	Grand Total	**149,420.9**	**162,567.4**	**-8.1**

1. Standard & Poor's has estimated net reinsurance premiums written based on the industry average growth rate.
2. Following a restructuring in 2004, the company no longer writes non-life reinsurance business. Figures for 2005 relate to life reinsurance business, while figures for 2004 relate to both non-life and life business.
3. In 2005, the company entered into a series of quota-share arrangements with Trust Underwriting Ltd., a group company underwriting at Lloyd's through its participation on a number of Lloyd's syndicates. Figures for 2005 are therefore not directly comparable with 2004 data.
4. Figures are based on unaudited financial data.
5. The combined ratio relates to both non-life and life business.
6. The company writes financial reinsurance. Consequently, the combined ratio is a poor proxy for performance when compared with the ratios for companies writing traditional business.
7. Figures for 2005 have been materially affected by a retrocession agreement with Swiss Re with respect to in-force business.
8. Net premiums written and the combined ratio relate to reinsurance business only; all other items include direct business.
9. Figures relate to total business, including direct.
10. Net premiums written relate to reinsurance business only; all other items include direct business. For Liberty Mutual Insurance Europe Ltd., 2004 net premiums written relate to treaty business only and are therefore not directly comparable with 2005 net premiums written, which include treaty and facultative business.
11. With effect from Dec. 31, 2004, the company ceased writing reinsurance business.
12. Figures exclude the impact of General Re Corp.'s stop-loss contract and loss portfolio transfer with National Indemnity Co.
13. Figures exclude the impact of the loss portfolio transfer to Munich Re.

Pretax Operating Income (Mil. $)		Combined Ratio (%)		Total Adjusted Shareholders' Funds (Mil. $)			ROR (%)	
2005	2004	2005	2004	2005	2004	Change (%)	2005	2004
-185.9	-221.4	N.M.	N.M.	252.9	259.9	-2.7	-92.3	-15.4
96.3	201.6	N.M.	N.M.	561.5	579.2	-3.1	30.9	17.8
-3,679.7	**3,429.7**	**128.3**	**106.1**	**77,493.9**	**72,356.6**	**7.1**	**-10.1**	**5.1**
N.A.	5.8	N.A.	75.2	N.A.	8.4	N.A.	N.A.	25.9
N.A.	**5.8**	**N.A.**	**75.2**	**N.A.**	**8.4**	**N.A.**	**N.A.**	**25.9**
-291.6	**15,569.5**	**116.6**	**99.0**	**329,672.2**	**320,402.8**	**2.9**	**-1.5**	**6.4**

Net reinsurance premiums written = gross reinsurance premiums written less reinsurance premiums ceded; relate to a company's or group's reinsurance business only, unless where separately indicated.

Pretax operating income = underwriting profit (or loss) + net investment income + other income. Net realized and unrealized gains/losses are excluded from this item.

Combined ratio = (net losses incurred + net underwriting expenses)/net premiums earned.

Total adjusted shareholders' funds = capital + shareholders' reserves (including claims-equalization reserve and any excess or deficiency of market value of investments over the balance sheet value).

ROR = pretax operating income/total revenue. (Total revenue = net premiums earned + net investment income + other income.)

NR—Not rated.

N.A.—Not available.

N.M.—Not meaningful.

R—Under regulatory supervision.

Property/Casualty Reinsurers' Financial Strength Has Suffered In The Face Of Higher Industry Risk

Volatility and low profitability in the property/casualty reinsurance market, driven by high industry risk, have taken their toll on financial strength, reflected in the current 'AA-' highest rating for stand-alone reinsurers.

On June 12, 2006, Standard & Poor's Ratings Services lowered its ratings on Swiss Re to 'AA-'. This was a significant event for the financial strength of the reinsurance industry as a whole because it meant that no reinsurers globally were rated above 'AA-' on a stand-alone basis. This situation contrasts with the U.S. life insurance sector, for example, where there are numerous companies rated 'AA' or higher, including five rated 'AAA'. Although Standard & Poor's has assigned no other 'AAA' insurer financial strength ratings outside this sector—other than to Berkshire Hathaway, which is not purely an insurance/reinsurance group—there are nevertheless many primary insurers in both the life and property/casualty sectors around the world rated either 'AA+' or 'AA'.

Migration Of Ratings On 2006 Highest-Rated Reinsurers

Reinsurer	Rating As Of July 18, 2006	Rating As Of July 18, 2001
Everest Re	AA-/Stable	AA-/Stable
Hannover Re	AA-/Negative	AA+/Stable
Partner Re	AA-/Negative	AA/Stable
Swiss Re	AA-/Stable	AAA/Stable
Transatlantic Re	AA-/Stable	AA/Stable

The deterioration in the financial strength of reinsurers at the higher rating levels relative to other sectors is a relatively recent phenomenon. Of the five reinsurers currently rated 'AA-', only one, Everest Re, has not been downgraded in the past five years. In addition, of those reinsurers in the 'AA' category or higher five years ago, Employers Re, Gerling Global, Munich Re, SCOR, Sirius, and Zurich Re have all since been downgraded out of this category.

Parallel to the downward trend in reinsurer financial strength, there has been a withdrawal from reinsurance business by many broadly based insurance groups. AXA and General Electric are the latest to make this strategic move, following in the footsteps of Aviva, CNA, Gerling, Hartford, R&SA, St. Paul, and Zurich Financial Services in recent years.

The declining financial strength of reinsurers and the reduced appetite to write such business reflects the earnings underperformance and volatility of the reinsurance industry, which in turn is driven by the higher industry risk factors that are features of the reinsurance market in general and the property/casualty reinsurance market in particular.

Standard & Poor's views the industry risk of property/casualty reinsurers as high in absolute terms and significantly higher than that of either life (re)insurers or property/casualty primary insurers. This assessment is based on the following factors:

- Low client loyalty;
- Better financial strength not resulting in better pricing;
- Undifferentiated or easily replaceable products (in some cases);
- Low barriers to entry and resulting pricing cyclicality;
- Exposure to unpredictable and unquantifiable catastrophe risks; and
- Uncertain liabilities.

> ***"Substitutes for traditional property/casualty reinsurance cover are numerous and include the cedent choosing to retain more risk, catastrophe bonds, industry loss warranties, the use of sidecars, and securitizations. These substitutes have been much in evidence since the hardening of the retrocession markets that followed the 2005 North American hurricane season."***

Low Client Loyalty

Although most buyers of insurance and reinsurance cover are price oriented, this is especially true of purchasers of property/casualty reinsurance. Buyers have become increasingly focused on maximizing value from relationships, and are often willing to switch carrier from one year to the next to do so, if perceived value or financial security have weakened. This is especially true of the North American and U.K. markets, although less so of the Continental European markets where, for example, SCOR was able to regain its 'A-' rating in 2005 on the back of its competitive position, which proved resilient to past financial difficulties. Loyalty works both ways, however, and it is also true that reinsurers are less tied to their cedents than in the past. The behavior gap between the "transactional" markets (typical of North America and the U.K.) and "relationship" markets (typical of Continental Europe and Asia) has narrowed considerably in recent years, but it is still apparent.

By contrast, relationships in the primary life insurance sector tend to be much longer in duration because buyers are making purchases based on long-term financial planning, which they are unlikely to re-examine every year. To an extent, this is mirrored in cedents' relationships with their life reinsurers, although even here behavior has become much more transactional than in the past.

Better Financial Strength Not Resulting In Better Pricing

Reinsurance market practice means that it is seldom possible for highly rated reinsurers to gain preferential pricing and terms and conditions over reinsurers with lower ratings writing the same risk. As a consequence, reinsurers with high ratings are not typically rewarded with better business, which partly accounts for the rating compression in recent years. Nevertheless, pockets of the market do allow differentiated terms—such as the aviation market—as do bilateral transactions—Berkshire Hathaway is the most significant exponent—and there are signs that this practice may be changing. Swiss Re, for example, has indicated that about 25% of its January 2006 renewals were subject to preferential terms. We therefore expect this market imperfection to be eradicated over time.

Undifferentiated Or Easily Replaceable Products

Brand is generally less important for property/casualty reinsurers than for life and health reinsurers and primary writers. It is also challenging for property/casualty reinsurers to promote unique selling points for the capacity they offer, and this is especially true for property lines where capacity is a commodity. In casualty lines, there is greater opportunity for differentiation, not least through financial strength.

Substitutes for traditional property/casualty reinsurance cover are numerous and include the cedent choosing to retain more risk, catastrophe bonds, industry loss warranties, the use of sidecars, and securitizations. These substitutes have been much in evidence since the hardening of the retrocession markets that followed the 2005 North American hurricane season. Capital markets' appetite for insurance risk, other than pure equity, has been transformed in the past year.

Low Barriers To Entry And Resulting Pricing Cyclicality

Barriers to entry are low, especially in the short-tail lines of business such as property. This was especially demonstrated in 1992, 2001, and 2005, in the aftermath of the catastrophe losses of those years, when there was an influx of new carriers. In view of the market imperfections referred to above—including the same terms irrespective of financial strength—the new capital shares in the "payback" to the existing players, and such an influx limits the upside in the ensuing hard market. Although the new players are typically initially focused on property lines and based in the low-tax environment of Bermuda, in time they often expand

"The financial strength barrier to entry—an 'A-' rating is requested by many brokers and cedents—has not been an effective barrier because buyers perceive the 'A-' threshold applying even where the rating scales of different rating agencies are not equivalent."

into other lines and seek to establish themselves in London and Continental European markets. The potential success of new entrants is shown by the fact that Partner Re, formed in 1993, is rated at the highest level in the reinsurance industry ('AA-'). In addition, many of the Class of 2001 are now sizable international reinsurers.

The barriers to entry for the property catastrophe market were raised in the aftermath of the 2005 catastrophes, in the sense that capital requirements for this line of business were substantially increased. This adversely affected the expected returns of the shareholders, which were already lower than the Class of 2001's expectations after Sept. 11, 2001, because capacity was not nearly as scarce in 2006 as it was then. On the other hand, the financial strength barrier to entry—an 'A-' rating is requested by many brokers and cedents—has not been an effective barrier because buyers perceive the 'A-' threshold applying even where the rating scales of different rating agencies are not equivalent.

By contrast, new entrants to the life reinsurance market are few, reflecting the importance of scale, data, service levels, and relationships.

Exposure To Unpredictable And Unquantifiable Catastrophe Risks

The 2005 hurricane season re-emphasized the difficulties inherent in underwriting catastrophe-exposed business. Modeling and data risk was shown to be considerable, and models were subsequently recalibrated to reflect the altered perception of frequency and severity. Observed trends in hurricane activity, possibly exacerbated by climate change, are indicating a period of high incidence of large losses and, despite the recalibrations, the consequences of this trend remain difficult to quantify.

Man-made catastrophes also pose a growing threat, given the risk of terrorism. By contrast, with the significant exception of pandemic risks, catastrophe risks for life reinsurers are fewer and easier to quantify, thereby facilitating more appropriate pricing.

Uncertain Liabilities

The loss reserves of property/casualty reinsurers are uncertain, and this has been a key driver of declining financial strength for the sector. Setting appropriate levels of loss reserves is especially challenging in the casualty lines of business, as was demonstrated by the persistent adverse reserve development on the 1997-2001 underwriting years in respect of U.S. business.

Reliance on the cedent for accurate, timely information places reinsurers in a weaker position than primary writers, who are closer to the risk. Latent liabilities, such as losses arising from pollution and asbestos, pose a threat to property/casualty reinsurers and the industry leaders are alert to similar new, emerging liabilities that may be in the pipeline. Contract certainty has also long been an issue for the industry, although it is seeking to address this.

By contrast, reserving issues seldom drive the financial strength of life (re)insurers, since long-term demographic trends, for which there is a wealth of data, determine loss patterns for longevity and mortality risks.

Must Industry Risk Stay High For Property/Casualty Reinsurers?

It seems that industry risk is set to remain high for property/casualty reinsurance, driven by issues that are unlikely to improve materially in the years to come. There are positive trends emerging, however, which can at least mitigate these fundamentals. Increased capital market use and differential pricing dependent on reinsurers' financial strength offer some hope for the future. Perhaps the most significant trend is the improvement in enterprise risk management in the sector. This is probably more marked in Europe than North America due to the Solvency II regulatory initiative by the EU, which, in effect, will reward sound risk management with lower capital requirements. Improving enterprise risk management is a feature of both the reinsurers themselves and their cedents, and over the long term this may reduce the volatility of earnings. The biggest issue for industry profitability, however, is whether reinsurers will hold their nerve and maintain their discipline as price adequacy declines toward the "technical price" threshold, inclusive of a suitable return for shareholders.

Simon Marshall,
London
(44) 20-7176-7080
simon_marshall@standardandpoors.com

Rob Jones,
London
(44) 20-7176-7041
rob_jones@standardandpoors.com

Laline Carvalho,
New York
(1) 212-438-7178
laline_carvalho@standardandpoors.com

MAPFRE | RE

www.mapfrere.com

athens • bogota • brussels • buenos aires • caracas • lima • lisbon • london • madrid •
manila • mexico • milan • munich • new jersey • santiago de chile • sao paulo • toronto

To order further free copies of Global Reinsurance Highlights 2006, please contact your Standard & Poor's representative or go to

www.reactionsnet.com/supplements

To order previous issues of Global Reinsurance Highlights, Global Reinsurance Highlights Supplement 1994-2005, Standard & Poor's Lloyd's Syndicate Merger History 1994-2006 Wall Chart, or Standard & Poor's Asia-Pacific Insurance Outlook 2005, please go to

www.reactionsnet.com/supplements

Credit FAQ: The Impact Of Solvency II On The European Insurance Market

Solvency II will change the supervisory landscape for the European insurance and reinsurance markets. Standard & Poor's Ratings Services has been working to ensure that the rating process anticipates these changes and to understand the impact on the market as a whole.

A revolution is under way in the insurance industry in Europe. Solvency II is a complete overhaul of the supervision of insurance within the EU. The project will introduce a new solvency regime with an integrated risk approach that reflects the risks being taken by insurers much better than the current Solvency I regime. Implementation is scheduled for 2010. This article answers policyholders', intermediaries', and investors' frequently asked questions on the topic. It also incorporates comments given by Standard & Poor's at the European Commission's (EC) public hearing on Solvency II on June 21, 2006. Standard & Poor's was asked by the EC to participate in the panel to discuss the impact of Solvency II on policyholders and other stakeholders.

Frequently Asked Questions

Is the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS) doing a good job?

We have been impressed with the quality and timeliness of the advice being provided by CEIOPS to the EC to date. In turn, the EC is giving CEIOPS increasingly clear guidance on its mission. As a result, Solvency II holds out a realistic prospect of moving Europe's insurance supervision onto a modern risk-sensitive platform in the not-too-distant future.

How does Solvency II compare with Standard & Poor's approach to determining insurer ratings?

We think that Solvency II will result in some convergence of the supervisory and rating approaches. Indeed, some have characterized our rating process as a rehearsal for Solvency II. Some companies, particularly mutuals, which are less subject to external oversight, use the rating process purely as a management discipline, choosing to keep their ratings confidential. This convergence should not be surprising. Although Standard & Poor's is not a supervisor or regulator, we have some common interests with supervisory bodies.

Our analysis contains nine elements. Two of these—management and corporate strategy, and enterprise risk management (ERM)—have similarities with Solvency II Pillar 2. Four further elements—capitalization, investments, liquidity, and reserves—are more aligned with Pillar 1. The remaining three components—competitive position, operating performance, and financial flexibility (the ability to raise new capital and liquidity when required)—have a more forward-looking focus. These components will continue to differentiate supervisory and rating approaches.

All other things being equal, we consider the mainly qualitative Pillar 2-like components of our analysis to be more important. They provide a foundation for the mainly quantitative Pillar 1-type analysis. As with our own analysis, the quantitative components of Solvency II have had too much of the limelight in public debate.

Each of the components of our analysis is interlinked to varying degrees. For example, if managed well, using effective strategies, a strong competitive position should enable a company to achieve strong earnings, which in turn builds its capitalization and reinforces its financial flexibility.

Regarding Pillar 1, we have operated a capital adequacy model in Europe since 1997, and are currently developing the third enhancement to that model. For groups that have credible economic capital models as part of strong ERM capabilities, we plan to allow elements of those models to influence our view of capital adequacy in the near future. This is consistent with the incentives built into Solvency II for a company to have an economic capital model.

"Companies' transparency with their owners and capital markets generally has improved greatly and transparency with supervisors is about to do so, through Solvency II. Product transparency is behind the curve, but will increase. This will allow consumers and intermediaries to make more informed comparisons. There will be nowhere to hide."

Will the introduction of Solvency II change Standard & Poor's approach to assessing insurer ratings?

We do not believe that Solvency II will result in much change. As the nature of the dialogue between insurers and their supervisors is about to change, however, we will want to understand any concerns the supervisor has arising from the new approach, and to form our own views about those issues.

Although we perform our own analysis of capital, we cannot ignore the supervisory view. If we thought that the capital adequacy of an organization was strong but the supervisor was on the point of intervening because it thought otherwise, we could hardly ignore that fact. In the past, this situation was rare, given the low capital requirements in most of Europe. Under Solvency II, however, this may happen more often, but it will not change our approach.

Although our approach will not alter, the European insurance sector undoubtedly will, and we will need to capture the increased pressure on consolidation in our analysis (see "Will the introduction of Solvency II result in further consolidation in the insurance sector?" below).

Will the introduction of Solvency II result in further consolidation in the insurance sector?

We think that Solvency II will add to the pressures to consolidate, although it will not be the primary reason for consolidation. Consolidation is already advanced in many markets. Global reinsurance and industrial lines insurance experienced considerable consolidation in the past and, after pausing for a few years, this has now resumed. In retail business, the Nordic region is highly consolidated, and the U.K. has also undergone substantial consolidation. Although much of Continental Europe has its regional/national champions, consolidation still has a long way to go here.

Ultimately, survival in the insurance industry depends on insurers being good at what they do, having scale and diversity, or having a defendable niche product or distribution medium. Being a small to midsize insurer providing commodity products is an uncomfortable place to be and will become even more so. These companies will be the main victims of consolidation, and there are many of them.

Transparency is a significant influence on consolidation. Transparency within companies is improving. Boards of directors know more about whether their businesses and products are truly adding value for their owners, and are taking decisions accordingly. Companies' transparency with their owners and capital markets generally has improved greatly and transparency with supervisors is about to do so, through Solvency II. Product transparency is behind the curve, but will increase. This will allow consumers and intermediaries to make more informed comparisons. There will be nowhere to hide.

The guarantees and options crisis affecting life insurers across Europe over the past five years, for example, would have been much deeper if it were not for the mortality and expense margins built into many products, usually hidden from the consumer. Products are now being deconstructed and the pricing of each component is becoming clearer, allowing insurers, banks, and asset managers to compete on a more equal and transparent footing.

Solvency II is likely to accelerate consolidation, although not in the form of a huge upsurge in 2010, because the impact is already being felt as companies anticipate change. The impact will continue after 2010, over the likely transition period and beyond. Furthermore, companies are already pursuing competitive advantage through the related themes of ERM, value-based management, and increased transparency. The industry faces a decade of radical change. We have identified three relevant factors specific to Solvency II, which are outlined below.

First, we would expect capital requirements to increase substantially as a result of Solvency II. This should in large part be covered by available capital, which is robust currently, and will be enhanced by the excess non-life claim liabilities likely to be liberated under Solvency II—based on the results of CEIOPS' first Quantitative Impact Study (QIS 1) on the current adequacy of claim liabilities. As a result, we would not expect to see industrywide capital raising, but there are likely to be some companies that need to do so. Some

shareholders or owners will have the capacity and willingness to contribute new capital, others will not, although new hybrid capital may cover some of the shortfall.

Second, the diversification and size benefits in CEIOPS' placeholder capital model (included in QIS 2), and more significantly in the advanced company models where they are accepted by supervisors, will give the bigger, more diversified groups capital relief and therefore a pricing advantage in the market. Smaller insurers may find it increasingly difficult to compete while providing similar returns to their owners.

Third, the risk-management capability and sophistication required to respond to Solvency II is demanding. In some cases, companies face complete overhauls of their systems to enable them to respond to Solvency II. The QIS 1 request for varying confidence levels of non-life claim liabilities is an example. Only a tiny proportion of European non-life insurers have a genuinely stochastic view of their claim liabilities. Many smaller companies do not even have actuaries. Companies will struggle to acquire these systems and capabilities, which will add to the pressures to consolidate, as will the costs involved. Solvency II will further emphasize the advantages of scale.

Will there be more insolvencies under Solvency II?

There have only been a handful of insurer insolvencies in Continental Europe in the past three decades. It will be difficult to maintain a similar track record under Solvency II. A political decision needs to be taken regarding tolerance of insurer failure. The EC has a working hypothesis of a risk of ruin probability of 0.5% based on a one-year horizon. This is arguably a greater level of risk tolerance than that of many European supervisors and governments historically.

How transparent will Solvency II be?

This remains to be seen. Historically, supervisory returns have not been public documents other than in the U.K. and Ireland. Standard & Poor's expects more information to enter the public domain under Solvency II Pillar 3 principles, but the extent of this has yet to be determined. In particular, the crucial Pillar 2 capital loadings may not be made public, which would be an impediment to credit analysis

Basel II and IFRS have been highly politicized. Will Solvency II be the same?

Yes. The consultation with the industry is happening well in advance of implementation, however. CEIOPS sought and received clear guidance from the EC on the proposals it should be making for the adequacy of claim liabilities. This will help resolve the divergent views of CEIOPS' membership.

The potential consequences of Solvency II that may have a bearing on political debate include:

- The policyholder guarantee schemes that need to be in place to respond to the level of insurer insolvencies likely to be tolerated under Solvency II have to be determined.
- With regulation about to become more risk sensitive, it is safe to assume that pricing will be increasingly risk sensitive. This may lead to more risks becoming uninsurable or unaffordable (for example, earthquake, flood, or construction defects).
- There may be greater disincentives for insurers to hold equity investments, which may in turn affect the equity content in insurance products offered to consumers. This may limit future retirement financing through pension products offered by insurers.

How does the timing of IFRS Phase II affect Solvency II?

Both projects are scheduled for implementation in about 2010. The EC's job would have been much easier had IFRS Phase II been completed by now. Solvency II Pillar 1 requires a comparison of available capital with capital requirements. IFRS could substantially inform the question of available capital. In the meantime, the EC will have to design its own accounting framework, which may subsequently be adjusted once IFRS is finalized.

The CFO Forum will be hoping that its recently announced Elaborated Principles for an IFRS Phase II Insurance Accounting Model may influence both the EC and the IASB in their deliberations.

Are supervisors and insurers ready?

Some countries are better prepared than others. The U.K. is probably the best prepared, followed by The Netherlands and the Nordic region. Switzerland is relatively well prepared, particularly owing to its widely respected Swiss Solvency Test, although Switzerland is outside the EU. Elsewhere in Europe, supervisors and companies have much to do, although the larger groups in the major markets are usually well prepared, particularly the CRO Forum members. Over the next few years, supervisors and companies will be competing for skills that are already scarce, alongside investment banks, brokers, and firms of consultants, actuaries, and accountants.

Rob Jones,
London
(44) 20-7176-7041
rob_jones@standardandpoors.com

Wolfgang Rief,
Frankfurt
(49) 69-33-999-190
wolfgang_rief@standardandpoors.com

Yann Le Pallec,
Paris
(33) 1-4420-6725
yann_lepallec@standardandpoors.com

Credit FAQ: Rating The Reinsurance Start-Ups

Standard & Poor's Ratings Services is ready and able to analyze start-up operations in the reinsurance market, but it has stringent criteria that have to be met before a rating can be assigned.

When catastrophic events occur, the insurance industry seeks not just to recover from hits to its earnings and capital, but also to increase its capacity to meet expected demand. This happened after Hurricane Andrew struck Florida in 1992, after Sept. 11, 2001, and in 2005 in the wake of the most destructive hurricane season on record.

Non-life property catastrophe reinsurance is a volatile industry with low barriers to entry. As capacity needs burgeon—not just because of increased hurricane activity but also because of the potential changes in the Terrorism Risk Insurance Act, as well as fears of avian flu or other potential catastrophes—new reinsurance entities and new types of entities are launched to segment and contain potential future risk.

As a rule, Standard & Poor's believes a disciplined and conservative approach to rating start-ups is crucial. This article answers some frequently asked questions about rating start-up insurance and reinsurance companies.

Frequently Asked Questions

As a matter of policy, will Standard & Poor's assign ratings to start-up companies?

Until about 10 years ago, Standard & Poor's would only assign ratings to companies with at least five years of operating history. Today, we have a formal, detailed set of criteria that enable us to rate companies with shorter histories—even brand-new companies.

The minimum criteria include:

- A detailed, credible, five-year business plan for the lines of business, including yearly revenue targets, income targets, and capitalization plans; a road map of growth; and competitive advantages in its chosen business line(s).
- A detailed discussion with management regarding all aspects of the start-up's capital management strategy. We expect a start-up's projected capital adequacy to be at or above the level of the assigned rating for three years, and for capital to remain consistent with the assigned rating for five years. A start-up also needs to show it is able to tap a range of additional capital sources—including borrowing, additional equity offerings, retrocession, and asset sales—if needed. A start-up that has already aggressively tapped several of these sources would be seriously questioned about its ability to maintain sufficient future capital adequacy.
- Detailed biographies of all senior managers, showing their track records for successfully managing and underwriting the lines of business in which the start-up will be engaged, to be followed up with detailed discussions of each manager's prior work experience. We expect to have strong confidence in a start-up's management and its ability to implement the business plan prudently.
- Biographies of the board of directors, including their experience and ongoing interaction with management.
- A discussion with key investors in the start-up of their long-term expectations and objectives.

Start-ups that do not meet these minimum standards will not be considered for a rating from Standard & Poor's.

Has Standard & Poor's ever rated brand-new insurers or reinsurers?

Yes. We assigned ratings to about half a dozen start-ups in the two years following the Sept. 11, 2001, terrorist attacks. AXIS Specialty Ltd., for one, was assigned 'A' ratings in 2002, followed by 'A-' ratings being assigned to Montpelier Reinsurance Ltd. in 2003. These ratings were assigned following our assessment that these two companies had strong and experienced management,

> ***"A start-up's management could be disappointed by the rating we assign, being lower than that targeted, especially if they achieve the targeted level with another rating agency. They might choose to maintain the rating on a confidential basis if they believe the company's future performance could result in an upgrade later on."***

well-conceived business plans, and ample capital resources.

Have either of those two ratings changed since then?

We believe our ratings, which are prospective, are a reasonable and accurate assessment of a company's financial strength, both current and long term. Ratings only change when a company's financial condition changes, for better or for worse. Although the outlook on Montpelier has been revised twice since its launch, the ratings, as well those on AXIS, are still the same as when first assigned.

When Standard & Poor's assigned those ratings, did it do so intending to enable those companies to do business?

Absolutely not. These companies might have requested ratings from Standard & Poor's with the hope that the assessment of their financial strength would be favorable, as a favorable public opinion from Standard & Poor's about a company's financial strength can enhance its credibility in the market. The ratings, however, were assigned in a manner consistent with our purpose: to deliver fair, independent opinions of the creditworthiness of the entities involved.

How can rating agencies assess management talent effectively for a brand-new company, especially when so many new companies are drawing from the same talent pool?

It is a common reason why many start-up companies do not achieve as high a rating from Standard & Poor's as they might like. The property/casualty industry is marked with a poor record of underwriting performance over the past 20 years, and we believe that investors in start-up companies try to be mindful of who the people were who made some of those underwriting decisions. But because there is a limited amount of talent in the industry, at a time like this when there is great demand for it, it is tempting to compromise standards when establishing a management team. When we analyze a start-up's management, we look for a record of consistent, profitable underwriting performance over long periods of time. To be sure, a property underwriter's record is easier to examine than that of a casualty line's underwriter given the shorter time horizon to prove results, but consistent profitability is still a rare commodity.

Many observers have characterized rating agencies as de facto regulators of the industry. Does Standard & Poor's agree?

We can understand how some industry observers might think so, as not all rating agencies have the same approach as we do. That characterization misunderstands Standard & Poor's objective and purpose, however. We focus solely on delivering credit opinions to those who would find our opinions useful in making insurance and investment decisions. We do not seek to regulate insurance companies because any attempt to do so would dilute our purpose, pose potential conflicts, and confuse users of our ratings.

Does Standard & Poor's expect to assign ratings to any companies starting up today?

We are prepared to do so, and some companies have asked us to assign them ratings. Nevertheless, those companies might also choose, as they have in the past, not to accept the ratings we assign or to accept them but keep them confidential.

Why would a start-up go through the process and expense of getting a rating from Standard & Poor's, only to keep it confidential?

A start-up's management could be disappointed by the rating we assign, being lower than that targeted, especially if they achieve the targeted level with another rating agency. They might choose to maintain the rating on a confidential basis if they believe the company's future performance could result in an upgrade later on. They might also want to keep the confidential rating current in case they choose to go to the capital markets with a debt or hybrid equity offering. As a Standard & Poor's rating is widely recognized in the capital markets, having a rating from us can help facilitate a company's capital-raising efforts.

"A rating in the 'A' range indicates longer term financial strength, which cannot automatically be inferred in a brand-new company focused only on property catastrophe business. Although a few of the current crop of start-ups might qualify for a rating at that level, the majority would most likely receive lower ratings."

For the rating on a company to be useful to its marketing efforts, conventional wisdom says it must be, at the very least, 'A-'. Does Standard & Poor's agree, and if so, does Standard & Poor's expect to assign ratings at this level to any of the current crop of start-ups?

Let this be stated emphatically: Standard & Poor's does not assign ratings to facilitate a company's ability to do business. Buyers of insurance and reinsurance must ultimately determine for themselves what level of credit risk is acceptable and, therefore, what an acceptable rating would be for a company with which they would do business. Although some buyers might use a simplistic "use only reinsurers rated 'A-' or higher," other, more sophisticated buyers know that a higher rated company could be best for longer tail business, while lower rated insurers could offer acceptable security for shorter tail business.

The bulk of the current group of start-ups is focused on property catastrophe reinsurance, a highly commoditized business line with a short tail. Attracting these new entrants is an anticipated hard market with a very favorable pricing environment. Short-tail property catastrophe is, however, also a very volatile market, and the current favorable pricing is likely to be a short-term phenomenon.

A rating in the 'A' range indicates longer term financial strength, which cannot automatically be inferred in a brand-new company focused only on property catastrophe business. Although a few of the current crop of start-ups might qualify for a rating at that level, the majority would most likely receive lower ratings.

In saying that an 'A-' rating would be unlikely for most of the current start-ups, is Standard & Poor's simply comparing them with existing ratings on other insurance companies?

No. Certainly we compare the new companies with existing insurers in our ratings universe. But the Standard & Poor's ratings universe covers an enormous range of entities, both public and private, as well as countless types of debt and hybrid equity instruments around the world. We strive to maintain consistency in our ratings, not only within industries but across the entire spectrum of entities we rate.

Steve Dreyer,
New York
(1) 212-438-7187
steven_dreyer@standardandpoors.com

Thomas Upton,
New York
(1) 212-438-7249
thomas_upton@standardandpoors.com

Mark Puccia,
New York
(1) 212-438-7233
mark_puccia@standardandpoors.com

Marcus Rivaldi,
London
(44) 20-7176-7056
marcus_rivaldi@standardandpoors.com

The Rise Of The Global Nomad

Insurers and reinsurers of the future will need to be nimble in order to manage their way through underwriting cycles, the international movement of business, and appeal to increasingly demanding and transient capital providers.

A great deal of newsprint has been expended on discussing the relationship between the two international insurance centers of Bermuda and London. The picture typically painted is one of cutthroat competition at the specialty end of the insurance and reinsurance spectrum for capital, underwriting talent, and clientele. Discussion is never more heated than during a period of rapid new business start-up activity, such as after Sept. 11, 2001, and the 2005 hurricane season. The amount of capital raised and number of start-ups per center is scrutinized and extrapolated to provide a view on the relative health of each. Undoubtedly, there is competition between the two. What is often overlooked, however, is the centers' close symbiotic, or mutually beneficial, relationship.

The best underwriting teams are characterized by nimbleness and flexibility with regard to cycle management. In a world of increasingly transient and demanding clientele and investors, Standard & Poor's Ratings Services believes that many executive teams could enhance the competitive position of their business by demonstrating similar traits in managing their corporate structures.

Recent start-ups have demonstrated to the industry as a whole that there are potentially material gains to be made from managing businesses with a global rather than a local market mindset. Many business lines, particularly those of a specialty nature, can increasingly be described as "footloose": they can be underwritten anywhere, and there are a growing number of international insurance centers keen to offer them, and the organizations following them, a home.

We believe the corporate structures of the future will have a significant impact on whether competitive positions thrive or fail. Success will come to businesses designed to have the nimbleness imaginative executive teams require as they seek to manage their way through underwriting cycles and the international movement of business, and appeal to increasingly demanding and transient capital providers. These groups, the "global nomads," will have electronic trading capability, flexible and reversible physical infrastructure, senior management teams willing to travel and relocate, and will use well-controlled outsourcing arrangements.

Bermuda And London: Competing Or Complementing?

London has long been an international center for reinsurance, and Bermuda has played an increasingly significant role in past decades, so that it now represents an additional important center for insurance internationally. The table on page 59 sets out some of the main supporting arguments typically raised with regard to Bermuda and London.

At first glance, the arguments for Bermuda appear more convincing. The island is undoubtedly the present preferred domicile for reinsurance start-ups and new formations. The 2005 hurricane season, for example, sparked the creation of about 12 new reinsurance companies in Bermuda, backed by more than $10 billion in capital. These included offshoots of a number of well-known London organizations.

A focus on these facts overstates Bermuda's competitive position and understates that of other markets, including London. But if this is the case, why does the International Underwriting Association of London, the world's largest representative organization for international and wholesale insurance and reinsurance companies, include many prominent Bermudian groups? And why is it that the Bermudian insurance industry continues to be a material provider of Lloyd's capacity? The answer to both questions is that, in order to put capital raised effectively to work, it is necessary to substantially deploy it outside Bermuda, usually onshore in the U.S. and/or in the London Market, both of which offer access to attractive, diverse, and typically more labor-intensive business unavailable or unserviceable in Bermuda. Therefore, although many start-ups have begun life in Bermuda and their ultimate holding companies remain there,

"There have been moves among traditional and established businesses, particularly in London, to re-engineer their corporate structures so that they are in a position to benefit from the advantages offered by Bermuda and optimize their financial performance."

Bermuda And London Compared

Pro-Bermuda	Pro-London
Momentum—the place to be	Global financial center
Zero corporation tax rate	Incumbent industry position
Speed of establishment	Wide distribution capabilities
Lower intensity of regulatory oversight	Breadth of business traded
Potentially lower regulatory staff turnover	EU market access
Service quality	Extent of industry support services
Proximity to U.S. market	General infrastructure, depth of resources
Dominant position for key business lines	Leading-edge supervision
Lower brokerage	Lloyd's capital efficiency

very few write business exclusively from the island. Bermuda on its own rarely offers the level of diversification businesses crave.

The Class of 2001 start-ups perfectly illustrate this situation. Rather than operate purely in Bermuda in a narrow selection of business lines, they have rapidly expanded operations to other jurisdictions and broadened their product offerings. Groups like Arch Capital, Aspen, AXIS, and Endurance, therefore, operate in Bermuda, the U.S., and Europe (mainly London), across a broad spectrum of property and casualty business lines.

Specialty Groups' Operations Are Becoming Increasingly Global

Executives recognize that their organizations are best served if they can benefit from all the advantages common to London and Bermuda combined, rather than just those in one of the two centers. It is easier for companies to reap all these benefits if they are effectively starting with a clean sheet, as new businesses do. Until recently, the potential benefits of a pan-Bermudian-London operation remained latent for many organizations. Executive teams generally continued to trade with at best a suboptimal corporate structure often bequeathed to them by their predecessors or resulting from previous M&A activity. Over the past year, however, there have been moves among traditional and established businesses, particularly in London, to re-engineer their corporate structures so that they are in a position to benefit from the advantages offered by Bermuda and optimize their financial performance. Examples include Catlin, Amlin, and Hiscox. Standard & Poor's believes that these will by no means be the last traditional London-based organizations to consider such changes.

The most common steps taken to benefit from the favorable tax environment and Bermuda's increasing dominance within the property catastrophe market include: the redomiciling of holding companies to Bermuda; the establishment of Bermudian operating entities, accompanied by the transfer from existing onshore activities of lines of business best suited to an offshore environment, such as property catastrophe reinsurance; and the provision from Bermuda of loans and quota shares to further optimize returns. In order to reduce potential underwriting volatility, some organizations have established sidecar vehicles, often domiciled in the Cayman Islands. These are effectively quota-share arrangements whereby a sponsoring company underwrites higher risk business on behalf of a third-party-capitalized balance sheet, swapping potentially volatile underwriting performance for a prearranged profit commission and reinsurance recoverable collateral.

Experience to date suggests that client and broker acceptance of such moves is generally forthcoming if clearly explained and if groups ensure that: clients are

"Standard & Poor's believes the continuing development of new international financial centers and the changing regulatory landscape is generating new opportunities for executive teams to further optimize corporate structures. For groups operating in the London Market, perhaps the most interesting opportunity comes from Ireland's rapid implementation of the EU Reinsurance Directive."

not disadvantaged from a financial strength perspective from switching from one group carrier to another; and the used offshore domiciles are considered credible from a regulatory perspective.

There are, however, limits to what the restructuring groups can do. Local regulators such as the U.K. Financial Services Authority (FSA) may restrict the size of quota shares. We would also caution that groups should be careful not to overexpose a Bermudian subsidiary's balance sheet to catastrophe risk—a painful lesson learnt by some following the 2005 hurricanes. It may not always be possible to plug a hole caused by a disproportionate catastrophe loss from existing resources. In addition, regulatory constraints may mean that capital is effectively trapped at other subsidiaries, and operating a more dispersed business model across time zones brings its own management challenges.

Whither London And Bermuda?

Standard & Poor's believes the continuing development of new international financial centers and the changing regulatory landscape is generating new opportunities for executive teams to further optimize corporate structures. For groups operating in the London Market, perhaps the most interesting opportunity comes from Ireland's rapid implementation of the EU Reinsurance Directive.

Although it is a smaller market, Dublin is already a credible European alternative to London for certain specialized insurance and reinsurance lines—for example, finite and life business. The Reinsurance Directive has the potential to give its development a further boost.

The Reinsurance Directive is an interim measure ahead of Solvency II. Central to it is the mutual recognition of the supervision in the EU country where the reinsurer is licensed and the subsequent automatic right of the reinsurer to conduct business all over the EU under the freedom of establishment and the freedom to provide services.

As a result, the potential exists for businesses to redomicile in Ireland, operate in London via a representative office or branch, and benefit from a lower tax rate (corporation tax of 12.5% compared with 30.0% in the U.K.) and a lighter regulatory touch compared with that of the FSA. We are aware of a number of organizations considering such a move, following in the footsteps of XL Capital's recent announcement with regard to its European reinsurance operations. In response, the FSA has signaled its intention to review some of its current requirements that go beyond those of the directive, such as rules with regard to asset admissibility.

Lloyd's of London should be one of the most attractive places to operate globally, particularly for start-up businesses. Key attractions include its strong brand and broad network of licenses, combined with the fact that capital providers can back underwriting with LOCs and, due to the Central Fund, operate with significantly lower capital requirements than companies outside the Market. As a result, it should be a major draw for businesses considering an operation in London. Our sense is, however, that the Market's attractions currently often seem to be overlooked or offset by perceptions regarding potential legacy liability exposure or potential operational constraints generated by the franchise structure.

Bermuda too faces challenges. The Cayman Islands is vigorously pressing its case in the offshore space, and is benefiting from its position as a domicile of choice for offshore hedge funds as they increasingly become active within the reinsurance industry, as well as from its ability to rapidly turn the regulatory approval of new operations around. Bermuda's logistical challenges are well known. Furthermore, in a world of growing supervisory convergence, Bermuda has to respond to the standards being laid down by the International Association of Insurance Supervisors.

Marcus Rivaldi,
London
(44) 20-7176-7056
marcus_rivaldi@standardandpoors.com

Laline Carvalho,
New York
(1) 212-438-7178
laline_carvalho@standardandpoors.com

STANDARD
& POOR'S

Responding To The Retrocessional Squeeze

A shortage in capacity is making it harder for reinsurers to diversify risk—and alternative solutions are becoming increasingly prevalent.

Similar to a dam plugging a river, the capacity shortage in retrocessional property catastrophe reinsurance protection has materially disrupted the property catastrophe insurance industry. Insurance is analogous to a smoothly flowing river as risk exposures and prospective losses are dispersed throughout the market, thus fulfilling the insurance industry function of efficiently aggregating and mitigating the volatility borne from concentrated risk exposures. This process starts with the insured, purchasing insurance protection from an insurance company that aggregates the risk into its portfolio (reducing volatility) and subsequently transferring a portion of the aggregated risk to the reinsurer, which in turn aggregates and transfers a portion of assumed risk through a retrocessional policy with another reinsurer. When capacity is sufficient and stable at each of these risk-aggregation and risk-transfer points, there is an effective risk-transfer mechanism (and a smoothly flowing river).

However, the unprecedented losses and resultant lessons of the 2005 hurricane season (estimated $80 billion-$90 billion in insured losses) have thrown the market out of balance. This disruption is particularly evident the further one gets from the original risk, so there has been a material reduction in retrocessional capacity offered by the reinsurance industry. The lack of retrocessional protection has materially hampered the reinsurer's capacity to underwrite primary insurance companies, which in turn has significantly hampered the underwriting capacity of the primary insurer. Standard & Poor's Ratings Services is aware of numerous examples in which primary insurance companies have suspended the underwriting of catastrophe-exposed risks because of the unavailability of reinsurance.

The 2005 hurricane season highlighted the disruption retrocession inflicts to the reinsurer's core goal of measuring and diversifying risk exposures to the maximum extent possible. When an insurer underwrites a specific risk, it has a firm idea of where that exposure is. Even if the exposure is in a highly catastrophe-exposed region such as Florida, the insurer can effectively allocate its underwriting capacity by underwriting a California earthquake exposure with the knowledge that there is no correlation of exposures between these two risks, thus aggregating a capital-efficient portfolio of risks. To a lesser extent, a reinsurer—through its access and knowledge of a primary insurer—can apply a similar process to building a balanced portfolio of risks.

However, when the reinsurer purchases retrocession protection for its portfolio, the assuming reinsurer is so far removed from the underlying exposures that it becomes much more difficult to specifically identify where the exposures are. This problem is further compounded by the significant correlation of retrocessional reinsurance to severe catastrophic events. For example, PXRE, a retrocessional-focused reinsurer, ended up booking material reserve additions because of retrocessional coverages previously assumed to have no Katrina exposure, being hit by Katrina claims for their policy limits.

The bottom line is that unlike a readily definable portfolio of policies, a retrocessional policy introduces the underwriter of that risk to exposures for which the geographic and event exposure could be uncertain. Accordingly, a prudent underwriter of retrocessional coverage would have to incorporate the assumption that the limit of this policy is exposed to events in multiple geographic zones and perils. As a result, these policies are heavy users of capital, for which a reinsurer would demand a significantly higher premium compared with a primary or reinsurance coverage to offset these uncertainties. Despite the dramatic increase in pricing and materially improved terms and conditions (geographic and peril exclusions), the insurance industry has materially curtailed its tolerance for exposing its capital and balance sheets to retrocessional exposures.

Opportunistic Investors Seek To Squeeze Profitability From Capacity Shortage

Investors cognizant of materially increased rates, improved terms and conditions, and unwilling retrocessionaires have stepped up to the plate with nontraditional capital vehicles, such as catastrophe bonds and sidecars. Somewhat heightening the attraction is the conclusion by some investors that exposures to catastrophic events add diversity to their investment portfolio.

Standard & Poor's estimates that $2 billion of catastrophe bonds were issued in 2006. This is in addition to the $4 billion in listed sidecars (see table on page 64).

Catastrophe Bonds

Catastrophe bonds are risk-linked securities, a category of investment instruments launched soon after the devastation of Hurricane Andrew in 1992. Designed to cover a range of naturally occurring

"Standard & Poor's ultimate treatment of catastrophe bonds as a risk-mitigating tool of an insurer is driven by the degree of comfort issuers are able to demonstrate in assessing and mitigating these risks."

catastrophes, they are generally classified in the same category with contingent surplus notes, exchange-traded catastrophe options, and catastrophe equity puts, all of which are designed to mitigate the catastrophe risk in insurer and reinsurer portfolios by shifting a portion of it to the capital markets. The bonds are generally structured to mature in two to three years, though issues have had longer maturities. They pay high rates of return (up to 15%), and the returns are backed by income streams from premiums and earned rates on trust collateral.

Although catastrophe bonds continue to evolve rapidly, there are four basic types: indemnity, parametric, industry-loss, and modeled-loss bonds. Indemnity bonds—similar to traditional reinsurance—are written against the insurer's or reinsurer's own portfolio of risks. All other bonds involve some basis risk for the sponsor because the trigger could be based on the strength of the storm (parametric), the aggregate industry loss, or the insurer's modeled loss.

Standard & Poor's criteria from a (re)insurer's perspective

Catastrophe bonds differ from traditional reinsurance coverage in several key aspects. On the plus side, catastrophe bonds are collateralized against default, thereby materially limiting counterparty risk. In addition, a multiyear catastrophe bond enables a company to lock in its protection over several years, a feature uncommon in the traditional reinsurance market. Potentially detracting features of catastrophe bonds include event risk, basis risk, and tail risk. Event risk arises when the catastrophe bond only covers one event and only one loss on that event. This differs from reinsurance, which often mirrors the insurer's assumed policies, covering two or more losses. Basis risk applies to modeled-loss, parametric, and industry-loss bonds in which recovery of the bond is dependent on modeled, wind strength, or industry-loss metrics compared with traditional reinsurance applied to actual insurer losses; accordingly, the potential exists that the insurer's losses might not correlate with industry or parametric model losses in a manner anticipated at the time of purchase. Tail risk reflects the potential that the insurer could be responsible for claims that emerge after the bond period has matured, thus precluding them from recovery.

Standard & Poor's ultimate treatment of catastrophe bonds as a risk-mitigating tool of an insurer is driven by the degree of comfort issuers are able to demonstrate in assessing and mitigating these risks.

Standard & Poor's criteria from an investor's perspective

On June 2, 2006, Standard & Poor's revised its criteria for rating natural peril catastrophe bonds with U.S. hurricane risk exposure. The change was prompted by recent actions taken by catastrophe-modeling firms—principally AIR Worldwide Corp., EQE International's EQECAT, and Risk Management Solutions (RMS)—to update their calculations of expected loss. AIR and EQECAT are offering a near-term view of expected loss in addition to their longer term view. RMS continues to provide one view, but its time horizon has changed to be nearer term, reflecting the increased frequency and severity of Atlantic Basin storms.

When a modeling agency provides more than one view of expected loss on a portfolio of catastrophe risk, Standard & Poor's applies the most conservative view in developing an opinion of the notes' probability of attachment. Currently, that equates to selecting the probabilities of attachment under the shorter term view of expected loss, but it is reasonable to assume in periods of benign activity that the most conservative view would be obtained by using the longer term perspective.

Standard & Poor's periodically reviews the variables underlying the models. The purpose of these reviews is not to determine the extent to which they are truly accurate at predicting catastrophic risk, but rather their reasonableness in the face of known engineering and mathematical studies as well as the most current information available. Currently, we only review AIR's, EQECAT's, and RMS' models.

For any natural peril bond that exposes investors to the loss of principal or interest because of a single event (including bonds linked to multiple perils), we will apply a rating ceiling of 'BB+' given the concentrated risk exposure. For third-event natural catastrophe bonds, the 'A+' rating ceiling will still apply.

Sidecars And Other Alternative Vehicles

Sidecars enable the sponsored reinsurer to underwrite business on a separate balance sheet from their own. Although by definition external capital is supporting this underwriting capacity, the reinsurer may also invest its own capital to support these ventures. Like a catastrophe bond, an external investor could lose its entire investment to a catastrophic event. Unlike a catastrophe bond where the investment return is capped by the interest rate, the equity investor enjoys a share of the profits or losses of the sidecar, which, in many cases, could be significantly greater than the catastrophe bondholder's return.

On the other hand, unlike a catastrophe bondholder, the exposure of which is tied to a defined event, the sidecar investor has exposures similar to those of an investor in any insurer or reinsurer, albeit for specific lines of business. For example, the sidecar investor is exposed to reserve development risk, as recently demonstrated by White Mountains' Olympus Re sidecar. In this example, assuming that the new 2006 investors were not reimbursed for their losses by White Mountains, they stood to lose their entire investment as a result of adverse development on 2005 events. The sponsoring reinsurer is generally responsible for all aspects of underwriting and claims settlements and receives a management fee that is generally tied to the profitability of the sidecar. Some alternative vehicles—

such as Montpelier Re's Blue Ocean facility—provide retrocessional coverage to external policyholders that is solely supported by the resources of the sidecar. Others—such as Olympus Re and Cyrus Re (XL Reinsurance sponsored)—provide retrocessional coverage to the sponsoring reinsurer. Although some sidecars may offer fully collateralized protection through a trust or equivalent mechanism, other sidecars are collateralized only by their capital or premiums, subjecting the insured to counterparty credit risk.

Standard & Poor's criteria from a sponsoring (re)insurer's perspective

Standard & Poor's, prior to providing analytical credit similar to that provided for traditional reinsurance, will examine the financial independence of the sidecar, particularly when the sidecar is providing a material proportion of underwriting capacity. As demonstrated by the Olympus Re sidecar, in which White Mountains stated its intent to indemnify investors for their loss, we will be examining to what degree a sponsoring company may be motivated to financially support its sponsored sidecar under certain circumstances. Standard & Poor's will also seek assurance that the sidecar is sufficiently capitalized to support potential liabilities to the sponsoring insurer/reinsurer.

In cases in which Standard & Poor's is able to gain comfort around these potential concerns, we will treat the sidecar protection as providing true risk transfer and therefore receiving credit within the catastrophe charge portion of our capital model. Alternatively, Standard & Poor's will haircut the capital model credit, reflect these concerns in our qualitative analysis, or both. Any capital invested in the sidecar will be treated in accordance with our criteria for affiliated investments. With rare exceptions in which we view the sidecar as a strategic part of the sponsoring group, we will apply a 100% write-off to the investment within our capital model.

Standard & Poor's criteria from an investor's perspective

Standard & Poor's criteria for rating the debt issued by these unique structures incorporate a blended approach that overlays the criteria used to evaluate the financial strength characteristics of the sponsoring company with the structured criteria for rating property catastrophe bonds. This includes a quantitative analysis of simulation output from the sidecars' modeling software. The key rating factors are:

- **Modeled probability of attachment.** Although it is based on catastrophe losses, the probability is derived by comparing the sources of funds (which include premium, investment income, equity, and debt) with the uses of funds (which consist of operational expenses, commissions, attritional losses, and catastrophe losses). Expected values are used for all items except catastrophe losses, and the modeled probability of attachment for a tranche of debt is the likelihood of sustaining catastrophe losses that prevent the sidecar from making a required payment to the tranche.
- **Modeling error.** The modeling error is the possibility the sidecar has underestimated the likelihood of sustaining catastrophe losses that would cause the sidecar to default on a particular obligation. The most likely causes of modeling error are inaccurate modeling assumptions, lack of data integrity for the exposures, or an overestimate of the rate on line. Standard & Poor's considers the sponsoring company's or cedent's experience as a property catastrophe writer and the nature of the assumed business to be the critical factors in assessing modeling risk. Modeling risk does not consider the possibility of the sidecar deviating from its planned exposure base.
- **Operational risk.** Operational risk reflects the possibility that the sidecar's actual exposures will differ from its plan. If the sidecar assumes more business than planned or business from riskier lines of business, the probability of a debt tranche attaching will be higher than the initial modeled results, which are based on the sidecar's business plan. Standard & Poor's assesses operational risk by evaluating the certainty of exposures and the alignment of interest between the sidecar and its cedent. Standard & Poor's assessment of the cedent's ability to measure its property catastrophe risks is a very important consideration in the analysis.
- **Variability of expenses and attritional losses.** If expenses or attritional losses consume more funds than expected, that reduces the sidecar's claims-paying resources for catastrophe losses. Then, the probability of sustaining catastrophic losses that would lead to a default is higher. Standard & Poor's analyzes this risk by examining the volatility of expenses and attritional losses.
- **Credit risk.** Credit risk reflects the potential for the sidecar to not receive premium from its cedent. Among the sidecars Standard & Poor's has rated, the cedents' financial strength rating has been at least 'A-'; therefore, credit risk is not a significant factor. However, Standard & Poor's believes a cedent could encounter financial difficulties if its sidecar sustained significant catastrophic losses because the cedent usually retains a significant portion of the gross risk from the business covered by the sidecar. Consequently, credit risk increases the probability of default by a small amount.
- **Investment and liquidity risk.** Investment and liquidity risk refers to the possibility that adverse performance by the sidecar's investment portfolio could impair its ability to meet its obligations if the sidecar sustained significant catastrophic

"Unlike a catastrophe bond where the investment return is capped by the interest rate, the equity investor enjoys a share of the profits or losses of the sidecar, which, in many cases, could be significantly greater than the catastrophe bondholder's return."

losses. Permitted invested assets are generally well-diversified, high-credit-quality, shorter maturity instruments, and asset risk is minimal.

The first three rating factors are clearly the most important. Standard & Poor's considers how the other risks could increase the probability of default given significant losses from a severe natural disaster. For example, attritional losses alone will not cause a sidecar to default on its obligations, but above-average attritional losses reduce the level of catastrophic losses needed to cause a default.

Structured property catastrophe bond criteria will limit the debt rating by reference to the first dollar loss on each tranche and the financial strength rating on any party to which the note is credit dependent. The rating on a debt tranche will be limited to 'BB+' if a single event could prevent the sidecar from making a required payment. The ratings cap is 'A+' if three events impair the debt.

Conclusion

Although the capital markets have provided valuable capacity, the capital infusion has not counterbalanced the 2005 losses and, more significantly, the perceived increase in catastrophe exposure highlighted by the recent models. This shortage is most acute in retrocessional capacity, the implications of which have cascaded through the industry. Stable capacity is contingent on the assumption that as the industry absorbs the implications of the models, additional capital will be deployed through these vehicles.

However, the Olympus Re debacle and the potentially disenchanted 2005 and prior-year catastrophe bond investors that provided their capital under now-outdated loss assumptions could choke off this flow. An extreme catastrophe season in 2006 could further exacerbate the situation. For insurers and reinsurers, it might be more economical to manage exposures at the

Sidecars And Other Alternative Vehicles

Sidecar	Senior Debt Rating As Of July 26, 2006	Cedent	Initial Quota-Share Cession (%)	Capital (Excluding Premium) (Mil. $)
Flatiron Re	BB+	Arch Re	45	Up to 900
Bay Point Re	BB	Harbor Point Re	30	Up to 250
Starbound Re	BB+, BBB-, A+[1]	Renaissance Re	80	311
Cyrus Re	NR	XL Capital	N.A.	525
Blue Ocean Re	NR	Montpelier Re and others	N.A.[2]	300
Helicon/Olympus Re[3]	NR	White Mountains and Folksamerica	35	330
Petrel Re	NR	Validus Re	75	200
Rockridge	NR	Montpelier Re	N.A.	91
Da Vinci	NR	Renaissance Re and State Farm	N.A.	500
Irish Re	NR	SCOR	N.A.	N.A.
Top Layer Re	NR	Renaissance Re and State Farm	N.A.	100
Kaith (K5)	NR	Hannover Re	N.A.	370
Timicuan	NR	Renaissance Re	N.A.	N.A.

1. The different ratings for Starbound reflect differences in the probability of attachment, but all tranches are considered senior.
2. Blue Ocean Re writes business in its own paper (not Montpelier Re's paper and thus not a quota share), but underwriting is managed by Montpelier Re.
3. Helicon and Olympus Re are sister sidecars for which the table figures are provided on a combined basis.

grass roots level (the individual exposure) rather than pursuing retrocessional coverage with uncertain pricing and availability.

Steven Ader,
New York
(1) 212-438-1447
steven_ader@standardandpoors.com

James Brender,
New York
(1) 212-438-3128
james_brender@standardandpoors.com

Rob Jones,
London
(44) 20-7176-7041
rob_jones@standardandpoors.com

Thomas Upton,
New York
(1) 212-438-7249
thomas_upton@standardandpoors.com

Grace Osborne,
New York
(1) 212-438-7227
grace_osborne@standardandpoors.com

Term	Covered Business
Two years (with an option to extend for one additional)	The ceded business is diversified by line of business, geography, and contract type, but U.S. wind is the most significant exposure.
Two years (with an option to extend)	Noncasualty business, which is diversified by line of business, geography, and contract type, but U.S. wind is clearly the most significant exposure.
1.75 years	Property catastrophe contracts that are bound between June 1, 2006, and Aug. 1, 2006. Atlantic Basin hurricanes constitute 80% of the risk.
Two years (with an option to extend)	Specified percentages of certain lines of property catastrophe reinsurance and retrocessional business from XL.
Two years (with an option to extend for two additional)	Retrocessional protection in the property catastrophe market to parties other than Montpelier. Initially, Blue Ocean anticipates underwriting gross aggregate policy limits in excess of $350 million.
N.A.	Short-tail excess-of-loss business from Folksamerica Re.
The 2006 and 2007 underwriting years	Certain lines of marine and offshore energy reinsurance contracts underwritten by Validus Re. Other lines of business are expected to be added over time.
No fixed term	Pre-Katrina unit. Assumes higher layer, short-tail risks from Montpelier.
No fixed term	Various property catastrophe coverages on a worldwide basis.
No fixed term	N.A.
No fixed term	Worldwide, high-layer, non-U.S. property catastrophe reinsurance on an excess-of-loss basis with defined exposure limits.
Three years (with an option to extend for five additional)	N.A.
N.A.	Property catastrophe excess-of-loss reinsurance business.

NR—Not rated.

N.A.—Not available.

Credit FAQ: Enterprise Risk Management One Year On

Criteria for enterprise risk management (ERM) were introduced by Standard & Poor's Ratings Services nearly a year ago. We outline those criteria here and assess the initial results.

In October 2005, Standard & Poor's introduced a set of criteria for its insurance analysts to assess ERM at insurers. Since then, we have been applying these criteria and incorporating the resulting evaluations into our ratings. This article addresses ratings users' frequently asked questions about our use of ERM criteria.

Frequently Asked Questions

What is ERM?

Risk management is at the heart of Standard & Poor's analysis of insurers and reinsurers. Within each category of analysis, we have always evaluated risk and how risks are managed. With our new ERM evaluation process, risk management has become a separate, explicit, major category, rather than an implicit one. The insurers that perform best in this category are those that have robust risk-management processes across the entire enterprise, processes that form a basis for informing and directing the firm's fundamental decision making.

Specifically, ERM:

- Allows a more prospective view of an insurer's risk profile and capital needs;
- Is a highly tailored analytical process that recognizes each insurer's unique structure, products, mix of business, potential earnings streams, cash flows, and investment strategy; and
- Recognizes the benefits and risks of a diversified base of products, investments, and geographic spread of risk that can quantify the benefits of uncorrelated or partially correlated risks.

ERM is a subjective view of an insurer's or reinsurer's risk-management practices, focusing on how the (re)insurer's loss tolerance is defined and measured and on the processes it undertakes to ensure that this tolerance is not exceeded. ERM criteria also assess how well management balances risk and returns within the context of overall corporate strategy.

What are the categories of analysis?

For the purpose of evaluating risk management, Standard & Poor's looks at a company's processes in five areas: culture, controls, emerging risk, risk models, and strategic risk management. These are outlined below.

Risk-management culture.

Underpinning the effectiveness of the entire risk-management process is the insurer's risk-management culture. This is the degree to which risk and risk management are important considerations in all aspects of corporate decision making. Risk-management culture encompasses the policy dimensions of ERM: the insurer's philosophy toward risk and its risk appetite; the governance and organizational structure of the risk-management function; the risk and risk-management external disclosures and internal communications; and the degree to which there is broad understanding and participation in risk management across the insurer.

Risk controls.

For each insurer, we develop an opinion on the important risks of that insurer within the general areas of credit risk, market risk, insurance risk, and operational risk. An insurer with a large U.S. variable annuity business or a U.K. life with-profits business, for example, will be highly exposed to equity market risk. Any insurer with a predominantly long-tail book of business would be highly exposed to insurance risk and interest rate risk arising from possible reserve inadequacy. An insurer with very highly automated back-office systems would be exposed to IT operational risk, and an insurer with a low-tech back office would have a high exposure to people and process operational risk. To ensure that insurers are identifying and monitoring risk limits, we look for programs that routinely operate controls to maintain losses and exposure within defined limits.

Emerging risk management.

Our focus is on assessing the processes insurers use to imagine, track, prepare for, and learn from new risks that could emerge. The processes should evaluate the

"Europe's insurers come out favorably in our analysis. This is partly because there are already regulatory incentives in place in certain countries to demonstrate ERM."

potential impact on the insurer's reputation, liquidity, and overall financial strength of new risks, and the degree to which these are offset by the implementation of contingency plans.

Risk models.

Risk model evaluation focuses on the quality of the processes that support the models used to provide risk information. The review assesses the underlying methodologies and principles that model an insurer's processes and controls to ensure that timely, accurate, and complete data is used by the models, that the assumptions used are robust and appropriate, and that the insurer has an adequate process for updating the assumptions. We will also review an insurer's process for running, maintaining, validating, and checking its models. We look for models that can produce up-to-date and timely information that provides insight into an insurer's or reinsurer's risks.

Strategic risk management.

We look at how well an insurer integrates its risk-management practices into its overall corporate strategy by understanding its risk profile and how it allocates risk capital throughout the organization. Starting with a view of required risk capital and a sensitive process for allocating that capital among products and businesses, an insurer can develop programs that will support the optimization of risk-adjusted returns. For large, diverse insurers with complex risks, that view of risk capital might require economic capital or other similarly complex models. We look for a number of components of strategic risk management. For an insurer to have excellent strategic risk management, we expect it to execute all these components. An insurer with strong strategic risk management will execute most of these components and be planning to put the remainder in place in the near future.

How are insurers' ERM capabilities assessed?

Insurers' ERM capabilities are assessed by Standard & Poor's as weak, adequate, strong, or excellent.

Weak insurer ERM programs cannot consistently control all of an insurer's major risks. Control processes are incomplete for one or more major risks, and these insurers have limited ability to fully identify, measure, or manage major risk exposures.

Adequate insurer ERM programs have fully functioning risk-control systems in place for all major risks. The risk-management process is solid, classical, and silo based, and most insurers fall into this category. These insurers often lack a clear vision of their overall risk profile and overall risk tolerance. Risk limits for various risks have usually been set independently, and systems for each risk element usually function completely separately, without any significant coordination across silos.

Adequate insurers also lack a robust process for identifying and preparing for emerging risks. Neither cross-risk views nor overall risk tolerance exist, and so no process to optimize risk-adjusted returns is present. We do not expect these insurers to experience any unusual losses outside their separate risk tolerances unless a rapid, major change occurs in the environment related to one or more of their major risks.

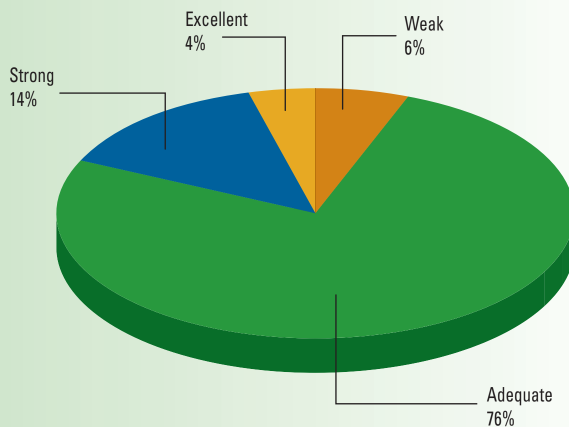
Insurers' ERM can also be classified as adequate if the insurer has developed a cross-risk view and an overall risk tolerance, uses risk-return considerations for its business decisions, and has a process for envisioning the next important emerging risk, but does not have fully developed controls. Adequate ERM should not be a negative factor in most insurer ratings.

Insurers with strong ERM have exceeded the adequate criteria for risk control and have a vision of their overall risk profile, an overall risk tolerance, a process for developing the risk limits from the overall risk tolerance that is tied to the risk-adjusted returns for the various alternatives, and a goal of optimizing risk-adjusted returns. In addition, strong programs have robust processes to identify and prepare for emerging risks. We expect ERM to be a competitive advantage for these insurers over time. The process of selecting choices that have the best risk-adjusted returns should eventually result in lower losses per unit of income, allowing these insurers to choose between offering lower prices, paying higher dividends, retaining higher capital, or obtaining capital at a lower net cost than competitors without the ERM advantage.

Excellent ERM programs share all the criteria for programs considered strong, but are more advanced in their development, implementation, and execution effectiveness. An excellent ERM insurer will have developed its process more fully over time, may have implemented it throughout a higher percentage of its group, or may be executing the process more effectively.

What are the results so far?

We have conducted 160 ERM assessments so far, and they are distributed as follows:



Data as of Aug. 4, 2006.

"Standard & Poor's has no plans to introduce its own stochastic capital model. We believe that this would create an unnecessary additional complex dialogue around risk, one that insurers themselves would find it difficult to relate to."

Most of the excellent and strong assessments are tentative and unpublished at this stage pending further analysis, especially at the subsidiary level. We expect the proportion of strong and excellent assessments to decline as we analyze the remaining insurers. This is because our early analyses were biased toward the likely best exponents of ERM. By the time we have conducted the initial review of all our rated entities, the strong and excellent insurers may fall to single-digit percentages. The proportion of weak insurers is unlikely to increase significantly. This outcome is not surprising for a discipline in its infancy. Many insurers are investing heavily in ERM, and we would expect the profile to improve steadily over time.

Europe's insurers come out favorably in our analysis. This is partly because there are already regulatory incentives in place in certain countries to demonstrate ERM, and this should be the case for the whole of the EU when Solvency II is implemented in 2010. Given the far-reaching consequences of Solvency II, many insurers have already anticipated its impact.

The larger international groups tend to score well in our ERM analysis. Given the diversity of their risks, these groups have the greater need and the greater capacity to invest in ERM. Members of the European CRO Forum fare particularly well. The need for ERM is less among insurers focused on a few lines of business or in a single country, in view of the lower complexity of their risks.

What about economic capital models?

The final component of our ERM criteria is the analysis of economic capital models. This should be finalized by the beginning of 2007, with reviews starting soon after. Our reviews will only be conducted for groups that have achieved strong or excellent ERM assessments and where their economic capital model is a key component of their overall approach to ERM. Where we determine that these models are credible, we will begin to allow their results to influence our view of insurers' capital adequacy. Until now, our views on capital adequacy have been mainly influenced by the results of our own capital adequacy modeling, which give no benefit for interline diversification.

Standard & Poor's has no plans to introduce its own stochastic capital model. We believe that this would create an unnecessary additional complex dialogue around risk, one that insurers themselves would find it difficult to relate to. We consider that healthier dialogue is to be had by focusing on insurers' own models, where those models have reached a level of development such that they influence strategic and day-to-day business decision making.

Rob Jones,
London
(44) 20-7176-7041
rob_jones@standardandpoors.com

Laura Santori,
Paris
(33) 1-4420-7320
laura_santori@standardandpoors.com

David Ingram,
New York
(1) 212-438-7104
david_ingram@standardandpoors.com

Insurer Financial Strength Ratings

A Standard & Poor's Insurer Financial Strength Rating is a current opinion of the financial security characteristics of an insurance organization with respect to its ability to pay under its insurance policies and contracts in accordance with their terms. Insurer Financial Strength Ratings are also assigned to HMOs and similar health plans with respect to their ability to pay under their policies and contracts in accordance with their terms.

This opinion is not specific to any particular policy or contract, nor does it address the suitability of a particular policy or contract for a specific purpose or purchaser. Furthermore, the opinion does not take into account deductibles, surrender or cancellation penalties, timeliness of payment, nor the likelihood of the use of a defense such as fraud to deny claims. For organizations with cross-border or multinational operations, including those conducted by subsidiaries or branch offices, the ratings do not take into account potential that may exist for foreign exchange restrictions to prevent financial obligations from being met.

Insurer Financial Strength Ratings are based on information furnished by rated organizations or obtained by Standard & Poor's from other sources it considers reliable. Standard & Poor's does not perform an audit in connection with any rating and may on occasion rely on unaudited financial information. Ratings may be changed, suspended, or withdrawn as a result of changes in or unavailability of such information, or based on other circumstances.

Insurer Financial Strength Ratings do not refer to an organization's ability to meet nonpolicy (i.e. debt) obligations. Assignment of ratings to debt issued by insurers or to debt issues that are fully or partially supported by insurance policies, contracts, or guaranties is a separate process from the determination of Insurer Financial Strength Ratings, and follows procedures consistent with issue credit rating definitions and practices. Insurer Financial Strength Ratings are not a recommendation to purchase or discontinue any policy or contract issued by an insurer or to buy, hold, or sell any security issued by an insurer. An Insurer Financial Strength Rating is not a guaranty of an insurer's financial strength or security.

'pi' ratings, denoted with a 'pi' subscript, are Insurer Financial Strength Ratings based on an analysis of an insurer's published financial information and additional information in the public domain. They do not reflect in-depth meetings with an insurer's management and are therefore based on less comprehensive information than ratings without a 'pi' subscript. 'pi' ratings are reviewed annually based on a new year's financial statements, but may be reviewed on an interim basis if a major event that may affect the insurer's financial security occurs. Ratings with a 'pi' subscript are not subject to potential CreditWatch listings.

Ratings with a 'pi' subscript generally are not modified with '+' or '-' designations. However, such designations may be assigned when the insurer's financial strength rating is constrained by sovereign risk or the credit quality of a parent company or affiliated group.

Insurer Financial Enhancement Ratings

A Standard & Poor's Insurer Financial Enhancement Rating is a current opinion of the creditworthiness of an insurer with respect to insurance policies or other financial obligations that are predominantly used as credit enhancement and/or financial guaranties in Standard & Poor's rated transactions. When assigning an Insurer Financial Enhancement Rating, Standard & Poor's analysis focuses on capital, liquidity and company commitment necessary to support a credit enhancement or financial guaranty business. The Insurer Financial Enhancement Rating is not a recommendation to purchase, sell, or hold a financial obligation, inasmuch as it does not comment as to market price or suitability for a particular investor.

Insurer Financial Enhancement Ratings are based on information furnished by the insurers or obtained by Standard & Poor's from other sources it considers reliable. Standard & Poor's does not perform an audit in connection with any credit rating and may, on occasion, rely on unaudited financial information. Insurer Financial Enhancement Ratings may be changed, suspended, or withdrawn as a result of changes in, or unavailability of, such information or based on other circumstances. Insurer Financial Enhancement Ratings are based, in varying degrees, on all of the following considerations:

- Likelihood of payment capacity and willingness of the insurer to meet its financial commitment on an obligation in accordance with the terms of the obligation;
- Nature of and provisions of the obligations; and
- Protection afforded by, and relative position of, the obligation in the event of bankruptcy, reorganization, or other arrangement under the laws of bankruptcy and other laws affecting creditors' rights.

Insurer Financial Strength Ratings

An insurer rated 'BBB' or higher is regarded as having financial security characteristics that outweigh any vulnerabilities, and is highly likely to have the ability to meet financial commitments.

AAA
An insurer rated 'AAA' has EXTREMELY STRONG financial security characteristics. 'AAA' is the highest Insurer Financial Strength Rating assigned by Standard & Poor's.

AA
An insurer rated 'AA' has VERY STRONG financial security characteristics, differing only slightly from those rated higher.

A
An insurer rated 'A' has STRONG financial security characteristics, but is somewhat more likely to be affected by adverse business conditions than are insurers with higher ratings.

BBB
An insurer rated 'BBB' has GOOD financial security characteristics, but is more likely to be affected by adverse business conditions than are higher rated insurers.

An insurer rated 'BB' or lower is regarded as having vulnerable characteristics that may outweigh its strengths. 'BB' indicates the least degree of vulnerability within the range; 'CC' the highest.

BB
An insurer rated 'BB' has MARGINAL financial security characteristics. Positive attributes exist, but adverse business conditions could lead to insufficient ability to meet financial commitments.

B
An insurer rated 'B' has WEAK financial security characteristics. Adverse business conditions will likely impair its ability to meet financial commitments.

CCC
An insurer rated 'CCC' has VERY WEAK financial security characteristics, and is dependent on favorable business conditions to meet financial commitments.

CC
An insurer rated 'CC' has EXTREMELY WEAK financial security characteristics and is likely not to meet some of its financial commitments.

R
An insurer rated 'R' is under regulatory supervision owing to its financial condition. During the pendency of the regulatory supervision, the regulators may have the power to favor one class of obligations over others or pay some obligations and not others. The rating does not apply to insurers subject only to nonfinancial actions such as market conduct violations.

NR
An insurer designated 'NR' is NOT RATED, which implies no opinion about the insurer's financial security.

Plus (+) or minus (-)
Ratings from 'AA' to 'CCC' may be modified by the addition of a plus or minus sign to show relative standing within the major rating categories.

CreditWatch highlights the potential direction of a rating, focusing on identifiable events and short-term trends that cause ratings to be placed under special surveillance by Standard & Poor's. The events may include mergers, recapitalizations, voter referenda, regulatory actions, or anticipated operating developments. Ratings appear on CreditWatch when such an event or a deviation from an expected trend occurs and additional information is needed to evaluate the rating. A listing, however, does not mean a rating change is inevitable, and whenever possible, a range of alternative ratings will be shown. CreditWatch is not intended to include all ratings under review, and rating changes may occur without the ratings having first appeared on CreditWatch. The "positive" designation means that a rating may be raised; "negative" means that a rating may be lowered; "developing" means that a rating may be raised, lowered, or affirmed.

National Scale Ratings, denoted with a prefix such as 'mx' (Mexico) or 'ra' (Argentina), assess an insurer's financial security relative to other insurers in its home market.

STANDARD
& POOR'S

Standard & Poor's (London)
20 Canada Square
Canary Wharf
London E14 5LH
(44) 20-7176-3800

Standard & Poor's (Frankfurt)
Main Tower
Neue Mainzer Strasse 52-58
Frankfurt, D-60311
(49) 69-33-999-0

Standard & Poor's (Melbourne)
Level 37, 120 Collins Street
Melbourne 3000
(61) 3-9631-2000

Standard & Poor's (Mexico City)
Prolongación Paseo de la Reforma #1015
Col. Santa Fe
Mexico City
Mexico, 01376
(52) 55-5081-4400

Standard & Poor's (New York)
55 Water Street
New York, NY 10041
(1) 212-438-2000

Standard & Poor's (Paris)
11-13, avenue de Friedland
75008 Paris
(33) 1-40-75-25-00

Standard & Poor's (Singapore)
Prudential Tower, #17-01/08
30 Cecil Street
Singapore 049712
(65) 6438-2881

Standard & Poor's (Tokyo)
28F Marunouchi Kitaguchi Building
1-6-5 Marunouchi Chiyoda-ku
Tokyo, 100-0005
(81) 3-4550-8000

Reactions Publishing Group
Nestor House
Playhouse Yard
London EC2V 5EX
(44) 20-7779-8184

Hallig Langeness, North Frisian Wadden Sea, Germany

Jens Mehlhorn, Flood Expert, Swiss Re

Water's fluid character presents challenges, as Jens Mehlhorn well knows. He and his team develop unique computer-based tools to model catastrophic floods, estimate potential losses and structure insurance and reinsurance programs to finance the associated costs. Swiss Re combines expertise in anticipating and managing risk with financial strength – offering tailored solutions to mitigate your exposure and protect your balance sheet. For real peace of mind, it pays to have a partner whose protection concepts hold water. www.swissre.com

Expertise you can build on. **Swiss Re**