

## Special Report

Review and Outlook  
Global Reinsurance

## Analysts

Chris Waterman  
+44 20 7417 6328  
chris.waterman@fitchratings.com

Mark Rouck  
+1 312 368 2085  
mark.rouck@fitchratings.com

Jim Auden  
+1 312 368 3146  
jim.auden@fitchratings.com

Greg Carter  
+44 20 7417 6327  
greg.carter@fitchratings.com

## ■ Summary

This report continues Fitch Ratings' practice of updating its views and outlook on the global reinsurance sector following completion of the sector's 1 July renewal season and mid-year reporting season. Fitch views this as an appropriate time to summarise and comment on the key developments in the sector over the past 12-18 months and to discuss where it is likely to head in the future.

Fitch is maintaining its Negative Outlook on the global reinsurance sector due primarily to ongoing concerns about reserve adequacy, especially among the large reinsurers, which represent a disproportionate amount of the sector's capacity. Concern about reserve adequacy is the most influential factor leading to the maintenance of our Negative Outlook. Concerns about the duration of the hard market and the future direction of the investment markets, while not immaterial, are of less significance. While concerns about reserve adequacy prevented us from altering our rating Outlook at this time, we believe that much of the sector's reserve deficiency has been recognized, whether explicitly by the reinsurer or through our rating actions, and thus we are closer to conditions warranting a Stable Outlook than we were one year ago.

Fitch believes that a distinct difference exists in the global reinsurance sector today between reinsurers with clean balance sheets that are likely to continue to report solid earnings and capital growth, and reinsurers that lack these characteristics. Fitch believes this latter group of reinsurers is likely to struggle to balance the need to shore up their balance sheets against the need to earn an adequate return on capital. Reinsurers unencumbered with legacy reserve issues will continue to reap the earnings benefits of current favourable market conditions and an improving investment climate. The Bermuda Class of 2001 is the most visible segment of this group of reinsurers.

However, Fitch continues to believe that many of the more mature global reinsurers remain exposed to adverse reserve development, largely emanating from asbestos-related claims in the US and also from the 1997-2000 accident years, which were the peak years of the previous soft market. Furthermore, while Fitch welcomes the improvement in the overall investment climate and sees it as a stabilizing factor, it believes that a move to sustained higher investment returns would be likely to shorten the hard market's duration, by enabling companies to once again look to investment returns to offset inadequate rates.

Fitch also notes that the global reinsurance market has benefited from comparatively low natural catastrophe-related losses in recent years and cautions readers that its outlook on the global reinsurance sector incorporates a more "normal" natural catastrophe loss trend than that seen in the past 12-18 months.

Given its Negative Outlook, Fitch expects that rating downgrades will continue to outnumber upgrades in the near term, although we believe that the pace and quantity of downward rating actions will be lower than that experienced in 2002.

Fitch's near-term expectations for the sector include the following:

- Reinsurers will be able to implement further moderate rate increases over the next 12 to 24 months.
- Adverse reserve development is likely to be on a smaller scale than that seen in 2002.
- A more favourable investment environment is expected than in recent years.
- Capital inflows to the reinsurance sector are expected to slow.
- The rate of consolidation in the reinsurance sector is not expected to increase from the very low activity levels seen in 2002 and to date in 2003.

## ■ Recent Major Events

### Hard Market Decelerating

2003 was the third year in a row in which the reinsurance industry experienced widespread rate increases. Although not of the same magnitude as those experienced in 2002, which developed in the aftermath of 11 September 2001, Fitch estimates that reinsurance rates increased by an average of 10%-15% for January 2003 renewals.

These rate increases have by no means been consistent across all lines of business, with liability classes showing the largest increases. In some cases, such as Director's & Officer's liability, rates increased by as much as 100% in the wake of Enron and Arthur Andersen, and more recently as a result of so-called IPO "laddering" liabilities. Conversely, there was some moderation during the 2003 renewal season in those business lines that had experienced the largest rate increases immediately following the World Trade Center loss. In particular, some sub-segments of property and aviation lines showed stable rates at renewal and in selected cases, the first signs of rate reductions were witnessed.

Fitch expects the current hard market to continue into the next renewal season at the end of 2003 and during 2004, but anticipates that rate increases will be lower on average than those seen in 2002/2003. We believe that the reserve deficiencies that are likely to work their way through the sector in the near term, coupled with the slow improvement in investment returns, will keep rates from softening

during 2004. Beyond 2004, we believe that it will be difficult for reinsurers to maintain pricing power and that the reinsurance sector could see rate reductions as early as 2005.

Fitch believes that the insurance cycle today differs from its shape in the past in so far as there is, under normal operating circumstances, a relatively low number of years in which the reinsurance market can truly be defined as hard, followed by a relatively long period of soft pricing. Although underwriting discipline has been maintained by the majority of participants in the reinsurance market in 2003, Fitch doubts that this will be maintained beyond the medium term. Increased competition, the use of alternative products, reduced cessions and demand for short-term investor returns are all likely to result in negative pressure on rates.

**Reserves Continued to Develop Adversely**  
Deficient reserves established for under-priced business written in the past had a huge negative impact on reinsurers' operating results and capital positions in 2002. The scale of these deficiencies can be seen in the table on page 3, which lists the significant reserve increases reported by reinsurers since January 2002.

Against this background, it has proved impossible for the reinsurance industry to take full advantage of the hardest premium rating environment experienced in years. The dichotomy is clear between the operating performance of reinsurers that had reserved prudently in the past (or start-ups with clean balance sheets) and that of reinsurers that have been hit hardest by adverse reserve development. It is this latter group of reinsurers that has experienced most of the downward pressure on ratings, and in some cases this has resulted in downgrades of one notch or more.

Inadequate loss reserves do not appear to be linked to one specific cause, but rather to a range of underwriting classes and underwriting years. However, one common thread is that the bulk of the reserve deterioration relates to reinsurance business originating from the US.

The major area of reported adverse reserve development is asbestos liabilities (see Fitch's special reports entitled: "Asbestos: Too Hot to Handle for European Insurers?", published on 31 March 2003, and "Asbestos: Impact on the U.S. Insurance Industry", published on 25 July 2002). Fitch notes that primary companies' reinsurance leverage on asbestos-related claims has been quite high, with approximately two thirds of their claims being passed on to reinsurers. Furthermore, Fitch

## Adverse Reserve Development – 2002 (USDm)

Reinsurer	Quarter / Year	Amount	Business Line
Munich Re	2Q02	2,000	Various product lines
	2Q02	500	World Trade Center reserves
	<b>Subtotal</b>	<b>2,500</b>	
Employers Re	2Q02	550	Various product lines
	3Q02	500	Various product lines
	4Q02	2,500	Liability lines (med-mal, product, professional, umbrella, workers comp)
	<b>Subtotal</b>	<b>3,550</b>	
General Re	2Q02	188	Various product lines
	3Q02	259	Various product lines
	4Q02	1,023	General, med-mal, workers comp, professional liability lines
	<b>Subtotal</b>	<b>1,470</b>	
Axa	1H02	234	World Trade Center reserves
	2H02	236	World Trade Center reserves and various other lines
	<b>Subtotal</b>	<b>470</b>	
SCOR	3Q02	174	Programme business
	3Q02	159	Workers comp
	3Q02	34	Credit & Surety
	3Q02	17	Asbestos & Pollution
	4Q02	83	Workers Comp
	<b>Subtotal</b>	<b>467</b>	
Trenwick	1Q02	26	World Trade Center reserves
	3Q02	91	Various liability lines including A&E
	4Q02	187	Various liability lines including A&E
	<b>Subtotal</b>	<b>303</b>	
XL Capital	2Q02	200	World Trade Center reserves
Converium	2Q02	24	Various property/casualty lines
	3Q02	60	Various property/casualty lines
	4Q02	85	Various property/casualty lines and annuity guaranteed minimum death benefit (GMDB) reserves
	<b>Subtotal</b>	<b>185</b>	
Transatlantic Re	4Q02	100	Auto liability, other liability, med-mal, marine & aviation
<b>Total</b>		<b>9,229</b>	

Source: Company data

believes that primary companies have yet to fully reserve for their asbestos exposure and, as a result, believes that reinsurers will ultimately face additional asbestos-related losses.

Other lines reporting adverse prior-accident-year reserve development include US liability business underwritten between 1997 and 2000 (particularly Directors' & Officers' Liability business in the wake of Enron and the so-called IPO "laddering" liabilities) and losses arising from the World Trade Center.

**Declining Equity Markets Eroded Capital**  
Reinsurers' capital bases deteriorated due to equity market declines in 2002. European reinsurers were hit particularly hard because of their relatively higher exposure to equities compared with their US-based competitors. During 2002, the FTSE 100 declined by 25%, the Dow Jones Industrial Average slid 16% lower and the DAX fell by 42%. Not only were European reinsurers more heavily exposed to equities, but the European equity markets clearly

experienced greater falls than those in the US. As a result, a number of large European reinsurers reported lower investment income and notable reductions in their solvency margins during 2002.

**Capital was Reallocated Within Industry**  
There was a moderate amount of capital re-shuffling in 2002 as several reinsurers exited the market by selling or spinning off blocks of business and renewal rights. As is usually the case, these entities were disposed of because they lacked scale, or were generating unacceptable earnings volatility, or because other portions of their organization were experiencing distress.

**Number of Exits Increased**  
In addition to capital being reshuffled among new or existing market participants, the reinsurance industry experienced an increase in capital lost through run-off or liquidation as reinsurers struggled to cope with the difficult operating environment.

## Reinsurance Operation Sales / Spin-Offs

Seller	Buyer / New Entity	Type	Effective Date	Business / Assets Involved	Sale Price / IPO Proceeds
CNA Re (UK)	Tawa UK Limited	Sale	31-Oct-02	Business underwritten since inception by CNA Re, excluding net exposure to IOA Global managing general agent business	USD1
Hartford Re	Endurance Specialty Holdings Ltd.	Portfolio Sale	27-May-03	Assumed reinsurance book of property/casualty reinsurance business	Guaranteed minimum payments of USD25 million against future override and renewal rights payments.
LaSalle Re	Endurance Specialty Holdings Ltd.	Sale	1-Apr-02	In-force property/ catastrophe reinsurance business and renewal rights	Minimum proceeds related to sale of renewal rights is USD8 million
St. Paul	Platinum Underwriters	Spin-off	1-Nov-02	Reinsurance contracts entered into by St. Paul Re on or after 1 January 2002, St. Paul Re retained underwriting exposure on contracts written prior to 1 January 2002.	Platinum raised USD743 million via an IPO and USD224 million in private placements
Zurich Financial Services	Converium Holding AG	Spin-off	19-Jun-01	Transfer of business from ZFS effected through a quota share retrocessional agreement with effect from 1 July 2001. Business transferred consisted of the majority of third-party reinsurance assumed by Zurich Insurance Company and Zurich Insurance Bermuda with an inception date on or after 1 January 1987.	Converium raised USD1.1 billion via an IPO

Source: Company data

The most noteworthy exit from the market during the past 12 months is that of the world's former No.7 reinsurer, Gerling Globale Ruckversicherungs (GGR). GGR suffered from larger than expected catastrophe claims, including EUR300 million from the World Trade Center, increased asbestos liabilities and poor investment performance.

### AAA Reinsurers – An Endangered Species

At the start of 2002, Fitch rated the financial strength of the following five reinsurers at 'AAA': General Re, National Indemnity, Employers Re, Munich Re, and Swiss Re. These are the five largest reinsurance organizations in the world, measured by net premium written, and collectively they generated 55% of the net premium written of the 35 reinsurance organizations tracked by Fitch (see the tables summarizing Fitch's rating activity in Appendix A).

Fitch downgraded the financial strength ratings of Employers Re, Munich Re, and Swiss Re in 2002 (see the **Rating Activity** section of this report). Fitch notes that while all these reinsurers continue to enjoy very high ratings, their credit quality has declined. Furthermore, Fitch believes that the sector's credit quality has suffered as a result of the large proportion of overall capacity provided by these reinsurers.

Fitch notes that the larger, highly-rated reinsurers do not benefit in terms of pricing from the stronger security that they offer. However, these firms do tend to have the most attractive business presented to them on a consistent basis. The larger reinsurers have not taken advantage of these opportunities in recent years, as evidenced by their at best average profitability relative to the market, and the well below average profitability of such firms as Employers Re and Munich Re in 2002.

### Concerns About Credit Quality Resulted in New Collateral Requirements

The credit quality of most industries suffered in 2002 and the reinsurance industry was no exception. The demise of GGR, Trenwick and Tasei Fire and Marine raised awareness among ceding companies with regard to the financial strength of reinsurers with which they place business.

Flight-to-quality is not a new phenomenon in the reinsurance market. In fact, we have seen business migrate towards the larger, more highly-rated reinsurers for more than 10 years. In 2002 the flight-to-quality trend went a step further as many US-domiciled ceding companies began to require US-based reinsurers to collateralize recoverables with letters of credit or trust agreements (international reinsurers underwriting US risks have for some time

been required to fully collateralize recoverables or to establish a licensed US affiliate). In other cases, ceding companies are now writing rating triggers into their reinsurance contracts that require collateral funding if the reinsurer's financial strength is downgraded below a pre-determined level. Fitch believes that the risk profile of reinsurers forced to accept such rating triggers rises, since the trigger represents a contingent capital call based on factors that are largely beyond management's control.

We believe that this heightened emphasis on financial strength may ultimately translate into pricing advantages for more highly-rated reinsurers. However, to date, greater financial strength has translated only into an increase in potential business, rather than pricing advantages. We view this as a disconnection in the marketplace and note that it runs contrary to the capital markets, where credit quality and pricing are closely linked.

#### Cedant-Reinsurer Relationship Changed

Fitch believes that the nature of the cedant-reinsurer relationship has evolved towards shorter-term, transactional-type relationships and away from long-term, partnership-type relationships. Factors contributing to this trend include the very poor operating results experienced by reinsurers in 2002 and 2001, which caused them to re-think many of their traditional relationships. In addition, there has been an increase in the number of reinsurers that have decided to exit the reinsurance market via run-off, liquidation, or sale. These reinsurers have little incentive to service their existing accounts, especially those that are ceding losses from old accident years but are no longer ceding premiums. The cash-flow characteristics of the cedant-reinsurer relationship have changed dramatically and this raises the question of who has the "power" in the relationship – the reinsurer, or the ceding company?

#### Replacement Capital Continued to Flow

During the past two years, many of the more mature reinsurers have sought to re-capitalise, and nearly all of the world's leading 15 reinsurers have raised additional capital in some form or another.

While the reinsurers themselves have highlighted that much of this re-capitalisation is required to fund future growth, in fact the majority of additional capital has been used to rebuild balance sheets and solvency margins following a spate of unprecedented reserves increases relating to poorly priced and under-reserved business written in the past.

Despite the new capital raised by both start-up and existing players, the reinsurance market's current capital level remains significantly below its pre-11 September 2001 total, due to adverse reserve development, investment losses, and catastrophe losses, including those relating to 11 September 2001, experienced in 2002 and 2001.

#### Start-Up Capacity Increased

Start-up capital continued to flow as USD2.2 billion was raised during 2002 by Aspen Insurance Ltd (formerly Wellington Reinsurance), Catlin Insurance Company Ltd., and Platinum Underwriting Holdings, Ltd. This followed the huge run-up in start-up capital that was put in place, most of it in Bermuda, in order to capitalize on soaring premium rates in the period immediately following 11 September 2001 and prior to the 2002 renewal season.

Fitch believes that the window of opportunity for start-up reinsurance capacity has now all but closed and that if there are any further start-ups in 2003, they are likely to be few in number.

It might have been expected that this new capital, unencumbered by losses from the past, would have

#### Replacement / New Capital Raised by Existing Players Since 11 September 2001

Entity	Capital Raised (USDm)	Type
Allianz	11,545	Common Equity/Debt
Munich Re	5,223	Common Equity / Debt
Hartford Re / Hartford	1,950	Common Equity / Senior Debt / Equity Units
Converium	1,929	Common Equity / Debt
Swiss Re	1,838	Common Equity
Employers Re / GE Global	1,800	Capital contributions from parent
Partner Re	1,076	Common Equity, Preferred Equity, Trust Preferred Equity, Mandatorily Convertible Debt
Hannover Re	558	Common Equity
Ace	500	Perpetual Preferred Equity
SCOR	392	Common Equity
XL Capital	250	Perpetual Preferred Equity
Axa	130	Common Equity
<b>Total</b>	<b>27,191</b>	

Source: Company data

## Start-Up Capital Raised After 11 September 2001

Entity	Capital Raised (USDbn)	Month / Year Capital Raised
Arch Capital Group, Ltd. <sup>1</sup>	1.0	Oct-01
DaVinci Holdings, Ltd.	0.5	Oct-01
Axis Capital Holdings, Ltd.	1.7	Nov-01
Allied World Holdings, Ltd.	1.5	Nov-01
Endurance Specialty Holdings, Ltd. <sup>2</sup>	1.2	Nov-01
Montpelier Re Holdings, Ltd.	1.0	Nov-01
Goshawk Reinsurance Ltd.	0.1	Nov-01
Olympus Reinsurance Ltd.	0.5	Dec-01
Aspen Insurance Ltd.	0.7	Jun-02
Catlin Insurance Co. Ltd. <sup>3</sup>	0.5	Jul-02
Platinum Underwriters	1.0	Nov-02
<b>Total</b>	<b>9.7</b>	

<sup>1</sup> Although incorporated in 1995, Arch Capital Group completed an equity infusion of USD763.2m in October 2001 to fund underwriting at newly incorporated Arch Capital Re.

<sup>2</sup> Endurance Specialty Holdings' wholly-owned subsidiary, Endurance Specialty Insurance, Ltd. was incorporated on 30 November 2001.

<sup>3</sup> Catlin Insurance Company Ltd. (CICL) remained dormant until July 2002 when, following a capital raising initiative by its parent, CICL was capitalized, activated, and had its licence upgraded to that of a Class 4 insurer.

Source: Company data

set about acquiring market share rapidly, perhaps at the expense of premium rate discipline. Fitch is pleased to note, however, that the new reinsurance players have respected the need to maintain rating adequacy in the lines of business in which they are competing (largely property catastrophe reinsurance).

In its report published on 19 June 2003 entitled "The Bermuda Class of 2001: What Do They Do After Graduation?" Fitch examines the start-ups' strengths and weaknesses in conjunction with the competitive landscape. History suggests that most of the recent start-ups will not exist in their current form 10 years from now. They have a very strong tailwind behind them in the form of a hard market stretching across multiple lines of business. While this environment has allowed them to achieve remarkable profitability and diversity in a short period of time, it may ultimately be their undoing if they are unable to properly select and price risks when the window of opportunity closes and the reinsurance market softens.

### US Asbestos Legislation Failed

The US insurance industry has failed to reach collective agreement on the structure of proposed asbestos legislation, despite the apparent benefits of doing so. Without industry-wide support, a near-term legislative solution to the industry's seemingly endless asbestos exposure problem appears unlikely. As a result, reinsurers as well as primary US companies continue to face uncertainty associated with their asbestos exposures.

### Terrorism Legislation Finally Enacted in the US

In November 2002, President Bush signed the Terrorism Risk Insurance Act of 2002, which creates a government-sponsored reinsurance pool for acts of terrorism, for a three-year period. Although this was a much-discussed topic in the insurance industry in 2002, Fitch believes that its impact will be far greater on other sectors of the US economy, such as construction and real estate, than on the insurance industry.

Most US insurance industry participants had already implemented terrorism exclusions into their policies, while reinsurers are not covered by the legislation and have no obligation to provide terrorism coverage. However, Fitch believes that the legislation does create opportunities for reinsurers, since many primary US companies that had previously excluded terrorism risk from coverage are now required to offer it, and may now seek reinsurance for the risk they retain under the government's programme. In general, these opportunities do not exist for reinsurers underwriting European business, as the majority of European countries have enacted legislation whereby terrorism risks are covered by government-backed pools or underwriting facilities.

### ■ Rating Activity

Fitch's recent property/casualty reinsurance sector rating activity over the past 12 months is summarized in Appendix A. During the period covered, Fitch's rating actions included 18 affirmations, 14 downgrades, and no upgrades. Fitch also assigned six new ratings during that period. Fitch's current ratings on selected reinsurance organizations are shown in the following table:

## Fitch's Ratings on Selected Reinsurance Organizations

Group	Insurer Financial Strength Rating	Long-Term / Senior Debt Rating <sup>1</sup>	Rating Outlook	Rating Watch
Ace/Tempest Re	-	A-	Stable	-
Arrow Re	A+	-	Stable	-
Axa Reinsurance	AA	A-	Stable	-
Brit Insurance	A	-	Positive	-
CNA Re <sup>2</sup>	A-	BBB-	-	Negative
Converium	-	BBB+	Negative	-
Employers Re / GE Global Ins. Holdings	AA	A	Negative	-
Everest Re	-	A-	Stable	-
General Re	AAA	AA+	Stable	-
Gothaer Re	A-	-	Stable	-
Hartford Re <sup>3</sup>	AA	A	Stable	-
Imagine Re	A	-	Stable	-
Lloyds	A-	-	Stable	-
Max Re	A	-	Stable	-
Munich Re Group	AA+	AA+	Negative	-
National Indemnity	AAA	-	Stable	-
Odyssey Re	BBB+	B+	Negative	-
Partner Re <sup>4</sup>	-	A	Stable	-
PXRE Group	-	BBB-	Stable	-
QBE Group	A+	A+	Stable	-
RenaissanceRe	-	A-	Stable	-
S&P Reinsurance	A	-	-	Negative
Scor	BBB	BBB-	-	Stable
Swiss Re Group	AA+	-	Stable	-
XL Capital	AA	A+	Stable	-

<sup>1</sup> Long-term / senior debt ratings may be on the parent holding company.

<sup>2</sup> CNA Re is a division of Continental Casualty Company (CCC). Insurer financial strength rating shown is on CCC.

<sup>3</sup> Hartford Re is a division of Hartford Financial Services, Inc.'s property/casualty operations (HP&C). Insurer financial strength rating shown is on the lead members of HP&C.

<sup>4</sup> Rating shown is on trust preferred securities  
Source: Fitch Ratings

## ■ Financial Review

### 1H03: Hard Market, Low CATs, and Relative Lack of Reserve Development Benefit Bottom Line

Reinsurers' 1H03 operating performance improved significantly year-on-year. For the first six months of 2003, the reinsurance market finally lived up to expectations as the benefits of the hard market were realized rather than being offset by reserve deficiencies from prior accident years. The favourable results for 1H03 were driven by higher premium revenues derived from 2001 and 2002's rate increases, the absence of any significant prior-accident-year reserve development, and comparatively low catastrophe losses.

Operating results for 25 companies that had disclosed 1H03 results at the time of going to press are shown in Appendix B. Fitch recognizes that only limited conclusions can be drawn from this data as it is taken from only 25 companies. Furthermore, Fitch believes that year-on-year comparisons of 1H03 and 1H02 data have an upward bias, because 2003 data includes several Bermuda "Class of 2001" companies that were largely in a start-up phase in 2002. Although these companies have grown very

rapidly on an absolute basis, Fitch believes that some of their growth has come at the expense of companies that have entered run-off; from an industry perspective, this therefore represents re-allocation rather than growth. That said, Fitch believes that the data provides a reasonable proxy for the industry as a whole. The following are highlights taken from Appendix B:

### Premiums Continue Their Rapid Growth

Net premiums written during 1H03 by the 25 companies included in Appendix B totalled USD35.2bn, a 37% increase year-on-year. Growth in earned premium for these companies was also very strong at 25%. Although individual company net premium written growth rates varied widely by company, double-digit increases were the norm.

### Combined Ratios Improve

On a weighted average basis, using each company's contribution to total net premiums earned as the weight, the 25 companies included in Appendix B generated a 95.5% combined ratio during 1H03 compared with 112.3% for 1H02. The improvement reflects the previously mentioned impact of rate increases on premium revenues coupled with a relative lack of prior-accident-year reserve development. Other than Hartford Re recording its

share of Hartford's USD1.7bn after-tax asbestos charge, the sector generally avoided large prior-accident-year reserve charges. In contrast, during 1H02, Munich Re, GE Global, and XL Capital reported a collective USD3.2bn of adverse prior-accident-year reserve development, which had a considerable negative impact on the industry's overall results.

#### Pre-Tax Income Climbs

Pre-tax income from insurance operations for the 25 companies included in Appendix B for the first six months of 2003 was 7.2bn, a 7% increase year-on-year.

#### Equity Grows

The equity of the 25 companies included in Appendix B grew 13% during 1H03. Once again, results varied widely by company, but most reported high single to low double-digit increases. Fitch believes that the majority of this increase in equity is from earnings rather than mark-to-market securities gains, since interest rates were relatively flat during 1H03.

#### 2002 Results: Paying for Sins of the Past

Against a backdrop of low catastrophe experience and high premium rates, one might have expected the reinsurance industry to post extremely strong results in 2002. For a few reinsurers, this was indeed the case, as low loss experience coupled with profitable pricing enabled these companies to more than compensate for reduced investment returns. However, many reinsurers were unable to benefit in this way as they experienced significant adverse reserve development.

2002 was a relatively benign year in terms of natural and man-made catastrophes, with European floods in August being the most noteworthy event, resulting in an insured loss of only USD2.5bn. Total insured and man-made and natural catastrophe claims totalled approximately USD14bn compared with in excess of USD40bn for the previous year.

The table shown in Appendix C provides key underwriting result data for 35 of the world's largest reinsurers. This data has been restricted to traditional property and casualty reinsurance business and, where possible, excludes data relating to life reinsurance, financial/finite reinsurance, and primary non-life business. As a result, the table reflects the most comparable data set across the reinsurance industry and focuses on the core traditional property and casualty classes. The following commentary explores the main conclusions from this analysis and seeks to explain the main drivers behind the results.

#### Premiums Grew in Hard Market...

Premium growth for the full 2002 calendar year was substantial. Net premium written for the 35 reinsurers covered in Fitch's analysis increased by 23.5% in 2002 compared with 12.7% growth in 2001 (excluding Lloyd's, AXA Corporate Solutions and QBE Group, where some comparative data items were unavailable at the time of writing). Although 4.3% of the 2002 increase came from business underwritten by the start-up reinsurers, Fitch believes that the remaining 19.2% growth primarily arose from rate increases rather than exposure increases and is indicative of an improving risk profile within the reinsurance industry. Similarly, net premium earned grew by 18.5% in 2002 compared with 10.4% in 2001. Excluding start-ups, net premium earned grew by 15.9% in 2002; this indicates that the majority of this premium growth has filtered through to reinsurers' income statements.

#### ...But Premium Growth was Uneven

Although European- and Bermuda-domiciled reinsurers experienced significant premium growth during 2002, growth at US reinsurers was modest by comparison. According to the Reinsurance Association of America, US-domiciled reinsurers and US branches of international reinsurers recorded growth in net premium written in 2002 of only 11.6%. There are many factors that could have accounted for this divergence in growth rates between US reinsurers and their international competitors, including differences in business mix and renewal season concentrations. However, this data could also indicate that premium rate increases in Europe and Bermuda were more significant than those in the US. This theory appears plausible, given the significant capital erosion experienced by European reinsurers during 2001 and 2002 as a result of 11 September, adverse loss reserves development and their greater exposure to equity investments compared with their US competitors. Fitch also believes that some US reinsurers have made a conscious decision to reduce their policy limits and risk aggregations in response to a decline in capital markets. In turn, these decisions constrained premium growth.

#### Adverse Reserve Development Dampens Results

Although reinsurers reported strong overall premium growth in 2002, underwriting results were significantly affected by adverse reserve development on prior-years' business. As highlighted earlier in this report, 2002 was a particularly difficult year for the reinsurance industry, with major reserve increases totalling USD9.2bn. These negative reserve movements were



the main factor behind the traditional property and casualty reinsurance sector's disappointing combined ratio of 110.7% for 2002. Although this was significantly better than the 11 September 2001-affected 130.5% combined ratio recorded in 2001, the major improvement in premium rates had raised expectations that the combined ratio for 2002 would be much nearer to 100%. If the adverse reserve development of USD9.2bn is removed from the combined ratio calculation, the 2002 figure improves by 11.6 percentage points to a much more competitive 99.1%. This simple calculation clearly demonstrates the magnitude of adverse reserve development on the 2002 underwriting performance of reinsurers and also shows that current business appears to have been priced appropriately.

#### Investment Returns Also Hampered Earnings

The majority of countries in which reinsurers operate experienced a decline in interest rates during 2002 and fixed interest yields on investments remained at comparatively low levels. Stronger cash flows generated from premium growth only partially mitigated the reduction in investment returns. In addition to low fixed interest yields, reinsurers also suffered from realised and unrealised losses on bond portfolios, as the impact of declining credit quality was not completely offset by gains from falling interest rates.

#### ■ Outlook for 2003 and Beyond

Fitch plans to re-evaluate its current negative rating outlook on the global reinsurance sector at year-end 2003. Fitch's Rating Outlook is a directional indicator of the sector's general credit quality and our potential rating actions for the next 12-24 months. It reflects our belief that downward rating activity will occur more often over the next 12-24 months than affirmative or upward rating activity. We believe that it is unlikely that any upgrades will occur as a result of improvements in individual reinsurers' credit fundamentals in 2003 or 2004. Fitch cautions readers that its Rating Outlook incorporates normal cycles; as a result, continuing hard market conditions alone are not sufficient to warrant rating upgrades.

#### Reinsurers Will Continue to Have Pricing Power

Fitch believes that reinsurers will continue to have the incentive and the ability to implement moderate rate increases over the next 12-24 months. The incentive exists as balance sheets, while significantly improved from their positions of 12-24 months ago, still require some repair; investor expectations are unlikely to be satisfied by only one year of

respectable returns. The ability to implement these rate increases exists in part because of the turmoil experienced in the reinsurance market over that same 12- to 24-month period. Since primary companies continue to have a moderate amount of their own pricing power, they appear willing to accept reasonable rate increases to obtain solid reinsurance capacity. Fitch believes that reinsurers will continue to have more pricing power during the 2004 renewal season in casualty lines than in property lines, since casualty lines hardened later than property lines.

#### Adverse Reserve Development Will Moderate

While still affecting certain primary companies and their reinsurers, Fitch expects that prior-accident-year reserve development will decline from 2002 and 2001's very high levels. There are still some primary companies that we believe have reserve deficiencies in longer-tail lines such as workers compensation and excess liability lines. Reinsurers remain exposed to ceding company reserve problems on a lagged basis, especially smaller reinsurers and broker market companies.

#### Investment Markets Will Improve

Although there are few things more difficult to predict than the direction of the financial markets, it appears that reinsurers will be operating in a more favourable investment environment going forward than they have been in recent years. Interest rates in the US appear likely to have bottomed out and are expected to increase from here, albeit slowly. Fitch also expects European interest rates to increase over the medium term, although there is still the possibility of further downward movement in the short term. Over time, this will reduce much of the unrealized gains that have been generated by the declining interest rates that have benefited reinsurers in recent years. However, it will also enable reinsurers to earn higher yields on new cash flows. Since most reinsurers are buy-and-hold investors, Fitch believes that the positive impact of rising interest rates on cash flow will more than offset the negative accounting impact of a reduction in interest-rate-generated unrealized gains.

After three years of declines, equity markets in the US were showing steady gains with the S&P500 Index up 14% at the time of writing this report. In general, equity markets throughout Europe have also recovered from the bear market of recent years. The FTSE 100, CAC, and DAX were up 7%, 9%, and 22% respectively at the time of writing. This is a welcome turn of events, given European reinsurers' comparatively larger allocations to equities.

## Flow of Outside Capital Will Slow

In the absence of a major catastrophic event, it is difficult to see investors continuing to pour capital into the reinsurance sector at rates approaching those of recent years. This decline in investor interest will partially offset the pressure on premium rates as capital flows and reinsurance premiums seek equilibrium levels. In addition, moderating adverse reserve development will reduce the need for reinsurers to find replacement capital.

## Near-Term Consolidation Unlikely to Increase

Fitch believes that in the near term, consolidation is unlikely to increase from the very low levels seen in 2002 and 1H03. Most reinsurers are too busy deploying their capital in the current favourable market conditions to consider using it for acquisition

purposes. In addition, in many cases reinsurers have just finished repairing their own balance sheets from the impact of reserve deficiencies and they are therefore very wary about making large acquisitions. In the near term, Fitch believes that reinsurers, especially the Bermuda Class of 2001 companies, will be more likely to acquire the renewal rights (and in some cases the underwriting talent) of reinsurers that have decided to exit the market because of competitive pressures or financial distress, than to make outright acquisitions.

Fitch anticipates that consolidation will increase when pricing conditions change, which is likely to be in 2005 or beyond. Once that happens, reinsurers will have to conduct a thorough examination of their competitive positioning and balance sheets, to determine whether they have the staying power to ride out the next soft market.

## ■ Appendix A

### Fitch's Recent Rating Activity

Company	Date	Rating Action	Key Rating Factors
Ace. Ltd.	April 2003	Lowered Long-Term Ratings to 'A-' from 'A', Preferred Ratings to 'BBB+' from 'A-' and Commercial Paper Rating to 'F2' from 'F1' with a Stable Rating Outlook.	Impact of USD2.2 billion gross of reinsurance charge and corresponding high exposure to reinsurance recoverables, moderate financial leverage, and low ratio of tangible equity to total equity.
	January 2003	Placed Long-Term, Preferred, Commercial Paper, and IFS Ratings on Rating Watch - Negative	Ace's announcement that it would record a USD2.2 billion gross of reinsurance charge as a result of its asbestos reserve review.
Arrow Re	August 2003	Changed Rating Outlook on IFS Rating to Stable from Negative	Fitch's change in its Rating Outlook on Goldman Sachs, Inc., Arrow Re's parent company, to Stable from Negative.
	August 2002	Affirmed 'A+' IFS rating with a Negative Rating Outlook	Presence of a USD1 billion capital support agreement between Arrow Re and Goldman Sachs. Negative Rating Outlook was directly linked to Fitch's Negative Rating Outlook on Goldman Sachs, Inc., Arrow Re's parent company.
Axa Group	April 2003	Assigned a 'A-' Long-Term Rating to AXA S.A.'s subordinated notes.	The notes will be subordinated to both senior and dated subordinated notes of the issuer. The issue ranks pari passu with Axa's existing undated subordinated notes.
	January 2003	Affirmed and withdrew AXA Corporate Solutions 'AA' IFS Rating	Axa Corporate Solution's announcement that it would cease underwriting and renewing contracts
Brit Insurance	July 2003	Affirmed 'A' IFS rating, Rating Outlook remained Positive	Enhanced capital base, greater product diversification, strong profitability, and potential profitable expansion in favourable market conditions
CNA Re	August 2003	Lowered CNA Re's IFS Rating to 'A-' from 'A', and senior debt ratings to 'BBB-' from 'BBB', placed ratings on Rating Watch - Negative	Announcement of USD308 million after-tax earnings charge and reserve study to be completed in second half 2003 and any potential capital actions that may occur as a result.
CNA Re	November 2002	Affirmed 'A' IFS Rating and 'BBB' Long-Term Rating with a Stable Rating Outlook	Improved operating performance, manageable capital losses, and pending infusion of capital from CAN's majority owner, Loews Corporation's USD750 million preferred stock offering.
Converium	November 2002	Changed Rating Outlook on Long-Term Rating to Negative from Stable	Poor profitability due in part to losses from European floods and increases in prior-accident year reserves
Employers Re / GE Global	November 2002	Lowered IFS Rating to 'AA' from 'AA+', and Long-Term Rating to 'A' from 'A+' with a Negative Rating Outlook	Announcement of a USD1.4 billion after-tax charge to increase prior-accident year reserves
	October 2002	Changed Rating Outlook on IFS rating and Long-Term Rating to Negative from Stable.	Poor operating results that driven by European storms and losses from prior-accident year reserve development that were significantly below expectations and that lagged peers, many of whom had benefited from hard market conditions.
	July 2002	Removed from Rating Watch - Negative and lowered IFS Rating to 'AA+' from 'AAA' and Long-Term Rating to 'A+' from 'AA' with a Stable Rating Outlook Placed 'AAA' IFS Rating and 'AA' Long-term Rating on Rating Watch - Negative	See below Change in view of parental support from GE organization and weakened stand-alone financial profile.
Everest Re	November 2002	Assigned a 'BBB+' Preferred Rating with a Stable Outlook	See below
	October 2002	Affirmed 'A-' Long-Term Rating with a Stable Rating Outlook	Consistent performance, good market positioning, adequate capitalization and good balance sheet quality.
General Re	July 2003	Affirmed 'AAA' IFS Rating and 'AA+' Long-Term Rating	Superior franchise, excellent market share, and explicit and implicit support of parent company, Berkshire Hathaway, Inc.
Gothaer Re	July 2003	Affirmed 'A-' IFS Rating with a Stable Rating Outlook	Impact of improved market conditions, extensive relationships with client base, and strong capital base, partially offset by poor recent earnings, relatively modest franchise, and investment-related risks

## Fitch's Recent Rating Activity

Company	Date	Rating Action	Key Rating Factors
Hartford Re	May 2003	Removed 'AA' IFS Rating, 'A' Long-Term Rating and 'F1' Commercial Paper Rating from Rating Watch - Negative and affirmed the ratings with a Stable Rating Outlook	Completion of capital raising initiative that netted proceeds of almost USD2 billion.
	January 2003	Placed 'AA' IFS Rating, 'A' Long-Term Rating, and 'F1' Commercial Paper Rating on Rating - Watch Negative	Announcement of comprehensive asbestos reserve study and anticipation that Hartford would incur a reserve charge upon completion.
Imagine Re	July 2002	Affirmed 'A' IFS rating with a Stable Rating Outlook	Success implementing business plan, strategic relationship with majority shareholder, and management team's expertise, partially offset by relatively high operating leverage and the impact of some reserve discounting.
Lloyds	July 2003	Affirmed 'A-' IFS Rating, Changed Rating Outlook to Stable from Negative	Increase in committed capital, some stability in WTC forecast, strong capital base, partially offset by continuing uncertainties at Equitas.
	February 2003	Affirmed 'A-' IFS Rating, with a Negative Rating Outlook	Increase in committed capital and aggregate market capacity, strong capital base, conservative investment criteria and franchise reforms, partially offset by a likely increase in Lloyd's WTC estimates.
Max Re	February 2003	Affirmed 'A' IFS Rating with a Stable Rating Outlook	Favourable reputation in chosen markets, discipline and flexibility in underwriting risk, and limited investment portfolio downside risk partially offset by execution risk related to company's youth and overall higher risk investment strategy compared to industry and peers
Munich Re	April 2003	Assigned a 'AA-' Rating to subordinated debt issue with a Negative Rating Outlook	See below
	April 2003	Changed Rating Outlook to Negative from Stable	Disappointing 2002 earnings and concerns that future earnings could suffer as a result of strategic shareholdings and links to German economy, particular in the banking sector
	October 2002	Lowered IFS Rating to 'AA+' from 'AAA' and Long-term rating to 'AA' from 'AA+' with a Stable Rating Outlook	See below
	September 2002	Placed 'AAA' and 'AA+' Long-term Ratings on Rating Watch - Negative	Decline in capital strength due in part to large equity investments in Allianz AG and Hypo-Vereinsbank and concerns about earnings, while although improved relative to recent years, weren't commensurate with the rating level
National Indemnity	July 2003	Affirmed 'AAA' IFS Rating with a Stable Rating Outlook	Enormous capital base, excellent reinsurance market position, solid liquidity profile, low operating leverage and underwriting discipline. Also considered high investment risk associated with large equity allocation and volatile nature of high-level excess of loss reinsurance
Odyssey Re	March 2003	Removed from Rating Watch - Negative and lowered the IFS Ratings to 'BBB+' from 'A-', assigned a Negative Rating Outlook	Concerns about ability of ultimate parent company to meet holding company debt obligations due in part to lower available cash levels, and a reduction in access to internal and external liquidity sources
	February 2003	Placed 'A-' IFS Rating on Rating Watch - Negative	Heightened concerns about ultimate parent company's cash obligations, including interest payments and debt maturities.
	December 2002	Affirmed 'A-' IFS Rating with a Stable Rating Outlook	Parent company restructuring not expected to materially impact Odyssey Re
Partner Re	May 2003	Assigned a 'A' Rating to a new preferred stock issue and affirmed 'A' Ratings on existing preferred securities with a Stable Rating Outlook	Proceeds from new issue expected to be used to redeem higher coupon outstanding preferred securities resulting in no material change in leverage and better fixed charge coverage. Ratings reflect conservative investment strategy, reserve strength, and low reinsurance recoverable levels, partially offset by higher exposure to low frequency but high severity events.
Renaissance Re	February 2003	Assigned a 'A' Rating to new senior notes and a 'BBB+' Rating to new preferred stock issue with a Stable Rating Outlook	Consistently strong earnings, and interest coverage and reasonable use of financial leverage partially offset by the impact of an increase in operating leverage due to a rapidly growing premium base

## Fitch's Recent Rating Activity

Company	Date	Rating Action	Key Rating Factors
SCOR	June 2003	Affirmed 'BBB' IFS Rating, 'BBB-' Long-Term Rating, and 'F3' Short-Term Rating with a Stable Rating Outlook.	Group's position as one of the ten largest world-wide reinsurers, strong position in a number of business lines, and the refocusing of its strategic orientations partially offset by marginal capital adequacy, recovering profitability, and execution risk associated with new strategy
	January 2003	Placed Commercial Risk Reinsurance subsidiaries' 'BBB' IFS Ratings on Rating Watch - Evolving	Announcement that entities would cease underwriting new business and that management intended to sell the companies
	December 2002	Removed 'BBB' IFS Rating, 'BBB-' Long-Term rating and 'F3' Short-Term Rating from Rating Watch - Negative and affirmed the ratings with a Stable Rating Outlook	Successful EUR 381 million equity offer and corresponding improvement in capital adequacy coupled with a more conservative investment policy.
	October 2002	Lowered IFS Rating to 'BBB' from 'A+', Long-Term Rating to 'BBB-' from 'A', and Short-Term Rating to 'F3' from 'F1'. Ratings remained on Rating Watch - Negative	Reserve deficiencies on non-life activities in the U.S. and on losses on credit derivative business, challenges in business positioning and strategic orientation, and potential difficulty raising equity to improve capital adequacy
	September 2002	Lowered IFS Rating to 'A+' from 'AA-', and Long-Term Rating to 'A' from 'A+' and placed ratings on Rating Watch - Negative	Concerns about increases in financial leverage (debt-to-capital ratio was 32% at June 2002 compared to 24% at year-end 2001) operating leverage (net premium to capital ratio was 2.8x at June 2002 compared to 2.5x at year-end 2001), underwriting performance, and overall profitability
S&P Reinsurance Ltd.	November 2002	Lowered IFS Rating to 'A' from 'AA-' and placed ratings on Rating Watch - Negative	Weakening capital base following reductions in investment values and weak 2001 operating performance coupled with uncertainty about the group's future ownership structure
Swiss Re	December 2002	Removed from Rating Watch - Negative and lowered IFS Rating to 'AA+' from 'AAA', assigned a Stable Rating Outlook	Current and anticipated earnings levels not commensurate with 'AAA' rating.
	September 2002	Placed 'AAA' IFS Rating on Rating Watch - Negative	Poor first-half 02 operating results driven mainly by weak investment results together with poor underwriting performance
Trenwick Group	August 2003	Affirmed 'D' Long-Term and 'C' preferred stock ratings and withdrew ratings.	Announced intention to implement a restructuring plan that included a potential Chapter 11 bankruptcy filing
	April 2003	Lowered Long-Term Ratings to 'D' from 'C'	Default on interest and principal payments on senior debt
	February 2003	Lowered Long-Term Ratings to 'C' from 'CC'	USD107 million reserve charge
	December 2002	Lowered Long-Term Ratings to 'CC' from 'CCC' and preferred ratings to 'C' from 'CC', ratings remained on Rating Watch - Evolving	Suspension of dividends or distributions on preferred securities
	October 2002	Lowered Long-Term Ratings to 'CCC' from 'BB-' and preferred capital securities ratings to 'CC' from 'B+', and preferred stock rating to 'CC' from 'B'	Very limited financial flexibility exacerbated by AM Best downgrade that triggered an event of default under credit agreements and that limited ability to participate in the reinsurance market on a go-forward basis
XL Capital	November 2002	Assigned an 'A' Rating to new preferred stock issue and affirmed existing 'A+' Long-Term Rating with a Stable Rating Outlook	Favourable underwriting and earnings performance, strong interest coverage and operating cash flow, and adequate capital position.

Note: IFS means Insurer Financial Strength  
Source: Fitch Ratings

## ■ Appendix B

### Key Interim Financial Data on Selected Global Reinsurers

(USDm, Unless Stated) Company	Jun 03 Reins. NPW <sup>1</sup>	Jun 02 Reins. NPW <sup>1</sup>	% Change	Jun 03 Ins. Ops Pre-Tax Income (Loss) <sup>2</sup>	Jun 02 Ins. Ops Pre-Tax Income (Loss) <sup>2</sup>	% Change	Jun 03 P/C Reins. Operation's Combined Ratio (%)	Jun 02 P/C Reins. Operation's Combined Ratio (%)	Change (% Points)	Jun 03 Annualized ROE <sup>3</sup> (%)	Dec 02 Annualized ROE <sup>3</sup> (%)	Change (% Points)	Jun 03 Equity <sup>4</sup>	Dec 02 Equity <sup>4</sup>	% Change
Ace Reinsurance	788	552	43	624	346	80	74.4	57.8	16.6	15.1	0.8	14.3	8,178	6,389	28
Allied World Holdings	765	398	92	131	44	199	86.9	87.7	(0.8)	14.0	0.7	13.3	1,849	1,682	10
Arch Capital	871	441	97	129	18	598	89.1	90.6	(1.5)	14.6	4.9	9.7	1,566	1,411	11
Axis Capital	435	222	96	224	62	263	70.9	64.1	6.8	2.7	14.7	(12.0)	2,213	1,961	13
Berkshire Hathaway <sup>5</sup>	n.a.	n.a.	n.a.	2,350	1,431	64	92.6	105.4	n.a.	n.a.	n.a.	n.a.	70,605	64,037	10
CNA Re	328	327	0	181	213	-15	97.9	95.5	2.4	n.a.	n.a.	n.a.	10,318	9,401	10
Converium	2,084	1,692	23	96	42	128	98.7	101.0	(2.3)	8.9	6.5	2.5	1,894	1,738	9
Employers Re / GE Global <sup>6</sup>	4,842	3,739	29	362	(226)	-	103.0	123.6	(20.6)	6.9	-26.6	33.5	7,499	6,664	13
Everest Specialty Holdings	642	-	-	118	35	240	81.3	-	-	15.2	8.6	6.7	1,548	1,218	27
Everest Re	1,940	1,166	66	236	129	83	94.5	98.4	(3.9)	13.3	4.8	8.5	3,055	2,369	29
Hannover Re	4,654	3,576	30	318	257	24	99.6	95.6	4.0	14.9	15.9	(1.0)	2,427	1,826	33
Hartford Re	175	383	-54	(1,596)	568	-381	144.5	101.5	43.0	n.a.	n.a.	n.a.	11,499	10,734	7
Max Re	525	402	31	45	(2)	-	101.8	114.4	(12.6)	14.0	-1.0	15.0	650	594	9
Montpelier Re	519	321	62	216	52	318	48.3	71.7	(23.4)	29.3	13.4	16.0	1,474	1,253	18
Munich Re Group	n.a.	n.a.	-	858	3,131	-73	95.9	140.7	(44.8)	-7.7	23.2	(30.9)	17,392	14,637	19
Odyssey Re	1,033	734	41	242	52	366	97.6	98.8	(1.2)	17.5	22.2	(4.6)	1,285	1,056	22
Partner Re	1,926	1,314	47	266	144	84	93.5	93.5	-	20.5	-8.4	28.9	2,398	2,077	15
Platinum Underwriters <sup>7</sup>	667	662	1	80	(168)	-	84.7	96.5	(11.8)	11.4	n.a.	n.a.	1,004	921	9
PMA Capital	331	299	11	35	(72)	-	98.5	100.4	(1.9)	7.4	-8.0	15.5	618	581	6
RenaissanceRe	751	578	30	385	216	78	46.0	49.7	(3.7)	32.0	25.4	6.5	2,074	1,642	26
Scor	897	969	-7	89	57	57	104.7	105.3	(0.6)	7.9	-37.6	45.5	1,167	1,123	4
Swiss Re Group	7,230	4,914	47	709	126	463	99.8	105.6	(5.8)	7.7	-0.5	8.2	13,196	12,067	9
Transatlantic Holdings	1,571	1,156	36	176	144	22	96.9	98.2	(1.3)	12.5	8.7	3.7	2,213	2,031	9
W.R. Berkley Corp.	422	265	59	246	88	180	101.7	105.9	(4.2)	22.0	15.4	6.5	1,525	1,335	14
XL Capital	1,782	1,514	18	668	38	1659	90.8	101.9	(11.1)	15.5	-9.6	25.1	7,565	6,570	15
<b>Total<sup>8</sup></b>	<b>35,177</b>	<b>25,623</b>	<b>37</b>	<b>7,188</b>	<b>6,724</b>	<b>7</b>	<b>95.5</b>	<b>112.3</b>	<b>(16.8)</b>				<b>175,213</b>	<b>155,318</b>	<b>13</b>

<sup>1</sup> Net premiums written may include premiums from life reinsurance operations depending on the individual company's reporting practice.

<sup>2</sup> Pre-tax income (loss) may include pre-tax income (loss) from operations other than property/casualty reinsurance operations depending on the individual company's reporting practice.

<sup>3</sup> Annualized ROE is equal to net income available to common shareholders divided by average shareholders equity

<sup>4</sup> Equity is organization-wide equity and thus depending on the company's reporting practice, may include equity that supports operations other than property/casualty reinsurance operations.

<sup>5</sup> Includes data for Gen Re and Berkshire Hathaway Reinsurance Group (National Indemnity). Pre-tax operating income includes primary insurance operation's results.

<sup>6</sup> Net premiums written includes net premiums written from life reinsurance and primary insurance.

<sup>7</sup> 2002 data is St. Paul Re data.

<sup>8</sup> Total combined ratios are weighted averages based on each company's combined ratio and each company's contribution to total net premiums earned for the group.

Source: Company data

## ■ Appendix C

### Reinsurance 2002 Underwriting Result

Traditional Property & Casualty Reinsurance (USDm)	Net Premium Written			Net Premium Earned			Underwriting Result			Combined Ratio (%)			Underwriting Profit/NPE (%)		
	2002	2001	2000	2002	2001	2000	2002	2001	2000	2002	2001	2000	2002	2001	2000
Munich Re	18,672	14,929	12,971	17,195	14,716	12,651	-4,108	-5,426	-2,050	121.8	136.4	115.5	-23.9	-36.9	-16.2
Swiss Re	11,408	10,675	8,333	10,857	10,251	7,975	-442	-2,433	-1,395	102.8	122.6	116.2	-4.1	-23.7	-17.5
Berkshire Hathaway	10,708	9,499	9,397	10,079	9,008	9,275	-988	-3,881	-1,148	108.1	141.7	112.0	-9.8	-43.1	-12.4
GE Global Insurance Holding	5,771	5,551	6,554	5,667	5,302	6,377	-3,820	-2,149	-1,180	166.8	138.8	117.6	-67.4	-40.5	-18.5
Lloyd's	NR	NR	NR	NR	NR	NR	NR	NR	NR	-	-	-	-	-	-
Hannover Re	4,012	3,752	2,339	3,705	3,339	2,725	139	-537	-228	94.8	113.6	113.0	3.7	-16.1	-8.4
Allianz AG	4,084	3,933	4,273	4,051	3,912	4,219	-492	-1,384	-772	111.9	135.2	117.9	-12.2	-35.4	-18.3
SCOR	3,781	3,155	2,278	3,560	3,129	2,151	-771	-981	-596	120.1	131.1	126.1	-21.7	-31.3	-27.7
Converium	3,337	2,614	2,039	3,175	2,423	1,902	-140	-711	-321	103.1	127.2	114.8	-4.4	-29.3	-16.9
XL Capital	2,564	1,013	919	2,067	1,030	927	-54	-778	-85	97.3	176.2	109.5	-2.6	-75.5	-9.2
Transatlantic Holdings	2,500	1,906	1,659	2,370	1,790	1,632	-89	-298	-5	102.3	114.9	99.9	-3.8	-16.6	-0.3
Everest Re	2,638	1,560	1,219	2,274	1,467	1,174	23	-198	-34	95.2	111.7	102.0	1.0	-13.5	-2.9
PartnerRe	2,481	1,693	1,208	2,255	1,502	1,142	48	-452	-28	95.3	126.7	100.7	2.1	-30.1	-2.5
Odyssey Re Holdings	1,631	985	701	1,433	901	682	13	-138	-73	95.4	112.4	109.7	0.9	-15.3	-10.7
Korean Re	1,152	925	902	1,116	883	878	45	42	14	95.0	93.9	97.9	4.0	4.7	1.6
QBE Group	NR	NR	NR	827	634	579	33	-205	-37	-	-	-	4.0	-32.3	-6.4
Toa Reinsurance Group	1,129	1,223	1,264	1,171	1,359	1,287	-200	-25	-137	118.3	106.0	111.4	-17.1	-1.8	-10.7
Caisse Centrale de Reassurance	937	841	734	939	800	637	250	180	91	73.4	77.0	84.1	26.6	22.5	14.2
Folksamerica Holding Co.	679	459	333	621	422	313	-11	-132	-86	99.0	128.1	125.1	-1.8	-31.3	-27.6
RenaissanceRe Holdings	697	327	288	668	325	261	298	90	78	54.6	71.8	67.3	44.6	27.7	29.9
Arch Capital Group	883	0	0	501	0	0	61	0	0	77.1	-	-	12.2	-	-
ACE	777	354	275	677	324	252	210	-90	136	65.9	125.2	43.9	31.0	-27.8	54.0
Mapfre Re	479	476	431	417	472	428	8	-78	-34	93.3	116.2	107.7	1.9	-16.5	-8.0
CNA Financial Corporation	605	524	951	642	641	1,089	-58	-1,042	-68	110.9	271.8	110.2	-9.0	-162.6	-6.2
Max Re Capital	580	412	118	376	319	118	-57	-38	-11	105.3	109.4	108.5	-15.2	-11.9	-9.3
Montpelier Re Holdings	566	0	0	330	0	0	107	0	0	56.0	-	-	32.4	-	-
Sirius International	445	645	611	470	686	598	-25	-229	-39	107.7	134.5	106.1	-5.3	-33.3	-6.5
Endurance Specialty Holdings	517	0	0	259	0	0	38	0	0	68.4	-	-	14.7	-	-
Overseas Partners	366	600	501	457	609	586	-147	98	-239	141.5	83.6	137.0	-32.2	16.1	-40.8
AXIS Capital Holdings	314	0	0	222	0	0	71	0	0	60.1	-	-	32.0	-	-
Olympus Re	299	0	0	224	0	0	85	0	0	53.2	-	-	37.8	-	-
Goshawk Re	192	0	0	105	0	0	16	0	0	73.4	-	-	15.0	-	-
Allied World Assurance Holdings	164	0	0	75	0	0	18	0	0	59.4	-	-	24.0	-	-
Axa Corporate Solutions	NR	4,072	2,476	NR	3,965	2,313	NR	-1,074	-442	-	126.3	116.5	-	-27.1	-19.1
Hartford Financial Services Group	703	849	862	713	851	920	-59	-375	-149	108.7	144.1	118.1	-8.3	-44.1	-16.2
<b>Total</b>	<b>85,071</b>	<b>72,971</b>	<b>63,636</b>	<b>79,497</b>	<b>71,060</b>	<b>63,089</b>	<b>-10,001</b>	<b>-22,245</b>	<b>-8,839</b>	<b>110.7</b>	<b>130.5</b>	<b>113.8</b>	<b>-12.6</b>	<b>-31.3</b>	<b>-14.0</b>

- Where possible, life, primary non-life and financial/finite reinsurance data has been excluded from this analysis, depending on the individual company's reporting practice

- Berkshire Hathaway: Includes consolidated data for General Re and National Indemnity

- Toa Re – Year-End March

- Loss Ratio: Net Losses Incurred/Net Premium Earned

- Expense Ratio: – Acquisition & Administrative Expenses/Net Premium Written

- Combined Ratio: Loss Ratio + Expense Ratio

Source: Company data and Fitch Insurance Database

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