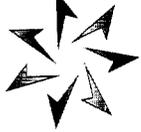


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## To Our Shareholders:

Arch has two businesses: insurance and reinsurance. Both delivered strong results in 2003, our second full year of operation since the redirection of the company supported by an infusion of capital in October 2001. During 2003, growth in book value per share, the ultimate benchmark of long-term insurance performance, was 20.4% to \$25.52 per diluted share, up from \$21.20 at the end of 2002. After-tax net operating income\* for the year increased by 147% to \$3.93 per diluted share. Operating income produced a return on beginning equity of 18.9%, up from 9.3% in 2002. Combined gross premiums written were \$3.23 billion, 117% over 2002 levels. GAAP combined ratio improved to 90.0% from 90.9% in 2002. We believe these results reflect the ability of our people to capitalize on favorable conditions in the property/casualty insurance and reinsurance markets.

Net investment income was \$81.0 million in 2003, up from \$51.2 million in 2002, with significantly higher invested assets resulting from strong operating cash flow more than offsetting the impact of low interest rates. In the current operating environment, we are managing our investment portfolio conservatively with a philosophy of taking risk in our underwriting operations where risk-adjusted returns are more attractive. Thus, substantially all of the portfolio is invested in fixed income securities with an average Standard & Poor's quality rating of "AA+" and an average duration of 2.0 years at December 31, 2003. The portfolio's short duration reflects our current view of the risk/reward relationship available in the financial markets.

\* Operating income is a non-GAAP measure of financial performance. The reconciliation to GAAP and definition of operating income can be found in the company's Current Report on Form 8-K furnished to the SEC on February 17, 2004, which contains the company's earnings press release, and is available on the company's website.

*In August 2003, Dinos Iordanou, the architect of our insurance business, became President and CEO of Arch. Dinos did an extraordinary job in building the insurance operations and his strong leadership skills and wealth of industry experience continue to serve us well as he leads our company into the future. Dinos succeeded Peter Appel, who joined the company as general counsel during its first weeks of operation in 1995. Peter served in positions of steadily increasing responsibility and became CEO in 2000. He made a great contribution in our formative years and during the period of rapid growth since 2001. His guidance and support during the redirection of the company allowed Dinos and Paul Ingrey to focus all of their efforts on establishing our insurance and reinsurance operations. He continues to provide valuable counsel as a member of our Board.*



*Robert Clements*  
Chairman

During the last two years, we have grown profitably and rapidly and raised additional capital in response to ongoing opportunity. The insurance and reinsurance businesses have become important participants in the lines of business we choose to underwrite. Our success in building our insurance and reinsurance operations, and emerging as a global force in both areas in a period of little more than two years, may well be unprecedented.

Under the leadership of Paul Ingrey, we quickly established ourselves as a major participant in the world reinsurance market. Paul has assembled an exceptional team, with principal underwriting operations in Hamilton, Bermuda, and Morristown, New Jersey. Gross reinsurance premiums written were \$1.62 billion, with a combined ratio of 89.2%.

The insurance division, which started writing business in the 2002 second quarter, is now in full stride, writing gross premiums of \$1.77 billion, with a combined ratio of 91.0%. It has principal operations in Bermuda and New York, and is building a third center in London. Having opened the London office in 2003, we are now in the process of obtaining licenses to operate throughout Europe.

Our success has been achieved by applying a skill-based business model within an organizational structure designed to leverage our competitive advantages. We are a specialty insurer and reinsurer serving the needs of corporate and institutional customers worldwide. Our underwriting strategy is to be highly selective, analytical and opportunistic. We have an operating structure and distribution strategy which keep our expenses low, and because we are relatively new, we have been able to operate free from the legacy problems that burden many of our competitors.

Insurance is a knowledge-based business. People are more important to achieving success in insurance than in almost any other field. We believe that the quality of our staff and the energy and enthusiasm they bring to work every day give us a distinct advantage in this regard. We give significant responsibility to our employees and hold them accountable for their results. Moreover, an efficient organizational structure, together with performance-based incentive programs which pay employees as actual results

emerge over a 10-year development period offer our employees the opportunity to earn total compensation well above the insurance industry averages. These factors have allowed us to attract some of the best and the brightest managers and professionals in the industry.

In 2003, Ralph Jones, a proven executive with exceptional insurance industry experience, succeeded Dinos as CEO of insurance operations. He joined us from Chubb, where he was Executive Vice President of Chubb & Son and head of Chubb Specialty Insurance. Bob Van Gieson became President and CEO of Arch Insurance Company (Europe) Limited, our newly-formed London operation. He was previously Chairman and CEO of Chubb Europe and also served as Senior Vice President of CNA Financial and CEO of its global operations. Another important appointment for Arch Insurance in 2003 was Brian Schmalz as Senior Vice President of Arch Surety. Brian was the CEO of Reliance Surety before it was sold to the Travelers, and is a past Chairman of the Surety Association of America. He brings 34 years of experience to his role and has come at a very dynamic time in the surety business.

In both our insurance and reinsurance operations, we are building businesses that are intended to generate superior returns for shareholders by appropriately rewarding the company for the risks it assumes. Even though our GAAP results in 2003 exceeded expectations, we believe the economic value we have created for our shareholders will eventually prove to be greater than the value suggested by the GAAP numbers. GAAP generally requires that insurance and reinsurance revenue be recognized over the terms of the underlying policies or reinsurance contracts and that loss reserves be carried on an undiscounted basis. Consequently, for companies with relatively new operations like ours, a number of years will elapse before the full earnings power is reflected in our financial statements.

If our reserves are adequate, as we believe they are, investment income from the assets which secure them will work to improve the results attributed to our underwriting to date. Similarly, if rates charged on the business we have written to date continue to prove adequate, premiums currently unearned on the business written to date will also have a positive effect on our income in future periods.

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Since October of 2001, Arch has undergone a major transformation. We are now an established provider of insurance and reinsurance. We wrote \$3.2 billion of business in 2003, and our capital, following our recent stock offering in March 2004, is now approximately \$2.1 billion. The size and scale we have achieved allow us to compete effectively not only with the insurance entities capitalized after the events of September 11, 2001, but with more traditional competitors as well.

Beginning in late 2001, the insurance industry entered a period of seriously inadequate capacity, a condition which inevitably has an unhealthy impact on the economic vitality of its customers. We are proud of the role we have been able to play in alleviating the impact caused by this capacity shortage and are pleased that, by doing so, we have been able to reward our shareholders with a significant gain in the value of their investment. We set our plan in motion with the intent to create significant value for our shareholders by building a growing, enduring company, one that works closely with brokers to meet the needs of customers and offers a challenging, enjoyable and rewarding workplace for employees. We believe we are well on our way to accomplishing this goal.

To the shareholders who have entrusted us with their capital, we appreciate the confidence you have in our company and believe you have joined us at the beginning of a long and rewarding journey.



Robert Clements  
*Chairman*



Constantine "Dinos" Iordanou  
*President and Chief Executive Officer*

April 1, 2004

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**FORM 10-K**

- ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE  
SECURITIES EXCHANGE ACT OF 1934**

For the Fiscal Year Ended December 31, 2003

OR

- TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE  
SECURITIES EXCHANGE ACT OF 1934**

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File No. 0-26456

**ARCH CAPITAL GROUP LTD.**

(Exact name of Registrant as specified in its charter)

**Bermuda**

(State or other jurisdiction of  
incorporation or organization)

**Not applicable**

(I.R.S. Employer Identification No.)

**Wessex House, 45 Reid Street  
Hamilton HM 12, Bermuda**

(Address of principal executive offices)

(Zip Code)

Registrant's telephone number, including area code: **(441) 278-9250**

Securities registered pursuant to Section 12(b) of the Act:

**Title of Each Class**  
None

**Name of each Exchange  
on which Registered**  
None

Securities registered pursuant to Section 12(g) of the Act:

**Common Shares, par value \$0.01 per share**

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the Registrant is an accelerated filer (as defined in Rule 12b-2 of the Act). Yes  No

The aggregate market value of the voting and non-voting common equity held by non-affiliates, computed by reference to the closing price as reported by the NASDAQ National Market as of the last business day of the Registrant's most recently completed second fiscal quarter, was approximately \$610.0 million.

As of February 25, 2004, there were 28,733,699 of the Registrant's common shares outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of Part III and Part IV incorporate by reference our definitive proxy statement for the 2004 annual meeting of shareholders to be filed with the Securities and Exchange Commission before April 30, 2004.

**ARCH CAPITAL GROUP LTD.  
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## CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

The Private Securities Litigation Reform Act of 1995 provides a “safe harbor” for forward-looking statements. This report includes forward-looking statements which reflect our current views with respect to future events and financial performance. All statements other than statements of historical fact included in or incorporated by reference in this report are forward-looking statements. Forward-looking statements can generally be identified by the use of forward-looking terminology such as “may”, “will”, “expect”, “intend”, “estimate”, “anticipate”, “believe” or “continue” or their negative or variations or similar terminology.

Forward-looking statements involve our current assessment of risks and uncertainties. Actual events and results may differ materially from those expressed or implied in these statements. Important factors that could cause actual events or results to differ materially from those indicated in such statements are discussed below and elsewhere in this report, including, without limitation, the section entitled “Risk Factors,” and in our periodic reports filed with the Securities and Exchange Commission (the “SEC”), and include:

- our ability to successfully implement our business strategy during “soft” as well as “hard” markets;
- acceptance of our business strategy, security and financial condition by rating agencies and regulators, as well as by brokers and our insureds and reinsureds;
- our ability to maintain or improve our ratings, which may be affected by our ability to raise additional equity or debt financings, as well as other factors described herein;
- general economic and market conditions (including inflation, interest rates and foreign currency exchange rates) and conditions specific to the reinsurance and insurance markets in which we operate;
- competition, including increased competition, on the basis of pricing, capacity, coverage terms or other factors;
- our ability to successfully integrate new management and operating personnel and to establish and maintain operating procedures (including the implementation of improved computerized systems and programs to replace and support manual systems) to effectively support our underwriting initiatives and to develop accurate actuarial data, especially in the light of the rapid growth of our business;
- the loss of key personnel;
- the integration of businesses we have acquired or may acquire into our existing operations;
- accuracy of those estimates and judgments utilized in the preparation of our financial statements, including those related to revenue recognition, insurance and other reserves, reinsurance recoverables, investment valuations, intangible assets, bad debts, income taxes, contingencies and litigation, for a relatively new insurance and reinsurance company, like our company, are even more difficult to make than those made in a mature company since very limited historical information has been reported to us through December 31, 2003;
- greater than expected loss ratios on business written by us and adverse development on claim and/or claim expense liabilities related to business written by our insurance and reinsurance subsidiaries;
- severity and/or frequency of losses;
- claims for natural or man-made catastrophic events in our insurance or reinsurance business could cause large losses and substantial volatility in our results of operations;

- acts of terrorism, political unrest and other hostilities or other unforecasted and unpredictable events;
- losses relating to aviation business and business produced by a certain managing underwriting agency for which we may be liable to the purchaser of our prior reinsurance business or to others in connection with the May 5, 2000 asset sale described in our periodic reports filed with the SEC;
- availability to us of reinsurance to manage our gross and net exposures and the cost of such reinsurance;
- the failure of reinsurers, managing general agents or others to meet their obligations to us;
- the timing of loss payments being faster or the receipt of reinsurance recoverables being slower than anticipated by us;
- changes in accounting principles or the application of such principles by accounting firms or regulators;
- statutory or regulatory developments, including as to tax policy and matters and insurance and other regulatory matters (such as the adoption of proposed legislation that would affect Bermuda-headquartered companies and/or Bermuda-based insurers or reinsurers); and
- rating agency policies and practices.

In addition, other general factors could affect our results, including: (a) developments in the world's financial and capital markets and our access to such markets; (b) changes in regulations or tax laws applicable to us, our subsidiaries, brokers or customers; and (c) the effects of business disruption or economic contraction due to terrorism or other hostilities.

All subsequent written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by these cautionary statements. The foregoing review of important factors should not be construed as exhaustive and should be read in conjunction with other cautionary statements that are included herein or elsewhere. We undertake no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

## PART I

### ITEM 1. BUSINESS

*We refer you to the section below entitled "Risk Factors" for a discussion of risk factors relating to our business.*

### OUR COMPANY

#### General

Arch Capital Group Ltd. ("ACGL" and, together with its subsidiaries, the "Company", "we" or "us") is a Bermuda public limited liability company with over \$1.9 billion in capital and, through operations in Bermuda and the United States, writes insurance and reinsurance on a worldwide basis. While we are positioned to provide a full range of property and casualty insurance and reinsurance lines, we focus on writing specialty lines of insurance and reinsurance.

In October 2001, we launched an underwriting initiative to meet current and future demand in the global insurance and reinsurance markets that included the recruitment of new insurance and reinsurance management teams and an equity capital infusion of \$763.2 million led by funds affiliated with Warburg Pincus LLC ("Warburg Pincus funds") and Hellman & Friedman LLC ("Hellman & Friedman funds"). In further support of our underwriting initiatives, we completed in April 2002 an offering of 7,475,000 of our common shares and received net proceeds of \$179.2 million. In September 2002, we received proceeds of \$74.3 million from the exercise of class A warrants by our principal shareholders and certain other investors. It is our belief that our existing Bermuda- and U.S.-based underwriting platform, our experienced management team and our strong capital base that is unencumbered by significant exposure to pre-2002 risks have enabled us to establish an immediate presence in an attractive insurance and reinsurance marketplace. For the years ended December 31, 2003 and 2002, we had net premiums written of \$2.74 billion and \$1.26 billion, respectively.

Our registered office is located at Clarendon House, 2 Church Street, Hamilton HM 11, Bermuda (telephone number: (441) 295-1422), and our principal executive offices are located at Wessex House, 45 Reid Street, Hamilton HM 12, Bermuda (telephone number: (441) 278-9250). We make available free of charge through our website, located at <http://www.archcapgroup.bm>, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports as soon as reasonably practicable after such material is electronically filed with or furnished to the Securities and Exchange Commission ("SEC"). The public may read and copy any materials we file with the SEC at the SEC's Public Reference Room at 450 Fifth Street, NW, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling 1-800-SEC-0330. The SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC (such as us) and address of that site is <http://www.sec.gov>.

#### Our History

ACGL was formed in September 2000 and became the sole shareholder of Arch Capital Group (U.S.) Inc. ("Arch-U.S.") pursuant to an internal reorganization transaction completed in November 2000, as described below. Arch-U.S. is a Delaware company formed in March 1995 under the original name of "Risk Capital Holdings, Inc," which commenced operations in September 1995 following the completion of an initial public offering. From that time until May 2000, Arch-U.S. provided reinsurance and other forms of capital for insurance companies through its wholly owned subsidiary, Arch Reinsurance Company ("Arch Re U.S."), a Nebraska corporation formed in 1995 under the original name of "Risk Capital Reinsurance Company."

On May 5, 2000, Arch-U.S. sold the prior reinsurance operations of Arch Re U.S. to Folksamerica Reinsurance Company ("Folksamerica") in an asset sale, but retained its surplus and U.S.-licensed reinsurance platform. The sale was precipitated by, among other things, losses on the reinsurance business of Arch Re U.S. and increasing competition, which had been adversely affecting the results of operations and financial condition of Arch Re U.S. The Folksamerica transaction, which resulted from extensive arm's length negotiation, was structured as a transfer and assumption agreement (and not reinsurance) and, accordingly, the loss reserves (and any related reinsurance recoverables) related to the transferred business are not included in the balance sheet of Arch Re U.S. However, in the event that Folksamerica refuses or is unable to make payment of claims on the reinsurance business assumed by it in the May 2000 sale and the notice given to reinsureds is found not to be an effective release by such reinsureds, Arch Re U.S. would be liable for such claims. In addition, Arch Re U.S. retained all liabilities not assumed by Folksamerica, including all liabilities not arising under reinsurance agreements transferred to Folksamerica in the asset sale.

On November 8, 2000, following the approval by Arch-U.S.'s shareholders, Arch-U.S. completed an internal reorganization that resulted in Arch-U.S. becoming a wholly owned subsidiary of ACGL in order to benefit from Bermuda's favorable business, regulatory, tax and financing environment. ACGL performs the holding company functions previously conducted by Arch-U.S., and the shareholders of Arch-U.S. became the shareholders of ACGL.

During the period from May 2000 through the announcement of our underwriting initiative in October 2001, we built and acquired insurance businesses that enable us to generate both fee-based revenue (e.g., commissions and advisory and management fees) and risk-based revenue (i.e., insurance premium). As part of this strategy, we built an underwriting platform that was intended to enable us to maximize risk-based revenue during periods in the underwriting cycle when we believe it is more favorable to assume underwriting risk. In October 2001, we concluded that underwriting conditions favored dedicating our attention exclusively to building our insurance and reinsurance business.

The development of our underwriting platform included the following steps: (1) after the completion of the Folksamerica asset sale, we retained our U.S.-licensed reinsurer, Arch Re U.S., and Arch Excess & Surplus Insurance Company (formerly known as Cross River Insurance Company) ("Arch E&S"), currently an approved excess and surplus insurer in 28 states and the District of Columbia and an admitted insurer in one state; (2) in May 2001, we formed Arch Reinsurance Ltd. ("Arch Re Bermuda"), our Bermuda-based reinsurance and insurance subsidiary; (3) in June 2001, we acquired Arch Risk Transfer Services Ltd., which included Arch Insurance Company (formerly known as First American Insurance Company), currently an admitted insurer in 50 states and the District of Columbia, and rent-a-captive and other facilities that provide insurance and alternative risk transfer services; (4) in February 2002, we acquired Arch Specialty Insurance Company (formerly known as Rock River Insurance Company), currently an approved excess and surplus lines insurer in 48 states, the District of Columbia and the U.S. Virgin Islands and an admitted insurer in one state; and (5) in June 2003, we acquired Western Diversified Casualty Insurance Company ("Western Diversified"), an admitted insurer in 46 states and the District of Columbia. All liabilities arising out of the business of Arch Specialty and Western Diversified prior to the closing of our acquisitions of such companies were assumed by the respective sellers, Sentry Insurance a Mutual Company ("Sentry") and Protective Life Corporation and certain of its affiliates.

In addition, in February 2001, we acquired one of our investee companies, American Independent Insurance Company ("American Independent"), which underwrites non-standard automobile business (i.e., private passenger automobile liability and physical damage coverages for customers who, due to their driving record, age or type of vehicle and other factors, pay higher premiums than average automobile owners) primarily in Pennsylvania. In November 2002, we acquired Personal Service Insurance Company ("PSIC"), which underwrites non-standard automobile business primarily in Ohio.

## Operations

We classify our businesses into two underwriting segments, reinsurance and insurance. We also conduct insurance advisory and other businesses through our subsidiaries. For an analysis of our underwriting results by segment, see note 3, "Segment Information," of the notes accompanying our consolidated financial statements and "Management's Discussion and Analysis of Financial Condition and Results of Operations." Due to the significant changes in our business during the years 2003 and 2002, we believe that comparisons of the results of operations with 2001 are not meaningful. Therefore, the following discussion of results of operations relates to the years ended December 31, 2003 and 2002.

### *Our Reinsurance Operations*

Our reinsurance operations are conducted on a worldwide basis through our principal reinsurance subsidiaries, Arch Re Bermuda and Arch Re U.S. Our reinsurance group has two principal offices, one located in Hamilton, Bermuda and the other in Morristown, New Jersey. As of March 1, 2004, the reinsurance group consisted of 67 employees.

*Strategy.* Our reinsurance group's strategy is to capitalize on our financial capacity, experienced management and operational flexibility to offer multiple products through our Bermuda- and U.S.-based operations. The group's operating principles are:

- *Actively Select and Manage Risks.* We will not underwrite business that does not meet our profitability criteria, and we will emphasize disciplined underwriting over premium growth. To this end, we will maintain centralized control over reinsurance underwriting guidelines and authorities.
- *Maintain Flexibility and Respond to Changing Market Conditions.* Our organizational structure and philosophy allow us to take advantage of increases or changes in demand or favorable pricing trends. We believe that our existing Bermuda and U.S.-based platform, broad underwriting expertise, and substantial capital will facilitate adjustments to our mix of business geographically and by line and type of coverage. We believe that this flexibility allows us to participate in those market opportunities that provide the greatest potential for underwriting profitability.
- *Maintain a Low Cost Structure.* We believe that maintaining tight control over our staffing and operating as a broker market reinsurer will permit us to maintain low operating costs relative to our capital and premiums.

We write our business on both a proportional and non-proportional basis. In a proportional reinsurance arrangement (also known as pro rata reinsurance, quota share reinsurance or participating reinsurance), the reinsurer shares a proportional part of the original premiums and losses of the reinsured. The reinsurer pays the cedent a commission which is generally based on the cedent's cost of acquiring the business being reinsured (including commissions, premium taxes, assessments and miscellaneous administrative expenses) and may also include a profit factor. Non-proportional (or excess of loss) reinsurance indemnifies the reinsured against all or a specified portion of losses on underlying insurance policies in excess of a specified amount, which is called a "retention." Non-proportional business is written in layers and a reinsurer or group of reinsurers accepts a band of coverage up to a specified amount. The total coverage purchased by the cedent is referred to as a "program." Any liability exceeding the upper limit of the program reverts to the cedent.

We generally seek to write significant lines on specialty property and casualty reinsurance treaties. With respect to certain classes, such as property catastrophe and casualty clash, we participate in a relatively large number of treaties and assume smaller lines where we believe that we can underwrite and process the business efficiently.

Our reinsurance group focuses on the areas outlined below:

- *Casualty.* We reinsure third party liability and workers' compensation exposures from ceding company clients primarily on a treaty basis. The exposures that we reinsure include, among others, directors' and officers' liability, professional liability, automobile liability, workers' compensation and excess and umbrella liability. We write this business on a proportional and non-proportional basis. On our proportional and non-proportional "working casualty business," which is treated separately from our casualty clash business, we prefer to write treaties where there is a meaningful amount of actuarial data and where loss activity is more predictable.
- *Other Specialty.* We write other specialty lines, including non-standard automobile, multi-line contracts, surety, personal accident, trade credit and political risk.
- *Property Excluding Property Catastrophe.* We reinsure individual property risks of ceding company clients on a treaty basis. Our property per risk treaty and pro rata reinsurance contracts cover claims from individual insurance policies issued by our reinsureds and include both personal lines and commercial property exposures (principally covering buildings, structures, equipment and contents). The primary perils in this business include fire, explosion, collapse, riot, vandalism, wind, tornado, flood and earthquake.
- *Property Catastrophe.* Our property catastrophe reinsurance business reinsures catastrophic perils for our reinsureds on a treaty basis. Our treaties in this type of business provide protection for most catastrophic losses that are covered in the underlying policies written by our reinsureds. The primary perils in our portfolio include hurricane, earthquake, flood, tornado, hail and fire. We may also provide coverage for other perils on a case-by-case basis. Property catastrophe reinsurance provides coverage on an excess of loss basis when aggregate losses and loss adjustment expense from a single occurrence of covered peril exceed the retention specified in the contract. The multiple claimant nature of property catastrophe reinsurance requires careful monitoring and control of cumulative aggregate exposure.
- *Marine and Aviation.* Our marine business relates to hull, cargo, transit and offshore oil and gas operations, and our aviation business relates to airline and general aviation risks. We also may write space business, which includes coverages for satellite assembly, launch and operation for commercial space programs.
- *Non-Traditional.* We also write non-traditional business that is intended to provide insurers with creative risk management solutions that complement traditional reinsurance. Under these contracts, we assume a measured amount of insurance risk in exchange for a specified margin. The terms and conditions of these contracts may include additional or return premiums based on loss experience, loss corridors, sublimits and caps. Examples of such non-traditional business include aggregate stop-loss coverages and financial quota share coverages.
- *Casualty Clash.* Our reinsurance business also includes clash covers, which are excess of loss agreements where the underlying amount to be retained by the ceding insurer is at an amount which is higher than the limit on any one reinsured policy. Such agreements provide payment of loss when the unusual circumstances occur where two or more casualty policies (or, with respect to workers' compensation coverages, multiple employees) experience the same occurrence of loss and the total amount of the payment of losses for the multiple policies exceeds the clash cover retention amount.

*Underwriting Philosophy.* We employ a disciplined, analytical approach to underwriting reinsurance risks that is designed to specify an adequate premium for a given exposure commensurate with the amount of capital we anticipate placing at risk. A number of our underwriters are also actuaries. We believe that employing actuaries on the front-end of the underwriting process gives us an advantage in evaluating risks and constructing a high quality book of business.

As part of our underwriting process, we typically assess a variety of factors, including:

- the reputation of the proposed cedent and the likelihood of establishing a long-term relationship with the cedent, the geographic area in which the cedent does business, together with its catastrophe exposures, and our market share in that area;
- historical loss data for the cedent and, where available, for the industry as a whole in the relevant regions, in order to compare the cedent's historical loss experience to industry averages;
- projections of future loss frequency and severity; and
- the perceived financial strength of the cedent.

*Premiums Written and Geographic Distribution.* Set forth below is summary information regarding net premiums written for our reinsurance segment:

REINSURANCE SEGMENT (in thousands)	Years Ended December 31,			
	2003		2002	
	Amount	% of Total	Amount	% of Total
<b>Net premiums written</b>				
Casualty . . . . .	\$ 648,119	41.4%	\$245,236	27.8%
Other specialty . . . . .	360,148	23.0%	173,087	19.6%
Property excluding property catastrophe . . . . .	302,560	19.3%	166,344	18.8%
Property catastrophe . . . . .	99,562	6.4%	110,989	12.6%
Marine and aviation . . . . .	91,706	5.8%	60,383	6.8%
Non-traditional . . . . .	52,911	3.4%	109,978	12.5%
Casualty clash . . . . .	11,813	0.7%	16,683	1.9%
Total . . . . .	<u>\$1,566,819</u>	<u>100.0%</u>	<u>\$882,700</u>	<u>100.0%</u>
<b>Net premiums written by client location</b>				
North America . . . . .	\$ 972,012	62.0%	\$515,334	58.4%
Europe . . . . .	446,086	28.5%	254,901	28.9%
Bermuda . . . . .	92,006	5.9%	51,562	2.8%
Asia and Pacific . . . . .	20,912	1.3%	24,796	5.8%
Other . . . . .	35,803	2.3%	36,107	4.1%
Total . . . . .	<u>\$1,566,819</u>	<u>100.0%</u>	<u>\$882,700</u>	<u>100.0%</u>

*Marketing.* We market our reinsurance products through brokers. Brokers generally do not have the authority to bind us with respect to reinsurance agreements, nor do we commit in advance to accept any portion of the business that brokers submit to us. Reinsurance business from any ceding company, whether new or renewal, is subject to acceptance by us. We generally pay brokerage fees to brokers based on negotiated percentages of the premiums written by us through such brokers. For information on our major brokers, see note 10, "Commitments and Contingencies—Concentrations of Credit Risk," of the notes accompanying our consolidated financial statements.

*Risk Management and Retrocession.* Our reinsurance group currently retains substantially all of their assumed reinsurance premiums written. They participate in "common account" retrocessional arrangements for certain treaties. Such arrangements reduce the effect of individual or aggregate losses to all companies participating in such treaties, including the reinsurers, such as our reinsurance subsidiaries, and the ceding company. Our reinsurance subsidiaries will continue to evaluate their retrocessional requirements. See note 4, "Reinsurance," of the notes accompanying our consolidated financial statements.

For our catastrophe exposed reinsurance business, we seek to limit the amount of exposure we assume from any one reinsured and the amount of the aggregate exposure to catastrophe losses in any one geographic zone. For a discussion of our risk management policies, see “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Certain Matters Which May Materially Affect Our Results of Operations and/or Financial Condition—Natural and Man-Made Catastrophic Events” and “Risk Factors—Risk Relating to Our Industry—The failure of any of the loss limitation methods we employ could have a material adverse effect on our financial condition or results of operations.”

*Claims Management.* Claims management includes the receipt of initial loss reports, creation of claim files, determination of whether further investigation is required, establishment and adjustment of case reserves and payment of claims. Additionally, audits are conducted for both specific claims and overall claims procedures at the offices of selected ceding companies. We make use of outside consultants for claims work from time to time.

### *Our Insurance Operations*

Our insurance operations are conducted in Bermuda and the U.S. Our insurance operations in Bermuda are conducted through Arch Insurance (Bermuda), a division of Arch Re Bermuda, which has an office in Hamilton, Bermuda. In the U.S., our principal insurance subsidiaries are Arch Insurance, Arch E&S and Arch Specialty. The headquarters for the U.S. insurance group is located in New York City. There are additional offices throughout the U.S., including principal regional offices located in Atlanta, Georgia; Chicago, Illinois; New York, New York; San Francisco, California; and St. Paul, Minnesota. We also have a contact office in London which sources underwriting opportunities for our U.S. insurance subsidiaries. The Financial Services Authority is currently reviewing the application of our subsidiary, Arch Insurance Company (Europe) Limited, to become a licensed insurance company in the United Kingdom. As of March 1, 2004, our insurance group consisted of 580 employees.

We also underwrite non-standard automobile business through our subsidiaries, American Independent and PSIC, based in Conshohocken, Pennsylvania and Columbus, Ohio, respectively. As of March 1, 2004, American Independent and PSIC consisted of 161 employees.

*Strategy.* Our insurance group strategy is to write business profitably (on both a gross and net basis) across all of our product lines. Our insurance group’s operating principles are:

- *Capitalize on Profitable Underwriting Opportunities.* We believe that our experienced management and underwriting teams are positioned to locate and identify types of business with attractive risk/reward characteristics. As profitable underwriting opportunities are identified, we will continue to seek to make additions to our product portfolio in order to take advantage of market trends. This could include adding underwriting and other professionals with specific expertise in specialty lines of insurance.
- *Centralize Responsibility Within Each Product Line.* Our insurance group consists of eight product lines. Within each product line, managers oversee the underwriting within such product line, and regional executives are responsible for the underwriting decisions for all product lines within their regional locations. We believe that this organizational structure allows close control of our underwriting, and creates clear accountability, within each product line and each region.
- *Maintain a Disciplined Underwriting Philosophy.* Our underwriting philosophy is to generate an underwriting profit through prudent risk selection and proper pricing. We believe that the key to this approach is strict adherence to uniform underwriting standards across all types of business. Our insurance senior management closely monitors the underwriting process.
- *Focus on Providing Superior Claims Management.* We believe that claims handling is an integral component of credibility in the market for insurance products. Therefore, we believe that our

ability to handle claims expeditiously and satisfactorily is a key to our success. We use experienced internal claims professionals, as well as nationally recognized external claims managers.

- *Utilize an Open Brokerage Distribution System.* We believe that by avoiding reliance on contractual relationships with brokers or other agents, we can efficiently access a broad customer base while maintaining underwriting control. We compensate our distribution sources on a risk-by-risk basis.

We write business on both an admitted and non-admitted basis. Our insurance group focuses on the areas outlined below:

- *Casualty.* Our casualty unit writes casualty business on both a primary and excess basis for commercial clients.
- *Programs.* Our programs unit targets general liability, commercial automobile, inland marine, non-catastrophe-exposed and catastrophe-exposed property business, workers' compensation and umbrella liability coverages.
- *Construction and Surety.* During 2003, we added a construction and surety unit, which provides primary and excess casualty, contract surety and property coverages. In support of this new initiative, in March 2003, we acquired the renewal rights to Kemper Insurance's contract and specialty surety products written through the Kemper Surety division, including Lou Jones Associates. As part of this transaction, Arch Insurance hired Kemper's surety management team and members of its staff, and we did not assume any run-off liabilities of the Kemper Surety division.
- *Executive Assurance.* Our executive assurance unit focuses on directors' and officers' liability insurance coverages for corporate and financial institution clients. We also write financial institution errors and omissions coverages, and also may provide employment practices liability insurance, pension trust errors and omissions insurance and fidelity bonds.
- *Professional Liability.* Our professional liability unit has the following principal areas of focus: (1) large law and accounting firms and professional programs; (2) environmental and design professionals, including practice policies for architectural and engineering firms and construction projects and pollution legal liability coverage for fixed sites; and (3) miscellaneous professional liability, including coverages for consultants, systems integrations, wholesalers, captive agents and managing general agents.
- *Property.* Our property unit provides property, energy, aviation and marine insurance coverages for commercial clients.
- *Healthcare.* Our healthcare unit has three principal areas of focus: (1) lead umbrella coverages over self-insured retentions for large healthcare accounts, such as hospitals, physician group practices and multi-state outpatient facility operations; (2) excess coverages for hospitals and other healthcare facilities; and (3) primary professional and general liability coverages for healthcare facilities that provide outpatient care and/or services.
- *Other.* Included in the "other" category are: (1) non-standard automobile business written by American Independent and PSIC, primarily in Pennsylvania and Ohio; (2) accident and health (primarily medical stop loss); (3) alternative markets business, including corporate risk programs; and (4) a portfolio of collateralized protection business and other lenders products.

Prior to 2002, we ceded a substantial portion of our program business to unaffiliated reinsurers. Commencing in 2002, we made a strategic decision to retain more risk on our program business and reduce substantially the amount of premiums ceded to unaffiliated reinsurers. In addition to retaining a higher portion of business on renewing program business, we wrote a number of new accounts in 2002 and 2003 in which we retained a significant portion of the risk. The decision was based on our belief that the underlying pricing, terms and conditions in our program business were favorable and that our enhanced capital position would allow us to retain more underwriting risk in our program business.

*Underwriting Philosophy.* Our insurance group's underwriting philosophy is to generate an underwriting profit (on both a gross and net basis) through prudent risk selection and proper pricing across all types of business. One key to this philosophy is the strict adherence to uniform underwriting standards across each product line that focuses on the following:

- risk selection;
- desired attachment point;
- limits and retention management;
- due diligence, including as to financial condition, claims history, management, and product, class and territorial exposure;
- underwriting authority and appropriate approvals; and
- collaborative decision-making.

*Premiums Written and Geographic Distribution.* Set forth below is summary information regarding net premiums written for our insurance segment:

INSURANCE SEGMENT (in thousands)	Years Ended December 31,			
	2003		2002	
	Amount	% of Total	Amount	% of Total
<b>Net premiums written</b>				
Programs . . . . .	\$ 344,915	29.4%	\$ 88,178	23.3%
Casualty . . . . .	224,596	19.2%	64,165	16.9%
Construction and surety . . . . .	143,581	12.3%	31,254	8.2%
Property . . . . .	121,393	10.4%	50,772	13.4%
Executive assurance . . . . .	114,268	9.7%	49,479	13.1%
Professional liability . . . . .	105,648	9.0%	20,436	5.4%
Healthcare . . . . .	38,127	3.3%	23,624	6.2%
Other . . . . .	79,068	6.7%	51,019	13.5%
<b>Total . . . . .</b>	<b>\$1,171,596</b>	<b>100.0%</b>	<b>\$378,927</b>	<b>100.0%</b>
<b>Net premiums written by client location</b>				
North America . . . . .	\$1,140,064	97.3%	\$375,725	99.2%
Other . . . . .	31,532	2.7%	3,202	0.8%
<b>Total . . . . .</b>	<b>\$1,171,596</b>	<b>100.0%</b>	<b>\$378,927</b>	<b>100.0%</b>

*Marketing.* Our insurance group's products are marketed principally through licensed independent brokers and wholesalers. We receive business from brokers who are paid a brokerage commission usually equal to a percentage of gross premiums. In general, we are not committed to accept business from any particular broker, and brokers do not have the authority to bind the company except with respect to our program business and certain professional liability business. In our program business,

following our underwriting, financial, claims and information technology due diligence reviews, we authorize managing general agents, general agents and other producers to write business on our behalf within underwriting authorities prescribed by us. See "Risk Factors—Risks Relating to Our Company—We could be materially adversely affected to the extent that managing general agents, general agents and other producers in our program business exceed their underwriting authorities or otherwise breach obligations owed to us." For information on our major brokers, see note 10, "Commitments and Contingencies—Concentrations of Credit Risk," of the notes accompanying our consolidated financial statements.

*Risk Management and Reinsurance.* In the normal course of business, the insurance group may cede a portion of its premium through quota share, surplus share, excess of loss and facultative reinsurance agreements. Reinsurance arrangements do not relieve us from our obligations to our insureds. Reinsurance recoverables are recorded as assets, predicated on the reinsurers' ability to meet their obligations under the reinsurance agreements. If the reinsurers are unable to satisfy their obligations under the agreements, our insurance subsidiaries would be liable for such defaulted amounts. Our insurance subsidiaries will continue to evaluate their reinsurance requirements. For information regarding the effects of reinsurance on our company, see note 4, "Reinsurance," of the notes accompanying our consolidated financial statements.

For our catastrophe exposed insurance business, we monitor and limit the amount of our exposure to catastrophic losses through a combination of aggregate exposure limits, underwriting guidelines and reinsurance. For a discussion of our risk management policies, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Certain Matters Which May Materially Affect Our Results of Operations and/or Financial Condition—Natural and Man-Made Catastrophic Events" and "Risk Factors—Risk Relating to Our Industry—The failure of any of the loss limitation methods we employ could have a material adverse effect on our financial condition or results of operations."

*Claims Management.* Our claims department provides underwriting and loss service support to all of our branches. In addition, claims personnel fully participate in the creation of insurance products. Members of our claims department work with our underwriting professionals as functional teams in order to develop products and services that our customers desire and may use independent national claims firms for investigations and field adjustments.

#### *Employees*

As of March 1, 2004, we employed approximately 860 full-time employees.

#### *Reserves*

We believe we have applied, and will continue to so apply, a conservative reserving philosophy for both our insurance and reinsurance operations. Reserve estimates are derived after extensive consultation with individual underwriters, actuarial analysis of the loss reserve development and comparison with market benchmarks. We continue to build our actuarial staff and utilize both internal and external actuaries. Generally, reserves are established without regard to whether we may subsequently contest the claim. We do not currently expect to discount our loss reserves.

Loss reserves represent estimates of what the insurer or reinsurer ultimately expects to pay on claims at a given time, based on facts and circumstances then known, and it is probable that the ultimate liability may exceed or be less than such estimates. Even actuarially sound methods can lead to subsequent adjustments to reserves that are both significant and irregular due to the nature of the risks written. Insurance loss reserves are inherently subject to uncertainty. In establishing the reserves for losses and loss adjustment expenses, we have made various assumptions relating to the pricing of our reinsurance contracts and insurance policies and have also considered available historical industry

experience and current industry conditions. Our reserving process reflects that there is a possibility that the assumptions made could prove to be inaccurate due to several factors, including the fact that very limited historical information has been reported to us through December 31, 2003. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies, Estimates and Recent Accounting Pronouncements—Reserves for Losses and Loss Adjustment Expenses."

The following table represents the development of generally accepted accounting principles ("GAAP") reserves as determined under GAAP for 1996 through December 31, 2003. This table does not present accident or policy year development data. Results for the period 1996 to December 31, 2000 relate to our prior reinsurance operations, which were sold on May 5, 2000 to Folksamerica Reinsurance Company. With respect to the year ended December 31, 2000, no reserves are reported in the table below because all reserves for business written from January 1, 2000 through May 5, 2000 were assumed by Folksamerica in the May 5, 2000 asset sale, and we did not write or assume any business during 2000 subsequent to the asset sale. Activity subsequent to 2000 relates to acquisitions made by us and our underwriting initiatives that commenced in October 2001.

The top line of the table shows the reserves, net of reinsurance recoverables, at the balance sheet date for each of the indicated years. This represents the estimated amounts of net losses and loss adjustment expenses arising in all prior years that are unpaid at the balance sheet date, including incurred but not reported ("IBNR") reserves. The table also shows the reestimated amount of the previously recorded reserves based on experience as of the end of each succeeding year. The estimate changes as more information becomes known about the frequency and severity of claims for individual years. The "cumulative redundancy (deficiency)" represents the aggregate change in the estimates over all prior years. The table also shows the cumulative amounts paid as of successive years with respect to that reserve liability. In addition, the table reflects the claim development of the gross balance sheet reserves for 1996 through December 31, 2003.

With respect to the information in the table below, it should be noted that each amount includes the effects of all changes in amounts for prior periods. For additional information on our reserves for the years ended December 31, 2003, 2002 and 2001, please refer to note 5, "Reserve for Losses and Loss Adjustment Expenses," of the notes accompanying our consolidated financial statements, which includes an analysis of losses and loss adjustment expenses and a reconciliation of the beginning and ending reserve for losses and loss adjustment expenses for such periods.

**Development of GAAP Reserves  
Cumulative Redundancy (Deficiency)**

(in millions)	Years Ended December 31,							
	1996	1997	1998	1999	2000	2001	2002	2003
Reserves for unpaid losses and loss adjustment expenses, net of reinsurance recoverables . . . . .	\$ 20	\$ 71	\$ 186	\$ 309	—	\$ 21	\$ 381	\$ 1,543
Paid (cumulative) as of:								
One year later . . . . .	9	19	88	311	—	15	115	
Two years later . . . . .	10	33	216	311	—	20		
Three years later . . . . .	12	64	216	311	—			
Four years later . . . . .	18	64	216	311				
Five years later . . . . .	18	64	216					
Six years later . . . . .	18	64						
Seven years later . . . . .	18							
Reserve reestimated as of:								
One year later . . . . .	20	68	216	311	—	25	340	
Two years later . . . . .	19	65	216	311	—	25		
Three years later . . . . .	18	64	216	311	—			
Four years later . . . . .	18	64	216	311				
Five years later . . . . .	18	64	216					
Six years later . . . . .	18	64						
Seven years later . . . . .	18							
Cumulative redundancy (deficiency) . . . . .	<u>\$ 2</u>	<u>\$ 7</u>	<u>\$ (30)</u>	<u>\$ (2)</u>	<u>—</u>	<u>\$ (4)</u>	<u>\$ 41</u>	
Cumulative redundancy (deficiency) as a percentage of net reserves . . . . .	10.0%	8.5%	(16.1%)	(1.0%)	—	(18.8%)	10.7%	
Gross reserve for losses and loss adjustment expenses . . . . .	\$ 20	\$ 71	\$ 216	\$ 365	—	\$ 111	\$ 592	\$ 1,952
Reinsurance recoverable . . . . .	—	—	(30)	(56)	—	(90)	(211)	(409)
Net reserve for losses and loss adjustment expenses . . . . .	<u>20</u>	<u>71</u>	<u>186</u>	<u>309</u>	<u>—</u>	<u>21</u>	<u>381</u>	<u>\$ 1,543</u>
Gross reestimated reserve . . . . .	18	64	246	367	—	186	610	
Reestimated reinsurance recoverable . . . . .	—	—	(30)	(56)	—	(161)	(270)	
Net reestimated reserve . . . . .	<u>18</u>	<u>64</u>	<u>216</u>	<u>311</u>	<u>—</u>	<u>25</u>	<u>340</u>	
Gross reestimated redundancy (deficiency) . . . . .	<u>\$ 2</u>	<u>\$ 7</u>	<u>\$ (30)</u>	<u>\$ (2)</u>	<u>—</u>	<u>\$ (75)</u>	<u>\$ (18)</u>	

Our reserving method for 2003 and 2002 was primarily the expected loss method, which is commonly applied when limited loss experience exists. We select the initial expected loss and loss adjustment expense ratios based on information derived by our underwriters and actuaries during the initial pricing of the business, supplemented by industry data where appropriate. These ratios consider, among other things, rate increases and changes in terms and conditions that have been observed in the market. Any estimates and assumptions made as part of the reserving process could prove to be inaccurate due to several factors, including the fact that very limited historical information has been reported to us through December 31, 2003. The redundancy in 2003 indicated in the above table related to our reinsurance operations, which, by their nature, add further complexity to the reserving process in that there is an inherent additional lag in the timing and reporting of a loss event to a reinsurer from an insured or ceding company through a broker. As actual loss information is reported to us and we develop our own loss experience, our reserving methods will also include other actuarial techniques.

During 2003, on a net basis, we recorded a redundancy on reserves recorded in prior years of approximately \$41.0 million, which consisted of net favorable development in our reinsurance segment on losses originally recorded during 2002 of \$42.7 million, which was partially offset by a small amount of net adverse development in our insurance segment on losses originally recorded in prior years. The favorable development in our reinsurance segment did not reflect any changes in key assumptions we made to estimate these reserves. This development primarily resulted from the fact that both the

frequency and the severity of reported losses have been lower than the assumed pattern of losses established at December 31, 2002 for property and other short-tail business.

During 2003, on a gross basis, we recorded a deficiency on reserves recorded in prior years of approximately \$17.9 million, which consisted of a deficiency of \$61.3 million in our insurance segment, offset by a \$43.4 million redundancy in our reinsurance segment, as discussed above. Substantially all of such deficiency resulted from gross development on reserves related to the February 2002 acquisition of Arch Specialty, purchased for the purpose of obtaining excess and surplus lines authorizations for our insurance operations. In connection with this acquisition, the seller, Sentry, agreed to assume all liabilities arising out of Arch Specialty's business prior to the closing of the acquisition. During 2003, Sentry provided notice to us that it believed the reserves, on a gross basis, should be increased by \$58.3 million, primarily related to directors and officers business that was written prior to our acquisition. Although the recording of such amounts resulted in a gross deficiency in our 2002 reported reserves, it did not impact our net development because all such liabilities have been assumed by Sentry through guarantee and other agreements, as described above. In addition, substantially all of the recoverable from Sentry is still subject to the original reinsurance agreements inuring to Arch Specialty and, to the extent Sentry fails to comply with its payment obligations to us, we may obtain reimbursement from the third party reinsurers under such agreements.

During 2002, on a gross basis, we recorded an aggregate deficiency in our 2001 reported reserves of approximately \$67.6 million relating to insurance business underwritten prior to the commencement of our new underwriting initiative in October 2001. Since a substantial portion of our pre-2002 business was reinsured, the deficiency on a net basis was approximately \$4.0 million. Approximately \$57.3 million and \$2.0 million of the deficiency on a gross and net basis, respectively, occurred in a small number of our insurance segment's program business accounts, and the balance of the deficiency, approximately \$10.3 million and \$2.0 million on a gross and net basis, respectively, occurred in our non-standard automobile business as a result of actuarial reviews performed in 2002. The increases in reserves resulted from additional reported losses from 2000 and 2001, which led to higher projections of ultimate loss, and did not reflect any changes in key assumptions we made to estimate these reserves.

We are subject to credit risk with respect to our reinsurance and retrocessions because the ceding of risk to reinsurers and retrocessionaires does not relieve us of our liability to the clients or companies we insure or reinsure. Our failure to establish adequate reinsurance or retrocessional arrangements or the failure of our existing reinsurance or retrocessional arrangements to protect us from overly concentrated risk exposure could adversely affect our financial condition and results of operations. Although we monitor the financial condition of our reinsurers and attempt to place coverages only with substantial, financially sound carriers, we may not be successful in doing so. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Certain Matters Which May Affect Our Results of Operations and/or Financial Condition—Reinsurance Protection and Recoverables."

### **Investments**

At December 31, 2003, consolidated cash and invested assets totaled approximately \$3.72 billion, consisting of \$286.2 million of cash and short-term investments, \$3.4 billion of publicly traded fixed maturity investments and \$32.5 million of privately held securities. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Investments."

Our current investment guidelines stress preservation of capital, market liquidity, and diversification of risk. To achieve this objective, our current fixed income investment guidelines call for an average credit quality of "Aa3" and "AA-" as measured by Moody's and Standard & Poor's, respectively. Notwithstanding the foregoing, our investments are subject to market-wide risks and

fluctuations, as well as to risks inherent in particular securities. At December 31, 2003, all of our fixed maturity and short-term investments were rated investment grade by Standard & Poor's and had an average Standard & Poor's quality rating of "AA+" and an average duration of approximately 2.0 years.

For the year ended December 31, 2003, set forth below is the total return of our fixed maturity portfolio compared to a combination of the Lehman Brothers 1-5 Year High Quality Credit Index and the Lehman Brothers 1-3 Year Treasury Index, which are the benchmarks we currently measure our portfolio against.

	<u>ACGL</u>	<u>Lehman Brothers 1-5 Year High Quality Credit Index/Lehman Brothers 1-3 Year Treasury Index</u>
Total return .....	<u>3.37%</u>	<u>3.23%</u>

The following table summarizes the fair value of our investments and cash and short-term investments at the dates indicated.

<u>(in thousands)</u>	<u>December 31,</u>			
	<u>2003</u>		<u>2002</u>	
	<u>Estimated Fair Value</u>	<u>% of Total</u>	<u>Estimated Fair Value</u>	<u>% of Total</u>
Cash and short-term investments .....	\$ 286,247	8%	\$ 572,258	29%
Fixed maturities:				
U.S. government and government agencies .....	1,343,295	36	179,322	9
Corporate bonds .....	1,106,380	30	949,003	48
Asset backed securities .....	690,927	18	24,985	1
Municipal bonds .....	209,568	6	—	—
Mortgage backed securities .....	48,254	1	228,794	12
Sub-total .....	<u>3,398,424</u>	<u>91</u>	<u>1,382,104</u>	<u>70</u>
Equity securities:				
Privately held .....	32,476	1	31,536	1
Sub-total .....	<u>32,476</u>	<u>1</u>	<u>31,536</u>	<u>1</u>
Total .....	<u>\$3,717,147</u>	<u>100%</u>	<u>\$1,985,898</u>	<u>100%</u>

Our investment portfolio is currently structured to provide a high level of liquidity. The table below shows the contractual maturities of our fixed maturities:

	December 31, 2003		December 31, 2002	
	Estimated Fair Value	Amortized Cost	Estimated Fair Value	Amortized Cost
	(in thousands)			
Available for sale:				
Due in one year or less . . . . .	\$ 234,674	\$ 233,459	\$ 19,671	\$ 20,149
Due after one year through five years . . . . .	2,252,441	2,225,169	1,058,158	1,023,151
Due after five years through 10 years . . . . .	120,305	118,760	21,966	24,100
Due after 10 years . . . . .	51,823	49,775	28,530	23,090
	<u>2,659,243</u>	<u>2,627,163</u>	<u>1,128,325</u>	<u>1,090,490</u>
Asset backed securities . . . . .	690,927	690,022	228,794	221,099
Mortgage backed securities . . . . .	48,254	46,008	24,985	23,048
Total . . . . .	<u>\$3,398,424</u>	<u>\$3,363,193</u>	<u>\$1,382,104</u>	<u>\$1,334,637</u>

### Ratings

Our reinsurance subsidiaries, Arch Re U.S. and Arch Re Bermuda, each currently have financial strength ratings of “A-” (Excellent) from A.M. Best. Our principal insurance subsidiaries, Arch Insurance, Arch E&S and Arch Specialty, each have a financial strength rating of “A-” (Excellent) from A.M. Best. With respect to our non-standard automobile insurers, American Independent has a financial strength rating of “B+” (Very Good) from A.M. Best, and PSIC has a financial strength rating of “A-” (Excellent) from A.M. Best. The “A-” and “B+” ratings are the fourth and sixth highest out of fifteen ratings assigned by A.M. Best. We are in the process of obtaining a financial strength rating from A.M. Best for Western Diversified, acquired in 2003, which currently has been assigned “NR-3” (Rating Procedure Inapplicable).

Insurance ratings are used by insurance and reinsurance intermediaries as an important means of assessing the financial strength and quality of insurers and reinsurers. A.M. Best is generally considered to be a significant rating agency with respect to insurance and reinsurance companies. A.M. Best’s ratings reflect that agency’s independent opinion of the financial strength and ability of an insurer to meet ongoing obligations to policyholders. These ratings are not a warranty of an insurer’s current or future ability to meet its obligations to policyholders or a recommendation to buy, sell or hold securities. Rating agencies have been coming under increasing pressure as a result of high-profile corporate bankruptcies and may, as a result, increase their scrutiny of rated companies, revise their rating policies or take other action. Ratings are subject to periodic review by the applicable rating agency. We can offer no assurances that our ratings will remain at their current levels. See “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources.”

### Competition

The world-wide reinsurance and insurance businesses are highly competitive. We compete, and will continue to compete, with major U.S. and non-U.S. insurers and reinsurers, some of which have greater financial, marketing and management resources than we have and have had longer-term relationships with insureds and brokers than we do. We compete with other insurers and reinsurers primarily on the basis of overall financial strength, ratings assigned by independent rating agencies, geographic scope of business, strength of client relationships, premiums charged, contract terms and conditions, products and services offered, speed of claims payment, reputation, employee experience, and qualifications and

local presence. We also compete with new companies that continue to be formed to enter the insurance and reinsurance markets.

In our insurance business, we compete with insurers that provide property and casualty lines of insurance, including ACE Limited, Allied World Assurance Company, Ltd., American International Group, Inc., AXIS Capital Holdings Limited, Berkshire Hathaway, Inc., Chubb Corporation, Converium Group, Endurance Specialty Holdings Ltd., The Hartford Financial Services Group, Inc., Lloyd's of London, The St. Paul Companies, Inc., Travelers Property Casualty Corp. and XL Capital Ltd. In our reinsurance business, we compete with reinsurers that provide property and casualty lines of reinsurance, including ACE Limited, AXIS Capital Holdings Limited, Converium Group, Endurance Specialty Holdings Ltd., Everest Re Group Ltd., General Reinsurance Corporation, Hannover Rückversicherung AG, Lloyd's of London, Montpelier Re Holdings Ltd., Munich Re Group, PartnerRe Ltd., Platinum Underwriters Holdings, Ltd., RenaissanceRe Holdings Ltd., Swiss Reinsurance Company, Transatlantic Holdings, Inc. and XL Capital Ltd. We do not believe that we have a significant market share in any of the markets in which we compete.

## **Regulation**

### *U.S. Insurance Regulation*

*General.* In common with other insurers, our U.S.-based insurance subsidiaries are subject to extensive governmental regulation and supervision in the various states and jurisdictions in which they are domiciled and licensed to conduct business. The laws and regulations of the state of domicile have the most significant impact on operations. This regulation and supervision is designed to protect policyholders rather than investors. Generally, regulatory authorities have broad regulatory powers over such matters as licenses, standards of solvency, premium rates, policy forms, marketing practices, claims practices, investments, security deposits, methods of accounting, form and content of financial statements, reserves and provisions for unearned premiums, unpaid losses and loss adjustment expenses, reinsurance, minimum capital and surplus requirements, dividends and other distributions to shareholders, periodic examinations and annual and other report filings. Certain insurance regulatory requirements are highlighted below. In addition, regulatory authorities conduct periodic financial and market conduct examinations.

*Credit for Reinsurance.* Arch Re U.S. is subject to insurance regulation and supervision that is similar to the regulation of licensed primary insurers. However, the terms and conditions of reinsurance agreements generally are not subject to regulation by any governmental authority with respect to rates or policy terms. This contrasts with primary insurance policies and agreements, the rates and terms of which generally are regulated by state insurance regulators. As a practical matter, however, the rates charged by primary insurers do have an effect on the rates that can be charged by reinsurers.

A primary insurer ordinarily will enter into a reinsurance agreement only if it can obtain credit for the reinsurance ceded on its statutory financial statements. In general, credit for reinsurance is allowed in the following circumstances:

- if the reinsurer is licensed in the state in which the primary insurer is domiciled or, in some instances, in certain states in which the primary insurer is licensed;
- if the reinsurer is an "accredited" or otherwise approved reinsurer in the state in which the primary insurer is domiciled or, in some instances, in certain states in which the primary insurer is licensed;
- in some instances, if the reinsurer (a) is domiciled in a state that is deemed to have substantially similar credit for reinsurance standards as the state in which the primary insurer is domiciled and (b) meets certain financial requirements; or

- if none of the above apply, to the extent that the reinsurance obligations of the reinsurer are collateralized appropriately, typically through the posting of a letter of credit for the benefit of the primary insurer or the deposit of assets into a trust fund established for the benefit of the primary insurer.

As a result of the requirements relating to the provision of credit for reinsurance, Arch Re U.S. and Arch Re Bermuda are indirectly subject to certain regulatory requirements imposed by jurisdictions in which ceding companies are licensed.

As of March 1, 2004, (1) Arch Re U.S. is licensed or is an accredited or otherwise approved reinsurer in 48 states and the District of Columbia, (2) Arch Insurance is licensed as an insurer in 50 states and the District of Columbia, (3) Arch Specialty is licensed in one state and approved as an excess and surplus lines insurer in 48 states, the District of Columbia and the U.S. Virgin Islands, (4) Arch E&S is licensed in one state and approved as an excess and surplus lines insurer in 28 states and the District of Columbia and (5) Western Diversified is licensed as an insurer in 46 states and the District of Columbia. American Independent is licensed as an insurer in three states, and PSIC is licensed as an insurer in two states. Arch Re Bermuda is not, and does not expect to become, licensed or approved in any U.S. jurisdiction.

*Holding Company Acts.*  State insurance holding company system statutes and related regulations provide a regulatory apparatus which is designed to protect the financial condition of domestic insurers operating within a holding company system. All insurance holding company statutes require disclosure to the domestic state insurance regulator of material transactions between the domestic insurer and an affiliate. Further, in some instances, prior notice must be given to the domestic state insurance regulator prior to entering into a material transaction between a domestic insurer and an affiliate and the regulator has authority to disapprove such transaction. Such transactions typically include sales, purchases, exchanges, loans and extensions of credit, reinsurance agreements, service agreements, guarantees and investments between an insurance company and its affiliates, involving in the aggregate certain percentages of an insurance company's admitted assets or policyholders' surplus, or dividends that exceed certain percentages of an insurance company's surplus or income.

Typically, the holding company statutes also require each of the insurance subsidiaries periodically to file information with state insurance regulatory authorities, including information concerning capital structure, ownership, financial condition and general business operations. Under the terms of applicable state statutes, any person or entity desiring to acquire control of a domestic insurer is required first to obtain approval of the insurance regulator of the domestic insurer.

*Regulation of Dividends and Other Payments from Insurance Subsidiaries.*  The ability of an insurer to pay dividends or make other distributions is subject to insurance regulatory limitations of the insurance company's state of domicile. Generally, such laws limit the payment of dividends or other distributions above a specified level. Dividends or other distributions in excess of such thresholds are "extraordinary" and are subject to regulatory approval. Generally, during 2004, all significant dividends or other distributions from Arch Re U.S., Arch Insurance and our other U.S. insurance subsidiaries will be subject to regulatory approval. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources" and note 14, "Statutory Information," of the notes accompanying our financial statements.

*Insurance Regulatory Information System Ratios.*  The National Association of Insurance Commissioners ("NAIC") Insurance Regulatory Information System ("IRIS") was developed by a committee of state insurance regulators and is intended primarily to assist state insurance departments in executing their statutory mandates to oversee the financial condition of insurance companies operating in their respective states. IRIS identifies 12 industry ratios (referred to as "IRIS ratios") and specifies "usual values" for each ratio. Departure from the usual values of the IRIS ratios can lead to

inquiries from individual state insurance commissioners as to certain aspects of an insurer's business. For the year ended December 31, 2003, certain of our U.S.-based subsidiaries generated IRIS ratios that were outside of the usual values due, in part, to our underwriting initiative in October 2001 and the resulting growth in net premiums written and surplus levels. To date, none of these subsidiaries has received any notice of regulatory review but there is no assurance that we may not be notified in the future.

*Accreditation.* The NAIC has instituted its Financial Regulatory Accreditation Standards Program ("FRASP") in response to federal initiatives to regulate the business of insurance. FRASP provides a set of standards designed to establish effective state regulation of the financial condition of insurance companies. Under FRASP, a state must adopt certain laws and regulations, institute required regulatory practices and procedures, and have adequate personnel to enforce such items in order to become an "accredited" state. If a state is not accredited, it is not able to accept certain financial examination reports of insurers prepared solely by the regulatory agency in such unaccredited state. The respective states in which Arch Re U.S., Arch Insurance, Arch Specialty, Western Diversified, Arch E&S, American Independent and PSIC are domiciled are accredited states.

*Risk-Based Capital Requirements.* In order to enhance the regulation of insurer solvency, the NAIC adopted in December 1993 a formula and model law to implement risk-based capital requirements for property and casualty insurance companies. These risk-based capital requirements are designed to assess capital adequacy and to raise the level of protection that statutory surplus provides for policyholder obligations. The risk-based capital model for property and casualty insurance companies measures three major areas of risk facing property and casualty insurers:

- underwriting, which encompasses the risk of adverse loss developments and inadequate pricing;
- declines in asset values arising from credit risk; and
- declines in asset values arising from investment risks.

Insurers having less statutory surplus than required by the risk-based capital calculation will be subject to varying degrees of regulatory action, depending on the level of capital inadequacy. Equity investments in common stock typically are valued at 85% of their market value under the risk-based capital guidelines. For equity investments in an insurance company affiliate, the risk-based capital requirements for the equity securities of such affiliate would generally be our U.S. insurance subsidiaries' proportionate share of the affiliate's risk-based capital requirement.

Under the approved formula, an insurer's statutory surplus is compared to its risk-based capital requirement. If this ratio is above a minimum threshold, no company or regulatory action is necessary. Below this threshold are four distinct action levels at which a regulator can intervene with increasing degrees of authority over an insurer as the ratio of surplus to risk-based capital requirement decreases. The four action levels include:

- insurer is required to submit a plan for corrective action;
- insurer is subject to examination, analysis and specific corrective action;
- regulators may place insurer under regulatory control; and
- regulators are required to place insurer under regulatory control.

Each of our U.S. insurance subsidiaries' surplus (as calculated for statutory purposes) is above the risk-based capital thresholds that would require either company or regulatory action.

*Guaranty Funds and Assigned Risk Plans.* Most states require all admitted insurance companies to participate in their respective guaranty funds which cover certain claims against insolvent insurers. Solvent insurers licensed in these states are required to cover the losses paid on behalf of insolvent

insurers by the guaranty funds and are generally subject to annual assessments in the state by its guaranty fund to cover these losses. Some states also require licensed insurance companies to participate in assigned risk plans which provide coverage for automobile insurance and other lines for insureds which, for various reasons, cannot otherwise obtain insurance in the open market. This participation may take the form of reinsuring a portion of a pool of policies or the direct issuance of policies to insureds. The calculation of an insurer's participation in these plans is usually based on the amount of premium for that type of coverage that was written by the insurer on a voluntary basis in a prior year. Assigned risk pools tend to produce losses which result in assessments to insurers writing the same lines on a voluntary basis.

*Federal Regulation.* Although state regulation is the dominant form of regulation for insurance and reinsurance business, the federal government has shown increasing concern over the adequacy of state regulation. It is not possible to predict the future impact of any potential federal regulations or other possible laws or regulations on our U.S. subsidiaries' capital and operations, and such laws or regulations could materially adversely affect their business.

*Terrorism Risk Insurance Act of 2002.* On November 26, 2002, President Bush signed into law the Terrorism Risk Insurance Act of 2002 ("TRIA"). TRIA established a federal backstop for insurance-related losses resulting from any act of terrorism carried out by foreign powers on U.S. soil or against U.S. air carriers, vessels or foreign missions. Under TRIA, all U.S.-based property and casualty insurers are required to make terrorism insurance coverage available in specified commercial property and casualty insurance lines. In return, TRIA provides that the federal government will pay 90% of covered losses after an insurer's losses exceed a deductible determined by a statutorily prescribed formula, up to a combined annual aggregate limit for the federal government and all insurers of \$100 billion pursuant to TRIA. If an act (or acts) of terrorism result in covered losses exceeding the \$100 billion annual limit, insurers with losses exceeding their deductibles will not be responsible for additional losses. The deductible for each year is based on the insurer's direct commercial earned premiums for property and casualty insurance for the prior calendar year multiplied by a specified percentage. The specified percentages are 7% for 2003, 10% for 2004 and 15% for 2005, respectively.

Our U.S.-based property and casualty insurers, Arch Insurance, Arch Specialty, Arch E&S and Western Diversified, are subject to TRIA. TRIA specifically excludes reinsurance and personal lines business and, accordingly, currently does not apply to our non-standard automobile business or our reinsurance operations. Based on 2003 direct commercial earned premiums, our U.S. insurance group's deductible for 2004 would be \$104.1 million (*i.e.*, 10% of such earned premiums). The amount of our deductible for 2005 could increase substantially, depending upon the amount of direct commercial earned premiums we write in 2004, and in light of the fact that the deductible percentage increases in such years. Currently, there is uncertainty as to what effect TRIA will have on the insurance industry.

*The Gramm-Leach-Bliley Act.* The Gramm-Leach-Bliley Act of 1999 ("GLBA"), which implements fundamental changes in the regulation of the financial services industry in the United States, was enacted on November 12, 1999. The GLBA permits the transformation of the already converging banking, insurance and securities industries by permitting mergers that combine commercial banks, insurers and securities firms under one holding company, a "financial holding company." Bank holding companies and other entities that qualify and elect to be treated as financial holding companies may engage in activities, and acquire companies engaged in activities, that are "financial" in nature or "incidental" or "complementary" to such financial activities. Such financial activities include acting as principal, agent or broker in the underwriting and sale of life, property, casualty and other forms of insurance and annuities.

Until the passage of the GLBA, the Glass-Steagall Act of 1933 had limited the ability of banks to engage in securities-related businesses, and the Bank Holding Company Act of 1956 had restricted banks from being affiliated with insurers. With the passage of the GLBA, among other things, bank

holding companies may acquire insurers, and insurance holding companies may acquire banks. The ability of banks to affiliate with insurers may affect our U.S. subsidiaries' product lines by substantially increasing the number, size and financial strength of potential competitors.

*Legislative and Regulatory Proposals.* From time to time various regulatory and legislative changes have been proposed in the insurance and reinsurance industry. Among the proposals that have in the past been or are at present being considered are the possible introduction of federal regulation in addition to, or in lieu of, the current system of state regulation of insurers. In addition, there are a variety of proposals being considered by various state legislatures (some of which proposals have been enacted). We are unable to predict whether any of these laws and regulations will be adopted, the form in which any such laws and regulations would be adopted, or the effect, if any, these developments would have on our operations and financial condition.

#### ***Bermuda Insurance Regulation***

*The Insurance Act 1978, as Amended, and Related Regulations of Bermuda (the "Insurance Act").* As a holding company, ACGL is not subject to Bermuda insurance regulations. The Insurance Act, which regulates the insurance business of Arch Re Bermuda, provides that no person shall carry on any insurance business in or from within Bermuda unless registered as an insurer under the Insurance Act by the Bermuda Monetary Authority (the "BMA"), which is responsible for the day-to-day supervision of insurers. Under the Insurance Act, insurance business includes reinsurance business. The registration of an applicant as an insurer is subject to its complying with the terms of its registration and such other conditions as the BMA may impose from time to time.

The Insurance Act imposes solvency and liquidity standards and auditing and reporting requirements on Bermuda insurance companies and grants to the BMA powers to supervise, investigate and intervene in the affairs of insurance companies. Certain significant aspects of the Bermuda insurance regulatory framework are set forth below.

*Classification of Insurers.* The Insurance Act distinguishes between insurers carrying on long-term business and insurers carrying on general business. There are four classifications of insurers carrying on general business, with Class 4 insurers subject to the strictest regulation. Arch Re Bermuda is registered as both a long-term insurer and a Class 4 insurer in Bermuda, which we refer to in this annual report as a composite insurer, and is regulated as such under the Insurance Act.

*Cancellation of Insurer's Registration.* An insurer's registration may be canceled by the BMA on certain grounds specified in the Insurance Act, including failure of the insurer to comply with its obligations under the Insurance Act or if, in the opinion of the BMA after consultation with the Insurance Advisory Committee, the insurer has not been carrying on business in accordance with sound insurance principles.

*Principal Representative.* An insurer is required to maintain a principal office in Bermuda and to appoint and maintain a principal representative in Bermuda. It is the duty of the principal representative, within 30 days of reaching the view that there is a likelihood of the insurer for which the principal representative acts becoming insolvent or that a reportable "event" has, to the principal representative's knowledge, occurred or is believed to have occurred, to make a report in writing to the BMA setting out all the particulars of the case that are available to the principal representative.

*Approved Independent Auditor.* Every registered insurer must appoint an independent auditor who annually audits and reports on the statutory financial statements and the statutory financial return of the insurer, both of which, in the case of Arch Re Bermuda, are required to be filed annually with the BMA.

*Approved Actuary.* Arch Re Bermuda, as a registered long-term insurer, is required to submit an annual actuary's certificate when filing its statutory financial returns. The actuary, who is normally a qualified life actuary, must be approved by the BMA.

*Loss Reserve Specialist.* As a registered Class 4 insurer, Arch Re Bermuda is required to submit an opinion of its approved loss reserve specialist with its statutory financial return in respect of its loss and loss expense provisions. The loss reserve specialist, who will normally be a qualified casualty actuary, must be approved by the BMA.

*Statutory Financial Statements.* An insurer must prepare annual statutory financial statements. The Insurance Act prescribes rules for the preparation and substance of such statutory financial statements (which include, in statutory form, a balance sheet, an income statement, a statement of capital and surplus and notes thereto). The insurer is required to give detailed information and analyses regarding premiums, claims, reinsurance and investments. The statutory financial statements are not prepared in accordance with U.S. generally accepted accounting principles and are distinct from the financial statements prepared for presentation to the insurer's shareholders under the Companies Act 1981 of Bermuda (the "Companies Act"), which financial statements are prepared in accordance with U.S. generally accepted accounting principles. Arch Re Bermuda, as a general business insurer, is required to submit the annual statutory financial statements as part of the annual statutory financial return.

*Annual Statutory Financial Return.* Arch Re Bermuda is required to file with the BMA in Bermuda a statutory financial return no later than four months after its financial year end (unless specifically extended upon application to the BMA). The statutory financial return for a Class 4 insurer includes, among other matters, a report of the approved independent auditor on the statutory financial statements of such insurer, solvency certificates, the statutory financial statements themselves, the opinion of the loss reserve specialist and a schedule of reinsurance ceded.

*Minimum Solvency Margin and Restrictions on Dividends and Distributions.* Under the Insurance Act, Arch Re Bermuda must ensure that the value of its long-term business assets exceed the amount of its long-term business liabilities by at least \$250,000. The Insurance Act also provides that the value of the general business assets of Arch Re Bermuda, as a Class 4 insurer, must exceed the amount of its general business liabilities by an amount greater than the prescribed minimum solvency margin. Arch Re Bermuda:

- is required, with respect to its general business, to maintain a minimum solvency margin (the prescribed amount by which the value of its general business assets must exceed its general business liabilities) equal to the greatest of:
  - (A) \$100,000,000,
  - (B) 50% of net premiums written (being gross premiums written less any premiums ceded by Arch Re Bermuda but Arch Re Bermuda may not deduct more than 25% of gross premiums when computing net premiums written), and
  - (C) 15% of loss and other insurance reserves;
- is prohibited from declaring or paying any dividends during any financial year if it is in breach of its minimum solvency margin or minimum liquidity ratio or if the declaration or payment of such dividends would cause it to fail to meet such margin or ratio (if it has failed to meet its minimum solvency margin or minimum liquidity ratio on the last day of any financial year, Arch Re Bermuda will be prohibited, without the approval of the BMA, from declaring or paying any dividends during the next financial year);
- is prohibited from declaring or paying in any financial year dividends of more than 25% of its total statutory capital and surplus (as shown on its previous financial year's statutory balance

sheet) unless it files (at least 7 days before payment of such dividends) with the BMA an affidavit stating that it will continue to meet the required margins;

- is prohibited, without the approval of the BMA, from reducing by 15% or more its total statutory capital as set out in its previous year's financial statements and any application for such approval must include an affidavit stating that it will continue to meet the required margins;
- is required, at any time it fails to meet its solvency margin, within 30 days (45 days where total statutory capital and surplus falls to \$75 million or less) after becoming aware of that failure or having reason to believe that such failure has occurred, to file with the BMA a written report containing certain information;
- is required to establish and maintain a long-term business fund; and
- is required to obtain a certain certification from its approved actuary prior to declaring or paying any dividends and such certificate will not be given unless the value of its long-term business assets exceeds its long-term business liabilities, as certified by its approved actuary, by the amount of the dividend and at least \$250,000. The amount of any such dividend shall not exceed the aggregate of the excess referenced in the preceding sentence and other funds properly available for the payment of dividends, being funds arising out of its business, other than its long-term business.

*Minimum Liquidity Ratio.* The Insurance Act provides a minimum liquidity ratio for general business insurers such as Arch Re Bermuda. An insurer engaged in general business is required to maintain the value of its relevant assets at not less than 75% of the amount of its relevant liabilities. Relevant assets include cash and time deposits, quoted investments, unquoted bonds and debentures, first liens on real estate, investment income due and accrued, accounts and premiums receivable and reinsurance balances receivable. The relevant liabilities are total general business insurance reserves and total other liabilities less deferred income tax and sundry liabilities (by interpretation, those not specifically defined).

*Long-Term Business Fund.* An insurer carrying on long-term business is required to keep its accounts in respect of its long-term business separate from any accounts kept in respect of any other business and all receipts of its long-term business form part of its long-term business fund. No payment may be made directly or indirectly from an insurer's long-term business fund for any purpose other than a purpose related to the insurer's long-term business, unless such payment can be made out of any surplus certified by the insurer's approved actuary to be available for distribution otherwise than to policyholders. Arch Re Bermuda may not declare or pay a dividend to any person other than a policyholder unless the value of the assets in its long-term business fund, as certified by its approved actuary, exceeds the liabilities of the insurer's long-term business (as certified by the insurer's approved actuary) by the amount of the dividend and at least the \$250,000 minimum solvency margin prescribed by the Insurance Act, and the amount of any such dividend may not exceed the aggregate of that excess (excluding the said \$250,000) and any other funds properly available for payment of dividends, such as funds arising out of business of the insurer other than long-term business.

*Restrictions on Transfer of Business and Winding-Up.* Arch Re Bermuda, as a long-term insurer, is subject to the following provisions of the Insurance Act:

- all or any part of the long-term business, other than long-term business that is reinsurance business, may be transferred only with and in accordance with the sanction of the applicable Bermuda court; and
- an insurer or reinsurer carrying on long-term business may only be wound-up or liquidated by order of the applicable Bermuda court, and this may increase the length of time and costs

incurred in the winding-up of Arch Re Bermuda when compared with a voluntary winding-up or liquidation.

*Supervision, Investigation and Intervention.* The BMA may appoint an inspector with extensive powers to investigate the affairs of an insurer if the BMA believes that an investigation is required in the interest of the insurer's policyholders or persons who may become policyholders. In order to verify or supplement information otherwise provided to the BMA, the BMA may direct an insurer to produce documents or information relating to matters connected with the insurer's business.

If it appears to the BMA that there is a risk of the insurer becoming insolvent, or that it is in breach of the Insurance Act or any conditions imposed upon its registration, the BMA may, among other things, direct the insurer (1) not to take on any new insurance business, (2) not to vary any insurance contract if the effect would be to increase the insurer's liabilities, (3) not to make certain investments, (4) to realize certain investments, (5) to maintain in, or transfer to the custody of, a specified bank, certain assets, (6) not to declare or pay any dividends or other distributions or to restrict the making of such payments and/or (7) to limit its premium income.

#### *Certain Bermuda Law Considerations*

ACGL and Arch Re Bermuda have been designated as non-resident for exchange control purposes by the BMA and are required to obtain the permission of the BMA for the issue and transfer of all of their shares. The BMA has given its consent for:

- the issue and transfer of ACGL's shares, up to the amount of its authorized capital from time to time, to and among persons that are non-residents of Bermuda for exchange control purposes; and
- the issue and transfer of up to 20% of ACGL's shares in issue from time to time to and among persons resident in Bermuda for exchange control purposes.

Transfers and issues of ACGL's common shares to any resident in Bermuda for exchange control purposes may require specific prior approval under the Exchange Control Act 1972. Arch Re Bermuda's common shares cannot be issued or transferred without the consent of the BMA. Because we are designated as non-resident for Bermuda exchange control purposes, we are allowed to engage in transactions, and to pay dividends to Bermuda non-residents who are holders of our common shares, in currencies other than the Bermuda Dollar.

In accordance with Bermuda law, share certificates are issued only in the names of corporations or individuals. In the case of an applicant acting in a special capacity (for example, as an executor or trustee), certificates may, at the request of the applicant, record the capacity in which the applicant is acting. Notwithstanding the recording of any such special capacity, we are not bound to investigate or incur any responsibility in respect of the proper administration of any such estate or trust. We will take no notice of any trust applicable to any of our common shares whether or not we have notice of such trust.

ACGL and Arch Re Bermuda are incorporated in Bermuda as "exempted companies." As a result, they are exempt from Bermuda laws restricting the percentage of share capital that may be held by non-Bermudians, but they may not participate in certain business transactions, including (1) the acquisition or holding of land in Bermuda (except that required for their business and held by way of lease or tenancy for terms of not more than 50 years) without the express authorization of the Bermuda legislature, (2) the taking of mortgages on land in Bermuda to secure an amount in excess of \$50,000 without the consent of the Minister of Finance, (3) the acquisition of any bonds or debentures secured by any land in Bermuda, other than certain types of Bermuda government securities or (4) the carrying on of business of any kind in Bermuda, except in furtherance of their business carried on outside Bermuda or under license granted by the Minister of Finance. While an insurer is permitted to

reinsure risks undertaken by any company incorporated in Bermuda and permitted to engage in the insurance and reinsurance business, generally it is not permitted without a special license granted by the Minister of Finance to insure Bermuda domestic risks or risks of persons of, in or based in Bermuda.

ACGL and Arch Re Bermuda also need to comply with the provisions of the Companies Act regulating the payment of dividends and making distributions from contributed surplus. A company shall not declare or pay a dividend, or make a distribution out of contributed surplus, if there are reasonable grounds for believing that: (a) the company is, or would after the payment be, unable to pay its liabilities as they become due; or (b) the realizable value of the company's assets would thereby be less than the aggregate of its liabilities and its issued share capital and share premium accounts.

Under Bermuda law, non-Bermudians (other than spouses of Bermudians) may not engage in any gainful occupation in Bermuda without an appropriate governmental work permit. Our success may depend in part upon the continued services of key employees in Bermuda. Certain key employees may neither be a Bermudian nor a spouse of a Bermudian. Accordingly, any such key employee will require specific approval to work for us in Bermuda. A work permit may be granted or extended upon showing that, after proper public advertisement, no Bermudian (or spouse of a Bermudian or a holder of a permanent resident's certificate or holder of a working resident's certificate) is available who meets the minimum standards reasonably required by the employer. The Bermuda government recently announced a new policy that places a six-year term limit on individuals with work permits, subject to certain exemptions for key employees.

## RISK FACTORS

Set forth below are risk factors relating to our business. You should also refer to the other information provided in this report, including our "Management's Discussion and Analysis of Financial Condition and Results of Operation" and our accompanying consolidated financial statements, as well as the information under the heading "Cautionary Note Regarding Forward-Looking Statements."

### Risks Relating to Our Industry

*We operate in a highly competitive environment, and since the September 11, 2001 events, new capital has entered the market; these factors may mitigate the benefits that the financial markets may perceive for the property and casualty insurance and reinsurance industry, and we may not be able to compete successfully in our industry.*

The insurance and reinsurance industry is highly competitive. We compete with major U.S. and non-U.S. insurers and reinsurers, many of which have greater financial, marketing and management resources than we do. We also compete with new companies that continue to be formed to enter the insurance and reinsurance markets. In our insurance business, we compete with insurers that provide property and casualty lines of insurance, including ACE Limited, Allied World Assurance Company, Ltd., American International Group, Inc., AXIS Capital Holdings Limited, Berkshire Hathaway, Inc., Chubb Corporation, Converium Group, Endurance Specialty Holdings Ltd., The Hartford Financial Services Group, Inc., Lloyd's of London, The St. Paul Companies, Inc., Travelers Property Casualty Corp. and XL Capital Ltd. In our reinsurance business, we compete with reinsurers that provide property and casualty lines of reinsurance, including ACE Limited, AXIS Capital Holdings Limited, Converium Group, Endurance Specialty Holdings Ltd., Everest Re Group Ltd., General Reinsurance Corporation, Hannover Rückversicherung AG, Lloyd's of London, Montpelier Re Holdings Ltd., Munich Re Group, PartnerRe Ltd., Platinum Underwriters Holdings, Ltd., RenaissanceRe Holdings Ltd., Swiss Reinsurance Company, Transatlantic Holdings, Inc. and XL Capital Ltd. We do not believe that we have a significant market share in any of our markets.

Trends toward consolidation in the insurance industry could also lead to pricing pressure and lower margins for insurers and reinsurers. In addition, since the events of September 11, 2001, several newly formed offshore entities have entered the market to address the capacity issues in the insurance and reinsurance industry. Several publicly traded insurance and reinsurance companies have also raised additional capital to meet perceived demand in the current environment. Since September 11, 2001, newly formed and existing insurance industry companies have reportedly raised additional capital, and some industries (in particular, the airline industry) have announced that they may form industry consortia to provide insurance coverage for their members, thereby taking those lines out of the commercial insurance and reinsurance markets in which we operate. Financial institutions and other capital markets participants also offer alternative products and services similar to our own or alternative products that compete with insurance and reinsurance products. In addition, we may not be aware of other companies that may be planning to enter the segments of the insurance and reinsurance market in which we operate or of existing companies that may be planning to raise additional capital.

Our competitive position is based on many factors, including our perceived overall financial strength, ratings assigned by independent rating agencies, geographic scope of business, client relationships, premiums charged, contract terms and conditions, products and services offered (including the ability to design customized programs), speed of claims payment, reputation, experience and qualifications of employees and local presence. We may not be successful in competing with others in our industry on any of these bases, and the intensity of competition in our industry may erode profitability for insurance and reinsurance companies generally, including us. In addition, we may not be able to participate at all or to the same extent as more established or other companies in any price increases or increased profitability in our industry. If we do not share in such price increases or

increased profitability, our financial condition and results of operations could be materially adversely affected.

*The insurance and reinsurance industry is highly cyclical, and we expect to experience periods characterized by excess underwriting capacity and unfavorable premium rates.*

Historically, insurers and reinsurers have experienced significant fluctuations in operating results due to competition, frequency of occurrence or severity of catastrophic events, levels of capacity, general economic conditions, changes in legislation, case law and prevailing concepts of liability and other factors. In particular, demand for reinsurance is influenced significantly by the underwriting results of primary insurers and prevailing general economic conditions. The supply of insurance and reinsurance is related to prevailing prices and levels of surplus capacity that, in turn, may fluctuate in response to changes in rates of return being realized in the insurance and reinsurance industry. As a result, the insurance and reinsurance business historically has been a cyclical industry characterized by periods of intense price competition due to excessive underwriting capacity as well as periods when shortages of capacity permitted favorable premium levels and changes in terms and conditions. Although premium levels for many products have increased since the events of September 11, 2001, we can offer no assurances as to the magnitude or duration of any price increases or increased profitability in our industry or that factors that previously have resulted in excess capacity and pricing pressures in our industry will not recur.

*We could face unanticipated losses from war, terrorism and political unrest, and these or other unanticipated losses could have a material adverse effect on our financial condition and results of operations.*

Although we believe that we do not have exposure to the events of September 11, 2001 because we did not have insurance in-force at that time with respect to exposure to such events, we now have substantial exposure to unexpected, large losses resulting from future man-made catastrophic events, such as acts of war, acts of terrorism and political instability. These risks are inherently unpredictable, although recent events may lead to increased frequency and severity of losses. It is difficult to predict the timing of such events with statistical certainty or estimate the amount of loss any given occurrence will generate. In certain instances, we specifically insure and reinsure risks resulting from acts of terrorism. Even in cases where we attempt to exclude losses from terrorism and certain other similar risks from some coverages written by us, we may not be successful in doing so. Moreover, irrespective of the clarity and inclusiveness of policy language, a result-oriented court or arbitration panel favoring the insured or ceding company may choose not to enforce the language as written; such a tribunal may adopt a strained interpretation of the policy language, invoke public policy to limit enforceability of policy language, ignore policy language, make factual findings unwarranted by the evidence or otherwise seek to justify a ruling adverse to us. Accordingly, while we believe our reinsurance programs, together with the coverage provided under TRIA, are sufficient to reasonably limit our net losses relating to potential future terrorist attacks, we can offer no assurance that our reserves will be adequate to cover losses when they materialize. To the extent that an act of terrorism is certified by the Secretary of the Treasury, we may be covered under TRIA for up to 90% of our losses, subject to certain mandatory deductibles. It is not possible to eliminate completely our exposure to unforecasted or unpredictable events, and to the extent that losses from such risks occur, our financial condition and results of operations could be materially adversely affected.

*Claims for catastrophic events could cause large losses and substantial volatility in our results of operations, and, as a result, the value of our common shares may fluctuate widely.*

Although we have not experienced significant losses resulting from catastrophic events since the commencement of our underwriting initiative in October 2001, we have large aggregate exposures to natural disasters. Catastrophes can be caused by various events, including hurricanes, floods, windstorms, earthquakes, hailstorms, explosions, severe winter weather and fires. Catastrophes can also cause losses in non-property business such as workers' compensation or general liability. In addition to

the nature of the property business, we believe that economic and geographic trends affecting insured property, including inflation, property value appreciation and geographic concentration tend to generally increase the size of losses from catastrophic events over time. Therefore, claims for catastrophic events could expose us to large losses and cause substantial volatility in our results of operations, which could cause the value of our common shares to fluctuate widely.

*Underwriting claims and reserving for losses are based on probabilities and related modeling, which are subject to inherent uncertainties.*

Our success is dependent upon our ability to assess accurately the risks associated with the businesses that we insure and reinsure. We establish reserves for losses and loss adjustment expenses which represent estimates involving actuarial and statistical projections, at a given point in time, of our expectations of the ultimate settlement and administration costs of losses incurred. We utilize actuarial models as well as available historical insurance industry loss ratio experience and loss development patterns to assist in the establishment of loss reserves. Actual losses and loss adjustment expenses paid will deviate, perhaps substantially, from the reserve estimates reflected in our financial statements.

If our loss reserves are determined to be inadequate, we will be required to increase loss reserves at the time of such determination with a corresponding reduction in our net income in the period in which the deficiency becomes known. It is possible that claims in respect of events that have occurred could exceed our claim reserves and have a material adverse effect on our results of operations, in a particular period, or our financial condition in general. As a compounding factor, although most insurance contracts have policy limits, the nature of property and casualty insurance and reinsurance is such that losses can exceed policy limits for a variety of reasons and could significantly exceed the premiums received on the underlying policies, thereby further adversely affecting our financial condition.

As of December 31, 2003, our reserves for unpaid losses and loss adjustment expenses, net of unpaid losses and loss adjustment expenses recoverable, were approximately \$1.54 billion. Such reserves were established in accordance with applicable insurance laws and GAAP. Although we believe we have applied a conservative reserving philosophy for both our insurance and reinsurance operations, insurance loss reserves are inherently subject to uncertainty. In establishing the reserves for losses and loss adjustment expenses, we have made various assumptions relating to the pricing of our reinsurance contracts and insurance policies and have also considered available historical industry experience and current industry conditions. Our reserving process reflects that there is a possibility that the assumptions made could prove to be inaccurate due to several factors, including the fact that very limited historical information has been reported to us through December 31, 2003. See Development of GAAP Reserves table included above under "Business—Our Company—Reserves."

*The failure of any of the loss limitation methods we employ could have a material adverse effect on our financial condition or results of operations.*

We seek to limit our loss exposure by writing a number of our reinsurance contracts on an excess of loss basis, adhering to maximum limitations on reinsurance written in defined geographical zones, limiting program size for each client and prudent underwriting of each program written. In the case of proportional treaties, we generally seek per occurrence limitations or loss ratio caps to limit the impact of losses from any one event. We cannot be sure that any of these loss limitation methods will be effective. We also seek to limit our loss exposure by geographic diversification. Geographic zone limitations involve significant underwriting judgments, including the determination of the area of the zones and the inclusion of a particular policy within a particular zone's limits. There can be no assurance that various provisions of our policies, such as limitations or exclusions from coverage or choice of forum, will be enforceable in the manner we intend. Disputes relating to coverage and choice of legal forum may also arise. Underwriting is inherently a matter of judgment, involving important assumptions about matters that are inherently unpredictable and beyond our control, and for which

historical experience and probability analysis may not provide sufficient guidance. One or more catastrophic or other events could result in claims that substantially exceed our expectations, which could have a material adverse effect on our financial condition or our results of operations, possibly to the extent of eliminating our shareholders' equity.

For our catastrophe exposed business, we seek to limit the amount of exposure we will assume from any one insured or reinsured and the amount of the exposure to catastrophe losses in any geographic zone. We monitor our exposure to catastrophic events, including earthquake, wind and specific terrorism exposures, and periodically reevaluate the estimated probable maximum pre-tax loss for such exposures. Our estimated probable maximum pre-tax loss is determined through the use of modeling techniques, but such estimate does not represent our total potential loss for such exposures. We seek to limit the probable maximum pre-tax loss to a percentage of our total shareholders' equity for severe catastrophic events. Currently, we generally seek to limit the probable maximum pre-tax loss to approximately 25% of total shareholders' equity for a severe catastrophic event in any geographic zone that could be expected to occur once in every 250 years. There can be no assurances that we will not suffer pre-tax losses greater than 25% of our total shareholders' equity from one or more catastrophic events due to several factors, including the inherent uncertainties in estimating the frequency and severity of such events and the margin of error in making such determinations resulting from potential inaccuracies in the data provided by clients and brokers, the modeling techniques and the application of such techniques. In addition, depending on business opportunities and the mix of business that may comprise our insurance and reinsurance portfolio, we may seek to limit the probable maximum pre-tax loss to a higher percentage of our total shareholders' equity for our catastrophe exposed business.

*The risk associated with reinsurance underwriting could adversely affect us, and while reinsurance and retrocessional coverage will be used to limit our exposure to risks, the availability of such arrangements may be limited, and counterparty credit and other risks associated with our reinsurance arrangements may result in losses which could adversely affect our financial condition and results of operations.*

Like other reinsurers, we do not separately evaluate each of the individual risks assumed under reinsurance treaties. Therefore, we are largely dependent on the original underwriting decisions made by ceding companies. We are subject to the risk that the ceding companies may not have adequately evaluated the risks to be reinsured and that the premiums ceded may not adequately compensate us for the risks we assume.

For the purposes of limiting our risk of loss, we use reinsurance and also may use retrocessional arrangements. In the normal course of business, our insurance subsidiaries cede a substantial portion of their premiums to unaffiliated entities. Our reinsurance subsidiaries are currently retaining substantially all of their assumed reinsurance premiums written. For the year ended December 31, 2003, ceded premiums written represented approximately 15.1% of gross premiums written, compared to 15.2% for the year ended December 31, 2002.

The availability and cost of reinsurance and retrocessional protection is subject to market conditions, which are beyond our control. Currently, the market for these arrangements is experiencing high demand for various products resulting in significant rate increases and substantial improvements in terms and conditions since the events of September 11, 2001. Although we believe that our insurance subsidiaries have been successful in obtaining reinsurance protection since the commencement of our underwriting initiative in October 2001, it is not certain that we will be able to continue to obtain adequate protection at cost effective levels. As a result of such market conditions and other factors, we may not be able successfully to mitigate risk through reinsurance and retrocessional arrangements.

Further, we are subject to credit risk with respect to our reinsurance and retrocessions because the ceding of risk to reinsurers and retrocessionaires does not relieve us of our liability to the clients or companies we insure or reinsure. Our failure to establish adequate reinsurance or retrocessional

arrangements or the failure of our existing reinsurance or retrocessional arrangements to protect us from overly concentrated risk exposure could adversely affect our financial condition and results of operations. We monitor the financial condition of our reinsurers and attempt to place coverages only with carriers we view as substantial and financially sound. At December 31, 2003, approximately 82.7% of our reinsurance recoverables on paid and unpaid losses of \$428.0 million (not including prepaid reinsurance premiums) were due from carriers which had an A.M. Best rating of "A-" or better. Our recoverables on paid and unpaid losses from Sentry represented 5.7% of our total shareholders' equity at December 31, 2003. No other reinsurance recoverables exceeded 5% of our total shareholders' equity at such date. In connection with our acquisition of Arch Specialty in February 2002, the seller, Sentry, agreed to assume all liabilities arising out of Arch Specialty's business prior to the closing of the acquisition. In addition to the guarantee provided by Sentry, substantially all of the recoverable from Sentry is still subject to the original reinsurance agreements inuring to Arch Specialty and, to the extent Sentry fails to comply with its payment obligations to us, we may obtain reimbursement from the third party reinsurers under such agreements.

*Our reliance on brokers subjects us to their credit risk.*

In accordance with industry practice, we generally pay amounts owed on claims under our insurance and reinsurance contracts to brokers, and these brokers, in turn, pay these amounts to the clients that have purchased insurance or reinsurance from us. In some jurisdictions, if a broker fails to make such payment, we may remain liable to the insured or ceding insurer for the deficiency. Likewise, in certain jurisdictions, when the insured or ceding company pays premium for these contracts to brokers for payment to us, these premiums are considered to have been paid and the insured or ceding company will no longer be liable to us for those amounts, whether or not we have actually received the premiums from the broker. Consequently, we assume a degree of credit risk associated with our brokers. To date, we have not experienced any losses related to this credit risk.

*As a result of recent events and instability in the marketplace for insurance products, there is the potential for government intervention in our industry which could hinder our flexibility and negatively affect the business opportunities we perceive are available to us in the market.*

In response to the current tightening of supply in certain insurance markets, as well as the impact of the September 11, 2001 events, it is possible that the United States and other governments worldwide may intervene in the insurance and reinsurance markets. Government regulators are generally concerned with the protection of policyholders to the exclusion of other constituencies, including shareholders. While we cannot predict the type of government intervention that may occur or its timing, such intervention could materially adversely affect us by:

- disproportionately benefiting one country's companies over companies in other countries;
- providing insurance and reinsurance capacity in the markets and to the customers that we target;
- regulating the terms of insurance and reinsurance policies; or
- mandating participation in guaranty associations or other involuntary industry pools.

For example, on November 26, 2002, President Bush signed into law TRIA, which established a federal backstop for insurance-related losses resulting from any act of terrorism carried out by foreign powers on U.S. soil or against U.S. air carriers, vessels or foreign missions. Under TRIA, all U.S.-based property and casualty insurers are required to make terrorism insurance coverage available in specified commercial property and casualty insurance lines. In return, TRIA provides that the federal government will pay 90% of covered losses after an insurer's losses exceed a deductible determined by a statutorily prescribed formula, up to a combined annual aggregate limit for the federal government and all insurers of \$100 billion. If an act (or acts) of terrorism result in covered losses exceeding the \$100 billion annual limit, insurers with losses exceeding their deductibles will not be responsible for

additional losses. The deductible for each year is based on the insurer's direct commercial earned premiums for property and casualty insurance for the prior calendar year multiplied by a specified percentage. The specified percentages are 7% for 2003, 10% for 2004 and 15% for 2005, respectively.

Our U.S.-based property and casualty insurers, Arch Insurance, Arch Specialty, Arch E&S and Western Diversified are subject to TRIA. TRIA specifically excludes reinsurance and personal lines business and, accordingly, currently does not apply to our non-standard automobile business or our reinsurance operations. Based on 2003 direct commercial earned premiums, our U.S. insurance group's deductible for 2004 would be \$104.1 million (*i.e.*, 10% of such earned premiums). The amount of our deductible for 2005 could increase substantially, depending upon the amount of direct commercial earned premiums we write in 2004, and in light of the fact that the deductible percentage increases in such years. Currently, there is uncertainty as to what effect TRIA will have on the insurance industry.

The insurance industry is also affected by political, judicial and legal developments which have in the past resulted in new or expanded theories of liability. These or other changes could impose new financial obligations on us by extending coverage beyond our underwriting intent or otherwise, require us to make unplanned modifications to the products and services that we provide, or cause the delay or cancellation of products and services that we provide. In some instances, these changes may not become apparent until some time after we have issued insurance or reinsurance contracts that are affected by the changes. As a result, the full extent of liability under our insurance or reinsurance contracts may not be known for many years after a contract is issued. The effects of unforeseen developments or substantial government intervention could adversely impact our ability to achieve our goals.

In addition, we engage in intercompany reinsurance arrangements between our U.S. operations and our Bermuda reinsurance operations. Some U.S. insurance companies have been lobbying Congress to pass legislation intended to eliminate certain perceived tax advantages of U.S. insurance companies with Bermuda affiliates, which result principally from reinsurance arrangements between or among U.S. insurance companies and their Bermuda affiliates.

### **Risks Relating to Our Company**

*Our future performance is difficult to predict because we have a limited operating history.*

We began our underwriting initiative in October 2001, and have limited operating and financial history. As a result, there is limited historical financial and operating information available to help potential investors evaluate our performance or an investment in our common shares. Insurance companies in their initial stages of development face substantial business and financial risks and may suffer significant losses. These new companies must successfully develop business relationships, establish operating procedures, hire staff, install management information and other systems and complete other tasks necessary to conduct their intended business activities. As a result of these risks, it is possible that we will not be successful in implementing our business strategy or accomplishing these necessary tasks. In addition, because we have very limited financial data on which to base our reserves for losses and loss adjustment expenses, our historical financial results may not accurately provide an indication of our future performance.

*Our success will depend on our ability to establish and maintain effective operating procedures and internal controls.*

As a relatively new insurance and reinsurance company, our success will also be dependent upon our ability to establish and maintain operating procedures and internal controls (including the timely and successful implementation of our information technology initiatives, which include the implementation of improved computerized systems and programs to replace and support manual systems) to effectively support our business and our regulatory and reporting requirements. We may not

be successful in such efforts. We have been, and are continuing to, enhance our procedures and controls, including our controls over financial reporting. Our management does not expect that our disclosure controls or our internal controls will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. As a result of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons or by collusion of two or more people. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. As a result of the inherent limitations in a cost-effective control system, misstatement due to error or fraud may occur and not be detected. Accordingly, our disclosure controls and procedures are designed to provide reasonable, not absolute, assurance that the disclosure controls and procedures are met.

*The loss of our key employees or our inability to retain them could negatively impact our business.*

Our success has been, and will continue to be, dependent on our ability to retain the services of our existing key executive officers and to attract and retain additional qualified personnel in the future. The pool of talent from which we actively recruit is limited. Although, to date, we have not experienced difficulties in attracting and retaining key personnel, the inability to attract and retain qualified personnel when available and the loss of services of key personnel could have a material adverse effect on our financial condition and results of operations. In addition, our underwriting staff is critical to our success in the production of business. While we do not consider any of our key executive officers or underwriters to be irreplaceable, the loss of the services of our key executive officers or underwriters or the inability to hire and retain other highly qualified personnel in the future could delay or prevent us from fully implementing our business strategy which could affect our financial performance. We are not aware of any intentions of any of our key personnel that would cause them no longer to provide their professional services to us in the near future.

*The preparation of our financial statements requires us to make many estimates and judgments, which are even more difficult than those made in a mature company since very limited historical information has been reported to us through December 31, 2003.*

The preparation of consolidated financial statements requires us to make many estimates and judgments that affect the reported amounts of assets, liabilities (including reserves), revenues and expenses, and related disclosures of contingent liabilities. On an ongoing basis, we evaluate our estimates, including those related to revenue recognition, insurance and other reserves, reinsurance recoverables, investment valuations, intangible assets, bad debts, income taxes, contingencies and litigation. We base our estimates on historical experience, where possible, and on various other assumptions that we believe to be reasonable under the circumstances, which form the basis for our judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Estimates and judgments for a relatively new insurance and reinsurance company, like our company, are even more difficult to make than those made in a mature company since very limited historical information has been reported to us through December 31, 2003. Instead, our current loss reserves are based almost entirely on estimates involving actuarial and statistical projections of our expectations of the ultimate settlement and administration costs of claims incurred but not yet reported. We utilize actuarial models as well as historical insurance industry loss development patterns to establish loss reserves. Accordingly, actual claims and claim expenses paid may deviate, perhaps substantially, from the reserve estimates reflected in our financial statements.

*The Warburg Pincus funds and the Hellman & Friedman funds together own a majority of our voting shares, and these shareholders have the right to have directors on our board and the right to approve most transactions outside of the ordinary course of our business; their interests may materially differ from the interests of the holders of our common shares.*

The Warburg Pincus funds and the Hellman & Friedman funds own 34.2% and 21.4% of our outstanding voting shares, respectively, as of December 31, 2003. These shareholders are non-U.S. persons as defined in the Internal Revenue Code of 1986, as amended (the "Code"), and, as such, they are not subject to the voting limitation contained in our bye-laws. In addition, our shareholders agreement prevents us from taking many actions outside the ordinary course of our business without the approval of a designee of the Warburg Pincus funds and a designee of the Hellman & Friedman funds. We have agreed not to declare any dividend or make any other distribution on our common shares, and not to repurchase any common shares, until we have repurchased from the Warburg Pincus funds, the Hellman & Friedman funds and the other holders of preference shares, pro rata, on the basis of the amount of these shareholders' investments in us at the time of such repurchase, preference shares having an aggregate value of \$250.0 million, at a per share price acceptable to these shareholders. By reason of their ownership and the shareholders agreement between us and the holders of preference shares, the Warburg Pincus funds and the Hellman & Friedman funds, individually or together, are able to strongly influence or effectively control actions to be taken by us, or our shareholders.

In addition, the Warburg Pincus funds and the Hellman & Friedman funds are entitled to nominate a prescribed number of directors based on the respective retained percentages of their equity securities purchased in November 2001. Currently, our board consists of twelve members, which includes three directors nominated by the Warburg Pincus funds and two directors nominated by the Hellman & Friedman funds. As long as the Warburg Pincus funds retain at least 75% of their original investment and the Hellman & Friedman funds retain at least 60% of their original investment, these shareholders will be entitled to nominate six and three directors, respectively. Together they have the right to nominate a majority of directors to our board. The interests of these shareholders may differ materially from the interests of the holders of our common shares, and these shareholders could take actions or make decisions that are not in the interests of the holders of our common shares generally.

*We may be required to issue additional preference shares to the investors in the November 2001 capital infusion as a result of a purchase price adjustment mechanism agreed to in connection with it, and the value of our common shares may, therefore, be further diluted.*

Pursuant to the subscription agreement entered into in connection with the November 2001 capital infusion (the "Subscription Agreement"), an adjustment basket relating to certain non-core operations was calculated during the 2003 fourth quarter for purposes of determining whether we would be required to issue additional preference shares to the investors as a purchase price adjustment. The adjustment basket was equal to (1) the difference between value realized upon sale and the GAAP book value at the closing of the capital infusion (November 2001) (as adjusted based on a pre-determined growth rate) of agreed upon non-core businesses; plus (2) the difference between GAAP net book value of our insurance balances attributable to our core insurance operations with respect to any policy or contract written or having a specified effective date at the time of the final adjustment and those balances at the closing; minus (3) reductions in book value arising from costs and expenses relating to the transaction provided under the Subscription Agreement, actual losses arising out of breach of representations under the Subscription Agreement and certain other costs and expenses. If the adjustment basket had been calculated as less than zero, we would have been required to issue additional preference shares (or, in certain extreme cases, preference shares of a subsidiary) to the investors based on the decrease in value of the components of the adjustment basket. In February 2004, the parties agreed that no purchase price adjustment was required pursuant to the above calculation and, accordingly, no additional preference shares will be issued to the investors. In

November 2005, there will be a calculation of a further adjustment basket based on (1) liabilities owed to Folksamerica (if any) under the Asset Purchase Agreement, dated as of January 10, 2000, between us and Folksamerica, and (2) specified tax and ERISA matters under the Subscription Agreement.

*The price of our common shares may be volatile.*

There has been significant volatility in the market for equity securities. In 2001 and 2002, the price of our common shares fluctuated from a low of \$14.38 to a high of \$28.34 and from a low of \$22.85 to a high of \$34.50, respectively. For the year ended December 31, 2003, the price of our common shares fluctuated from a low of \$27.71 to a high of \$40.01. On March 1, 2004, our common shares closed at a price of \$42.65. The price of our common shares may not remain at or exceed current levels. The following factors may have an adverse impact on the market price of our common stock:

- actual or anticipated variations in our quarterly results of operations;
- changes in market valuation of companies in the insurance and reinsurance industry;
- changes in expectations of future financial performance or changes in estimates of securities analysts;
- fluctuations in stock market process and volumes;
- issuances or sales of common shares or other securities in the future;
- the addition or departure of key personnel; and
- announcements by us or our competitors of acquisitions, investments or strategic alliances.

Stock markets in the United States often experience extreme price and volume fluctuations. Market fluctuations, as well as general political and economic conditions such as recession or interest rate or currency rate fluctuations, could adversely affect the market price of our stock.

*Future sales of our common shares, whether by us or our shareholders, could adversely affect their market price.*

Generally, our board of directors has the power to issue new equity (to the extent of authorized shares) without shareholder approval, except that shareholder approval may be required under applicable law or NASDAQ National Market rules for certain transactions. We may issue new equity to raise additional capital to support our insurance and reinsurance operations or for other purposes. Any additional issuance by us would have the effect of diluting the percentage ownership of our shareholders and could have the effect of diluting our earnings and our book value per share.

In addition, the market price of our common shares could fall substantially if our existing shareholders sell large amounts of common shares in the public market. The availability of a large number of shares for sale could result in the need for sellers to accept a lower price in order to complete a sale. As of December 31, 2003, there are 28,200,372 common shares outstanding and up to 44,599,812 common shares issuable upon exercise of options or warrants or conversion of convertible securities. Of the outstanding shares, 21,493,985 common shares are freely tradable and 45,551,052 common shares (including common shares issuable upon conversion of convertible preference shares) are subject to Rule 144 under the Securities Act. Of the shares subject to Rule 144 under the Securities Act, there are 11,989,347 common shares registered for resale by selling shareholders, including those registered pursuant to our existing registration statement. In addition, we have registered with the SEC up to \$500,000,000 of new securities which may consist in part or entirely of common shares.

We have granted the Warburg Pincus funds and Hellman & Friedman funds demand registration rights and all of the investors in the November 2001 capital infusion certain "piggy-back" registration rights with respect to the common shares issuable to them upon conversion of the preference shares or

exercise of the class A warrants. Certain other investors who purchased or acquired shares in unregistered transactions also have demand and piggy-back registration rights. They can exercise these rights at any time.

*Our business is dependent upon insurance and reinsurance brokers, and the failure to develop or the loss of important broker relationships could materially adversely affect our ability to market our products and services.*

We market our insurance and reinsurance products primarily through brokers. We derive a significant portion of our business from a limited number of brokers. During 2003, approximately 20.0%, 18.3% and 10.6% of our gross premiums written were generated by AON Corporation and its subsidiaries, Marsh & McLennan Companies and Willis Group Holdings and its subsidiaries, respectively. Some of our competitors have had longer term relationships with the brokers we use than we have, and the brokers may promote products offered by companies that may offer a larger variety of products than we do. Loss of all or a substantial portion of the business provided by these brokers could have a material adverse effect on us.

*We could be materially adversely affected to the extent that managing general agents, general agents and other producers in our program business exceed their underwriting authorities or otherwise breach obligations owed to us.*

In the program business conducted by our insurance group, following our underwriting, financial, claims and information technology due diligence reviews, we authorize managing general agents, general agents and other producers to write business on our behalf within underwriting authorities prescribed by us. Once a program incept, we must rely on the underwriting controls of these agents to write business within the underwriting authorities provided by us. Although we monitor our programs on an ongoing basis, our monitoring efforts may not be adequate or our agents may exceed their underwriting authorities or otherwise breach obligations owed to us. We have experienced breaches by certain of our agents, all of which have been resolved favorably for us. To the extent that our agents exceed their authorities or otherwise breach obligations owed to us in the future, our financial condition and results of operations could be materially adversely affected.

*A downgrade in our ratings or our inability to obtain a rating for our operating insurance and reinsurance subsidiaries may adversely affect our relationships with clients and brokers and negatively impact sales of our products.*

Financial strength and claims paying ratings from third party rating agencies are instrumental in establishing the competitive positions of companies in our industry. Periodically, rating agencies evaluate us to confirm that we continue to meet their criteria for the ratings assigned to us by them. Recently, rating agencies have been coming under increasing pressure as a result of high-profile corporate bankruptcies and may, as a result, increase their scrutiny of rated companies, revise their rating policies or take other action. Although, since the commencement of our underwriting initiative in October 2001, our ratings have not been downgraded, we can offer no assurances that our ratings will remain at their current levels. A ratings downgrade, or the potential for such a downgrade, could adversely affect both our relationships with agents, brokers, wholesalers and other distributors of our existing products and services and new sales of our products and services. Any ratings downgrade or failure to obtain a necessary rating could adversely affect our ability to compete in our markets and have a material adverse impact on our financial condition and results of operations.

*Our investment performance may affect our financial results and ability to conduct business.*

Our operating results depend in part on the performance of our investment portfolio. A significant portion of our cash and invested assets consists of fixed income securities (91.4% as of December 31, 2003). Although our current investment guidelines stress preservation of capital, market liquidity and diversification of risk, our investments are subject to market-wide risks and fluctuations. In addition,

although we did not experience any significant defaults by issuers during 2003, we are subject to risks inherent in particular securities. We may not be able to realize our investment objectives, which could reduce our net income significantly. In the event that we are unsuccessful in correlating our investment portfolio with our expected insurance and reinsurance liabilities, we may be forced to liquidate our investments at times and prices that are not optimal, which could have a material adverse effect on our financial results and ability to conduct our business.

*We may be adversely affected by interest rate changes.*

Our operating results are affected, in part, by the performance of our investment portfolio. Our investment portfolio contains interest rate-sensitive-instruments, such as bonds, which may be adversely affected by changes in interest rates. Changes in interest rates could also have an adverse effect on our investment income and results of operations. For example, if interest rates decline, as is the case in the current environment, funds reinvested will earn less than expected.

In addition, our investment portfolio includes mortgage-backed securities. As of December 31, 2003, mortgage-backed securities constituted approximately 1.3% of our cash and invested assets. As with other fixed income investments, the fair market value of these securities fluctuates depending on market and other general economic conditions and the interest rate environment. Changes in interest rates can expose us to prepayment risks on these investments. In periods of declining interest rates, mortgage prepayments generally increase and mortgage-backed securities are prepaid more quickly, requiring us to reinvest the proceeds at the then current market rates. During 2003, we significantly decreased our investments in mortgage-backed securities in order to reduce the prepayment risk in our investment portfolio.

Interest rates are highly sensitive to many factors, including governmental monetary policies, domestic and international economic and political conditions and other factors beyond our control. Although we attempt to take measures to manage the risks of investing in a changing interest rate environment, we may not be able to mitigate interest rate sensitivity effectively. Despite our mitigation efforts, a significant increase in interest rates could have a material adverse effect on our book value.

*We may require additional capital in 2004, or in the future, which may not be available or only available on unfavorable terms.*

We monitor our capital adequacy on a regular basis. The capital requirements of our business depend on many factors, including our ability to write new business successfully and to establish premium rates and reserves at levels sufficient to cover losses. Our ability to underwrite is largely dependent upon the quality of our claims paying and financial strength ratings as evaluated by independent rating agencies. To the extent that our existing capital is insufficient to fund our future operating requirements and/or cover claim losses, we may need to raise additional funds through financings or limit our growth. Any equity or debt financing, if available at all, may be on terms that are unfavorable to us. In the case of equity financings, dilution to our shareholders could result, and, in any case, such securities may have rights, preferences and privileges that are senior to those of our outstanding securities. If we are not able to obtain adequate capital, our business, results of operations and financial condition could be adversely affected. It is possible, based upon current available information, that we will raise additional capital during the first half of 2004 to support our underwriting activities. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources."

*We sold our prior reinsurance operations in May 2000 and may have liability to the purchaser and continuing liability from those reinsurance operations if the purchaser should fail to make payments on the reinsurance liabilities it assumed.*

On May 5, 2000, we sold our prior reinsurance operations to Folksamerica Reinsurance Company. The Folksamerica transaction was structured as a transfer and assumption agreement (and not reinsurance), and, accordingly, the loss reserves (and any related reinsurance recoverables) relating to the transferred business are not included as assets or liabilities on our balance sheet. In addition, in connection with that asset sale, we made extensive representations and warranties about us and our reinsurance operations, some of which survived the closing of the asset sale. Breach of these representations and warranties could result in liability to us. In the event that Folksamerica refuses or is unable to make payment for reserved losses transferred to it by us in the May 2000 sale and the notice given to reinsureds is found not to be an effective release by such reinsureds, we would be liable for such claims.

*Any future acquisitions may expose us to operational risks.*

We have made, and may in the future make, strategic acquisitions, either of other companies or selected blocks of business. Any future acquisitions may expose us to operational challenges and risks, including:

- integrating financial and operational reporting systems;
- establishing satisfactory budgetary and other financial controls;
- funding increased capital needs and overhead expenses;
- obtaining management personnel required for expanded operations;
- funding cash flow shortages that may occur if anticipated sales and revenues are not realized or are delayed, whether by general economic or market conditions or unforeseen internal difficulties;
- the value of assets acquired may be lower than expected or may diminish due to credit defaults or changes in interest rates and liabilities assumed may be greater than expected;
- the assets and liabilities we may acquire may be subject to foreign currency exchange rate fluctuation; and
- financial exposures in the event that the sellers of the entities we acquire are unable or unwilling to meet their indemnification, reinsurance and other obligations to us.

Our failure to manage successfully these operational challenges and risks may impact our results of operations.

*Some of the provisions of our bye-laws and our shareholders agreement may have the effect of hindering, delaying or preventing third party takeovers or changes in management initiated by shareholders. These provisions may also prevent our shareholders from receiving premium prices for their shares in an unsolicited takeover.*

Some provisions of our bye-laws could have the effect of discouraging unsolicited takeover bids from third parties or changes in management initiated by shareholders. These provisions may encourage companies interested in acquiring the company to negotiate in advance with our board of directors, since the board has the authority to overrule the operation of several of the limitations.

Among other things, our bye-laws provide:

- for a classified board of directors, in which the directors of the class elected at each annual general meeting holds office for a term of three years, with the term of each class expiring at successive annual general meetings of shareholders;
- that the number of directors is determined by the board from time to time by a vote of the majority of our board;
- that directors may only be removed for cause, and cause removal shall be deemed to exist only if the director whose removal is proposed has been convicted of a felony or been found by a court to be liable for gross negligence or misconduct in the performance of his or her duties;
- that our board has the right to fill vacancies, including vacancies created by an expansion of the board;
- for limitations on shareholders' right to call special general meetings and to raise proposals or nominate directors at general meetings; and
- that shareholders may act by written consent only if such consent is unanimous among all shareholders entitled to vote.

Our bye-laws provide that certain provisions which may have anti-takeover effects may be repealed or altered only with prior board approval and upon the affirmative vote of holders of shares representing at least 65% of the total voting power of our shares entitled generally to vote at an election of directors.

The bye-laws also contain a provision limiting the rights of any U.S. person (as defined in section 7701(a)(30) of the Code), that owns shares of ACGL, directly, indirectly or constructively (within the meaning of section 958 of the Code), representing more than 9.9% of the voting power of all shares entitled to vote generally at an election of directors. The votes conferred by such shares or such U.S. person will be reduced by whatever amount is necessary so that after any such reduction the votes conferred by the shares of such person will constitute 9.9% of the total voting power of all shares entitled to vote generally at an election of directors. Notwithstanding this provision, the board may make such final adjustments to the aggregate number of votes conferred by the shares of any U.S. person that the board considers fair and reasonable in all circumstances to ensure that such votes represent 9.9% of the aggregate voting power of the votes conferred by all shares of ACGL entitled to vote generally at an election of directors. ACGL will assume that all shareholders (other than the Warburg Pincus funds and the Hellman & Friedman funds) are U.S. persons unless we receive assurance satisfactory to us that they are not U.S. persons.

Moreover, most states, including states in which our subsidiaries are domiciled, have laws and regulations that require regulatory approval of a change in control of an insurer or an insurer's holding company. Where such laws apply to us and our subsidiaries, there can be no effective change in our control unless the person seeking to acquire control has filed a statement with the regulators and has obtained prior approval for the proposed change from such regulators. The usual measure for a presumptive change in control pursuant to these laws is the acquisition of 10% or more of the voting power of the insurance company or its parent, although this presumption is rebuttable. Consequently, a person may not acquire 10% or more of our common shares without the prior approval of insurance regulators in the state in which our subsidiaries are domiciled.

The bye-laws also provide that the affirmative vote of 80% of our outstanding shares (including a majority of the outstanding shares held by shareholders other than holders (and such holder's affiliates)

of 10% or more ("10% holders") of the outstanding shares) shall be required (the "extraordinary vote") for the following corporate actions:

- merger or consolidation of the company into a 10% holder;
- sale of any or all of our assets to a 10% holder;
- the issuance of voting securities to a 10% holder; or
- amendment of these provisions;

*provided, however*, the extraordinary vote will not apply to any transaction approved by the board, so long as a majority of those board members voting in favor of the transaction were duly elected and acting members of the board prior to the time the 10% holder became a 10% holder.

In addition, pursuant to the shareholders agreement which we entered into in connection with the November 2001 capital infusion, we cannot engage in transactions outside the ordinary course of our business, including mergers and acquisitions, without the consent of a designee of the Warburg Pincus funds and a designee of the Hellman & Friedman funds. To the extent these provisions discourage takeover attempts, they could deprive our shareholders of opportunities to realize takeover premiums for their shares or could depress the market price of our common shares.

The provisions described above may have the effect of making more difficult or discouraging unsolicited takeover bids from third parties. To the extent that these effects occur, shareholders could be deprived of opportunities to realize takeover premiums for their shares and the market price of their shares could be depressed. In addition, these provisions could also result in the entrenchment of incumbent management.

*Our operating insurance and reinsurance subsidiaries are subject to regulation in various jurisdictions, and material changes in the regulation of their operations could adversely affect our results of operations.*

Our insurance and reinsurance subsidiaries are subject to government regulation in each of the jurisdictions in which they are licensed or authorized to do business. Governmental agencies have broad administrative power to regulate many aspects of the insurance business, which may include trade and claim practices, accounting methods, premium rates, marketing practices, claims practices, advertising, policy forms, and capital adequacy. These agencies are concerned primarily with the protection of policyholders rather than shareholders. Moreover, insurance laws and regulations, among other things:

- establish solvency requirements, including minimum reserves and capital and surplus requirements;
- limit the amount of dividends, tax distributions, intercompany loans and other payments our insurance subsidiaries can make without prior regulatory approval;
- impose restrictions on the amount and type of investments we may hold; and
- require assessments to pay claims of insolvent insurance companies.

The National Association of Insurance Commissioners, which we call the NAIC, continuously examines existing laws and regulations. We cannot predict the effect that any NAIC recommendations or proposed or future legislation or rule making in the United States or elsewhere may have on our financial condition or operations.

Our Bermuda insurance and reinsurance subsidiary, Arch Re Bermuda, conducts its business from its offices in Bermuda and is not licensed or admitted to do business in any jurisdiction except Bermuda. We do not believe that Arch Re Bermuda is subject to the insurance laws of any state in the United States; however, recent scrutiny of the insurance and reinsurance industry in the U.S. and other countries could subject Arch Re Bermuda to additional regulation. Our U.S. reinsurance subsidiary,

Arch Re U.S., and our U.S. insurance subsidiaries, Arch Insurance, Arch Specialty, Arch E&S, Western Diversified, American Independent and PSIC, write reinsurance and insurance in the United States. These subsidiaries are subject to extensive regulation under state statutes which delegate regulatory, supervisory and administrative powers to state insurance commissioners. Such regulation generally is designed to protect policyholders rather than investors.

Each of our U.S. and Bermuda insurance and reinsurance subsidiaries is required to maintain minimum capital and surplus as mandated by their respective jurisdictions of incorporation. All of our subsidiaries are currently in compliance with these capital and surplus requirements.

We periodically review our corporate structure in the United States so that we can optimally deploy our capital. Changes in that structure require regulatory approval. Delays or failure in obtaining any of these approvals could limit the amount of insurance that we can write in the United States.

If ACGL or any of our subsidiaries were to become subject to the laws of a new jurisdiction in which such entity is not presently admitted, ACGL or such subsidiary may not be in compliance with the laws of the new jurisdiction. Any failure to comply with applicable laws could result in the imposition of significant restrictions on our ability to do business, and could also result in fines and other sanctions, any or all of which could adversely affect our financial condition and results of operations.

*ACGL is a holding company and is dependent on dividends and other payments from its operating subsidiaries, which are subject to dividend restrictions.*

We are a holding company whose assets primarily consist of the shares in our subsidiaries. Generally, we depend on our available cash resources, liquid investments and dividends or other distributions from our subsidiaries to make payments, including the payment of debt service obligations and operating expenses we may incur. The ability of our regulated insurance and reinsurance subsidiaries to pay dividends or make distributions is dependent on their ability to meet applicable regulatory standards. Since the commencement of our underwriting initiative in October 2001 through December 31, 2003, no dividends were paid to ACGL by any of its subsidiaries. We believe that we have enough cash resources and available dividend capacity to service our indebtedness and other current outstanding obligations.

The ability of our regulated insurance and reinsurance subsidiaries to pay dividends or make distributions is dependent on their ability to meet applicable regulatory standards. Under Bermuda law, Arch Re Bermuda is required to maintain a minimum solvency margin (*i.e.*, the amount by which the value of its general business assets must exceed its general business liabilities) equal to the greatest of (1) \$100,000,000, (2) 50% of net premiums written (being gross premiums written by us less any premiums ceded by us, but we may not deduct more than 25% of gross premiums when computing net premiums written) and (3) 15% of loss and other insurance reserves. Arch Re Bermuda is prohibited from declaring or paying any dividends during any financial year if it is not in compliance with its minimum solvency margin. In addition, Arch Re Bermuda is prohibited from declaring or paying in any financial year dividends of more than 25% of its total statutory capital and surplus (as shown on its previous financial year's statutory balance sheet) unless it files, at least seven days before payment of such dividends, with the Bermuda Monetary Authority an affidavit stating that it will continue to meet the required margins. In addition, Arch Re Bermuda is prohibited, without prior approval of the Bermuda Monetary Authority, from reducing by 15% or more its total statutory capital, as set out in its previous year's financial statements. At December 31, 2003, Arch Re Bermuda had statutory capital and surplus as determined under Bermuda law of \$1.43 billion (including interests in U.S. insurance and reinsurance subsidiaries). Accordingly, as of December 31, 2003, 15% of Arch Re Bermuda's capital, or approximately \$214.7 million, is available for dividends without prior approval under Bermuda law, as discussed above. Our U.S. insurance and reinsurance subsidiaries, on a consolidated basis, may not pay any significant dividends or distributions during 2004 without prior regulatory

approval. In addition, the ability of our insurance and reinsurance subsidiaries to pay dividends could be constrained by our dependence on financial strength ratings from independent rating agencies. Our ratings from these agencies depend to a large extent on the capitalization levels of our insurance and reinsurance subsidiaries.

*If our Bermuda reinsurance subsidiary is unable to provide collateral to ceding companies, its ability to conduct business could be significantly and negatively affected.*

Arch Re Bermuda is a registered Bermuda insurance company and is not licensed or admitted as an insurer in any jurisdiction in the United States. Because insurance regulations in the United States do not permit insurance companies to take credit for reinsurance obtained from unlicensed or non-admitted insurers on their statutory financial statements unless security is posted, Arch Re Bermuda's contracts generally require it to post a letter of credit or provide other security after a reinsured reports a claim. Although, to date, Arch Re Bermuda has not experienced any difficulties in providing collateral when required, if we are unable to post security in the form of letters of credit or trust funds when required, the operations of Arch Re Bermuda could be significantly and negatively affected.

*We are subject to changes in Bermuda law or political circumstances.*

Under current Bermuda law, we are not subject to tax on income or capital gains. Furthermore, we have obtained from the Minister of Finance of Bermuda under the Exempted Undertakings Tax Protection Act 1966, an assurance that, in the event that Bermuda enacts legislation imposing tax computed on profits, income, any capital asset, gain or appreciation, or any tax in the nature of estate duty or inheritance tax, then the imposition of the tax will not be applicable to us or our operations until March 28, 2016. We could be subject to taxes in Bermuda after that date. This assurance does not, however, prevent the imposition of taxes on any person ordinarily resident in Bermuda or any company in respect of its ownership of real property or leasehold interests in Bermuda.

*Foreign currency exchange rate fluctuation may adversely affect our financial results.*

We write business on a worldwide basis, and our results of operations may be affected by fluctuations in the value of currencies other than the U.S. dollar. The primary foreign currencies in which we operate are the Euro, the British Pound Sterling and the Canadian Dollar. Changes in foreign currency exchange rates can reduce our revenues and increase our liabilities and costs, as measured in the U.S. dollar as our functional currency. To date, we have not attempted to reduce our exposure to these exchange rate risks by using hedging transactions or by investing in securities denominated in currencies other than the U.S. dollar. We may therefore suffer losses solely as a result of exchange rate fluctuations. In order to minimize the impact of exchange rate fluctuations, we are considering reducing our exposure to these exchange rate risks in 2004 by investing in securities denominated in currencies other than the U.S. dollar. Since inception, we have recorded net premiums written of approximately \$313.6 million from British Pound Sterling-denominated contracts, \$95.8 million from Euro-denominated contracts and \$68.9 million from Canadian Dollar-denominated contracts. For the years ended December 31, 2003 and 2002, net foreign exchange gains were \$997,000 and \$2.4 million, respectively.

*Employees of our Bermuda operations are required to obtain work permits before engaging in a gainful occupation in Bermuda. Required work permits may not be granted or may not remain in effect.*

Under Bermuda law, non-Bermudians (other than spouses of Bermudians) may not engage in any gainful occupation in Bermuda without an appropriate governmental work permit. Our success may depend in part on the continued services of key employees in Bermuda. A work permit may be granted or renewed upon showing that, after proper public advertisement, no Bermudian (or spouse of a Bermudian or a holder of a permanent resident's certificate or holder of a working resident's

certificate) is available who meets the minimum standards reasonably required by the employer. The Bermuda government's policy places a six-year term limit on individuals with work permits, subject to certain exemptions for key employees. A work permit is issued with an expiry date (up to five years) and no assurances can be given that any work permit will be issued or, if issued, renewed upon the expiration of the relevant term. We consider our key officers in Bermuda to be Constantine Iordanou, our President and Chief Executive Officer (work permit expires November 12, 2006), Paul B. Ingrey, Chief Executive Officer of Arch Re Bermuda (work permit expires May 12, 2005), Dwight R. Evans, President of Arch Re Bermuda (work permit expires May 12, 2005) and John D. Vollaro, our Executive Vice President and Chief Financial Officer (work permit expires July 25, 2005). If work permits are not obtained or renewed for our principal employees, we could lose their services, which could materially affect our business.

*The enforcement of civil liabilities against us may be difficult.*

We are a Bermuda company and in the future some of our officers and directors may be residents of various jurisdictions outside the United States. All or a substantial portion of our assets and of those persons may be located outside the United States. As a result, it may be difficult for you to effect service of process within the United States upon those persons or to enforce in United States courts judgments obtained against those persons.

We have appointed National Registered Agents, Inc., New York, New York, as our agent for service of process with respect to actions based on offers and sales of securities made in the United States. We have been advised by our Bermuda counsel, Conyers Dill & Pearman, that the United States and Bermuda do not currently have a treaty providing for reciprocal recognition and enforcement of judgments of U.S. courts in civil and commercial matters and that a final judgment for the payment of money rendered by a court in the United States based on civil liability, whether or not predicated solely upon the U.S. federal securities laws, would, therefore, not be automatically enforceable in Bermuda. We also have been advised by Conyers Dill & Pearman that a final and conclusive judgment obtained in a court in the United States under which a sum of money is payable as compensatory damages (*i.e.*, not being a sum claimed by a revenue authority for taxes or other charges of a similar nature by a governmental authority, or in respect of a fine or penalty or multiple or punitive damages) may be the subject of an action on a debt in the Supreme Court of Bermuda under the common law doctrine of obligation. Such an action should be successful upon proof that the sum of money is due and payable, and without having to prove the facts supporting the underlying judgment, as long as:

- the court which gave the judgment had proper jurisdiction over the parties to such judgment;
- such court did not contravene the rules of natural justice of Bermuda;
- such judgment was not obtained by fraud;
- the enforcement of the judgment would not be contrary to the public policy of Bermuda;
- no new admissible evidence relevant to the action is submitted prior to the rendering of the judgment by the courts of Bermuda; and
- there is due compliance with the correct procedures under Bermuda law.

A Bermuda court may impose civil liability on us or our directors or officers in a suit brought in the Supreme Court of Bermuda against us or such persons with respect to a violation of U.S. federal securities laws, provided that the facts surrounding such violation would constitute or give rise to a cause of action under Bermuda law.

**Risks Relating to Taxation**

*We and our non-U.S. subsidiaries may become subject to U.S. federal income taxation.*

ACGL and its non-U.S. subsidiaries intend to operate their business in a manner that will not cause them to be treated as engaged in a trade or business in the United States and, thus, will not be required to pay U.S. federal income taxes (other than withholding taxes on certain U.S. source investment income) on their income. However, because there is uncertainty as to the activities which constitute being engaged in a trade or business in the United States, there can be no assurances that the U.S. Internal Revenue Service will not contend successfully that ACGL or its non-U.S. subsidiaries are engaged in a trade or business in the United States. If ACGL or any of its non-U.S. subsidiaries were subject to U.S. income tax, our shareholders' equity and earnings could be adversely affected. Certain of our U.S. subsidiaries were personal holding companies in respect of 2002 and 2003, but did not have "undistributed personal holding company income."

We changed our legal domicile from the United States to Bermuda in November 2000. Legislation has recently been introduced which (if enacted) could eliminate the tax benefits available to companies, like us, that changed their legal domiciles to Bermuda. In addition, some U.S. insurance companies have been lobbying Congress to pass legislation intended to eliminate certain perceived tax advantages of U.S. insurance companies with Bermuda affiliates resulting principally from reinsurance between or among U.S. insurance companies and their Bermuda affiliates. Legislation, if passed, and other changes in U.S. tax laws, regulations and interpretations thereof to address these issues could adversely affect us.

*U.S. persons who hold our common shares may be subject to U.S. income taxation at ordinary income rates on our undistributed earnings and profits. In addition, the heirs or estate of any individual holder may not be entitled to a "step-up" in basis of our common shares which might otherwise be available upon such holder's death.*

We believe that we and our non-U.S. subsidiaries currently are controlled foreign corporations ("CFCs"), although our bye-laws are designed to preclude any U.S. person from adverse tax consequences as a result of our CFC status. ACGL and certain of its non-U.S. subsidiaries were also foreign personal holding companies in respect of 2002 and 2003, but did not have undistributed foreign personal holding company income. We do not believe that we are a passive foreign investment company. Since these determinations and beliefs are based upon legal and factual conclusions, no assurances can be given that the U.S. Internal Revenue Service or a court would concur with our conclusions. If they were not to so concur, U.S. persons who hold our common shares may suffer adverse tax consequences.

## TAX MATTERS

The following summary of the taxation of ACGL and the taxation of our shareholders is based upon current law and is for general information only. Legislative, judicial or administrative changes may be forthcoming that could affect this summary.

The following legal discussion (including and subject to the matters and qualifications set forth in such summary) of certain tax considerations (a) under "—Taxation of ACGL—Bermuda" and "—Taxation of Shareholders—Bermuda Taxation" is based upon the advice of Conyers Dill & Pearman, Hamilton, Bermuda and (b) under "—Taxation of ACGL—United States," "—Taxation of Shareholders—United States Taxation," "—Taxation of Our U.S. Shareholders" and "—United States Taxation of Non-U.S. Shareholders" is based upon the advice of Cahill Gordon & Reindel, New York, New York (the advice of such firms does not include accounting matters, determinations or conclusions relating to the business or activities of ACGL). The summary is based upon current law and is for general information only. The tax treatment of a holder of our common shares, or of a person treated as a holder of our common shares for U.S. federal income, state, local or non-U.S. tax purposes, may vary depending on the holder's particular tax situation. Legislative, judicial or administrative changes or

interpretations may be forthcoming that could be retroactive and could affect the tax consequences to us or to holders of our common shares.

## **Taxation of ACGL**

### ***Bermuda***

Under current Bermuda law, we are not subject to tax on income or capital gains. We have obtained from the Minister of Finance under the Exempted Undertakings Tax Protection Act 1966 an assurance that, in the event that Bermuda enacts legislation imposing tax computed on profits, income, any capital asset, gain or appreciation, or any tax in the nature of estate duty or inheritance, the imposition of any such tax shall not be applicable to us or to any of our operations or our shares, debentures or other obligations until March 28, 2016. We could be subject to taxes in Bermuda after that date. This assurance will be subject to the proviso that it is not to be construed so as to prevent the application of any tax or duty to such persons as are ordinarily resident in Bermuda (we are not so currently affected) or to prevent the application of any tax payable in accordance with the provisions of the Land Tax Act 1967 or otherwise payable in relation to any property leased to us or our insurance subsidiary. We pay annual Bermuda government fees, and our Bermuda insurance and reinsurance subsidiary pays annual insurance license fees. In addition, all entities employing individuals in Bermuda are required to pay a payroll tax and other sundry other taxes payable, directly or indirectly, to the Bermuda government.

### ***United States***

ACGL and its non-U.S. subsidiaries intend to conduct their operations in a manner that will not cause them to be treated as engaged in a trade or business in the United States and, therefore, will not be required to pay U.S. federal income taxes (other than withholding taxes on dividends and certain other U.S. source investment income). However, because definitive identification of activities which constitute being engaged in a trade or business in the United States is not provided by the Code, or regulations or court decisions, there can be no assurance that the U.S. Internal Revenue Service will not contend successfully that ACGL or its non-U.S. subsidiaries are or have been engaged in a trade or business in the United States. A foreign corporation deemed to be so engaged would be subject to U.S. income tax, as well as the branch profits tax, on its income, which is treated as effectively connected with the conduct of that trade or business unless the corporation is entitled to relief under the permanent establishment provisions of a tax treaty. Such income tax, if imposed, would be based on effectively connected income computed in a manner generally analogous to that applied to the income of a domestic corporation, except that deductions and credits generally are not permitted unless the foreign corporation has timely filed a U.S. federal income tax return in accordance with applicable regulations. Penalties may be assessed for failure to file tax returns. The 30% branch profits tax is imposed on net income after subtracting the regular corporate tax and making certain other adjustments.

Under the income tax treaty between Bermuda and the United States (the "Treaty"), ACGL's Bermuda insurance subsidiaries will be subject to U.S. income tax on any insurance premium income found to be effectively connected with a U.S. trade or business only if that trade or business is conducted through a permanent establishment in the United States. No regulations interpreting the Treaty have been issued. While there can be no assurances, ACGL does not believe that any of its Bermuda insurance subsidiaries has a permanent establishment in the United States. Such subsidiaries would not be entitled to the benefits of the Treaty if (i) less than 50% of ACGL's shares were beneficially owned, directly or indirectly, by Bermuda residents or U.S. citizens or residents, or (ii) any such subsidiary's income were used in substantial part to make disproportionate distributions to, or to meet certain liabilities to, persons who are not Bermuda residents or U.S. citizens or residents. While

there can be no assurances, ACGL believes that its Bermuda insurance subsidiaries are eligible for Treaty benefits.

Foreign corporations not engaged in a trade or business in the United States are nonetheless subject to U.S. income tax on certain "fixed or determinable annual or periodic gains, profits and income" derived from sources within the United States as enumerated in Section 881(a) of the Code (such as dividends and certain interest on investments).

*Personal Holding Company Rules.* A corporation will not be classified as a personal holding company (a "PHC") in a given taxable year unless both (i) at some time during the last half of such taxable year, five or fewer individuals (without regard to their citizenship or residency) own or are deemed to own (pursuant to certain constructive ownership rules) more than 50% of the corporation's shares by value, and (ii) at least 60% of the adjusted ordinary gross income of the corporation for such taxable year consists of PHC income (as defined in Section 543 of the Code). For purposes of the 50% share ownership test, all of our common shares owned by an investment partnership will be attributed to each of its partners, if any, who are individuals. As a result of this attribution rule, we believe that currently five or fewer individuals are treated as owning more than 50% of the value of our common shares. Consequently, we or one or more of our subsidiaries could be or become PHCs, depending on whether we or any of our subsidiaries satisfy the PHC gross income test.

We will use reasonable best efforts to cause ACGL and each of its subsidiaries not to satisfy the gross income requirement set forth in Section 542(a) of the Code. If, however, we or any of our subsidiaries is or were to become a PHC in a given taxable year, such company would be subject to PHC tax (at a 15% rate for taxable years before January 1, 2009 and thereafter at the highest marginal rate on ordinary income applicable to individuals) on its "undistributed PHC income" (which, in our case and the case of our foreign subsidiaries, would include only PHC income that is from U.S. sources and foreign source income to the extent that such income is effectively connected with the conduct of a trade or business in the U.S.). PHC income generally would not include underwriting income or, in our case and the case of our foreign subsidiaries, investment income derived from non-U.S. sources or dividends received from non-U.S. subsidiaries. If we or any of our subsidiaries is or becomes a PHC, there can be no assurance that the amount of PHC income would be immaterial.

Certain of our U.S. subsidiaries were PHCs in respect of 2002 and 2003 and may be PHCs in respect of 2004. Such subsidiaries did not have "undistributed personal holding company income" in 2002 and 2003 and, currently, do not expect to have "undistributed personal holding company income" in 2004.

There can be no assurance that we and each of our subsidiaries are not or will not become a PHC in the future because of factors including factual uncertainties regarding the application of the PHC rules, the makeup of our shareholder base and other circumstances that affect the application of the PHC rules to us and our subsidiaries.

#### *Taxation of Shareholders*

The following summary sets forth certain United States federal income tax considerations related to the purchase, ownership and disposition of our common shares. Unless otherwise stated, this summary deals only with shareholders ("U.S. Holders") that are United States Persons (as defined below) who hold their common shares as capital assets. The following discussion is only a general summary of the United States federal income tax matters described herein and does not purport to address all of the United States federal income tax consequences that may be relevant to a particular shareholder in light of such shareholder's specific circumstances. In addition, the following summary does not describe the United States federal income tax consequences that may be relevant to certain types of shareholders, such as banks, insurance companies, regulated investment companies, real estate investment trusts, financial asset securitization investment trusts, dealers in securities or traders that

adopt a mark-to-market method of tax accounting, tax exempt organizations, expatriates or persons who hold the common shares as part of a hedging or conversion transaction or as part of a straddle, who may be subject to special rules or treatment under the Code. This discussion is based upon the Code, the Treasury regulations promulgated thereunder and any relevant administrative rulings or pronouncements or judicial decisions, all as in effect on the date of this annual report and as currently interpreted, and does not take into account possible changes in such tax laws or interpretations thereof, which may apply retroactively. This discussion does not include any description of the tax laws of any state or local governments within the United States, or of any foreign government, that may be applicable to the common shares or the shareholders. Persons considering making an investment in the common shares should consult their own tax advisors concerning the application of the United States federal tax laws to their particular situations as well as any tax consequences arising under the laws of any state, local or foreign taxing jurisdiction prior to making such investment.

If a partnership holds our common shares, the tax treatment of a partner will generally depend upon the status of the partner and the activities of the partnership. If you are a partner of a partnership holding common shares, you should consult your tax advisor.

For purposes of this discussion, the term “United States Person” means:

- a citizen or resident of the United States,
- a corporation or entity treated as a corporation created or organized in or under the laws of the United States, or any political subdivision thereof,
- an estate the income of which is subject to United States federal income taxation regardless of its source,
- a trust if either (x) a court within the United States is able to exercise primary supervision over the administration of such trust and one or more United States Persons have the authority to control all substantial decisions of such trust or (y) the trust has a valid election in effect to be treated as a United States Person for U.S. federal income tax purposes or
- any other person or entity that is treated for U.S. federal income tax purposes as if it were one of the foregoing.

#### ***Bermuda Taxation***

Currently, there is no Bermuda withholding tax on dividends paid by us.

#### ***United States Taxation***

*Taxation of Dividends.* Subject to the discussions below relating to the potential application of the CFC and PFIC rules, cash distributions, if any, made with respect to our common shares will constitute dividends for U.S. federal income tax purposes to the extent paid out of our current or accumulated earnings and profits (as computed using U.S. tax principles). If a holder of our common shares is an individual, dividends, if any, paid to that individual in taxable years beginning before January 1, 2009 that constitute qualified dividend income will be taxable at a maximum rate of 15%, provided that individual meets certain holding period requirements. Dividends paid, if any, with respect to common shares generally will be qualified dividend income, provided the common shares are readily tradable on an established securities market in the United States in the year in which the shareholder receives the dividend and ACGL is not considered to be a foreign personal holding company (“FPHC”) in either the year of the distribution or the preceding taxable year. See “—Taxation of Our U.S. Shareholders” below. Dividends paid, if any, in taxable years beginning on or after January 1, 2009 will be taxed at then applicable ordinary income rates. To the extent distributions on our common shares exceed our

earnings and profits, they will be treated first as a return of the U.S. Holder's basis in our common shares to the extent thereof, and then as gain from the sale of a capital asset.

*Sale, Exchange or Other Disposition.* Subject to the discussions below relating to the potential application of the CFC, PFIC and FPHC rules, holders of common shares generally will recognize capital gain or loss for U.S. federal income tax purposes on the sale, exchange or disposition of common shares.

## **Taxation of Our U.S. Shareholders**

### ***Controlled Foreign Corporation Rules***

Under our bye-laws, the 9.9% voting restriction applicable to the Controlled Shares of a U.S. Person (as defined in our bye-laws) generally does not apply to certain of our investors. As a result of certain attribution rules, we believe, therefore, that we and our foreign subsidiaries are controlled CFCs. That status as a CFC does not cause us or any of our subsidiaries to be subject to U.S. federal income tax. Such status also has no adverse U.S. federal income tax consequences for any U.S. Holder that is considered to own less than 10% of the total combined voting power of our common shares or those of our foreign subsidiaries. Only U.S. Holders that are considered to own 10% or more of the total combined voting power of our common shares or those of our foreign subsidiaries (taking into account common shares actually owned by such U.S. Holder as well as common shares attributed to such U.S. Holder under the Code or the regulations thereunder) (a "10% U.S. Voting Shareholder") is affected by our status as a CFC. Our bye-laws are intended to prevent any U.S. Holder from being considered a 10% U.S. Voting Shareholder by limiting the votes conferred by the Controlled Shares (as defined in our bye-laws) of any U.S. Person to 9.9% of the total voting power of all our shares entitled to vote. However, because under our bye-laws certain funds associated with Warburg Pincus and Hellman & Friedman generally are entitled to vote their directly owned common shares in full, a U.S. Holder that is attributed (under the Code or the regulations thereunder) common shares owned by such funds may be considered a 10% U.S. Voting Shareholder. If you are a direct or indirect investor in a fund associated with Warburg Pincus or Hellman & Friedman additional common shares could be attributed to you for purposes of determining whether you are considered to be a 10% U.S. Voting Shareholder. As long as we are a CFC, a U.S. Holder that is considered a 10% U.S. Voting Shareholder will be subject to current U.S. federal income taxation (at ordinary income tax rates) to the extent of all or a portion of the undistributed earnings and profits of ACGL and our subsidiaries attributable to "subpart F income" (including certain insurance premium income and investment income) and may be taxable at ordinary income tax rates on any gain realized on a sale or other disposition (including by way of repurchase or liquidation) of our common shares to the extent of the current and accumulated earnings and profits attributable to such shares.

While our bye-laws are intended to prevent any member from being considered a 10% U.S. Voting Shareholder (except as described above), there can be no assurance that a U.S. Holder will not be treated as a 10% U.S. Voting Shareholder, by attribution or otherwise, under the Code or any applicable regulations thereunder. See "Risk Factors—Risks Relating to Taxation—U.S. persons who hold our common shares may be subject to U.S. income taxation at ordinary income rates on our undistributed earnings and profits."

### ***Related Person Insurance Income Rules***

Generally, we do not expect the gross "related person insurance income" ("RPII") of any of our non-U.S. subsidiaries to equal or exceed 20% of its gross insurance income in any taxable year for the foreseeable future and do not expect the direct or indirect insureds (and related persons) of any such subsidiary to directly or indirectly own 20% or more of either the voting power or value of our common stock. Consequently, we do not expect any U.S. person owning common shares to be required

to include in gross income for U.S. federal income tax purposes RPII income, but there can be no assurance that this will be the case.

Section 953(c)(7) of the Code generally provides that Section 1248 of the Code (which generally would require a U.S. Holder to treat certain gains attributable to the sale, exchange or disposition of common shares as a dividend) will apply to the sale or exchange by a U.S. shareholder of shares in a foreign corporation that is characterized as a CFC under the RPII rules if the foreign corporation would be taxed as an insurance company if it were a domestic corporation, regardless of whether the U.S. shareholder is a 10% U.S. Voting Shareholder or whether the corporation qualifies for either the RPII 20% ownership exception or the RPII 20% gross income exception. Although existing Treasury Department regulations do not address the question, proposed Treasury regulations issued in April 1991 create some ambiguity as to whether Section 1248 and the requirement to file Form 5471 would apply when the foreign corporation has a foreign insurance subsidiary that is a CFC for RPII purposes and that would be taxed as an insurance company if it were a domestic corporation. We believe that Section 1248 and the requirement to file Form 5471 will not apply to a less than 10% U.S. Shareholder because ACGL is not directly engaged in the insurance business. There can be no assurance, however, that the U.S. Internal Revenue Service will interpret the proposed regulations in this manner or that the Treasury Department will not take the position that Section 1248 and the requirement to file Form 5471 will apply to dispositions of our common shares.

If the U.S. Internal Revenue Service or U.S. Treasury Department were to make Section 1248 and the Form 5471 filing requirement applicable to the sale of our common shares, we would notify shareholders that Section 1248 of the Code and the requirement to file Form 5471 will apply to dispositions of our common shares. Thereafter, we would send a notice after the end of each calendar year to all persons who were shareholders during the year notifying them that Section 1248 and the requirement to file Form 5471 apply to dispositions of our common shares by U.S. Holders. We would attach to this notice a copy of Form 5471 completed with all our information and instructions for completing the shareholder information.

#### ***Foreign Personal Holding Company Rules***

A foreign company will not be classified as an FPHC unless both (i) at some time during the taxable year at issue, five or fewer individuals who are U.S. citizens or residents own or are deemed to own (pursuant to certain constructive ownership rules) more than 50% of all classes of its shares measured by voting power or value and (ii) at least 60% (or in general 50% for any year after the first year that a corporation is an FPHC) of its gross income is FPHC income (as defined in Section 553 of the Code) (generally including passive income such as dividends, interest and gains from the sale of stocks and securities). For purposes of the share ownership test, all of our common shares owned by an investment partnership will be attributed to each of its partners, if any, who are individuals. As a result of this attribution rule, we believe that currently five or fewer individuals are treated as owning more than 50% of the value of our common shares. Consequently, we or one or more of our foreign subsidiaries could be or become FPHCs, depending on whether we or any of our foreign subsidiaries satisfy the FPHC gross income test.

We will use reasonable best efforts to cause us and each of our subsidiaries not to satisfy the gross income requirement set forth in Section 552 of the Code. If, however, we or any of our subsidiaries are or were to become an FPHC, a portion of such company's "undistributed foreign personal holding company income" (as defined in the Code) would be imputed to all of our U.S. Holders. Such income would be taxable as a dividend, even if no cash dividend were actually paid. In such event, subsequent cash distributions would first be treated as a tax-free return of any previously taxed and undistributed amounts. In addition, if we or any of our subsidiaries are or become an FPHC in any year, the heirs or estate of any individual U.S. Holder who dies in the immediately following year (whether or not we or

any of our subsidiaries are an FPHC in such year) would not be entitled to a "step-up" in the basis of the common shares which might otherwise be available under U.S. income tax laws.

We and certain of our non-U.S. subsidiaries were FPHCs in respect of 2002 and 2003 and may be FPHCs in respect of 2004. We and such subsidiaries did not have "undistributed foreign personal holding company income" in 2002 and 2003 and, currently, do not expect to have "undistributed foreign personal holding company income" in 2004.

There can be no assurance that we and each of our subsidiaries are not or will not become an FPHC because of factors including factual uncertainties regarding the application of the FPHC rules, the makeup of our shareholder base and other circumstances that could affect the application of the FPHC rules to us and our subsidiaries. If we or any of our subsidiaries are or were to become an FPHC, such company would not be subject to the PHC rules described above.

#### *Passive Foreign Investment Companies*

Sections 1291 through 1298 of the Code contain special rules applicable with respect to foreign corporations that are "passive foreign investment companies" ("PFICs"). In general, a foreign corporation will be a PFIC if 75% or more of its income constitutes "passive income" or 50% or more of its assets produce passive income. If we were to be characterized as a PFIC, U.S. Holders would be subject to a penalty tax at the time of their sale of (or receipt of an "excess distribution" with respect to) their common shares. In general, a shareholder receives an "excess distribution" if the amount of the distribution is more than 125% of the average distribution with respect to the shares during the three preceding taxable years (or shorter period during which the taxpayer held the stock). In general, the penalty tax is equivalent to an interest charge on taxes that are deemed due during the period the shareholder owned the shares, computed by assuming that the excess distribution or gain (in the case of a sale) with respect to the shares was taxable in equal portions throughout the holder's period of ownership. The interest charge is equal to the applicable rate imposed on underpayments of U.S. federal income tax for such period. A U.S. shareholder may avoid some of the adverse tax consequences of owning shares in a PFIC by making a qualified electing fund ("QEF") election. A QEF election is revocable only with the consent of the IRS and has the following consequences to a shareholder:

- For any year in which ACGL is not a PFIC, no income tax consequences would result.
- For any year in which the ACGL is a PFIC, the shareholder would include in its taxable income a proportionate share of the net ordinary income and net capital gains of ACGL and certain of its non-U.S. subsidiaries.

The PFIC statutory provisions contain an express exception for income "derived in the active conduct of an insurance business by a corporation which is predominantly engaged in an insurance business..." This exception is intended to ensure that income derived by a bona fide insurance company is not treated as passive income, except to the extent such income is attributable to financial reserves in excess of the reasonable needs of the insurance business. The PFIC statutory provisions contain a look-through rule that states that, for purposes of determining whether a foreign corporation is a PFIC, such foreign corporation shall be treated as if it "received directly its proportionate share of the income" and as if it "held its proportionate share of the assets" of any other corporation in which it owns at least 25% of the stock. We will use reasonable best efforts to cause us and each of our subsidiaries not to constitute a PFIC within the meaning of Section 1297 of the Code.

No regulations interpreting the substantive PFIC provisions have yet been issued. Each U.S. Holder should consult his tax advisor as to the effects of these rules.

## **United States Taxation of Non-U.S. Shareholders**

### ***Taxation of Dividends***

Cash distributions, if any, made with respect to common shares held by shareholders who are not United States Persons ("Non-U.S. holders") generally will not be subject to United States withholding tax.

### ***Sale, Exchange or Other Disposition***

Non-U.S. holders of common shares generally will not be subject to U.S. federal income tax with respect to gain realized upon the sale, exchange or other disposition of common shares unless such gain is effectively connected with a U.S. trade or business of the Non-U.S. holder in the United States or such person is present in the United States for 183 days or more in the taxable year the gain is realized and certain other requirements are satisfied.

### ***Information Reporting and Backup Withholding***

Non-U.S. holders of common shares will not be subject to U.S. information reporting or backup withholding with respect to dispositions of common shares effected through a non-U.S. office of a broker, unless the broker has certain connections to the United States or is a United States person. No U.S. backup withholding will apply to payments of dividends, if any, on our common shares.

### ***Other Tax Laws***

Shareholders should consult their own tax advisors with respect to the applicability to them of the tax laws of other jurisdictions.

## **ITEM 2. PROPERTIES**

Our reinsurance group leases a total of approximately 7,300 square feet in Bermuda under a lease expiring in 2007, and approximately 15,800 square feet in Morristown, New Jersey under a lease expiring in 2006.

We lease approximately 4,500 square feet in Hamilton, Bermuda for our Bermuda insurance operations. The principal U.S. office of our insurance group is located at One Liberty Plaza, New York, New York. We lease approximately 110,750 square feet in our principal U.S. office in New York City location under a lease expiring in 2014 and 2007 with respect to approximately 23,400 square feet. Our insurance group also leases a total of approximately 180,000 square feet for our second office location in New York City and other offices in Atlanta, Georgia; Chicago, Illinois; Columbus, Ohio; Conshohocken, Pennsylvania; Englewood, Colorado; Houston, Texas; Kansas City, Missouri; Morristown, New Jersey; Pasadena, California; Philadelphia, Pennsylvania; San Francisco, California; St. Paul, Minnesota; Stamford, Connecticut; and Tampa, Florida.

For the years ended December 31, 2003, 2002 and 2001, our rental expense (income) was approximately \$8.7 million, \$3.2 million and (\$132,000), respectively. Our future minimum rental charges for the remaining terms of our existing leases, exclusive of escalation clauses and maintenance costs and net of rental income, will be approximately \$75.0 million. We believe that the above described office space is adequate for our needs. However, as we continue to develop our business, we may open additional office locations during 2004.

## **ITEM 3. LEGAL PROCEEDINGS**

We, in common with the insurance industry in general, are subject to litigation and arbitration in the normal course of our business. As of December 31, 2003, we were not a party to any material

litigation or arbitration other than as a part of the ordinary course of business in relation to claims activity, none of which is expected by management to have a significant adverse effect on our results of operations and financial condition and liquidity.

One of our insurers, Arch Insurance (formerly First American) is formalizing a settlement with the California Department of Insurance regarding certain claims handling violations allegedly committed by certain of its third party agents prior to our acquisition of control of First American. It is expected that this settlement will result in only an immaterial monetary fine (substantially all of which would be covered by existing reinsurance arrangements with third parties), and will have no effect on Arch Insurance's California license.

In addition, the former owners of American Independent have commenced an action against ACGL, American Independent and certain of American Independent's directors and officers and others seeking unspecified damages for several allegations relating to the reorganization agreement pursuant to which we acquired American Independent in 2001. The reorganization agreement provided that, as part of the consideration for the stock of American Independent, the former owners would have the right to receive a limited, contingent payment from the proceeds, if any, from certain pre-existing lawsuits that American Independent had brought as plaintiff prior to our acquisition. The former owners alleged, among other things, that the defendants entered into the agreement without intending to honor their commitments under the agreement and are liable for securities and common law fraud, breach of contract and intentional infliction of emotional distress. ACGL and the other plaintiffs have filed a motion to dismiss all claims, and strongly deny the validity of, and will continue to dispute, these allegations. Although no assurances can be made as to the resolution of these claims, management does not believe that any of these claims are meritorious.

#### **ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS**

None.

## PART II

### ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER REPURCHASES OF EQUITY SECURITIES

#### MARKET INFORMATION

Our common shares are traded on the NASDAQ National Market under the symbol "ACGL." For the periods presented below, the high and low sales prices and closing prices for our common shares as reported on the NASDAQ National Market were as follows:

	Three Months Ended			
	December 31, 2003	September 30, 2003	June 30, 2003	March 31, 2003
High .....	\$40.01	\$35.85	\$37.80	\$33.85
Low .....	33.04	30.48	32.74	27.71
Close .....	39.86	33.07	34.68	33.94

	Three Months Ended			
	December 31, 2002	September 30, 2002	June 30, 2002	March 31, 2002
High .....	\$34.50	\$28.93	\$31.10	\$27.94
Low .....	26.00	22.85	25.35	25.00
Close .....	31.17	27.90	28.15	25.81

On March 1, 2004, the high and low sales prices and the closing price for our common shares as reported on the NASDAQ National Market were \$42.92, \$42.15 and \$42.65, respectively.

#### HOLDERS

As of March 1, 2004, and based on information provided to us by our transfer agent and proxy solicitor, there were approximately 181 holders of record of our common shares, approximately 3,800 beneficial holders of our common shares and 27 holders of record and beneficial holders of our preference shares.

#### DIVIDENDS

Any determination to pay dividends will be at the discretion of our board of directors and will be dependent upon our results of operations, financial condition and other factors deemed relevant by our board of directors. As a holding company, we will depend on future dividends and other permitted payments from our subsidiaries to pay dividends to our shareholders. Our subsidiaries' ability to pay dividends, as well as our ability to pay dividends, is, and is expected to be, subject to regulatory, contractual, rating agency and other constraints. Our board of directors currently does not intend to declare dividends or make any other distributions.

In addition, pursuant to our shareholders agreement, we have agreed not to declare any dividend or make any other distribution on our common shares, and not to repurchase any common shares, until we have repurchased from the Warburg Pincus funds, the Hellman & Friedman funds and the other holders of our preference shares, pro rata, on the basis of the amount of those shareholders' investments in us at the time of such repurchase, preference shares having an aggregate value of \$250.0 million, at a per share price acceptable to those shareholders.

## SECURITIES AUTHORIZED FOR ISSUANCE UNDER EQUITY COMPENSATION PLANS

Our shareholders approved the 2002 Long Term Incentive and Share Award Plan ("2002 Plan") on June 27, 2002. The 2002 Plan provides for grants of stock options, stock appreciation rights, restricted shares, restricted units payable in common shares or cash, share awards in lieu of cash awards, dividend equivalents and other share-based awards common shares to our new employees, existing employees and members of our board of directors. We also adopted, and our shareholders approved, the 1995 Long Term Incentive and Share Award Plan ("1995 Plan") and the 1999 Long Term Incentive and Share Award Plan ("1999 Plan") in 1996 and 1999, respectively. In addition, our shareholders approved the 1995 Employee Stock Purchase Plan in 1996, but this plan was suspended in December 2002. All of the shares reserved for issuance under the 1995 Plan and the 1999 Plan have been granted pursuant to existing awards.

In October 2001, we adopted the Long Term Incentive Plan for New Employees ("New Employee Plan") to provide incentives to attract and motivate new hires in connection with the launch of our underwriting initiative. A total of 3,295,170 of such share awards were granted under the New Employee Plan. As eligibility under the New Employee Plan was restricted to new hires, none of the shares under the New Employee Plan were available for grants to directors or existing employees. As a result, in order to be in a position to provide long-term incentive compensation for our employees and directors, in June 2002, following shareholder approval, we adopted the 2002 Plan, and the New Employee Plan was terminated. For information about our equity compensation plans, see note 11, "Share Capital," of the notes accompanying our consolidated financial statements.

The following information is as of December 31, 2003:

Plan category	Number of securities to be issued upon exercise of outstanding options(1), warrants and rights (a)	Weighted-average exercise price of outstanding options(1), warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column(a)) (c)
Equity compensation plans approved by security holders . . . . .	3,116,932	\$21.82	2,248,587
Equity compensation plans not approved by security holders . . . .	<u>2,470,547</u>	<u>\$23.45</u>	<u>0</u>
Total . . . . .	<u>5,587,479</u>	<u>\$22.54</u>	<u>2,248,587</u>

(1) Includes all vested and unvested options.

### ITEM 6. SELECTED FINANCIAL DATA

The following table sets forth summary historical consolidated financial and operating data for the five-year period ended December 31, 2003. Such data for the three-year period ended December 31, 2003 should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and the related notes.

Due to the significant changes in our business during the years 2003 and 2002, we believe that comparisons of the results of operations for such years with 1999 to 2001 results of operations are not meaningful. These changes included (1) the sale of our prior reinsurance operations in May 2000, (2) our change of legal domicile and reorganization completed in November 2000, (3) our acquisition

activity and (4) our underwriting initiative which commenced in October 2001 and the related capital infusions in late 2001 and early 2002.

	Year Ended December 31,				
	2003	2002	2001	2000	1999
	(in thousands except share and per share data)				
<b>Statement of Operations Data:</b>					
<b>Revenues:</b>					
Net premiums written(1) . . . . .	\$ 2,738,415	\$ 1,261,627	\$ 36,216	\$ (10,604)	\$ 306,726
Net premiums earned . . . . .	2,212,599	654,976	30,918	87,530	311,368
Net investment income . . . . .	80,992	51,249	12,120	15,923	20,173
Net realized investment gains (losses) . . . . .	25,317	(839)	18,382	20,045	17,227
Total revenues . . . . .	2,343,737	721,769	76,454	127,634	344,800
Income (loss) before income taxes and extraordinary item . . . . .	306,500	54,540	24,144	503	(56,199)
Income (loss) before extraordinary item . . . . .	279,775	55,096	22,016	(8,012)	(35,636)
Extraordinary gain—excess of fair value of acquired net assets over cost (net of \$0 tax)(2) . . . . .	816	3,886	—	—	—
Net income (loss) . . . . .	<u>\$ 280,591</u>	<u>\$ 58,982</u>	<u>\$ 22,016</u>	<u>\$ (8,012)</u>	<u>\$ (35,636)</u>
<b>Average shares outstanding:</b>					
Basic(3) . . . . .	26,264,055	20,095,698	12,855,668	13,198,075	17,086,732
Diluted(3) . . . . .	67,777,794	59,662,178	17,002,231	13,198,075	17,086,732
<b>Net income (loss) per share data:</b>					
<b>Basic(3):</b>					
Income (loss) before extraordinary item . . . . .	\$ 10.65	\$ 2.74	\$ 1.71	\$ (0.61)	\$ (2.09)
Extraordinary gain(2) . . . . .	0.03	0.19	—	—	—
Net income (loss) . . . . .	<u>\$ 10.68</u>	<u>\$ 2.93</u>	<u>\$ 1.71</u>	<u>\$ (0.61)</u>	<u>\$ (2.09)</u>
<b>Diluted(3):</b>					
Income (loss) before extraordinary item . . . . .	\$ 4.13	\$ 0.92	\$ 1.29	\$ (0.61)	\$ (2.09)
Extraordinary gain(2) . . . . .	0.01	0.07	—	—	—
Net income (loss) . . . . .	<u>\$ 4.14</u>	<u>\$ 0.99</u>	<u>\$ 1.29</u>	<u>\$ (0.61)</u>	<u>\$ (2.09)</u>
Cash dividends per share . . . . .	—	—	—	—	—

	December 31,				
	2003	2002	2001	2000	1999
	(in thousands)				
<b>Balance Sheet Data:</b>					
Cash and invested assets . . . . .	\$3,717,147	\$1,985,898	\$1,019,058	\$276,053	\$579,874
Unpaid losses and loss adjustment expenses recoverable . . . . .	409,451	211,100	90,442	—	55,925
Total assets . . . . .	5,585,321	2,991,328	1,313,701	295,907	860,175
Reserves for losses and loss adjustment expenses:					
Before reinsurance recoverable . . . . .	1,951,967	592,432	111,494	—	364,554
Net of reinsurance recoverable . . . . .	1,542,516	381,332	21,052	—	308,629
Revolving credit agreement borrowings . .	200,000	—	—	—	—
Total liabilities . . . . .	3,874,592	1,580,084	293,332	23,608	517,845
Shareholders' equity . . . . .	1,710,729	1,411,244	1,020,369	272,299	342,330

	December 31,				
	2003	2002	2001	2000	1999
<b>Book value:</b>					
Per common share(4) . . . . .	\$ 31.74	\$ 21.48	\$ 20.05	\$ 21.43	\$ 20.03
Diluted(5) . . . . .	\$ 25.52	\$ 21.20	\$ 18.28	\$ 21.43	\$ 20.03
<b>Shares outstanding:</b>					
Basic . . . . .	28,200,372	27,725,334	13,513,538	12,708,818	17,087,970
Diluted(5) . . . . .	67,045,037	66,569,999	55,804,038	12,708,818	17,087,970

- (1) Net premiums written for the year ended December 31, 2000 includes the reversal of \$92.9 million of premiums recorded in prior periods in connection with the sale of our prior reinsurance operations in May 2000.
- (2) On November 30, 2002, we acquired PSIC and recorded an extraordinary gain of \$3.9 million for the year ended December 31, 2002. The extraordinary gain represents the excess of the fair value of acquired net assets of \$6.4 million over the purchase price of \$2.5 million. In 2003, we recorded an additional extraordinary gain of \$816,000 representing an adjustment to the fair value of PSIC due to the recognition of deferred tax assets as part of the acquisition.
- (3) Net income per share is based on the basic and diluted weighted average number of common shares and common share equivalents outstanding. Net loss per share is based on the basic weighted average number of common shares outstanding.
- (4) Book value per common share at December 31, 2003, 2002 and 2001 was determined by dividing (i) the difference between total shareholders' equity and the aggregate liquidation preference of the preference shares of \$815.7 million, \$815.7 million and \$749.4 million, respectively, by (ii) the number of common shares outstanding.
- (5) Book value per share excludes the effects of stock options and class B warrants. Diluted book value per share as of December 31, 2001 is adjusted on a pro forma basis to reflect the issuance of additional preference shares that were issued by us on June 28, 2002 and December 16, 2002 pursuant to post-closing purchase price adjustment mechanisms under the Subscription Agreement.

## ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis contains forward-looking statements which involve inherent risks and uncertainties. All statements other than statements of historical fact are forward-looking statements. These statements are based on our current assessment of risks and uncertainties. Actual results may differ materially from those expressed or implied in these statements and, therefore, undue reliance should not be placed on them. Important factors that could cause actual events or results to differ materially from those indicated in such statements are discussed in this report, including the sections entitled "Cautionary Note Regarding Forward Looking Statements," and "Business—Risk Factors."

This discussion and analysis should be read in conjunction with our audited consolidated financial statements and notes thereto presented under Item 8.

### General

#### *Overview*

Arch Capital Group Ltd. ("ACGL"), a Bermuda public limited liability company with over \$1.9 billion in capital, provides insurance and reinsurance on a worldwide basis through its wholly owned subsidiaries. While we are positioned to provide a full range of property and casualty insurance and reinsurance lines, we are focusing on writing specialty lines of insurance and reinsurance. It is our belief that our existing Bermuda and U.S.-based underwriting platform, our strong management team and our capital that is unencumbered by significant exposure to pre-2002 risks have enabled us to establish a strong presence in an attractive insurance and reinsurance marketplace.

The worldwide insurance and reinsurance industry is highly competitive and has traditionally been subject to an underwriting cycle in which a hard market (high premium rates, restrictive underwriting standards, as well as terms and conditions, and underwriting gains) is eventually followed by a soft market (low premium rates, relaxed underwriting standards, as well as terms and conditions, and underwriting losses). Insurance market conditions may affect, among other things, the demand for our products, our ability to increase premium rates, the terms and conditions of the insurance policies we write, changes in the products offered by us or changes in our business strategy.

The financial results of the insurance and reinsurance industry are influenced by factors such as the frequency and/or severity of claims and losses, including natural disasters or other catastrophic events, variations in interest rates and financial markets, changes in the legal, regulatory and judicial environments, inflationary pressures and general economic conditions. These factors influence the demand for insurance or reinsurance, the supply of which is generally related to the total capital of competitors in the market. During 2001, market conditions had been improving primarily as a result of declining insurance capacity.

In general, market conditions continued to improve during 2002 and 2003 in the insurance and reinsurance marketplace. This reflects improvement in pricing, terms and conditions following significant industry losses arising from the events of September 11th, as well as the recognition that intense competition in the late 1990s led to inadequate pricing and overly broad terms, conditions and coverages. Such industry developments resulted in poor financial results and erosion of the industry's capital base. Consequently, many established insurers and reinsurers reduced their participation in, or exited from, certain markets. These developments have provided relatively new insurers and reinsurers, like us, with an opportunity to provide needed underwriting capacity and to write insurance and reinsurance business at what we believe to be attractive rates.

As a provider of insurance and reinsurance, we are exposed to certain interrelated risks that are unique to the business of insurance, including rate adequacy, reserve estimation and underwriting risk.

Management focuses on such risks in its evaluation of ACGL's financial condition and operating results. Certain parts of our business have loss experience characterized as low frequency and high severity. Such characteristics may result in volatility in our operating results from period to period. In addition, estimates and judgments for a relatively new insurance and reinsurance company, like our company, are even more difficult to make than those for a company with a longer operating history since very limited historical information has been reported to us through December 31, 2003.

The adequacy of premium rates is dependent on the ultimate loss experience related to the policies or contracts underwritten. As the period of time from the occurrence of a loss through the settlement typically extends many years into the future, the pricing of insurance products is necessarily based on estimates. Management periodically reviews available information from industry and other sources in order to evaluate the adequacy of current premium rates.

There are several sources of reserve estimation risk. Unforeseen changes in the economic, social and legal environments can increase the costs to settle claims above anticipated levels. Although actuarial techniques attempt to estimate the impact of such changes, they may not fully reflect our ultimate loss experience. Although we can never eliminate estimation risk, we attempt to reduce it by trying to incorporate as much information as possible into our estimates.

Underwriting risk refers to the uncertainty about the exposures underwritten by us, including the possibility that a single event (or set of events) will simultaneously affect multiple exposures and the possibility that the wording in policies or contracts underwritten by us will be reinterpreted in the future to our detriment. Uncertainty about exposures underwritten by us can arise because policyholders and ceding companies may have failed to disclose all relevant information to us when the policies and contracts were issued, or because of an unusual event, such as a natural or man-made catastrophe that simultaneously affects multiple exposures.

Our overall strategy is to be highly selective in the risks we underwrite, and to be opportunistic in our management of the underwriting cycle, with the ultimate objective of generating superior risk-adjusted returns to our shareholders. In addition, our strategy is to focus on keeping our expenses low relative to our premiums, as well as to our competitors, and to allocate our capital effectively. Financial measures that are meaningful in analyzing our performance are underwriting profitability (as measured by the combined ratio) and return on equity. The combined ratio represents a measure of underwriting profitability, excluding investment income, and is the sum of the loss ratio and underwriting expense ratios. A combined ratio under 100% represents an underwriting profit and a combined ratio over 100% represents an underwriting loss. Our combined ratio for the year ended December 31, 2003 was 90.0%, compared to 90.9% for the year ended December 31, 2002. Return on equity provides an indication of the return generated on capital deployed in the business and is calculated based on the level of net income generated in relation to shareholders' equity. Our net income for the year ended December 31, 2003 represented an 18.0% return on average equity, compared to a 4.9% return on average equity for the year ended December 31, 2002.

### *History*

We commenced operations in September 1995 following the completion of the initial public offering of our predecessor, Arch Capital Group (U.S.) Inc. ("Arch-U.S."). Arch-U.S. is a Delaware company formed in March 1995 under the original name of "Risk Capital Holdings, Inc." From that time until May 2000, we provided reinsurance and other forms of capital to insurance companies. On May 5, 2000, we sold our prior reinsurance book of business to Folksamerica Reinsurance Company in an asset sale, but retained our surplus and our U.S.-licensed reinsurance platform. On November 8, 2000, following shareholder approval, we changed our legal domicile to Bermuda in order to benefit from Bermuda's favorable business, regulatory, tax and financing environment.

During the period from May 2000 through the announcement of our underwriting initiative in October 2001, we built and acquired insurance businesses that enable us to generate both fee-based revenue (e.g., commissions and advisory and management fees) and risk-based revenue (i.e., insurance premium). As part of this strategy, we built an underwriting platform that is intended to enable us to maximize risk-based revenue during periods in the underwriting cycle when we believe it is more favorable to assume underwriting risk. In October 2001, we concluded that underwriting conditions favored dedicating our attention exclusively to building our insurance and reinsurance business.

In October 2001, we launched an underwriting initiative to meet current and future demand in the global insurance and reinsurance markets that included the recruitment of new insurance and reinsurance management teams and an equity capital infusion of \$763.2 million. In April 2002, we completed an offering of common shares and received net proceeds of \$179.2 million and, in September 2002, we received proceeds of \$74.3 million from the exercise of class A warrants by our principal shareholders and certain other investors.

Due to the significant changes in our business during the years 2003 and 2002, we believe that comparisons of the results of operations with 2001 are not meaningful. Therefore, results of operations discussed below relate to the years ended December 31, 2003 and 2002.

### *Revenues*

We derive our revenues primarily from the issuance of insurance policies and reinsurance contracts. Insurance and reinsurance premiums are driven by the volume and classes of business of the policies and contracts that we write and prevailing market prices. The premium we charge for the risks assumed is priced based on many assumptions. We price these risks well before our ultimate costs are known, which may extend many years into the future. In addition, our revenues include fee income and income we generate from our investment portfolio. Our investment portfolio is comprised primarily of fixed income investments that are held as available for sale. Under our basis of accounting, generally accepted accounting principles ("GAAP") in the United States, these investments are carried at fair market value and unrealized gains and losses on the investments are not included in our statement of operations. Rather, these unrealized gains and losses are included on our balance sheet in accumulated other comprehensive gain or loss as a separate component of shareholders' equity.

### *Costs and Expenses*

Our costs and expenses primarily consist of losses and loss adjustment expenses, acquisition costs, other operating expenses and non-cash compensation. Losses and loss adjustment expenses include management's best estimate of the ultimate cost of claims incurred during a reporting period. Such costs consist of three components: paid losses, changes in estimated amounts for known losses ("case reserves"), and changes in reserves for incurred but not reported ("IBNR") losses. See "Critical Accounting Policies, Estimates and Recent Accounting Pronouncements—Reserves for Losses and Loss Adjustment Expenses" for further discussion. Acquisition expenses consist primarily of commissions, brokerage and taxes paid to obtain our business. A significant portion of such costs is paid based on a percentage of the premium written and will vary for each class or type of business that we underwrite. Other operating expenses, a significant portion of which are general and administrative expenses, consist primarily of compensation-related expenses. Non-cash compensation relates to certain grants (primarily of restricted common shares) under our stock incentive plans and other arrangements. The issuance of restricted common shares and the related recognition of non-cash compensation expense have no impact on our shareholders' equity.

## **Critical Accounting Policies, Estimates and Recent Accounting Pronouncements**

The preparation of consolidated financial statements requires us to make many estimates and judgments that affect the reported amounts of assets, liabilities (including reserves), revenues and expenses, and related disclosures of contingent liabilities. On an ongoing basis, we evaluate our estimates, including those related to revenue recognition, insurance and other reserves, reinsurance recoverables, investment valuations, intangible assets, bad debts, income taxes, contingencies and litigation. We base our estimates on historical experience, where possible, and on various other assumptions that we believe to be reasonable under the circumstances, which form the basis for our judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Estimates and judgments for a relatively new insurance and reinsurance company, like our company, are even more difficult to make than those made in a mature company since very limited historical information has been reported to us through December 31, 2003. Actual results will differ from these estimates and such differences may be material. We believe that the following critical accounting policies require our more significant judgments and estimates used in the preparation of our consolidated financial statements.

### *Reserves for Losses and Loss Adjustment Expenses*

We are required by applicable insurance laws and regulations and GAAP to establish reserves for losses and loss adjustment expenses that arise from the business we underwrite. These reserves are balance sheet liabilities representing estimates of future amounts required to pay losses and loss adjustment expenses for insured or reinsured claims which have occurred at or before the balance sheet date. Due to the lack of historical loss data for our reinsurance and insurance operations, and the inability to use a historical loss development methodology, there is a possibility that significant changes in the reserve estimates in future periods could occur.

Insurance and reinsurance loss reserves are inherently subject to uncertainty. The period of time from the occurrence of a loss through the settlement of the liability may extend many years into the future. During this period, additional facts and trends will become known and, as these factors become apparent, reserves will be adjusted in the period in which the new information becomes known. While reserves are established based upon available information, certain factors, such as those inherent in the political, judicial and legal systems, including judicial and litigation trends and legislation changes, could impact the ultimate liability. Changes to our prior year loss reserves can impact our current underwriting results by (1) reducing our reported results if the prior year reserves prove to be deficient or (2) improving our reported results if the prior year reserves prove to be redundant. The reserves for losses and loss adjustment expenses represent estimates involving actuarial and statistical projections at a given point in time of our expectations of the ultimate settlement and administration costs of losses incurred, and it is likely that the ultimate liability may exceed or be less than such estimates. We utilize actuarial models as well as available historical insurance and reinsurance industry loss ratio experience and loss development patterns to assist in the establishment of loss reserves. Even actuarially sound methods can lead to subsequent adjustments to loss reserves that are both significant and irregular due to the nature of the risks written, potentially by a material amount.

For our reinsurance operations, we establish case reserves based on reports of claims notices received from ceding companies. Case reserves usually are based upon the amount of reserves recommended by the ceding company. Reported case reserves on known events may be supplemented by additional case reserves. Additional case reserves are often estimated by our claims function ahead of official notification from the ceding company, or when our judgment regarding the size or severity of the known event differs from the ceding company. In certain instances, we may establish additional case reserves even when the ceding company does not report any liability on a known event.

For our insurance operations, generally, claims personnel determine whether to establish a case reserve for the estimated amount of the ultimate settlement of individual claims. The estimate reflects the judgment of claims personnel based on general corporate reserving practices and the experience and knowledge of such personnel regarding the nature and value of the specific type of claim and, where appropriate, advice of counsel.

Our insurance operations also contract with a number of outside third party administrators in the claims process who, in certain cases, have limited authority to establish case reserves. The work of such administrators is reviewed and monitored by our claims personnel. Reserves are also established to provide for the estimated expense of settling claims, including legal and other fees and the general expenses of administering the claims adjustment process. Periodically, adjustments to the reported or case reserves may be made as additional information regarding the claims is reported or payments are made. In accordance with industry practice, we also maintain IBNR reserves. Such reserves are established to provide for incurred claims which have not yet been reported to an insurer or reinsurer as well as to actuarially adjust for any projected variance in case reserving.

Even though most insurance policies have policy limits, the nature of property and casualty insurance and reinsurance is such that losses can exceed policy limits for a variety of reasons and could very significantly exceed the premiums received on the underlying policies. We attempt to limit our risk of loss through reinsurance and may also use retrocessional arrangements. The availability and cost of reinsurance and retrocessional protection is subject to market conditions, which are beyond our control.

In establishing the reserves for losses and loss adjustment expenses, we have made various assumptions relating to the pricing of our reinsurance contracts and insurance policies and have also considered available historical industry experience and current industry conditions. Our reserving method for 2003 and 2002 was primarily the expected loss method, which is commonly applied when limited loss experience exists. We select the initial expected loss and loss adjustment expense ratios based on information derived by our underwriters and actuaries during the initial pricing of the business, supplemented by industry data where appropriate. These ratios consider, among other things, rate increases and changes in terms and conditions that have been observed in the market. Any estimates and assumptions made as part of the reserving process could prove to be inaccurate due to several factors, including the fact that very limited historical information has been reported to us through December 31, 2003. Reinsurance operations by their nature add further complexity to the reserving process in that there is an inherent additional lag in the timing and reporting of a loss event to a reinsurer from an insured or ceding company through a broker. As actual loss information is reported to us and we develop our own loss experience, our reserving methods will also include other actuarial techniques. It is possible that claims in respect of events that have occurred could exceed our reserves and have a material adverse effect on our results of operations in a future period or our financial condition in general.

We are only permitted to establish loss and loss adjustment expense reserves for losses that have occurred on or before the applicable financial statement date. Case reserves and IBNR reserves contemplate these obligations. Reserves for losses and loss adjustment expenses do not reflect contingency reserve allowances to account for future loss occurrences. Losses arising from future events will be estimated and recognized at the time the losses are incurred and could be substantial.

At December 31, 2003, our reserves for losses and loss adjustment expenses, net of unpaid losses and loss adjustment expenses recoverable, by type and by operating segment were as follows:

(in thousands)	<u>Reinsurance</u>	<u>Insurance</u>	<u>Total</u>
Case reserves . . . . .	\$191,336	\$ 79,728	\$ 271,064
IBNR reserves . . . . .	790,822	480,630	1,271,452
Total net reserves . . . . .	<u>\$982,158</u>	<u>\$560,358</u>	<u>\$1,542,516</u>

As described above, we primarily use the expected loss method to calculate our reserves for losses and loss adjustment expenses, which is commonly applied when limited loss experience exists, and represents management's best estimate of our reserves. As the loss history develops, we will utilize other actuarial methods to evaluate our reserves. Due to the lack of historical loss data for our reinsurance and insurance operations, generally we do not produce a range of estimates in calculating reserves. In order to illustrate the potential volatility in our reserves for losses and loss adjustment expenses, we used a statistical model to simulate a range of results based on various probabilities. Both the probabilities and related modeling are subject to inherent uncertainties. The simulation relies on a significant number of assumptions, such as the potential for multiple entities to react similarly to external events, and includes other statistical assumptions.

Our recorded estimate of reserves for losses and loss adjustment expenses, net of unpaid losses and loss adjustment expenses recoverable, by operating segment at December 31, 2003, along with the results of the simulation are as follows:

(in thousands)	<u>Reinsurance</u>	<u>Insurance</u>	<u>Total</u>
Total net reserves . . . . .	<u>\$ 982,158</u>	<u>\$ 560,358</u>	<u>\$1,542,516</u>
Simulation results:			
90th percentile(1) . . . . .	\$1,164,327	\$ 707,123	\$1,819,071
10th percentile(2) . . . . .	\$ 784,706	\$ 465,424	\$1,294,613

- (1) Simulation results indicate that a 90 percent probability exists that the net reserves for losses and loss adjustment expenses will not exceed the indicated amount.
- (2) Simulation results indicate that a 10 percent probability exists that the net reserves for losses and loss adjustment expenses will be at or below the indicated amount.

The simulation results shown for each segment do not add to the total simulation results, as the individual segment simulation results do not reflect the diversification effects across our segments. The simulation results noted above are informational only, and no assurance can be given that our ultimate losses will not be significantly different than the simulation results shown above, and such differences could directly and significantly impact earnings favorably or unfavorably in the period they are determined.

We do not have significant exposure to pre-2002 liabilities, such as asbestos-related illnesses and other long-tail liabilities and, to date, we have experienced a relatively low level of reported claims activity in most of our business, particularly in our longer tail exposures, such as casualty, executive assurance and professional liability, which have longer time periods during which claims are reported and paid. Our limited history does not provide any meaningful trend information. See "—Results of Operations—Segment Information" for a discussion of prior year development of loss reserves.

**Premium Revenues and Related Expenses**

Insurance premiums written are generally recorded at the policy inception and are primarily earned on a pro rata basis in accordance with the terms of the policies for all products. Premiums written include estimates in our program business and aviation business. The amount of such insurance premium estimates included in premiums receivable at December 31, 2003 was \$33.9 million. Unearned premium reserves represent the portion of such premiums written that relates to the unexpired terms of in-force insurance policies.

Reinsurance premiums written include amounts reported by the ceding companies, supplemented by our own estimates of premiums for which ceding company reports have not been received. The basis for the amount of premiums written recognized varies based on the type of contracts we write. Premiums on our excess of loss and pro rata reinsurance contracts are estimated when the business is underwritten. For excess of loss contracts, the minimum premium, as defined in the contract, is generally recorded as an estimate of premiums written as of the date of the treaty. Estimates of premiums written under pro rata contracts are recorded in the period in which the underlying risks are expected to incept and are based on information provided by the brokers and the ceding companies. For multi-year reinsurance treaties which are payable in annual installments, only the initial annual installment is included as premiums written at policy inception due to the ability of the reinsured to commute or cancel coverage during the term of the policy. The remaining annual installments are included as premiums written at each successive anniversary date within the multi-year term.

The amount of reinsurance premium estimates included in premiums receivable and the amount of related acquisition expenses by type of business was as follows at December 31, 2003:

(in thousands)	<u>Gross Amount</u>	<u>Acquisition Expenses</u>	<u>Net Amount</u>
Casualty . . . . .	\$192,159	\$ (54,014)	\$138,145
Other specialty . . . . .	102,579	(23,173)	79,406
Property excluding property catastrophe . . . . .	51,309	(15,826)	35,483
Marine and aviation . . . . .	44,017	(9,366)	34,651
Non-traditional . . . . .	9,395	(3,235)	6,160
Property catastrophe . . . . .	3,787	(1,067)	2,720
Total . . . . .	<u>\$403,246</u>	<u>\$(106,681)</u>	<u>\$296,565</u>

Reinsurance premium estimates are reviewed at least quarterly, based on management's detailed review by treaty, comparing actual reported premiums to expected ultimate premiums. In addition, a confirmation by the responsible underwriter to the broker as to the realization of the expected premium is performed prior to the detailed treaty review along with a review of the aging and collection of premium estimates recorded. Based on such review, management evaluates the appropriateness of the premium estimates, and any adjustment to these estimates is recorded in the period in which it becomes known.

Adjustments to original premium estimates could be material and such adjustments could directly and significantly impact earnings favorably or unfavorably in the period they are determined because the subject premium may be fully or substantially earned. A significant portion of amounts included as premiums receivable, which represent estimated premiums written, net of commissions, is not currently due based on the terms of the underlying contracts. Due to the above process, management believes that the premium estimates included in premiums receivable will be collectible and, therefore, no provision for doubtful accounts has been recorded on the premium estimates at December 31, 2003.

Reinsurance premiums assumed, irrespective of the type of business, are generally earned on a pro rata basis over the terms of the underlying policies or reinsurance contracts. Contracts and policies

written on a losses occurring basis cover losses which occur during the term of the contract or policy, which typically extends 12 months. Accordingly, the premium is earned evenly over the term. Pro rata contracts, which are written on a risks attaching basis, cover losses which attach to the underlying insurance policies written during the terms of such pro rata contracts. Premiums earned on a risks attaching basis usually extend beyond the original term of the reinsurance contract, typically resulting in recognition of premiums earned over a 24-month period.

Certain of our reinsurance contracts include provisions that adjust premiums or acquisition expenses based upon the experience under the contracts. Premiums written and earned, as well as related acquisition expenses, are recorded based upon the projected experience under such contracts.

We also write certain business that is intended to provide insurers with risk management solutions that complement traditional reinsurance. Under these contracts, we assume a measured amount of insurance risk in exchange for a margin. The terms and conditions of these contracts may include additional or return premiums based on loss experience, loss corridors, sublimits and caps. Examples of such business include aggregate stop-loss coverages and financial quota share coverages.

Certain assumed reinsurance contracts, which pursuant to Statement of Financial Accounting Standards ("SFAS") No. 113, "Accounting and Reporting for Reinsurance of Short-Duration and Long-Duration Contracts," issued by the Financial Accounting Standards Board ("FASB"), are deemed, for financial reporting purposes, not to transfer insurance risk, are accounted for using the deposit method of accounting as prescribed in Statement of Position ("SOP") 98-7, "Deposit Accounting: Accounting for Insurance and Reinsurance Contracts That Do Not Transfer Insurance Risk." Management exercises significant judgment in the assumptions used in determining whether assumed contracts should be accounted for as reinsurance contracts under SFAS No. 113 or deposit insurance contracts under SOP 98-7. For those contracts that contain an element of underwriting risk, the estimated profit margin is deferred and amortized over the contract period and such amount is included in our underwriting results. When the estimated profit margin is explicit, the margin is reflected as fee income, and when the estimated profit margin is implicit it is reflected as an offset to paid losses. For those contracts that do not transfer an element of underwriting risk, the estimated profit is reflected in earnings over the estimated settlement period using the interest method and such profit is included in investment income. Additional judgments are required when applying the accounting guidance as set forth in SOP 98-7 with respect to the revenue recognition criteria for contracts deemed not to transfer insurance risk.

Certain of our reinsurance contracts, which may include multi-year contracts, reinsure both past (retroactive) and future (prospective) insurable events. Pursuant to SFAS No. 113, which governs accounting for retroactive reinsurance contracts, when a reinsurance contract contains both a retroactive and prospective element, the retroactive element is bifurcated from the contract and the expected profit is deferred as a liability and recognized in earnings over the settlement period.

Acquisition expenses and other expenses that vary with, and are directly related to, the acquisition of business in our underwriting operations are deferred and amortized over the period in which the related premiums are earned. Acquisition expenses consist principally of commissions and brokerage expenses. Other operating expenses also include expenses that vary with, and are directly related to, the acquisition of business. Acquisition expenses are reflected net of ceding commissions received from unaffiliated reinsurers. Deferred acquisition costs are carried at their estimated realizable value based on the related unearned premiums and take into account anticipated losses and loss adjustment expenses, based on historical and current experience, and anticipated investment income.

Policy-related fee income, such as billing, cancellation and reinstatement fees, is primarily recognized as earned when substantially all of the related services have been provided. Policy-related fee income will vary in the future related to such activity and is earned primarily in our non-standard automobile business.

### *Collection of Insurance-Related Balances and Provision for Doubtful Accounts*

We are subject to credit risk with respect to our reinsurance ceded because the ceding of risk to reinsurers or retrocessionaires does not relieve us of our liability to the clients or companies we insure or reinsure. If the financial condition of our reinsurers or retrocessionaires deteriorates, resulting in an impairment of their ability to make payments, we will provide for probable losses resulting from our inability to collect amounts due from such parties, as appropriate. We are also subject to credit risk from our alternative market products, such as rent-a-captive risk-sharing programs, which allow a client to retain a significant portion of its loss exposure without the administrative costs and capital commitment required to establish and operate its own captive. In certain of these programs, we participate in the operating results by providing excess reinsurance coverage and earn commissions and management fees. In addition, we write program business on a risk-sharing basis with managing general agents or brokers, which may be structured with commissions which are contingent on the underwriting results of the program. While we attempt to obtain collateral from such parties in an amount sufficient to guarantee their projected financial obligations to us, there is no guarantee that such collateral will be sufficient to secure their actual ultimate obligations. We evaluate the credit worthiness of all the reinsurers we cede business to, particularly focusing on those reinsurers that are assigned an A. M. Best rating lower than "A-" (excellent) or those that are designated as "NR" (not rated). If our analysis indicates that there is significant uncertainty regarding the collectibility of amounts due from reinsurers, managing general agents, brokers and other clients, we will record a provision for doubtful accounts. At December 31, 2003 and 2002, our reserve for doubtful accounts was approximately \$3.0 million and \$3.5 million, respectively.

Premiums receivable and paid and unpaid losses and loss adjustment expenses recoverable balances as of December 31, 2003 include approximately 71% and 96%, respectively, of amounts not yet due and amounts in excess of 90 days overdue were less than 1% of the total balances in each caption.

### *Valuation Allowance*

We record a valuation allowance to reduce certain of our deferred tax assets to the amount that is more likely than not to be realized. We have considered future taxable income and feasible tax planning strategies in assessing the need for a valuation allowance. In the event we determine that we would not be able to realize all or part of our deferred tax assets in the future, an adjustment to the deferred tax asset would be charged to income in the period such determination was made. In addition, if we subsequently assessed that the valuation allowance was no longer needed, a benefit would be recorded to income in the period in which such determination was made. At December 31, 2003, we have a valuation allowance of \$1.4 million against a deferred tax asset in one of our subsidiaries that currently does not have a business plan to produce significant future taxable income.

### *Investments*

We currently classify all of our publicly traded fixed maturity investments, short-term investments and equity securities as "available for sale" and, accordingly, they are carried at estimated fair value. The fair value of publicly traded fixed maturity securities is estimated using quoted market prices or dealer quotes. Short-term investments comprise securities due to mature within one year of the date of issue. Short-term investments include certain cash equivalents which are part of our investment portfolios under the management of external investment managers. Investments included in our private portfolio include securities issued by privately held companies. Our investments in privately held equity securities, other than those carried under the equity method of accounting, are carried at estimated fair value. Fair value is initially considered to be equal to the cost of such investment until the investment is revalued based on substantive events or other factors which could indicate a diminution or appreciation in value. We apply Accounting Principles Board ("APB") Opinion No. 18, "The Equity Method of Accounting for Investments in Common Stock," for privately held equity investments accounted for under the equity method, and we record our percentage share of the investee company's net income or loss.

In accordance with SFAS No. 115, "Accounting for Certain Investments in Debt and Equity Securities" and Emerging Issues Task Force, "The Meaning of Other-than-Temporary Impairment and its Application to Certain Investments," we periodically review our investments to determine whether a decline in fair value below the amortized cost basis is other than temporary. Our process for identifying declines in the fair value of investments that are other than temporary involves consideration of several factors. These factors include (i) the time period in which there has been a significant decline in value, (ii) an analysis of the liquidity, business prospects and overall financial condition of the issuer, (iii) the significance of the decline and (iv) our intent and ability to hold the investment for a sufficient period of time for the value to recover. Where our analysis of the above factors results in the conclusion that declines in fair values are other than temporary, the cost of the securities is written down to fair value and the previously unrealized loss is therefore reflected as a realized loss.

With respect to securities where the decline in value is determined to be temporary and the security's value is not written down, a subsequent decision may be made to sell that security and realize a loss. As mentioned above, we consider our intent and ability to hold a security until the value recovers in the process of evaluating whether a security with an unrealized loss represents an other than temporary decline. However, this factor, on its own, is not determinative as to whether we will recognize an impairment charge. We believe our ability to hold such securities is supported by our positive cash flow from operations where we can generate sufficient liquidity in order to meet our claims payment obligations arising from our underwriting operations without selling such investments. Cash flow from operating activities was \$1.61 billion and \$669.1 million, in 2003 and 2002, respectively. However, subsequent decisions on security sales are made within the context of overall risk monitoring, changing information and assessing value relative to other comparable securities. While our external investment managers may, at a given point in time, believe the preferred course of action is to hold securities until such losses are recovered, the dynamic nature of the portfolio management may result in a subsequent decision to sell the security and realize the loss, based upon a change in market and other factors. We believe these subsequent decisions are consistent with the classification of our investment portfolio as available for sale.

#### *Stock Issued to Employees*

We have adopted the provisions of APB Opinion No. 25, "Accounting for Stock Issued to Employees," and related interpretations in accounting for employee stock options because the alternative fair value accounting provided for under SFAS No. 123, "Accounting for Stock-Based Compensation," requires the use of option valuation models that we believe were not developed for use in valuing employee stock options. Accordingly, under APB No. 25, compensation expense for stock option grants is recognized only to the extent that the fair value of the underlying stock exceeds the exercise price of the option at the measurement date.

For restricted shares granted, we record deferred compensation equal to the market value of the shares at the measurement date, which is amortized and primarily charged to income as non-cash compensation over the vesting period. These restricted shares are recorded as outstanding upon issuance (regardless of any vesting period). See "—Results of Operations—Non-Cash Compensation."

#### *Goodwill and Intangible Assets*

We assess whether goodwill and intangible assets are impaired by comparing the fair value of each reporting unit to its carrying value, including goodwill and intangible assets. We estimate the fair value of each reporting unit by using various methods, including a review of the estimated discounted cash flows expected to be generated by the reporting unit in the future. Such methods include a number of assumptions, including the uncertainty regarding future results and the discount rates used. If the reporting unit's fair value is greater than its carrying value, goodwill and intangible assets are not impaired. Impairment occurs when the implied fair value of a reporting unit's goodwill and intangible

assets are less than its carrying value. The implied fair value of goodwill and intangible assets is determined by deducting the fair value of a reporting unit's identifiable assets and liabilities from the fair value of the reporting unit as a whole. We conduct the impairment test annually. Additional impairment assessments may be performed on an interim basis if we encounter events or changes in circumstances indicating that more likely than not the carrying value of goodwill and intangible assets has been impaired.

#### *Recent Accounting Pronouncements*

See note 2(p), "Significant Accounting Policies—Recent Accounting Pronouncements," of the notes accompanying our consolidated financial statements.

#### **Results of Operations**

The following table sets forth net income and earnings per share data:

	Years Ended December 31,		
	2003	2002	2001
	(in thousands except share data)		
Income before extraordinary item . . . . .	\$ 279,775	\$ 55,096	\$ 22,016
Extraordinary gain . . . . .	816	3,886	—
Net income . . . . .	<u>\$ 280,591</u>	<u>\$ 58,982</u>	<u>\$ 22,016</u>
Diluted net income per share. . . . .	<u>\$ 4.14</u>	<u>\$ 0.99</u>	<u>\$ 1.29</u>
Diluted average shares outstanding . . . . .	<u>67,777,794</u>	<u>59,662,178</u>	<u>17,002,231</u>

Net income increased to \$280.6 million for the year ended December 31, 2003, compared to \$59.0 million for the year ended December 31, 2002. The increase in net income was primarily due to a significant increase in the underwriting results of both our reinsurance and insurance operations, as discussed in "—Segment Information" below. In addition, net income increased due to growth in our investment income as a result of the investment of cash flows from 2002 and 2003. Our net income for the year ended December 31, 2003 represented an 18.0% return on average equity, compared to a 4.9% return on average equity for the year ended December 31, 2002. Basic earnings per share data has not been presented herein as it does not include the significant number of preference shares outstanding in 2003 and 2002.

The increase in diluted average shares outstanding from 2002 to 2003 was primarily due to the full weighting of common shares and convertible preference shares issued during 2002 in the 2003 diluted average shares outstanding. The increase in diluted average shares outstanding from 2001 to 2002 was primarily due to: the issuance of (1) 35,687,735 convertible preference shares and 3,776,025 class A warrants in connection with our capital infusion in November 2001; (2) 7,475,000 common shares in connection with an offering completed by us in April 2002; and (3) 875,753 convertible preference shares on June 28, 2002 and 2,831,177 convertible preference shares on December 16, 2002 pursuant to the subscription agreement entered into in connection with the November 2001 capital infusion. See note 11, "Share Capital," of the notes accompanying our consolidated financial statements.

#### *Segment Information*

We determined our reportable operating segments using the management approach described in SFAS No. 131 "Disclosures about Segments of an Enterprise and Related Information," as further detailed in note 3, "Segment Information," of the notes accompanying our consolidated financial statements. Management measures segment performance based on underwriting income or loss, which

includes the excess or deficiency of net premiums earned for each reporting period over the combined total of expenses and losses incurred during the same period. Due to the significant changes in our business during the years 2003 and 2002, we believe that comparisons of the results of operations of our business segments for such years with 2001 are not meaningful. Therefore, the comparison of segment results discussed below relate to the years ended December 31, 2003 and 2002.

During the year ended December 31, 2001, we had only one reportable operating segment—insurance. During 2001, the insurance operating segment generated revenues of \$59.9 million and net income of \$12.4 million. The remaining portion of our net income was generated through our investment activities, offset by other operating expenses. In addition, during 2001 we produced our business through general agents and managing general agents, none of which accounted for more than 10% of total gross premiums written.

#### *Reinsurance Segment*

The following table sets forth our reinsurance segment's underwriting results:

	Year Ended December 31,	
	2003	2002
	(in thousands)	
Gross premiums written . . . . .	\$1,624,703	\$ 908,732
Net premiums written . . . . .	1,566,819	882,700
Net premiums earned . . . . .	\$1,329,673	\$ 500,980
Other underwriting-related fee income . . . . .	5,621	—
Losses and loss adjustment expenses . . . . .	(839,417)	(315,766)
Acquisition expenses, net . . . . .	(314,193)	(105,391)
Other operating expenses . . . . .	(33,739)	(18,849)
Underwriting income . . . . .	<u>\$ 147,945</u>	<u>\$ 60,974</u>
<b>Underwriting Ratios</b>		
Loss ratio . . . . .	63.1%	63.0%
Acquisition expense ratio . . . . .	23.6%	21.0%
Other operating expense ratio . . . . .	2.5%	3.8%
Combined ratio . . . . .	<u>89.2%</u>	<u>87.8%</u>

*Underwriting Income.* The reinsurance segment's underwriting income increased to \$148.0 million for the year ended December 31, 2003, compared to \$61.0 million for the year ended December 31, 2002. The increase in underwriting income in 2003 was primarily due to a significantly higher level of net premiums earned. The combined ratio for the reinsurance segment was 89.2% for the year ended December 31, 2003, compared to 87.8% for the year ended December 31, 2002. The components of the reinsurance segment's underwriting income are discussed below.

*Premiums Written.* Gross premiums written for our reinsurance segment increased by 78.8% to \$1.62 billion for the year ended December 31, 2003, compared to \$908.7 million for the year ended December 31, 2002. We are currently retaining substantially all of our reinsurance premiums written. We do, however, participate in "common account" retrocessional arrangements for certain treaties. Such arrangements reduce the effect of individual or aggregate losses to all companies participating on such treaties, including the reinsurer, such as us, and the ceding company. We will continue to evaluate our retrocessional requirements.

Net premiums written for our reinsurance segment increased by 77.5% to \$1.57 billion for the year ended December 31, 2003, compared to \$882.7 million for the year ended December 31, 2002. Over half of the increase in net premiums written was attributable to casualty business. For the year ended December 31, 2003, 73.3% and 26.7% of net premiums written were generated from pro rata contracts and excess of loss treaties, respectively, compared to 59.0% and 41.0% for the year ended December 31, 2002. Pro rata contracts are typically written at a lower loss ratio and higher expense ratio than excess of loss business. In certain cases, the reinsurance segment writes pro rata contracts where the underlying business consists of excess of loss treaties. Approximately 31.7% of amounts included in the pro rata contracts written are related to excess of loss treaties for the year ended December 31, 2003. For information regarding net premiums written produced by type of business and geographic location, refer to note 3, "Segment Information," of the notes accompanying our consolidated financial statements.

*Net Premiums Earned.* Net premiums earned for our reinsurance segment increased to \$1.33 billion for the year ended December 31, 2003, compared to \$501.0 million for the year ended December 31, 2002. Approximately 47% of the increase in net premiums earned was attributable to casualty business. Net premiums earned reflects period to period changes in net premiums written, including the mix and type of business. For the year ended December 31, 2003, 69.4% and 30.6% of net premiums earned were generated from pro rata contracts and excess of loss treaties, respectively, compared to 45.8% and 54.2% for the year ended December 31, 2002.

*Other Underwriting-Related Fee Income.* Certain assumed reinsurance contracts are deemed, for financial reporting purposes, not to transfer insurance risk, and are accounted for using the deposit method of accounting. For those contracts that contain an element of underwriting risk, the estimated profit margin is deferred and amortized over the contract period. When the estimated profit margin is explicit, the margin is reflected as fee income. We recorded \$5.6 million of fee income on such contracts for the year ended December 31, 2003.

*Losses and Loss Adjustment Expenses.* Reinsurance segment losses and loss adjustment expenses incurred for the year ended December 31, 2003 were \$839.4 million, or 63.1% of net premiums earned, compared to \$315.8 million, or 63.0%, for the year ended December 31, 2002. The loss ratio for the year ended December 31, 2003 benefited from net favorable development on losses originally recorded during 2002 of \$42.7 million, which resulted in a 3.2 point reduction in the loss ratio. The favorable development in our reinsurance segment did not reflect any changes in key assumptions we made to estimate these reserves. This development primarily resulted from the fact that both the frequency and the severity of reported losses have been lower than the assumed pattern of losses established for property and other short-tail business at December 31, 2002, which, in turn, led to a decrease in our expected loss ratio during 2003. The remainder of the reduction in the loss ratio compared to the year ended December 31, 2002 resulted from changes in the mix of business earned. For a discussion of the reserves for losses and loss adjustment expenses, please refer to the section above entitled "—Critical Accounting Policies, Estimates and Recent Accounting Pronouncements—Reserves for Losses and Loss Adjustment Expenses."

*Underwriting Expenses.* The acquisition expense ratio for the year ended December 31, 2003 was 23.6%, compared to 21.0% for the year ended December 31, 2002, and the other operating expense ratio for the year ended December 31, 2003 was 2.5%, compared to 3.8% for the year ended December 31, 2002. Movements in the acquisition expense ratio reflect changes in the percentage of net premiums earned from pro rata contracts along with the mix of business. While aggregate operating expenses were higher for the year ended December 31, 2003 compared to the year ended December 31, 2002, the operating expense ratio decreased primarily due to the growth in net premiums earned in the 2003 period.

### Insurance Segment

The following table sets forth our insurance segment's underwriting results:

	Year Ended December 31,	
	2003	2002
	(in thousands)	
Gross premiums written	\$1,766,987	\$ 664,559
Net premiums written	1,171,596	378,927
Net premiums earned	\$ 882,926	\$ 153,996
Policy-related fee income	14,028	9,418
Other underwriting-related fee income	1,733	—
Losses and loss adjustment expenses	(574,134)	(108,772)
Acquisition expenses, net	(109,815)	(13,570)
Other operating expenses	(133,968)	(42,827)
Underwriting income (loss)	<u>\$ 80,770</u>	<u>\$ (1,755)</u>
<b>Underwriting Ratios</b>		
Loss ratio	65.0%	70.6%
Acquisition expense ratio(1)	10.8%	2.7%
Other operating expense ratio	15.2%	27.8%
Combined ratio	<u>91.0%</u>	<u>101.1%</u>

(1) The acquisition expense ratio is adjusted to include certain policy-related fee income.

*Underwriting Income (Loss).* The insurance segment's underwriting income was \$80.8 million for the year ended December 31, 2003, compared to a loss of \$1.8 million for the year ended December 31, 2002. The increase in underwriting profitability in 2003 was primarily due to a significantly higher level of net premiums earned. In addition, the insurance segment's combined ratio improved to 91.0% for the year ended December 31, 2003, compared to 101.1% for the year ended December 31, 2002. The components of the insurance segment's underwriting income or loss are discussed below.

*Premiums Written.* Gross premiums written for our insurance segment increased to \$1.77 billion for the year ended December 31, 2003, compared to \$664.6 million for the year ended December 31, 2002. During 2002, the insurance segment established new underwriting units in various specialty lines and began writing business in these new areas of focus primarily during the last six months of the year. The insurance segment also added a number of new accounts in its program business during 2002. In addition to new business written in the year ended December 31, 2003, premiums written also include the renewal of certain accounts initially written in 2002. Accordingly, premiums written by the insurance segment during the year ended December 31, 2003 were significantly higher than the comparable year ended December 31, 2002.

Net premiums written for our insurance segment increased to \$1.17 billion for the year ended December 31, 2003, compared to \$378.9 million for the year ended December 31, 2002. Contributing to this increase was a \$256.7 million increase in program business, a \$160.4 million increase in casualty business and a \$112.3 million increase in construction and surety business. In addition, the insurance segment also significantly reduced the percentage of business ceded to unaffiliated reinsurers in its program business during 2002 contributing to the growth in net premiums written. For information regarding net premiums written produced by major type of business and geographic location, refer to note 3, "Segment Information," of the notes accompanying our consolidated financial statements.

*Net Premiums Earned.* Net premiums earned for our insurance segment increased to \$882.9 million for the year ended December 31, 2003, compared to \$154.0 million for the year ended December 31, 2002. This increase was due to substantial growth in net premiums written discussed above, along with increased retentions on our program business.

*Policy-Related Fee Income.* Policy-related fee income for our insurance segment was \$14.0 million for the year ended December 31, 2003, compared to \$9.4 million for the year ended December 31, 2002. Such amounts were earned primarily on our non-standard automobile business.

*Other Underwriting-Related Fee Income.* During the 2003 fourth quarter, the insurance segment entered into a reinsurance agreement pursuant to which we assumed certain surety contracts that were in force in October 2003. Since the reinsurance agreement provides coverage for losses both prior and subsequent to such date, the contract was bifurcated into its prospective and retroactive elements. We accounted for the retroactive element pursuant to the accounting guidance under SFAS No. 113, which prescribes that underwriting income generated in connection with retroactive contracts be deferred and amortized into income over the settlement period of the associated claims. Of the total estimated gain of \$4.6 million, \$1.7 million was recognized in the 2003 fourth quarter as other underwriting-related fee income and the balance of \$2.9 million will be recognized over the settlement period.

*Losses and Loss Adjustment Expenses.* Insurance segment losses and loss adjustment expenses incurred for the year ended December 31, 2003 were \$574.1 million, or 65.0% of net premiums earned, compared to \$108.8 million, or 70.6%, for the year ended December 31, 2002. The loss ratio for the year ended December 31, 2003 reflects a significantly higher percentage of business from our specialty lines compared with the year ended December 31, 2002, which included a higher percentage of business from our non-standard auto business. To date, in our specialty lines, we have recorded lower loss ratios than in our non-standard auto business. In addition, the loss ratio for the year ended December 31, 2003 included net adverse development on losses originally recorded in prior years of \$1.7 million, which generated a 0.2 point increase in the loss ratio. For a discussion of the reserves for losses and loss adjustment expenses, please refer to the section above entitled “—Critical Accounting Policies, Estimates and Recent Accounting Pronouncements—Reserves for Losses and Loss Adjustment Expenses.”

*Underwriting Expenses.* The acquisition expense ratio for our insurance segment is calculated net of certain policy-related fee income and is affected by, among other things, (1) the amount of ceding commissions received from unaffiliated reinsurers and (2) the amount of business written on a surplus lines (non-admitted) basis. The acquisition expense ratio was 10.8% for the year ended December 31, 2003 (net of 1.6 points of policy-related fee income), compared to 2.7% for the year ended December 31, 2002 (net of 6.1 points of policy-related fee income). The increase in the acquisition expense ratio primarily resulted from the increased contribution of business from our insurance segment's new areas of focus in the 2003 period.

The other operating expense ratio for the year ended December 31, 2003 was 15.2%, compared to 27.8% for the year ended December 31, 2002. While aggregate operating expenses were higher for the year ended December 31, 2003 compared to the year ended December 31, 2002 in connection with the growth in gross premiums written, the operating expense ratio decreased primarily due to the growth in net premiums earned in the 2003 period.

#### *Net Investment Income*

Net investment income was \$81.0 million for the year ended December 31, 2003, compared to \$51.2 million for the year ended December 31, 2002. The increase in net investment income for the year ended December 31, 2003 was due to the significant increase in our invested assets primarily resulting from cash flow from operations in 2003 and 2002, which totaled \$2.28 billion. The increase in

invested assets more than offset the effect of lower yields available in the financial markets in 2003 compared to 2002. Our pre-tax and after-tax investment yields, respectively, for the year ended December 31, 2003 were 3.1% and 2.9%, compared to 3.7% and 3.2% for the year ended December 31, 2002. These yields were calculated based on the amortized cost of the portfolio. Yields on future investment income may vary based on financial market conditions, investment allocation decisions and other factors.

*Net Realized Investment Gains or Losses*

Following is a summary of net realized investment gains (losses):

	Year Ended December 31,		
	2003	2002	2001
	(in thousands)		
Fixed maturities . . . . .	\$22,488	\$(6,350)	\$(2,116)
Publicly traded equity securities . . . . .	—	(269)	22,896
Privately held securities . . . . .	692	5,780	(2,398)
Other . . . . .	2,137	—	—
Net realized investment gains (losses) . . . . .	25,317	(839)	18,382
Income tax expense . . . . .	(2,245)	(1,779)	(7,242)
Net realized investment gains (losses), net of tax . . . . .	<u>\$23,072</u>	<u>\$(2,618)</u>	<u>\$11,140</u>

Currently, our portfolio is actively managed to maximize total return within certain guidelines. The effect of financial market movements on the investment portfolio will directly impact net realized investment gains and losses as the portfolio is adjusted and rebalanced. The net realized investment gains of \$22.5 million for the year ended December 31, 2003 and net realized investment losses of \$6.4 million and \$2.1 million for the years ended December 31, 2002 and 2001, respectively, on our fixed income portfolio resulted from the sale of certain securities to reduce credit exposure, and from sales related to rebalancing the portfolio. Included in "Other" in the table above are net realized gains of \$2.1 million for the year ended December 31, 2003. Such amount included \$1.9 million of proceeds received from a class action lawsuit related to a publicly traded equity security which we previously owned and for which we had recorded a significant realized loss in a prior year.

Our investment portfolio is classified as available for sale. During the years ended December 31, 2003 and 2002, we realized gross losses from the sale of fixed maturities of \$5.0 million and \$10.0 million, respectively. With respect to those securities that were sold at a loss, the following is an analysis of the gross realized losses based on the period of time those securities had been in an unrealized loss position:

	Year Ended December 31,	
	2003	2002
	(in thousands)	
Less than 6 months . . . . .	\$3,888	\$ 9,349
At least 6 months but less than 12 months . . . . .	558	658
Over 12 months . . . . .	595	—
Total . . . . .	<u>\$5,041</u>	<u>\$10,007</u>

The fair values of such securities sold at a loss during the years ended December 31, 2003 and 2002 were \$779.5 million and \$235.1 million, respectively. Our process for identifying declines in the fair value of investments that are other than temporary involves consideration of several factors. These

factors include (i) the time period in which there has been a significant decline in value, (ii) an analysis of the liquidity, business prospects and overall financial condition of the issuer, (iii) the significance of the decline and (iv) our intent and ability to hold the investment for a sufficient period of time for the value to recover. Where our analysis of the above factors results in the conclusion that declines in fair values are other than temporary, the cost of the securities is written down to fair value and the previously unrealized loss is therefore reflected as a realized loss.

With respect to securities where the decline in value is determined to be temporary and the security's value is not written down, a subsequent decision may be made to sell that security and realize a loss. As mentioned above, we consider our intent and ability to hold a security until the value recovers in the process of evaluating whether a security with an unrealized loss represents an other than temporary decline. However, this factor, on its own, is not determinative as to whether we will recognize an impairment charge. We believe our ability to hold such securities is supported by our positive cash flow from operations where we can generate sufficient liquidity in order to meet our claims payment obligations arising from our underwriting operations without selling such investments. Cash flow from operating activities was \$1.61 billion and \$669.1 million, in 2003 and 2002, respectively. However, subsequent decisions on security sales are made within the context of overall risk monitoring, changing information and an assessment of value relative to other comparable securities. While our external investment managers may, at a given point in time, believe the preferred course of action is to hold securities until such losses are recovered, the dynamic nature of the portfolio management may result in a subsequent decision to sell the security and realize the loss, based upon changes in interest rates, duration targets, relative value and other factors. We believe these subsequent decisions are consistent with the classification of our investment portfolio as available for sale. We did not record an impairment on securities that were purchased and subsequently sold at a loss during the year ended December 31, 2003 due to the factors discussed above.

#### *Other*

Other fee income, net of related expenses, represents revenues and expenses provided by our non-underwriting operations. Other income is generated by our investments in privately held securities. At December 31, 2003, we held five investments in privately held securities. Three of such investments are accounted for under the equity method of accounting. Under the equity method, we record a proportionate share of the investee company's net income or loss based on our ownership percentage in such investment, which amounted to \$3.0 million for the year ended December 31, 2003, compared to \$2.2 million and \$2.6 million for the years ended December 31, 2002 and 2001, respectively.

Other expenses primarily represent certain holding company costs necessary to support our growing worldwide insurance and reinsurance operations and costs associated with operating as a publicly-traded company. Other expenses for the year ended December 31, 2003 include approximately \$3.1 million of costs related to the resolution of an adjustment basket pursuant to the subscription agreement entered into in connection with the November 2001 capital infusion. See note 9, "Transactions with Related Parties," of the notes accompanying our consolidated financial statements.

#### *Net Foreign Exchange Gains or Losses*

Net foreign exchange gains for the year ended December 31, 2003 of \$997,000 consisted of net unrealized losses of \$2,153,000 and net realized gains of \$3,150,000. Net foreign exchange gains for the year ended December 31, 2002 of \$2,449,000 consisted of net unrealized losses of \$36,000 and net realized gains of \$2,485,000. Foreign exchange gains and losses vary with fluctuations in currency rates and result from the remeasurement of foreign denominated monetary assets and liabilities. These gains and losses could add significant volatility to our net income in future periods.

## *Non-Cash Compensation*

### *Restricted Stock*

During 2003, 2002 and 2001, we made certain grants (primarily of restricted common shares) to employees and to Robert Clements, chairman of our board of directors, under our stock incentive plans and other arrangements. These grants were made primarily in connection with our underwriting initiative. After-tax non-cash compensation expense included in net income for the year ended December 31, 2003 was \$13.8 million. After-tax non-cash compensation expense included in net income for the year ended December 31, 2002 was \$48.9 million, of which \$39.5 million related to certain restricted common shares for which the vesting terms had been accelerated during 2002, as discussed below.

During 2002, our board of directors accelerated the vesting terms of certain restricted common shares granted to Mr. Clements, which had been issued in connection with the November 2001 capital infusion, and Mr. Clements agreed to repay the outstanding \$13.5 million loan previously made to him by us. Mr. Clements was granted 1,689,629 restricted common shares which were initially scheduled to vest in five equal annual amounts commencing on October 23, 2002. The vesting period and the amounts have been changed as follows: 60% of the shares vested on October 23, 2002, 20% of the shares vested on October 23, 2003 and 20% will vest on October 23, 2004.

The \$13.5 million loan made by us to Mr. Clements was used by him to pay income and self employment taxes. Under his retention agreement, Mr. Clements received additional compensation in cash in an amount sufficient to defray the loan's interest costs. In order to facilitate the repayment of the loan, we agreed to repurchase an amount of Mr. Clements' shares equal to the principal balance of the loan, less any cash payment made by Mr. Clements, for a price per share based on the market price for the common shares as reported on the NASDAQ National Market on the date of sale. In addition, we agreed to make gross-up payments to Mr. Clements in the event of certain tax liabilities in connection with the repurchase. Pursuant to such arrangements, we repurchased 411,744 common shares from Mr. Clements for an aggregate purchase price of \$11.5 million. Mr. Clements used all of such sale proceeds and \$2.0 million in cash to repay the entire loan balance on November 12, 2002. Following such share repurchase, our book value per diluted share decreased by approximately \$0.04 per share. During the loan period, compensation to Mr. Clements under his retention agreement included payments of \$638,000 from us, of which \$364,000 was used by him to pay interest on the loan and the balance was used to pay his related income tax liabilities.

### *Stock Options*

As discussed above under the caption "—Critical Accounting Policies, Estimates and Recent Accounting Pronouncements—Stock Issued to Employees," we have elected to continue to account for stock-based compensation in accordance with APB No. 25 and have provided the required additional pro forma disclosures. Such pro forma information has been determined as if we had accounted for our employee stock options under the fair value method of SFAS No. 123. The fair value of employee stock options has been estimated at the date of grant using the Black-Scholes option valuation model. See note 2(1), "Significant Accounting Policies—Stock Awards," of the notes accompanying our consolidated financial statements.

For purposes of the required pro forma information, the estimated fair value of employee stock options is amortized to expense over the options' vesting period. The weighted average fair value of options granted during the years ended December 31, 2003, 2002 and 2001 was \$2.8 million, \$13.4 million and \$26.0 million, respectively.

Had we accounted for our employee stock options under the fair value method, our net income per share would have been adjusted to the pro forma amounts indicated below; however, the expensing of stock options would have had no impact on our shareholders' equity.

	Years Ended December 31,		
	2003	2002	2001
	(in thousands, except per share data)		
Net income, as reported	\$280,591	\$ 58,982	\$22,016
Total stock-based employee compensation expense under fair value method, net of tax	(6,319)	(13,451)	(5,638)
Pro forma net income	<u>\$274,272</u>	<u>\$ 45,531</u>	<u>\$16,378</u>
Earnings per share—diluted:			
As reported	\$ 4.14	\$ 0.99	\$ 1.29
Pro forma	\$ 4.05	\$ 0.76	\$ 0.96

The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. In addition, option valuation models, such as the Black-Scholes model, require the input of highly subjective assumptions, including expected stock price volatility. As our employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, we believe that the existing option valuation models, such as the Black-Scholes model, may not necessarily provide a reliable single measure of the fair value of employee stock options. The effects of applying SFAS No. 123 as shown in the pro forma disclosures may not be representative of the effects on reported net income for future years.

#### *Extraordinary Gain*

On November 30, 2002, we acquired PSIC, a non-standard automobile insurer, for \$2.5 million. For the year ended December 31, 2002, we recorded an extraordinary gain of \$3.9 million, or \$0.07 per share, from this acquisition. The extraordinary gain represented the excess of the fair value of acquired net assets of \$6.4 million over the purchase price of \$2.5 million. The indicated \$6.4 million fair value of acquired net assets reflected the reduction of the carrying value of certain applicable assets to zero. In addition, we recorded an extraordinary gain of \$816,000 in the year ended December 31, 2003 representing an adjustment to the fair value of PSIC due to the recognition of deferred tax assets as part of the acquisition. PSIC is included in our insurance segment.

#### *Income Taxes*

ACGL changed its legal domicile from the United States to Bermuda in November 2000. Under current Bermuda law, we are not obligated to pay any taxes in Bermuda based upon income or capital gains. We have received a written undertaking from the Minister of Finance in Bermuda under the Exempted Undertakings Tax Protection Act of 1966 that in the event legislation is enacted in Bermuda imposing tax computed on profits, income, gain or appreciation on any capital asset, or tax in the nature of estate duty or inheritance tax, such tax will not be applicable to us or our operations until March 28, 2016.

ACGL will be subject to U.S. federal income tax only to the extent that it derives U.S. source income that is subject to U.S. withholding tax or income that is effectively connected with the conduct of a trade or business within the U.S. and is not exempt from U.S. tax under an applicable income tax treaty. ACGL will be subject to a withholding tax on dividends from U.S. investments and interest from certain U.S. taxpayers. ACGL does not consider itself to be engaged in a trade or business within the U.S. and, consequently, does not expect to be subject to direct U.S. income taxation. However, because

there is uncertainty as to the activities which constitute being engaged in a trade or business within the United States, there can be no assurances that the U.S. Internal Revenue Service will not contend successfully that ACGL or its non-U.S. subsidiaries are engaged in a trade or business in the United States. If ACGL or any of its non-U.S. subsidiaries were subject to U.S. income tax, ACGL's shareholders' equity and earnings could be materially adversely affected. ACGL's U.S. subsidiaries are subject to U.S. income taxes on their worldwide income. See "Business—Risk Factors—Risks Relating to Taxation" and "Business—Tax Matters."

The 2003, 2002 and 2001 income tax provisions resulted in effective tax rates of 9.0%, 12.5% and 44.0%, respectively, on income before extraordinary items excluding the effect of reductions in our valuation allowance in the amount of \$773,000, \$7.4 million and \$8.5 million, respectively. Our effective tax rate fluctuates from year to year consistent with the relative mix of income reported by jurisdiction due primarily to the varying tax rates in each jurisdiction. We currently estimate that our comparable income tax provision in 2004 will result in an effective tax rate of approximately 11.0%, although no assurances can be given to that effect. See note 8, "Income Taxes," of the notes accompanying our consolidated financial statements for a reconciliation of the difference between the provision for income taxes and the expected tax provision at the weighted average statutory tax rate for the years ended December 31, 2003, 2002 and 2001.

At December 31, 2003, we have a valuation allowance of \$1.4 million against a deferred tax asset in one of our subsidiaries that currently does not have a business plan to produce significant future taxable income. See note 8, "Income Taxes," of the notes accompanying our consolidated financial statements, and "—Critical Accounting Policies, Estimates and Recent Accounting Pronouncements—Valuation Allowance."

We have net operating loss carryforwards in our U.S. operating subsidiaries totaling approximately \$38.8 million at December 31, 2003. Such net operating losses are currently available to offset our future U.S. taxable income and expire between 2011 and 2023. Full utilization of our net operating losses would reduce future taxes payable by \$13.6 million. In addition, we have an alternative minimum tax credit carryforward in the amount of \$1.4 million, which can be carried forward without expiration. On November 20, 2001, we underwent an ownership change for U.S. federal income tax purposes as a result of the capital raised at that time. As a result of this ownership change, limitations are imposed upon the utilization of our existing net operating losses and the alternative minimum tax credit carryforward. See note 8, "Income Taxes," of the notes accompanying our consolidated financial statements.

### **Liquidity and Capital Resources**

ACGL is a holding company whose assets primarily consist of the shares in its subsidiaries. Generally, we depend on our available cash resources, liquid investments and dividends or other distributions from our subsidiaries to make payments, including the payment of operating expenses we may incur and for any dividends our board of directors may determine. ACGL does not currently intend to declare any dividends.

Pursuant to a shareholders agreement that we entered into in connection with the November 2001 capital infusion, we have agreed not to declare any dividend or make any other distribution on our common shares, and not to repurchase any common shares, until we have repurchased from funds affiliated with Warburg Pincus LLC ("Warburg Pincus funds"), funds affiliated with Hellman & Friedman LLC ("Hellman & Friedman funds") and the other holders of our preference shares, pro rata, on the basis of the amount of each of these shareholders' investment in us at the time of such repurchase, preference shares having an aggregate value of \$250.0 million, at a per share price acceptable to these shareholders.

On a consolidated basis, our aggregate invested assets, including cash and short-term investments, totaled \$3.72 billion at December 31, 2003. ACGL's readily available cash, short-term investments and marketable securities, excluding amounts held by our regulated insurance and reinsurance subsidiaries, totaled \$10.6 million at December 31, 2003.

The ability of our regulated insurance and reinsurance subsidiaries to pay dividends or make distributions is dependent on their ability to meet applicable regulatory standards. Under Bermuda law, Arch Reinsurance Ltd. ("Arch Re Bermuda") is required to maintain a minimum solvency margin (*i.e.*, the amount by which the value of its general business assets must exceed its general business liabilities) equal to the greatest of (1) \$100,000,000, (2) 50% of net premiums written (being gross premiums written by us less any premiums ceded by us, but we may not deduct more than 25% of gross premiums when computing net premiums written) and (3) 15% of loss and other insurance reserves. Arch Re Bermuda is prohibited from declaring or paying any dividends during any financial year if it is not in compliance with its minimum solvency margin. In addition, Arch Re Bermuda is prohibited from declaring or paying in any financial year dividends of more than 25% of its total statutory capital and surplus (as shown on its previous financial year's statutory balance sheet) unless it files, at least seven days before payment of such dividends, with the Bermuda Monetary Authority an affidavit stating that it will continue to meet the required margins. In addition, Arch Re Bermuda is prohibited, without prior approval of the Bermuda Monetary Authority, from reducing by 15% or more its total statutory capital, as set out in its previous year's financial statements. At December 31, 2003, Arch Re Bermuda had statutory capital and surplus as determined under Bermuda law of \$1.43 billion (including ownership interests in its subsidiaries). Accordingly, 15% of Arch Re Bermuda's capital, or approximately \$214.7 million, is available for dividends during 2004 without prior approval under Bermuda law, as discussed above. Our U.S. insurance and reinsurance subsidiaries, on a consolidated basis, may not pay any significant dividends or distributions during 2004 without prior regulatory approval. In addition, the ability of our insurance and reinsurance subsidiaries to pay dividends could be constrained by our dependence on financial strength ratings from independent rating agencies. Our ratings from these agencies depend to a large extent on the capitalization levels of our insurance and reinsurance subsidiaries.

We are required to maintain assets on deposit with various regulatory authorities to support our insurance and reinsurance operations. The assets on deposit are available to settle insurance and reinsurance liabilities to third parties. We also have investments in segregated portfolios primarily to provide collateral or guarantees for letters of credit to third parties. At December 31, 2003 and 2002, such amounts approximated \$289.7 million and \$129.2 million, respectively. In addition, Arch Re Bermuda maintains assets in trust accounts to support insurance and reinsurance transactions with affiliated U.S. companies. At December 31, 2003 and 2002, such amounts approximated \$1.12 billion and \$233.1 million, respectively.

ACGL, through its subsidiaries, provides financial support to certain of its insurance subsidiaries and affiliates, through certain reinsurance arrangements essential to the ratings of such subsidiaries. Except as described in the preceding sentence, or where express reinsurance, guarantee or other financial support contractual arrangements are in place, each of ACGL's subsidiaries or affiliates is solely responsible for its own liabilities and commitments (and no other ACGL subsidiary or affiliate is so responsible). Any reinsurance arrangements, guarantees or other financial support contractual arrangements that are in place are solely for the benefit of the ACGL subsidiary or affiliate involved and third parties (creditors or insureds of such entity) are not express beneficiaries of such arrangements.

Cash flow from operating activities on a consolidated basis are provided by premiums collected, fee income, investment income and collected reinsurance recoverables, offset by losses and loss adjustment expense payments, reinsurance premiums paid, operating costs and current taxes paid. Consolidated cash provided by operating activities was \$1.61 billion for the year ended December 31,

2003, compared to \$669.1 million for the year ended December 31, 2002. The increase in cash flow in the 2003 periods compared to the 2002 periods was primarily due to the growth in premium volume and a low level of claim payments due, in part, to the limited history of our insurance and reinsurance operations.

We monitor our capital adequacy on a regular basis. The future capital requirements of our business will depend on many factors, including our ability to write new business successfully and to establish premium rates and reserves at levels sufficient to cover losses. Our ability to underwrite is largely dependent upon the quality of our claims paying and financial strength ratings as evaluated by independent rating agencies. In particular, we require (1) sufficient capital to maintain our financial strength ratings, as issued by several ratings agencies, at a level considered necessary by management to enable our key operating subsidiaries to compete; (2) sufficient capital to enable its underwriting subsidiaries to meet the capital adequacy tests performed by statutory agencies in the U.S. and other key markets; (3) letters of credit and other forms of collateral that are required by our non-U.S. operating companies that are "non-admitted" under U.S. state insurance regulations; and (4) revolving credit to meet short-term liquidity needs.

To the extent that our existing capital is insufficient to fund our future operating requirements or maintain such ratings, we may need to raise additional funds through financings or limit our growth. If we are not able to obtain adequate capital, our business, results of operations and financial condition could be adversely affected, which could include, among other things, the following possible outcomes: (1) potential downgrades in the financial strength ratings assigned by ratings agencies to our operating subsidiaries, which could place those operating subsidiaries at a competitive disadvantage compared to higher-rated competitors; (2) reductions in the amount of business that our operating subsidiaries are able to write in order to meet capital adequacy-based tests enforced by statutory agencies; and (3) any resultant ratings downgrades could increase the cost of bank credit and letters of credit.

In addition to common share capital, we depend on external sources of finance to support our underwriting activities, which can be in the form (or any combination) of debt securities, preference shares and bank credit. Any equity or debt financing, if available at all, may be on terms that are unfavorable to us. In the case of equity financings, dilution to our shareholders could result, and, in any case, such securities may have rights, preferences and privileges that are senior to those of our outstanding securities.

We are currently reviewing our capital needs for 2004. Based on current available information, it is possible that we may raise additional debt and/or equity capital during the first half of 2004 in order to support our underwriting activities. As part of our future capital raising activities, we may also seek to supplement, or replace, our current revolving credit facility borrowings (described below) with longer term debt securities or other debt financing.

We expect that our operational needs, including our anticipated insurance obligations and operating and capital expenditure needs, for the next twelve months, at a minimum, will be met by our balance of cash and short-term investments, as well as by funds generated from underwriting activities and investment income and proceeds on the sale or maturity of our investments, or as described in the preceding paragraphs.

We have access to letter of credit facilities for up to \$300 million as of December 31, 2003. When issued under the letter of credit facilities, such letters of credit are secured by a portion of our investment portfolio. At December 31, 2003, we had approximately \$168.3 million in outstanding letters of credit under the letter of credit facilities which were secured by investments totaling \$177.6 million. We were in compliance with all covenants contained in the agreements for such letters of credit facilities at December 31, 2003. The letter of credit facilities expire in August 2004 and November 2004. It is anticipated that the letter of credit facilities will be renewed (or replaced) on expiry, but such renewal (or replacement) will be subject to the availability of credit from banks which

we utilize. In the event such support is insufficient, we could be required to provide alternative security to cedents. This could take the form of additional insurance trusts supported by our investment portfolio or funds withheld using our cash resources. If we are unable to post security in the form of letters of credit or trust funds when required under such regulations, our operations could be significantly and negatively affected. In addition to letters of credit, we have and may establish insurance trust accounts in the U.S. and Canada to secure our reinsurance amounts payable as required. At December 31, 2003, CAD \$29.3 million had been set aside in Canadian trust accounts. See “—Contractual Obligations and Commercial Commitments—Letter of Credit Facilities” for a description of the credit facility.

In September 2003, we entered into an unsecured credit facility with a syndicate of banks which provides for the borrowing of up to \$300.0 million. The credit facility is in the form of a 364-day revolving credit agreement that may be converted by us into a two-year term loan at expiration. On September 29, 2003, we borrowed \$200.0 million under the credit facility. The proceeds from such borrowings were contributed to our subsidiaries to support their underwriting activities. The facility is available to provide capital in support of our growing insurance and reinsurance businesses, as well as other general corporate purposes. We are required to comply with certain covenants under the credit facility agreement. These covenants require, among other things, that we (i) maintain a debt to shareholders' equity ratio of not greater than 0.35 to 1; (ii) maintain shareholders' equity in excess of \$1.0 billion plus 40% of future aggregate net income (not including any future net losses) and 40% of future aggregate capital raising proceeds; and (iii) that our principal insurance and reinsurance subsidiaries maintain at least a “B+ +” rating from A.M. Best. We were in compliance with all covenants contained in the Credit Facility agreement at December 31, 2003. See “—Contractual Obligations and Commercial Commitments—Credit Line” for a description of the credit facility.

In January 2004, the Securities and Exchange Commission declared effective our universal shelf registration statement. This registration statement, which replaces our previous shelf registration statement with an unused portion of approximately \$309 million, allows for the possible future offer and sale by us of up to \$500 million of various types of securities, including unsecured debt securities, preference shares, common shares, warrants, share purchase contracts and units and depositary shares. The shelf registration statement enables us to cost effectively and efficiently access public debt and/or equity capital markets in order to meet our future capital needs. Any additional issuance of common shares by us could have the effect of diluting our earnings per share and our book value per share. In addition, the registration statement allows selling shareholders to resell up to an aggregate of 9,892,594 common shares that they own (or may acquire upon the conversion of outstanding preference shares or warrants) in one or more offerings from time to time pursuant to existing registration rights principally granted in connection with the 2001 capital infusion. We will not receive any proceeds from the shares offered by the selling shareholders. This report is not an offer to sell or the solicitation of an offer to buy nor shall there be any sale of these securities in any state in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state.

At December 31, 2003, our total capital of \$1.91 billion consisted of revolving credit facility borrowings of \$200.0 million, representing 10.5% of the total, and shareholders' equity of \$1.71 billion, representing 89.5% of the total. At December 31, 2002, our total capital of \$1.41 billion consisted of shareholders' equity with no borrowings outstanding. The increase in our total capital during 2003 was primarily attributable to the effects of net income for the year ended December 31, 2003 and the borrowings under our credit facility in September 2003.

## **Certain Matters Which May Materially Affect Our Results of Operations and/or Financial Condition**

### ***Reserves for Losses and Loss Adjustment Expenses***

We establish reserves for losses and loss adjustment expenses which represent estimates involving actuarial and statistical projections, at a given point in time, of our expectations of the ultimate settlement and administration costs of losses incurred. Estimating loss reserves is inherently difficult, which is exacerbated by the fact that we are a relatively new company with relatively limited historical experience upon which to base such estimates. We utilize actuarial models as well as available historical insurance industry loss ratio experience and loss development patterns to assist in the establishment of loss reserves. Actual losses and loss adjustment expenses paid will deviate, perhaps substantially, from the reserve estimates reflected in our financial statements. See the section above entitled “—Critical Accounting Policies, Estimates and Recent Accounting Pronouncements—Reserves for Losses and Loss Adjustment Expenses.”

### ***Premium Estimates***

Our premiums written and premiums receivable include estimates for our insurance and reinsurance operations. Insurance premiums written include estimates in our program business and aviation business. Reinsurance premiums written include amounts reported by the ceding companies, supplemented by our own estimates of premiums for which ceding company reports have not been received. The basis for the amount of premiums written recognized varies based on the types of contracts we write. Premiums on our excess of loss and pro rata reinsurance contracts are estimated when the business is underwritten. For excess of loss contracts, the minimum premium, as defined in the contract, is generally recorded as an estimate of premiums written as of the date of the treaty. Estimates of premiums written under pro rata contracts are recorded in the period in which the underlying risks are expected to incept and are based on information provided by the brokers and the ceding companies. For multi-year reinsurance treaties which are payable in annual installments, only the initial annual installment is included as premiums written at policy inception due to the ability of the reinsured to commute or cancel coverage during the term of the policy. The remaining annual installments are included as premiums written at each successive anniversary date within the multi-year term.

Premium estimates are reviewed at least quarterly, based on management’s detailed review by treaty, comparing actual reported premiums to expected ultimate premiums. In addition, a confirmation by the responsible underwriter to the broker as to the realization of the expected premium is performed prior to the detailed treaty review along with a review of the aging and collection of premium estimates recorded. Based on such review, management evaluates the appropriateness of the premium estimates, and any adjustment to these estimates is recorded in the period in which it becomes known. Adjustments to original premium estimates could be material and such adjustments could directly and significantly impact earnings favorably or unfavorably in the period they are determined because the subject premium may be fully or substantially earned. A significant portion of amounts included as premiums receivable, which represent estimated premiums written, net of commissions, is not currently due based on the terms of the underlying contracts. Due to the above process, management believes that the premium estimates included in premiums receivable will be collectible and, therefore, no provision for doubtful accounts has been recorded on the premium estimates at December 31, 2003.

### ***Reinsurance Protection and Recoverables***

For purposes of limiting our risk of loss, we reinsure a portion of our exposures, paying to reinsurers a part of the premiums received on the policies we write, and we may also use retrocessional

protection. For the year ended December 31, 2003, ceded premiums written represented approximately 15.1% of gross premiums written, compared to 15.2% for the year ended December 31, 2002.

The availability and cost of reinsurance and retrocessional protection is subject to market conditions, which are beyond our control. Currently, the market for these arrangements is experiencing high demand for various products and it is not certain that we will be able to obtain adequate protection at cost effective levels. As a result of such market conditions and other factors, we may not be able to successfully mitigate risk through reinsurance and retrocessional arrangements. Further, we are subject to credit risk with respect to our reinsurers and retrocessionaires because the ceding of risk to reinsurers and retrocessionaires does not relieve us of our liability to the clients or companies we insure or reinsure. Our failure to establish adequate reinsurance or retrocessional arrangements or the failure of our existing reinsurance or retrocessional arrangements to protect us from overly concentrated risk exposure could adversely affect our financial condition and results of operations.

We monitor the financial condition of our reinsurers and attempt to place coverages only with substantial, financially sound carriers. At December 31, 2003, approximately 82.7% of our reinsurance recoverables on paid and unpaid losses of \$428.0 million (not including prepaid reinsurance premiums) were due from carriers which had an A.M. Best rating of "A-" or better. Our recoverable on paid and unpaid losses from Sentry Insurance a Mutual Company ("Sentry") represented 5.7% of our total shareholders' equity at December 31, 2003, as described below. No other reinsurance recoverables exceeded 5% of our total shareholders' equity.

The following table details our reinsurance recoverables at December 31, 2003:

	<u>% of Total</u>	<u>Best A.M. Rating(1)</u>
Sentry Insurance a Mutual Company(2) . . . . .	22.7%	A+
Alternative market recoverables(3) . . . . .	11.5%	NR
Lloyd's of London syndicates(4) . . . . .	8.3%	A-
Everest Reinsurance Corporation . . . . .	7.6%	A+
Swiss Reinsurance America Corporation . . . . .	6.0%	A+
Employers Reinsurance Corporation . . . . .	5.7%	A
Hartford Fire Insurance Company . . . . .	2.9%	A+
Odyssey Reinsurance Group . . . . .	2.9%	A
Allied World Assurance Company Ltd. . . . .	2.4%	A+
Berkley Insurance Company . . . . .	2.3%	A
Folksamerica Reinsurance Company . . . . .	2.2%	A
ACE Property & Casualty Insurance Company . . . . .	2.1%	A
Lyndon Property Insurance Company(5) . . . . .	1.5%	A-
Gerling Global Reinsurance Corporation of America(6) . . . . .	1.5%	NR
Lumbermens Mutual Casualty Company . . . . .	1.2%	D
PMA Capital Insurance Company . . . . .	0.9%	B++
AXA Corporate Solutions Reinsurance Company . . . . .	0.5%	B+
Knight Insurance Company Ltd. . . . .	0.4%	B+
Trenwick America Reinsurance Corporation . . . . .	0.2%	NR
Commercial Risk Re-Insurance Company . . . . .	0.1%	B
SCOR Reinsurance Company . . . . .	0.1%	B++
All other(7) . . . . .	17.0%	
Total . . . . .	<u>100.0%</u>	

(1) The financial strength ratings are as of March 1, 2004 and were assigned by A.M. Best based on its opinion of the insurer's financial strength as of such date. An explanation of the ratings listed in the table follows: the rating of "A+" is designated "Superior"; the "A" and "A-" ratings are

designated "Excellent"; ratings of "B++" and "B+" are designated "Very Good"; the rating of "B" is designated "Fair"; and the "D" rating is designated "Poor." Additionally, A.M. Best has five classifications within the "Not Rated" or "NR" category. Reasons for an "NR" rating being assigned by A.M. Best include insufficient data, size or operating experience, companies which are in run-off with no active business writings or are dormant, companies which disagree with their rating and request that a rating not be published or insurers that request not to be formally evaluated for the purposes of assigning a rating opinion.

- (2) In connection with our acquisition of Arch Specialty in February 2002, the seller, Sentry, agreed to assume all liabilities arising out of Arch Specialty's business prior to the closing of the acquisition. In addition to the guarantee provided by Sentry, substantially all of the recoverable from Sentry is still subject to the original reinsurance agreements inuring to Arch Specialty and, to the extent Sentry fails to comply with its payment obligations to us, we may obtain reimbursement from the third party reinsurers under such agreements.
- (3) Includes amounts recoverable from separate cell accounts in our alternative markets unit. Substantially all of such amounts are collateralized with letters of credit or deposit funds.
- (4) The A.M. Best group rating of "A-" (Excellent) has been applied to all Lloyd's of London syndicates.
- (5) In connection with our acquisition of Western Diversified in June 2003, the seller, Protective Life Corporation, and certain of its affiliates (including Lyndon Property Insurance Company) agreed to assume all liabilities arising out of Western Diversified's business prior to the closing of the acquisition. The balance due from Lyndon Property Insurance Company reflected above includes all such amounts.
- (6) Gerling Global Reinsurance Corporation of America is a stand-alone subsidiary of Gerling Globale Rückversicherungs-AG. Gerling Global Reinsurance Corporation of America reported that it had approximately \$71 million of statutory policyholders' surplus at December 31, 2003 and is current in its payment obligations to us.
- (7) The following table provides a breakdown of the "All other" category by A.M. Best rating:

	<u>% of Total</u>
Companies rated "A-" or better . . . . .	16.0%
Companies not rated . . . . .	<u>1.0%</u>
Total . . . . .	<u>17.0%</u>

***Natural and Man-Made Catastrophic Events***

We have large aggregate exposures to natural and man-made catastrophic events. Catastrophes can be caused by various events, including, but not limited to, hurricanes, floods, windstorms, earthquakes, hailstorms, explosions, severe winter weather and fires. Catastrophes can also cause losses in non-property business such as workers' compensation or general liability. In addition to the nature of property business, we believe that economic and geographic trends affecting insured property, including inflation, property value appreciation and geographic concentration tend to generally increase the size of losses from catastrophic events over time.

We have substantial exposure to unexpected, large losses resulting from future man-made catastrophic events, such as acts of war, acts of terrorism and political instability. These risks are inherently unpredictable and recent events may lead to increased frequency and severity of losses. It is difficult to predict the timing of such events with statistical certainty or estimate the amount of loss any given occurrence will generate. It is not possible to eliminate completely our exposure to unforecasted or unpredictable events and, to the extent that losses from such risks occur, our financial condition and

results of operations could be materially adversely affected. Therefore, claims for natural and man-made catastrophic events could expose us to large losses and cause substantial volatility in our results of operations, which could cause the value of our common shares to fluctuate widely. In certain instances, we specifically insure and reinsure risks resulting from terrorism. Even in cases where we attempt to exclude losses from terrorism and certain other similar risks from some coverages written by us, we may not be successful in doing so. Moreover, irrespective of the clarity and inclusiveness of policy language, there can be no assurance that a court or arbitration panel will limit enforceability of policy language or otherwise issue a ruling adverse to us.

We seek to limit our loss exposure by writing a number of our reinsurance contracts on an excess of loss basis, adhering to maximum limitations on reinsurance written in defined geographical zones, limiting program size for each client and prudent underwriting of each program written. In the case of proportional treaties, we generally seek per occurrence limitations or loss ratio caps to limit the impact of losses from any one event. We cannot be sure that any of these loss limitation methods will be effective. We also seek to limit our loss exposure by geographic diversification. Geographic zone limitations involve significant underwriting judgments, including the determination of the area of the zones and the inclusion of a particular policy within a particular zone's limits. There can be no assurance that various provisions of our policies, such as limitations or exclusions from coverage or choice of forum, will be enforceable in the manner we intend. Disputes relating to coverage and choice of legal forum may also arise. Underwriting is inherently a matter of judgment, involving important assumptions about matters that are inherently unpredictable and beyond our control, and for which historical experience and probability analysis may not provide sufficient guidance. One or more catastrophic or other events could result in claims that substantially exceed our expectations, which could have a material adverse effect on our financial condition or our results of operations, possibly to the extent of eliminating our shareholders' equity.

For our catastrophe exposed business, we seek to limit the amount of exposure we will assume from any one insured or reinsured and the amount of the exposure to catastrophe losses in any geographic zone. We monitor our exposure to catastrophic events, including earthquake, wind and specific terrorism exposures, and periodically reevaluate the estimated probable maximum pre-tax loss for such exposures. Our estimated probable maximum pre-tax loss is determined through the use of modeling techniques, but such estimate does not represent our total potential loss for such exposures. We seek to limit the probable maximum pre-tax loss to a percentage of our total shareholders' equity for severe catastrophic events. Currently, we generally seek to limit the probable maximum pre-tax loss to approximately 25% of total shareholders' equity for a severe catastrophic event in any geographic zone that could be expected to occur once in every 250 years. There can be no assurances that we will not suffer pre-tax losses greater than 25% of our total shareholders' equity from one or more catastrophic events due to several factors, including the inherent uncertainties in estimating the frequency and severity of such events and the margin of error in making such determinations resulting from potential inaccuracies in the data provided by clients and brokers, the modeling techniques and the application of such techniques. In addition, depending on business opportunities and the mix of business that may comprise our insurance and reinsurance portfolio, we may seek to limit the probable maximum pre-tax loss to a higher percentage of our total shareholders' equity for our catastrophe exposed business.

For property catastrophe-related exposures from January 1, 2003 through September 30, 2003, our insurance operations entered into a reinsurance treaty which provides coverage for property catastrophe-related losses equal to 95% of the first \$70 million in excess of a \$50 million retention of such losses. On October 1, 2003, our insurance operations increased their coverage for property catastrophe-related losses to 95% of the first \$95 million in excess of a \$50 million retention of such losses. In addition, our reinsurance operations have purchased reinsurance which primarily provides coverage for certain catastrophe-related losses in California and Florida. Recoveries under such

reinsurance treaties are calculated based upon the size of insured industry losses. In the future, we may seek to purchase additional catastrophe or other reinsurance protection. The availability and cost of such reinsurance protection is subject to market conditions, which are beyond our control. As a result of market conditions and other factors, we may not be successful in obtaining such protection. See “—Reinsurance Protection and Recoverables” above.

#### ***Foreign Currency Exchange Rate Fluctuation***

We write business on a worldwide basis, and our net income may be affected by fluctuations in the value of currencies other than the U.S. dollar. Changes in foreign currency exchange rates can reduce our revenues and increase our liabilities and costs, as measured in the U.S. dollar as our functional currency. We have not attempted to reduce our exposure to these exchange rate risks by investing in securities denominated in currencies other than the U.S. dollar. We may therefore suffer losses solely as a result of exchange rate fluctuations. In order to minimize the impact of exchange rate fluctuations, we are considering reducing our exposure to these exchange rate risks in 2004 by investing in securities denominated in currencies other than the U.S. dollar.

#### ***Management and Operations***

As a relatively new insurance and reinsurance company, our success will depend on our ability to integrate new management and operating personnel and to establish and maintain operating procedures and internal controls (including the timely and successful implementation of our information technology initiatives, which include the implementation of improved computerized systems and programs to replace or support manual systems) to effectively support our business and our regulatory and reporting requirements, and no assurances can be given as to the success of these endeavors, especially in light of the rapid growth of our business. Accordingly, we have been, and are continuing to, enhance our procedures and controls, including our control over financial reporting.

#### ***Shareholders Agreement***

The Warburg Pincus funds and the Hellman & Friedman funds together control a majority of our voting power on a fully-diluted basis and have the right to nominate a majority of directors to our board under the shareholders agreement entered into in connection with the November 2001 capital infusion. The shareholders agreement also provides that we cannot engage in certain transactions, including mergers and acquisitions and transactions in excess of certain amounts, without the consent of a designee of the Warburg Pincus funds and a designee of the Hellman & Friedman funds. These provisions could have an effect on the operation of our business and, to the extent these provisions discourage takeover attempts, they could deprive our shareholders of opportunities to realize takeover premiums for their shares or could depress the market price of our common shares. By reason of their ownership and the shareholders agreement, the Warburg Pincus funds and the Hellman & Friedman funds are able to strongly influence or effectively control actions to be taken by us. The interests of these shareholders may differ materially from the interests of the holders of our common shares, and these shareholders could take actions that are not in the interests of the holders of our common shares.

#### ***Contingencies Relating to the Sale of Prior Reinsurance Operations***

See note 13, “Acquisition of Subsidiaries and Disposition of Prior Reinsurance Operations,” of the notes accompanying our consolidated financial statements.

## **Industry and Ratings**

We operate in a highly competitive environment, and since the September 11, 2001 events, new capital has entered the market. These factors may mitigate the benefits that the financial markets may perceive for the property and casualty insurance industry, and we cannot offer any assurances that we will be able to compete successfully in our industry or that the intensity of competition in our industry will not erode profitability for insurance and reinsurance companies generally, including us. In addition, we can offer no assurances that we will participate at all or to the same extent as more established or other companies in any price increases or increased profitability in our industry. If we do not share in such price increases or increased profitability, our financial condition and results of operations could be materially adversely affected.

Financial strength and claims paying ratings from third party rating agencies are instrumental in establishing the competitive positions of companies in our industry. Periodically, rating agencies evaluate us to confirm that we continue to meet their criteria for the ratings assigned to us by them. Our reinsurance subsidiaries, Arch Re U.S. and Arch Re Bermuda, and our principal insurance subsidiaries, Arch Insurance Company, Arch E&S and Arch Specialty, each currently has a financial strength rating of "A-" (Excellent) from A.M. Best. The "A-" rating is the fourth highest out of fifteen ratings assigned by A.M. Best. With respect to our non-standard automobile insurers, American Independent has a financial strength rating of "B+" (Very Good) from A.M. Best, and PSIC has a financial strength rating of "A-" (Excellent) from A.M. Best. The "B+" rating is the sixth highest out of fifteen ratings assigned by A.M. Best. We are in the process of obtaining a financial strength rating for Western Diversified, acquired in 2003, which currently has been assigned "NR-3" (Rating Procedure Inapplicable) from A.M. Best.

Rating agencies have been coming under increasing pressure as a result of high-profile corporate bankruptcies and may, as a result, increase their scrutiny of rated companies, revise their rating policies or take other action. We can offer no assurances that our ratings will remain at their current levels, or that our security will be accepted by brokers and our insureds and reinsureds. A ratings downgrade, or the potential for such a downgrade, could adversely affect both our relationships with agents, brokers, wholesalers and other distributors of our existing products and services and new sales of our products and services.

## **Contractual Obligations and Commercial Commitments**

### *Letter of Credit Facilities*

We have access to letter of credit facilities ("LOC Facilities") for up to \$300 million as of December 31, 2003. The principal purpose of the LOC Facilities is to issue, as required, evergreen standby letters of credit in favor of primary insurance or reinsurance counterparties with which we have entered into reinsurance arrangements to ensure that such counterparties are permitted to take credit for reinsurance obtained from our reinsurance subsidiaries in United States jurisdictions where such subsidiaries are not licensed or otherwise admitted as an insurer, as required under insurance regulations in the United States. The amount of letters of credit issued is driven by, among other things, the timing and payment of catastrophe losses, loss development of existing reserves, the payment pattern of such reserves, the further expansion of our business and the loss experience of such business.

When issued under the LOC Facilities, such letters of credit are secured by a portion of our investment portfolio. In addition, the LOC Facilities also requires the maintenance of certain financial covenants, with which we were in compliance at December 31, 2003. At such date, we had approximately \$168.3 million in outstanding letters of credit under the LOC Facility which were secured by investments totaling \$177.6 million. We were in compliance with all covenants contained in the agreements for such LOC Facilities at December 31, 2003. In addition to letters of credit, we have and

may establish insurance trust accounts in the U.S. and Canada to secure our reinsurance amounts payable as required. At December 31, 2003, CAD \$29.3 million had been set aside in Canadian trust accounts.

The LOC Facilities expire in August 2004 and November 2004. It is anticipated that the LOC Facilities will be renewed (or replaced) on expiry, but such renewal (or replacement) will be subject to the availability of credit from banks which we utilize. In the event such support is insufficient, we could be required to provide alternative security to cedents. This could take the form of additional insurance trusts supported by our investment portfolio or funds withheld using our cash resources. If we are unable to post security in the form of letters of credit or trust funds when required under such regulations, our operations could be significantly and negatively affected.

#### *Credit Line*

In September 2003, we entered into an unsecured credit facility with a syndicate of banks led by JPMorgan Chase Bank and Banc of America (the "Credit Facility"). The Credit Facility is in the form of a 364-day revolving credit agreement that may be converted by us into a two-year term loan at expiration. The Credit Facility provides for the borrowing of up to \$300.0 million with interest at a rate selected by us equal to either (i) an adjusted London InterBank Offered Rate (LIBOR) plus a margin or (ii) an alternate base rate ("Base Rate"). The Base Rate is the higher of the rate of interest established by JPMorgan Chase Bank as its prime rate or the Federal Funds rate plus 0.5% per annum. The payment terms for amounts converted into a term loan at expiration are as follows: 16.66% due 12 months following expiration, 16.67% due 18 months following expiration and 66.67% due 24 months following expiration. The facility is available to provide capital in support of our growing insurance and reinsurance businesses, as well as other general corporate purposes.

We are required to comply with certain covenants under the Credit Facility agreement. These covenants require, among other things, that we (i) maintain a debt to shareholders' equity ratio of not greater than 0.35 to 1; (ii) maintain shareholders' equity in excess of \$1.0 billion plus 40% of future aggregate net income (not including any future net losses) and 40% of future aggregate capital raising proceeds; and (iii) that our principal insurance and reinsurance subsidiaries maintain at least a "B++" rating from A.M. Best. We were in compliance with all covenants contained in the Credit Facility agreement at December 31, 2003.

On September 29, 2003, we borrowed \$200.0 million at a fixed interest rate of approximately 2.44% through March 2004. Following March 2004, the interest rate will be adjusted at the prevailing interest rate at such date as described above. The proceeds of such borrowings were contributed to our subsidiaries to support their underwriting activities. We incurred interest expense in connection with the facility of \$1.4 million during 2003. In addition, we paid \$1.3 million in fees in connection with the Credit Facility during 2003. Such fees were deferred and are being amortized over the loan period. The unamortized balance at December 31, 2003 was \$1.2 million.

### **Contractual Obligations**

The following table provides an analysis of our contractual commitments at December 31, 2003:

(in thousands)	Payment due by period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Long-term debt(1) . . . . .	\$200,000	\$200,000	\$ —	\$ —	\$ —
Operating lease obligations . . . . .	74,973	8,755	17,508	16,063	32,647
Purchase obligations . . . . .	15,030	6,540	8,490	—	—
Total . . . . .	<u>\$290,003</u>	<u>\$215,295</u>	<u>\$25,998</u>	<u>\$16,063</u>	<u>\$32,647</u>

(1) Represents borrowings under our unsecured credit facility, as discussed above, which is in the form of a 364-day revolving credit agreement that may be converted by us into a two-year term loan at expiration.

### **Off-Balance Sheet Arrangements**

We are not party to any transaction, agreement or other contractual arrangement to which an entity unconsolidated with us is a party that management believes is reasonably likely to have a current or future effect on our financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors. We are currently evaluating Interpretation No. 46R, "Consolidation of Variable Interest Entities", which was recently issued by the Financial Accounting Standards Board and will become effective for us during the 2004 first quarter. We currently believe that, under such interpretation, we will be required to consolidate the assets, liabilities and results of operations (if any) of a certain managing general agency in which one of our subsidiaries has an investment. Such agency ceased producing business in 1999 and is currently running-off its operations. Based on current information, no assets or liabilities of such agency would be required to be reflected on the face of our financial statements. Therefore, we believe that the adoption of FIN 46R will not have a material effect on our consolidated financial statements.

### **Investments**

At December 31, 2003, consolidated cash and invested assets totaled \$3.72 billion, consisting of \$286.2 million of cash and short-term investments, \$3.4 billion of publicly traded fixed maturity securities and \$32.5 million of privately held securities. At December 31, 2003, our fixed income portfolio, which includes fixed maturity securities and short-term investments, had an average Standard & Poor's quality rating of "AA+" and an average duration of 2.0 years. Our fixed income investment portfolio is currently managed by external investment advisors under our direction in accordance with investment guidelines provided by us. Our current guidelines stress preservation of capital, market liquidity and diversification of risk.

The following table summarizes the estimated fair value and carrying value and amortized cost of our fixed maturity securities and equity securities at December 31, 2003:

(in thousands)	December 31, 2003			
	Estimated Fair Value and Carrying Value	Gross Unrealized Gains	Gross Unrealized (Losses)	Amortized Cost
<b>Fixed maturities:</b>				
U.S. government and government agencies . . . . .	\$1,343,295	\$ 6,651	\$ (848)	\$1,337,492
Corporate bonds . . . . .	1,106,380	25,662	(1,612)	1,082,330
Asset backed securities . . . . .	690,927	2,400	(1,495)	690,022
Mortgage backed securities . . . . .	48,254	2,300	(54)	46,008
Municipal bonds . . . . .	209,568	2,358	(131)	207,341
	<u>3,398,424</u>	<u>39,371</u>	<u>(4,140)</u>	<u>3,363,193</u>
<b>Equity securities:</b>				
Privately held . . . . .	32,476	4,850	(6)	27,632
<b>Total . . . . .</b>	<u><u>\$3,430,900</u></u>	<u><u>\$44,221</u></u>	<u><u>\$(4,146)</u></u>	<u><u>\$3,390,825</u></u>

The following table presents the Standard & Poor's credit quality distribution of our fixed maturity securities at December 31, 2003:

(in thousands)	Estimated Fair Value and Carrying Value	% of Total
<b>Fixed Maturities:</b>		
AAA . . . . .	\$2,315,540	68.1%
AA . . . . .	205,278	6.1%
A . . . . .	696,802	20.5%
BBB . . . . .	180,804	5.3%
<b>Total . . . . .</b>	<u><u>\$3,398,424</u></u>	<u><u>100.0%</u></u>

As part of our investment strategy, we seek to establish a level of cash and highly liquid short-term and intermediate-term securities which, combined with expected cash flow, is believed by us to be adequate to meet our foreseeable payment obligations. We currently do not utilize derivative financial instruments such as futures, forward contracts, swaps or options or other financial instruments with similar characteristics such as interest rate caps or floors and fixed-rate loan commitments. Our portfolio includes investments, such as mortgage-backed securities, which are subject to prepayment risk. Our investments in mortgage-backed securities, which amounted to approximately \$48.3 million at December 31, 2003, or 1.3% of cash and invested assets, are classified as available for sale and are not held for trading purposes.

Our privately held equity securities consist of securities issued by privately held companies that are generally restricted as to resale or are otherwise illiquid and do not have readily ascertainable market values. The risk of investing in such securities is generally greater than the risk of investing in securities of widely held, publicly traded companies. At December 31, 2003, our private equity portfolio consisted of five investments totaling \$32.5 million in fair value, with additional investment portfolio commitments in an aggregate amount of approximately \$0.4 million. We do not currently intend to make any significant investments in privately held securities over and above our current commitments. See note 7, "Investment Information," of the notes accompanying our consolidated financial statements.

## Book Value Per Share

The following book value per share calculations are based on shareholders' equity of \$1.71 billion and \$1.41 billion at December 31, 2003 and 2002, respectively. Book value per share excludes the effects of stock options and Class B warrants. Diluted per share book value increased to \$25.52 at December 31, 2003 from \$21.20 at December 31, 2002. The increase in diluted per share book value was primarily attributable to our net income for the year ended December 31, 2003.

	December 31, 2003		December 31, 2002	
	Common Shares and Potential Common Shares	Cumulative Book Value Per Share	Common Shares and Potential Common Shares	Cumulative Book Value Per Share
Common shares(1) . . . . .	28,200,372	\$31.74	27,725,334	\$21.48
Series A convertible preference shares . . . . .	38,844,665	\$25.52	38,844,665	\$21.20
Common shares and potential common shares . . . . .	<u>67,045,037</u>		<u>66,569,999</u>	

(1) Book value per common share at December 31, 2003 and 2002 was determined by dividing (i) the difference between total shareholders' equity and the aggregate liquidation preference of the Series A convertible preference shares of \$815.7 million, by (ii) the number of common shares outstanding. Restricted common shares are included in the number of common shares outstanding as if such shares were issued on the date of grant.

Pursuant to the subscription agreement entered into in connection with the November 2001 capital infusion (the "Subscription Agreement"), an adjustment basket relating to certain non-core operations was calculated during the 2003 fourth quarter for purposes of determining whether we would be required to issue additional preference shares to the investors as a purchase price adjustment. The adjustment basket was equal to (1) the difference between value realized upon sale and the GAAP book value at the closing of the capital infusion (November 2001) (as adjusted based on a pre-determined growth rate) of agreed upon non-core businesses; plus (2) the difference between GAAP net book value of the insurance balances attributable to our core insurance operations with respect to any policy or contract written or having a specified effective date at the time of the final adjustment and those balances at the closing; minus (3) reductions in book value arising from costs and expenses relating to the transaction provided under the Subscription Agreement, actual losses arising out of breach of representations under the Subscription Agreement and certain other costs and expenses. If the adjustment basket had been calculated as less than zero, we would have been required to issue additional preference shares to the investors based on the decrease in value of the components of the adjustment basket. In February 2004, the parties agreed that the adjustment basket was greater than zero. Accordingly, no purchase price adjustment was required pursuant to the above calculations and, therefore, no additional preference shares will be issued to the investors. In addition, on the fourth anniversary of the closing, there will be a calculation of a further adjustment basket based on (1) liabilities owed to Folksamerica (if any) under the Asset Purchase Agreement, dated as of January 10, 2000, between us and Folksamerica, and (2) specified tax and ERISA matters under the Subscription Agreement.

## Market Sensitive Instruments and Risk Management

We are exposed to potential loss from various market risks, including changes in equity prices, interest rates and foreign currency exchange rates.

In accordance with the SEC's Financial Reporting Release No. 48, we performed a sensitivity analysis to determine the effects that market risk exposures could have on the future earnings, fair

values or cash flows of our financial instruments as of December 31, 2003. Market risk represents the risk of changes in the fair value of a financial instrument and consists of several components, including liquidity, basis and price risks.

The sensitivity analysis performed as of December 31, 2003 presents hypothetical losses in cash flows, earnings and fair values of market sensitive instruments which were held by us on December 31, 2003 and are sensitive to changes in interest rates and equity security prices. This risk management discussion and the estimated amounts generated from the following sensitivity analysis represent forward-looking statements of market risk assuming certain adverse market conditions occur. Actual results in the future may differ materially from these projected results due to actual developments in the global financial markets. The analysis methods used by us to assess and mitigate risk should not be considered projections of future events of losses.

The focus of the SEC's market risk rules is on price risk. For purposes of specific risk analysis, we employ sensitivity analysis to determine the effects that market risk exposures could have on the future earnings, fair values or cash flows of our financial instruments. The financial instruments included in the following sensitivity analysis consist of all of our cash and invested assets, excluding investments carried under the equity method of accounting.

#### ***Interest Rate Risk***

We consider the effect of interest rate movements on the market value of our assets under management by third party investment managers and the corresponding change in unrealized appreciation. The following table summarizes the effect that an immediate parallel shift in the U.S. interest rate yield curve would have on our assets under management by third party investment managers at December 31, 2003:

(in millions)	Interest Rate Shift in Basis Points				
	-100	-50	0	50	100
Total market value . . . . .	\$3,701.9	\$3,664.6	\$3,627.8	\$3,591.3	\$3,555.2
Market value change from base . . . . .	2.04%	1.02%	—	(1.01)%	(2.00)%
Change in unrealized appreciation . . . . .	\$ 74.1	\$ 36.8	—	\$ (36.5)	\$ (72.6)

In addition, our \$300.0 million unsecured credit facility is subject to variable interest rates. On September 29, 2003, we borrowed \$200.0 million at a fixed interest rate of approximately 2.44% through March 2004. At such date, the interest rate will be adjusted at the prevailing interest rate as defined in the credit facility agreement and we will be subject to interest rate risk to the extent that the interest rate available at such date is higher than the current rate. For further discussion on the credit facility, please refer to “—Contractual Obligations and Commercial Commitments—Credit Line.”

#### ***Equity Price Risk***

We are exposed to equity price risks on the private equity securities included in our investment portfolio. All of our privately held securities were issued by insurance and reinsurance companies or companies providing services to the insurance industry. We typically do not attempt to reduce or eliminate our market exposure on these securities. Investments included in our private portfolio include securities issued by privately held companies that are generally restricted as to resale or are otherwise illiquid and do not have readily ascertainable market values. Investments in privately held securities issued by privately held companies may include both equity securities and securities convertible into, or exercisable for, equity securities (some of which may have fixed maturities). Our privately held equity securities, which at December 31, 2003 were carried at a fair value of \$32.5 million, have exposure to price risk. The estimated potential losses in fair value for our privately held equity portfolio resulting

from a hypothetical 10% decrease in quoted market prices, dealer quotes or fair value is approximately \$3.3 million at December 31, 2003.

#### ***Foreign Currency Exchange Risk***

Foreign currency rate risk is the potential change in value, income and cash flow arising from adverse changes in foreign currency exchange rates. A 10% depreciation of the U.S. dollar against other currencies under our outstanding contracts at December 31, 2003 would have resulted in unrealized losses of approximately \$16.7 million and would have decreased diluted earnings per share by approximately \$0.25 for the year ended December 31, 2003. For further discussion on foreign exchange activity, please refer to “—Results of Operations—Net Foreign Exchange Gains or Losses.”

#### **ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

Reference is made to the information appearing above under the subheading “Market Sensitive Instruments and Risk Management” under the caption “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” which information is hereby incorporated by reference.

#### **ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

See our consolidated financial statements and notes thereto and required financial statement schedules on pages F-1 through F-50 and S-1 through S-7 below.

#### **ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE**

None.

#### **ITEM 9A. CONTROLS AND PROCEDURES**

In connection with the filing of this Form 10-K, our management, including the Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness of disclosure controls and procedures pursuant to applicable Exchange Act Rules. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the disclosure controls and procedures are effective to provide reasonable assurance that all material information required to be filed in this annual report has been made known to them in a timely fashion. There have been no changes in internal control over financial reporting that occurred during the most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, internal control over financial reporting, other than as described under “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Certain Matters Which May Materially Affect Our Results of Operations and/or Financial Condition—Management and Operations.”

Our management, including the Chief Executive Officer and Chief Financial Officer, does not expect that our disclosure controls or our internal controls will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. As a result of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons or by collusion of two or more people. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any

design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. As a result of the inherent limitations in a cost-effective control system, misstatement due to error or fraud may occur and not be detected. Accordingly, our disclosure controls and procedures are designed to provide reasonable, not absolute, assurance that the disclosure controls and procedures are met, and, as set forth above, the Chief Executive Officer and Chief Financial Officer have concluded, based on their evaluation as of December 31, 2003, that our disclosure controls and procedures were effective to provide reasonable assurance that the objectives of our disclosure control system were met.

### **PART III**

#### **ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT**

The information required by this item is incorporated by reference from the information to be included in our definitive proxy statement ("Proxy Statement") for our annual meeting of shareholders to be held in 2004, which we intend to file with the SEC before April 30, 2004. Copies of our code of ethics applicable to our chief executive officer, chief financial officer and principal accounting officer or controller are available free of charge to investors upon written request addressed to the attention of Arch Capital's corporate secretary, Wessex House, 45 Reid Street, Hamilton HM 12, Bermuda. In addition, on or before the date of our annual meeting of shareholders to be held in 2004, we will post on our website copies of such code of ethics, in addition to certain other basic corporate documents, including the charters of our audit committee, compensation committee and nominating committee. If any substantive amendments are made to the code of ethics or if there is a grant of a waiver, including any implicit waiver, we will disclose the nature of such amendment or waiver on our website or in a report on Form 8-K, to the extent required by applicable law or the rules and regulations of any exchange applicable to us. Our website address is intended to be an inactive, textual reference only and none of the material on our website is incorporated by reference into this report.

#### **ITEM 11. EXECUTIVE COMPENSATION**

The information required by this item is incorporated by reference from the information to be included in the Proxy Statement.

#### **ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS**

The information required by this item is incorporated by reference from the information to be included in the Proxy Statement.

#### **ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS**

The information required by this item is incorporated by reference from the information to be included in the Proxy Statement.

#### **ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES**

The information required by this item is incorporated by reference from the information to be included in our Proxy Statement.

**PART IV**

**ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K  
FINANCIAL STATEMENTS AND SCHEDULES**

Financial statements and schedules listed in the accompanying index to our financial statements and schedules on page F-1 are filed as part of this report, and are included in Item 8.

**EXHIBITS**

The exhibits listed in the accompanying exhibit index are filed as part of this report.

**REPORTS ON FORM 8-K**

ACGL submitted a report on Form 8-K during the 2003 fourth quarter on November 3, 2003 to furnish the 2003 third quarter earnings release issued by ACGL. ACGL also submitted a report on Form 8-K on February 17, 2004 to furnish the 2003 fourth quarter earnings release issued by ACGL. Since these reports contain information that was furnished, they are not incorporated by reference herein.

**SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

**ARCH CAPITAL GROUP LTD.**  
(Registrant)

By: /s/ CONSTANTINE IORDANOU

Name: Constantine Iordanou

Title: President & Chief Executive Officer

March 9, 2004

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

<u>Name</u>	<u>Title</u>	<u>Date</u>
<u>/s/ CONSTANTINE IORDANOU</u> Constantine Iordanou	President and Chief Executive Officer (Principal Executive Officer) and Director	March 9, 2004
* _____ Robert Clements	Chairman and Director	March 9, 2004
<u>/s/ JOHN D. VOLLARO</u> John D. Vollaro	Executive Vice President, Chief Financial Officer and Treasurer (Principal Financial and Principal Accounting Officer)	March 9, 2004
* _____ Peter A. Appel	Director	March 9, 2004
* _____ Wolfe "Bill" H. Bragin	Director	March 9, 2004
* _____ John L. Bunce, Jr.	Director	March 9, 2004

<u>Name</u>	<u>Title</u>	<u>Date</u>
* Sean D. Carney	Director	March 9, 2004
* Paul B. Ingrey	Director	March 9 2004
* Kewsong Lee	Director	March 9, 2004
* James J. Meenaghan	Director	March 9, 2004
* John M. Pasquesi	Director	March 9, 2004
* David R. Tunnell	Director	March 9, 2004
* Robert F. Works	Director	March 9, 2004

\* By John D. Vollaro, as attorney-in-fact and agent, pursuant to a power of attorney, a copy of which has been filed with the Securities and Exchange Commission as Exhibit 24 to this report.

/s/ JOHN D. VOLLARO

Name: John D. Vollaro  
Attorney-in-Fact

## INDEX TO FINANCIAL STATEMENTS AND SCHEDULES

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Schedules other than those listed above are omitted for the reason that they are not applicable.	

**Report of Independent Auditors**

To the Board of Directors and Shareholders of  
Arch Capital Group Ltd.

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of income, comprehensive income, changes in shareholders' equity and cash flows present fairly, in all material respects, the financial position of Arch Capital Group Ltd. and its subsidiaries at December 31, 2003 and 2002, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2003 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America, which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

*PricewaterhouseCoopers LLP*

New York, New York  
February 13, 2004

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**CONSOLIDATED BALANCE SHEETS**  
(In thousands, except share data)

	December 31,	
	2003	2002
<b>Assets</b>		
Investments:		
Fixed maturities available for sale, at fair value (amortized cost: 2003, \$3,363,193; 2002, \$1,334,637) . . . . .	\$3,398,424	\$1,382,104
Short-term investments available for sale, at fair value (amortized cost: 2003, \$228,816; 2002, \$480,541) . . . . .	229,348	480,541
Privately held securities (cost: 2003, \$27,632; 2002, \$31,630) . . . . .	32,476	31,536
<b>Total investments</b> . . . . .	<b>3,660,248</b>	<b>1,894,181</b>
Cash . . . . .	56,899	91,717
Accrued investment income . . . . .	30,316	17,127
Premiums receivable . . . . .	477,032	343,716
Funds held by reinsureds . . . . .	211,944	58,351
Unpaid losses and loss adjustment expenses recoverable . . . . .	409,451	211,100
Paid losses and loss adjustment expenses recoverable . . . . .	18,549	14,462
Prepaid reinsurance premiums . . . . .	236,061	120,191
Goodwill and intangible assets . . . . .	35,882	28,867
Deferred income tax asset . . . . .	33,979	16,514
Deferred acquisition costs, net . . . . .	275,696	148,960
Other assets . . . . .	139,264	46,142
<b>Total Assets</b> . . . . .	<b>\$5,585,321</b>	<b>\$2,991,328</b>
<b>Liabilities</b>		
Reserve for losses and loss adjustment expenses . . . . .	\$1,951,967	\$ 592,432
Unearned premiums . . . . .	1,402,998	761,310
Reinsurance balances payable . . . . .	117,916	89,191
Revolving credit agreement borrowings . . . . .	200,000	—
Investment accounts payable . . . . .	—	45,960
Other liabilities . . . . .	201,711	91,191
<b>Total Liabilities</b> . . . . .	<b>3,874,592</b>	<b>1,580,084</b>
<b>Commitments and Contingencies</b>		
<b>Shareholders' Equity</b>		
Preference shares (\$0.01 par value, 50,000,000 shares authorized, issued: 2003 and 2002, 38,844,665) . . . . .	388	388
Common shares (\$0.01 par value, 200,000,000 shares authorized, issued: 2003, 28,200,372; 2002, 27,725,334) . . . . .	282	277
Additional paid-in capital . . . . .	1,361,267	1,347,165
Deferred compensation under share award plan . . . . .	(15,004)	(25,290)
Retained earnings . . . . .	327,963	47,372
Accumulated other comprehensive income consisting of unrealized appreciation in value of investments, net of deferred income tax . . . . .	35,833	41,332
<b>Total Shareholders' Equity</b> . . . . .	<b>1,710,729</b>	<b>1,411,244</b>
<b>Total Liabilities and Shareholders' Equity</b> . . . . .	<b>\$5,585,321</b>	<b>\$2,991,328</b>

See Notes to Consolidated Financial Statements

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF INCOME**  
(In thousands, except share data)

	Years Ended December 31,		
	2003	2002	2001
<b>Revenues</b>			
Net premiums written	\$2,738,415	\$1,261,627	\$ 36,216
(Increase) decrease in unearned premiums	(525,816)	(606,651)	(5,298)
Net premiums earned	2,212,599	654,976	30,918
Net investment income	80,992	51,249	12,120
Net realized investment gains (losses)	25,317	(839)	18,382
Fee income	21,818	14,208	12,426
Other income	3,011	2,175	2,608
<b>Total revenues</b>	<u>2,343,737</u>	<u>721,769</u>	<u>76,454</u>
<b>Expenses</b>			
Losses and loss adjustment expenses	1,413,551	424,538	23,448
Acquisition expenses	424,008	118,961	813
Other operating expenses	185,943	76,699	27,692
Net foreign exchange gains	(997)	(2,449)	—
Non-cash compensation	14,732	49,480	2,771
Provision for loss of escrowed assets, net	—	—	(2,414)
<b>Total expenses</b>	<u>2,037,237</u>	<u>667,229</u>	<u>52,310</u>
<b>Income Before Income Taxes and Extraordinary Item</b>	306,500	54,540	24,144
Income taxes:			
Current	42,213	7,373	656
Deferred	(15,488)	(7,929)	1,472
Income tax expense (benefit)	26,725	(556)	2,128
<b>Income Before Extraordinary Item</b>	279,775	55,096	22,016
Extraordinary gain—excess of fair value of acquired net assets over cost (net of \$0 tax)	816	3,886	—
<b>Net Income</b>	<u>\$ 280,591</u>	<u>\$ 58,982</u>	<u>\$ 22,016</u>
<b>Net Income Per Share Data</b>			
<b>Basic:</b>			
Income before extraordinary item	\$ 10.65	\$ 2.74	\$ 1.71
Extraordinary gain	0.03	0.19	—
Net income	<u>\$ 10.68</u>	<u>\$ 2.93</u>	<u>\$ 1.71</u>
<b>Diluted:</b>			
Income before extraordinary item	\$ 4.13	\$ 0.92	\$ 1.29
Extraordinary gain	0.01	0.07	—
Net income	<u>\$ 4.14</u>	<u>\$ 0.99</u>	<u>\$ 1.29</u>
<b>Average Shares Outstanding</b>			
Basic	26,264,055	20,095,698	12,855,668
Diluted	67,777,794	59,662,178	17,002,231

See Notes to Consolidated Financial Statements

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY**  
(In thousands)

	Years Ended December 31,		
	2003	2002	2001
<b>Preference Shares</b>			
Balance at beginning of year	\$ 388	\$ 357	—
Preference shares issued	—	31	\$ 357
<b>Balance at end of year</b>	<b>388</b>	<b>388</b>	<b>357</b>
<b>Common Shares</b>			
Balance at beginning of year	277	135	127
Common shares issued	5	147	8
Common shares retired	—	(5)	—
<b>Balance at end of year</b>	<b>282</b>	<b>277</b>	<b>135</b>
<b>Additional Paid-in Capital</b>			
Balance at beginning of year	1,347,165	1,039,887	288,016
Common shares issued	6,285	319,580	11,345
Preference shares issued	—	—	740,380
Exercise of stock options	7,326	825	194
Common shares retired	(906)	(13,097)	(48)
Other	1,397	(30)	—
<b>Balance at end of year</b>	<b>1,361,267</b>	<b>1,347,165</b>	<b>1,039,887</b>
<b>Deferred Compensation Under Share Award Plan</b>			
Balance at beginning of year	(25,290)	(8,230)	(341)
Restricted common shares issued	(5,106)	(66,245)	(10,466)
Deferred compensation expense recognized	15,392	49,185	2,577
<b>Balance at end of year</b>	<b>(15,004)</b>	<b>(25,290)</b>	<b>(8,230)</b>
<b>Retained Earnings (Deficit)</b>			
Balance at beginning of year	47,372	(11,610)	(30,916)
Adjustment to retroactively adopt the equity method of accounting for the original investment in ART Services	—	—	(2,710)
Balance at beginning of year, as adjusted	47,372	(11,610)	(33,626)
Net income	280,591	58,982	22,016
<b>Balance at end of year</b>	<b>327,963</b>	<b>47,372</b>	<b>(11,610)</b>
<b>Treasury Shares, At Cost</b>			
Balance at beginning of year	—	—	—
Treasury shares purchased	—	—	(48)
Treasury shares retired	—	—	48
<b>Balance at end of year</b>	<b>—</b>	<b>—</b>	<b>—</b>
<b>Accumulated Other Comprehensive Income (Loss)</b>			
<b>Unrealized Appreciation (Decline) in Value of Investments, Net of Deferred Income Tax</b>			
Balance at beginning of year	41,332	(170)	18,432
Adjustment to retroactively adopt the equity method of accounting for the original investment in ART Services	—	—	(309)
Balance at beginning of year, as adjusted	41,332	(170)	18,123
Change in unrealized appreciation (decline)	(5,499)	41,502	(18,293)
<b>Balance at end of year</b>	<b>35,833</b>	<b>41,332</b>	<b>(170)</b>
<b>Total Shareholders' Equity</b>	<b>\$1,710,729</b>	<b>\$1,411,244</b>	<b>\$1,020,369</b>

See Notes to Consolidated Financial Statements

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**  
(In thousands)

	<u>Years Ended December 31,</u>		
	<u>2003</u>	<u>2002</u>	<u>2001</u>
<b>Comprehensive Income</b>			
Net income .....	\$280,591	\$ 58,982	\$ 22,016
Other comprehensive income (loss), net of deferred income tax			
Unrealized appreciation (decline) in value of investments:			
Unrealized holding gains (losses) arising during year, net of			
deferred income tax .....	17,334	38,884	(7,153)
Reclassification of net realized investment (gains) losses, net of			
income tax, included in net income .....	<u>(22,833)</u>	<u>2,618</u>	<u>(11,140)</u>
Other comprehensive income (loss) .....	<u>(5,499)</u>	<u>41,502</u>	<u>(18,293)</u>
<b>Comprehensive Income</b> .....	<u>\$275,092</u>	<u>\$100,484</u>	<u>\$ 3,723</u>

See Notes to Consolidated Financial Statements

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(In thousands)

	Years Ended December 31,		
	2003	2002	2001
<b>Operating Activities</b>			
Net income	\$ 280,591	\$ 58,982	\$ 22,016
Adjustments to reconcile net income to net cash provided by (used for) operating activities:			
Net realized investment (gains) losses	(25,078)	839	(18,382)
Other income	(3,011)	(2,175)	(2,609)
Provision for non-cash compensation	14,732	49,480	2,771
Reserve for loss of escrowed assets	—	—	3,733
Excess of fair value of net assets acquired over cost	(816)	(3,886)	—
Changes in:			
Reserve for losses and loss adjustment expenses, net of unpaid losses and loss adjustment expenses recoverable	1,161,184	348,911	8,309
Unearned premiums, net of prepaid reinsurance premiums	525,818	606,360	8,558
Premiums receivable	(133,316)	(279,925)	(8,331)
Deferred acquisition costs, net	(126,736)	(143,548)	(1,076)
Funds held by reinsureds	(153,593)	(58,351)	—
Reinsurance balances payable	28,725	41,554	560
Accrued investment income	(13,157)	(9,332)	(5,181)
Paid losses and loss adjustment expenses recoverable	(4,087)	6,823	(13,568)
Deferred income tax asset	(15,488)	(8,099)	1,665
Other liabilities	113,395	57,870	(1,605)
Other items, net	(36,619)	3,549	(2,489)
<b>Net Cash Provided By (Used For) Operating Activities</b>	<u>1,612,544</u>	<u>669,052</u>	<u>(5,629)</u>
<b>Investing Activities</b>			
Purchases of fixed maturity investments	(4,738,500)	(1,253,637)	(560,246)
Release of escrowed assets	—	(18,833)	—
Sales of fixed maturity investments	2,674,867	407,144	182,904
Sales of equity securities	7,601	13,726	47,144
Net sales (purchases) of short-term investments	246,749	45,666	(365,238)
Acquisitions, net of cash	(11,774)	(4,829)	(34,444)
Purchases of furniture, equipment and other	(31,489)	(17,710)	(6,311)
<b>Net Cash Used For Investing Activities</b>	<u>(1,852,546)</u>	<u>(828,473)</u>	<u>(736,191)</u>
<b>Financing Activities</b>			
Proceeds from common shares issued	6,090	254,338	457
Preference shares issued	—	—	740,737
Repurchase of common shares	(906)	(13,102)	(48)
Revolving credit agreement borrowings	200,000	—	—
Debt retirement and other	—	(68)	(837)
<b>Net Cash Provided By Financing Activities</b>	<u>205,184</u>	<u>241,168</u>	<u>740,309</u>
(Decrease) increase in cash	(34,818)	81,747	(1,511)
Cash beginning of year	91,717	9,970	11,481
<b>Cash end of year</b>	<u>\$ 56,899</u>	<u>\$ 91,717</u>	<u>\$ 9,970</u>
Income taxes paid, net	<u>\$ 44,554</u>	<u>\$ 2,863</u>	<u>\$ 330</u>
Interest paid	<u>—</u>	<u>—</u>	<u>—</u>

See Notes to Consolidated Financial Statements

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**1. Organization**

Arch Capital Group Ltd. ("ACGL") is a Bermuda public limited liability company which provides insurance and reinsurance on a worldwide basis through its wholly owned subsidiaries.

ACGL was formed in September 2000 and became the sole shareholder of Arch Capital Group (U.S.) Inc. ("Arch-U.S.") pursuant to an internal reorganization transaction completed in November 2000, as described below. Arch-U.S. is a Delaware company formed in March 1995 under the original name of "Risk Capital Holdings, Inc." Prior to May 5, 2000, Arch-U.S. provided reinsurance and other forms of capital for insurance companies through its wholly owned subsidiary, Arch Reinsurance Company ("Arch Re U.S."), a Nebraska corporation formed in 1995 under the original name of "Risk Capital Reinsurance Company."

On May 5, 2000, Arch-U.S. sold the prior reinsurance operations of Arch Re U.S. to Folksamerica Reinsurance Company ("Folksamerica") in an asset sale. The Folksamerica transaction was structured as a transfer and assumption agreement (and not reinsurance) and, accordingly, the loss reserves (and any related reinsurance recoverables) related to the transferred business are not included in the Company's balance sheet. However, in the event that Folksamerica refuses or is unable to make payment of claims on the reinsurance business assumed by it in the May 2000 sale and the notice given to reinsureds is found not to be an effective release by such reinsureds, Arch Re U.S. would be liable for such claims. See Note 13. On November 8, 2000, following the approval of Arch-U.S.'s shareholders, Arch-U.S. completed an internal reorganization that resulted in Arch-U.S. becoming a wholly owned subsidiary of ACGL. ACGL performs the holding company functions previously conducted by Arch-U.S., and the shareholders of Arch-U.S. became the shareholders of ACGL.

In October 2001, the Company launched an underwriting initiative to meet current and future demand in the global insurance and reinsurance markets that included the recruitment of new management teams and an equity capital infusion of \$763.2 million. In April 2002, the Company completed an offering of 7,475,000 of its common shares and received net proceeds of \$179.2 million. Due to the significant changes in the Company's business and operations resulting from the new underwriting initiative and related capital infusions, comparisons of 2002 to 2001 and 2000 results are not meaningful.

As used herein, the "Company" means ACGL and its subsidiaries, except when referring to periods prior to November 8, 2000, when it means Arch-U.S. and its subsidiaries. Similarly, "Common Shares" means the common shares, par value \$0.01, of ACGL, except when referring to periods prior to November 8, 2000, when it means the common stock of Arch-U.S.

**2. Significant Accounting Policies**

*(a) Basis of Presentation*

The consolidated financial statements have been prepared in conformity with generally accepted accounting principles ("GAAP") in the United States and include the accounts of ACGL, Arch Reinsurance Ltd. ("Arch Re Bermuda"), Arch Re U.S., Arch-U.S., Arch Insurance Company ("Arch Insurance"), Arch Specialty Insurance Company ("Arch Specialty"), Arch Excess & Surplus Insurance Company ("Arch E&S"), Western Diversified Casualty Insurance Company ("Western Diversified"), Arch Risk Transfer Services Ltd. ("ART Services"), American Independent Insurance Holding Company ("AIHC"), Personal Service Insurance Company ("PSIC") and Hales & Company Inc. ("Hales"). All significant intercompany transactions and balances have been eliminated in

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

consolidation. The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates and assumptions.

*(b) Premium Revenues and Related Expenses*

Insurance premiums written are generally recorded at the policy inception and are primarily earned on a pro rata basis in accordance with the terms of the policies for all lines of business. Premiums written include estimates in the Company's program business and aviation business. Unearned premium reserves represent the portion of such premiums written that relates to the unexpired terms of insurance policies in force.

Reinsurance contracts and policies written on a losses occurring basis cover losses which occur during the term of the contract or policy, typically 12 months. Accordingly, reinsurance premiums assumed are earned generally on a pro rata basis over the terms of the underlying policies or reinsurance contracts irrespective of the type of business. Contracts written on a risks attaching basis cover losses which attach to the underlying insurance policies written during the terms of the contracts. Premiums earned on a risks attaching basis usually extend beyond the original term of the reinsurance contract, typically resulting in recognition of premiums earned over a 24 month period for all lines of business. Unearned premium reserves represent the portion of premiums written that relates to the unexpired terms of contracts in force.

Reinsurance premiums written include amounts reported by the ceding companies, supplemented by the Company's own estimates of premiums for which ceding company reports have not been received. Subsequent differences pertaining to such estimates are recorded as an adjustment to premiums written in the period they are determined. Premiums on the Company's excess of loss and pro rata reinsurance contracts are estimated when the business is underwritten. For excess of loss contracts, the minimum premium, as defined in the contract, is generally recorded as an estimate of premiums written as of the date of the treaty. Estimates of premiums assumed under pro rata contracts, primarily written on a risks attaching basis, are recorded in the period in which the underlying risks are expected to incept and are based on information provided by brokers and ceding companies and estimates of the underlying economic conditions at the time the risk is underwritten. For multi-year reinsurance treaties which are payable in annual installments, only the initial annual installment is included as written at policy inception due to the ability of the insured or reinsured to commute or cancel coverage during the term of the policy. The remaining annual installments are included as premiums written at each successive anniversary date within the multi-year term. As actual premiums are recorded by the ceding companies, management evaluates the appropriateness of the premium estimates and any adjustment to these estimates is recorded in the period in which it becomes known. Adjustments to original premium estimates could be material and such adjustments may directly and significantly impact earnings in the period they are determined because the subject premium may be fully or substantially earned. A significant portion of amounts included as premiums receivable, which represent estimated premiums, net of commissions, are not currently due based on the terms of the underlying contracts.

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

Certain of the Company's contracts include provisions that adjust premiums or acquisition expenses based upon the experience under the contracts. Premiums written and earned, as well as related acquisition expenses, are recorded based upon the projected ultimate experience under these contracts.

The Company also writes certain business that is intended to provide insurers with risk management solutions that complement traditional reinsurance. Under these contracts, the Company assumes a measured amount of insurance risk in exchange for a specified margin. The determination of whether a reinsurance contract will be accounted for as reinsurance or under the deposit method of accounting (see below) is determined on a contract basis, irrespective of the type of business. The contractual terms may include additional or return premium based on loss experience, loss corridors, sublimits and caps. Examples of such business include aggregate stop-loss coverages and financial quota share coverages.

Acquisition expenses and other expenses that vary with and are directly related to the acquisition of business related to the Company's underwriting operations are deferred and amortized over the period in which the related premiums are earned. Acquisition expenses consist principally of commissions, brokerage and taxes paid to obtain business. A significant portion of such costs are paid based on a percentage of the premium written and will vary for each class or type of business that the Company underwrites. Other operating expenses also include expenses that vary with and are directly related to the acquisition of business. Acquisition expenses for the insurance segment are reflected net of ceding commissions from third party reinsurers as described below. Deferred acquisition costs are carried at their estimated realizable value based on the related unearned premiums. In estimating the estimated realizable value, the Company takes into account anticipated losses and loss adjustment expenses based on historical and projected experience, and anticipated investment income. Deferred acquisition costs are limited to the amount expected to be recovered from future earned premiums and anticipated investment income. This limitation is referred to as a premium deficiency. A premium deficiency is recognized if the sum of anticipated losses and loss adjustment expenses, unamortized acquisition costs and maintenance costs exceed unearned premiums. A premium deficiency is recognized by charging any unamortized acquisition costs to expense to the extent required in order to eliminate the deficiency. If the premium deficiency exceeds unamortized acquisition costs then a liability is accrued for the excess deficiency. No premium deficiency charges were recorded by the Company during the years ended December 31, 2003, 2002 or 2001.

*(c) Deposit Accounting*

Certain reinsurance contracts included in the Company's non-traditional business are deemed, for financial reporting purposes, not to transfer insurance risk, are accounted for using the deposit method of accounting. For those contracts that contain an element of underwriting risk, the estimated profit margin is deferred and amortized over the contract period and such amount is included in the Company's underwriting results. When the estimated profit margin is explicit, the margin is reflected as fee income, and when the estimated profit margin is implicit it is reflected as an offset to paid losses. For those contracts that do not transfer an element of underwriting risk, the estimated profit is reflected in earnings over the estimated settlement period using the interest method and such profit is included in investment income.

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

*(d) Retroactive Accounting*

Retroactive reinsurance reimburses a ceding company for liabilities incurred as a result of past insurable events covered by the underlying policies reinsured. In certain instances, reinsurance contracts reinsure losses both on a prospective basis and on a retroactive basis. The Company bifurcates the prospective and retroactive elements of its reinsurance contracts. Underwriting income generated in connection with retroactive reinsurance contracts is deferred and amortized into income over the settlement period. Losses are charged to income immediately. Subsequent changes in estimated or actual cash flows under such retroactive reinsurance contracts are accounted for by adjusting the previously deferred amount to the balance that would have existed had the revised estimate been available at the inception of the reinsurance transaction, with a corresponding charge or credit to income.

*(e) Reinsurance Ceded*

In the normal course of business, the Company purchases reinsurance to increase capacity and to limit the impact of individual losses and events on its underwriting results by reinsuring certain levels of risk with other insurance enterprises or reinsurers. The Company uses pro rata, excess of loss and facultative reinsurance contracts. Reinsurance ceding commissions are recognized as income on a pro rata basis over the period of risk. The portion of such commissions that will be earned in the future is deferred and reported as a reduction to acquisition costs. The accompanying consolidated statement of income reflects premiums and losses and loss adjustment expenses and acquisition costs, net of reinsurance ceded (see Note 4). Ceded unearned premiums are reported as prepaid reinsurance premiums and estimated amounts of reinsurance recoverable on unpaid losses are reported as unpaid losses and loss adjustment expenses recoverable. Reinsurance premiums ceded and unpaid losses and loss adjustment expenses recoverable are estimated in a manner consistent with that of the original policies issued and the terms of the reinsurance contracts. To the extent that any reinsurer does not meet its obligations under reinsurance agreements, the Company must discharge the liability.

*(f) Fee Income*

Policy-related fee income, such as billing, cancellation and reinstatement fees, are primarily recognized as earned when substantially all of the related services have been provided. Fee income in connection with advisory services is recognized as earned when all services have been performed and the underlying transactions are substantially completed.

*(g) Investments*

The Company currently classifies all of its publicly traded fixed maturity, short-term investments and equity securities as "available for sale" and, accordingly, they are carried at estimated fair value. The fair value of publicly traded fixed maturity securities is estimated using quoted market prices or dealer quotes. Short-term investments include certain cash equivalents which are part of investment portfolios under the management of external investment managers and comprise securities due to mature within one year of the date of issue.

Investments in privately held securities may include both equity securities and securities convertible into, or exercisable for, equity securities (some of which may have fixed maturities) and debt securities. Privately held securities are subject to trading restrictions or are otherwise illiquid and do not have

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

readily ascertainable market values. Such investments are classified as "available for sale" and carried at estimated fair value, except for investments in which the Company believes it has the ability to exercise significant influence (generally defined as investments in which the Company owns 20% or more of the outstanding voting common stock of the issuer), which are carried under the equity method of accounting. Under this method, the Company initially records an investment at cost, and then records its proportionate share of comprehensive income or loss for such investment after the date of acquisition as other income. The estimated fair value of investments in privately held securities, other than those carried under the equity method, is initially equal to the cost of such investments until the investments are revalued based principally on substantive events or other factors which could indicate a diminution or appreciation in value, such as an arm's-length third party transaction justifying an increased valuation or adverse development of a significant nature requiring a write-down.

The Company periodically reviews its investments to determine whether a decline in fair value below the amortized cost basis is other than temporary. The Company's process for identifying declines in the fair value of investments that are other than temporary involves consideration of several factors. These factors include (i) the time period in which there has been a significant decline in value, (ii) an analysis of the liquidity, business prospects and overall financial condition of the issuer, (iii) the significance of the decline and (iv) the Company's intent and ability to hold the investment for a sufficient period of time for the value to recover. Where the Company's analysis of the above factors results in the conclusion that declines in fair values are other than temporary, the cost of the securities is written down to fair value and the previously unrealized loss is therefore recorded as realized. The new cost basis would not be changed for subsequent recoveries in fair value.

Net investment income, consisting of dividends and interest, net of investment expenses, is recognized when earned. The amortization of premium and accretion of discount for fixed maturity investments is computed utilizing the interest method. Anticipated prepayments and expected maturities are used in applying the interest method for certain investments such as mortgage and other asset-backed securities. When actual prepayments differ significantly from anticipated prepayments, the effective yield is recalculated to reflect actual payments to date and anticipated future payments. The net investment in such securities is adjusted to the amount that would have existed had the new effective yield been applied since the acquisition of the security. Such adjustments, if any, are included in net investment income when determined.

Investment gains or losses realized on the sale of investments are determined by the first-in first-out method and are reflected in net income. Unrealized appreciation or decline in value of securities which are carried at fair value is excluded from net income and recorded as a separate component of other comprehensive income, net of applicable deferred income tax.

*(h) Reserves for Losses and Loss Adjustment Expenses*

The reserve for losses and loss adjustment expenses consists of estimates of unpaid reported losses and loss adjustment expenses and estimates for losses incurred but not reported. The reserve for unpaid reported losses and loss adjustment expenses is established by management based on reports from ceding companies and claims from insureds and represents the estimated ultimate cost of events or conditions that have been reported to or specifically identified by the Company. Such reserves are supplemented by management's estimates of reserves for losses incurred for which reports or claims have not been received. Since the Company has limited historical experience upon which to base such

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

estimates, the estimates are determined based upon industry experience, information used in pricing contracts and policies and management's judgment. The Company's reserving method for 2003 and 2002 was primarily the expected loss method. The Company selects the initial expected loss and loss adjustment expense ratios based on information derived by its underwriters and actuaries during the initial pricing of the business. These ratios consider, among other things, rate increases and changes in terms and conditions that have been observed in the market. These estimates are reviewed regularly and, as experience develops and new information becomes known, the reserves are adjusted as necessary. Such adjustments, if any, are reflected in income in the period in which they are determined. Inherent in the estimates of ultimate losses and loss expenses are expected trends in claims severity and frequency and other factors which may vary significantly as claims are settled. Accordingly, ultimate losses and loss expenses may differ materially from the amounts recorded in the accompanying consolidated financial statements. Losses and loss adjustment expenses are recorded on an undiscounted basis.

*(i) Foreign Exchange*

The United States dollar is the functional currency for all of the Company's business. Monetary assets and liabilities denominated in foreign currencies are revalued at the exchange rate in effect at the balance sheet date with the resulting foreign exchange gains and losses included in net income. In the case of foreign currency denominated debt securities which are classified as "available for sale", the change in exchange rates between the local currency and the Company's functional currency at each balance sheet date is included in unrealized appreciation or decline in value of securities, a component of comprehensive income. Revenues and expenses denominated in foreign currencies are translated at average exchange rates during the year. Accounts that are classified as monetary assets and liabilities, such as premiums receivable and the reserve for losses and loss adjustment expenses, are revalued at each balance sheet date. Accounts that are classified as non-monetary, such as deferred acquisition costs and the unearned premium reserves, are not revalued.

*(j) Income Taxes*

Deferred income taxes reflect the net tax effect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and amounts used for income tax purposes. A valuation allowance is recorded if it is more-likely-than-not that some or all of a deferred tax asset may not be realized.

*(k) Earnings Per Share Data*

The calculation of basic earnings per share excludes dilutive securities and is computed by dividing income available to common shareholders by the weighted average number of Common Shares, including vested restricted shares, outstanding for the periods. The calculation of diluted earnings per share reflects the potential dilution that could occur if Series A convertible preference shares ("Preference Shares"), Class B Warrants, nonvested restricted shares and employee stock options were converted into Common Shares. When a loss occurs, diluted per share amounts are computed using basic average shares outstanding because including dilutive securities would decrease the loss per share and would therefore be anti-dilutive.

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

The following table sets forth the computation of basic and diluted earnings per share:

	Years Ended December 31,		
	2003	2002	2001
	(in thousands, except share and per share data)		
<b>Basic Earnings Per Share:</b>			
Net income .....	\$ 280,591	\$ 58,982	\$ 22,016
Divided by:			
Weighted average shares outstanding for the period .....	26,264,055	20,095,698	12,855,668
Basic earnings per share .....	<u>\$ 10.68</u>	<u>\$ 2.93</u>	<u>\$ 1.71</u>
<b>Diluted Earnings Per Share:</b>			
Net income .....	\$ 280,591	\$ 58,982	\$ 22,016
Divided by:			
Weighted average shares outstanding for the period .....	26,264,055	20,095,698	12,855,668
Effect of dilutive securities:			
Preference shares .....	38,844,665	36,818,376	4,106,534
Warrants .....	63,031	905,135	—
Nonvested restricted shares .....	977,557	1,004,055	5,987
Employee stock options .....	1,628,486	838,914	34,042
Total shares .....	<u>67,777,794</u>	<u>59,662,178</u>	<u>17,002,231</u>
Diluted earnings per share .....	<u>\$ 4.14</u>	<u>\$ 0.99</u>	<u>\$ 1.29</u>

Stock options to purchase 71,126, 161,131, and 1,237,305 Common Shares at per share prices averaging \$34.85, \$29.44 and \$21.33 were outstanding as of December 31, 2003, 2002 and 2001, respectively, but were not included in the computation of diluted earnings per share because the options' exercise prices were greater than the average market prices of the Common Shares of \$34.50, \$27.93 and \$17.71, respectively, for such years. In addition, Class A Warrants to purchase Common Shares at \$20.00 per share were outstanding as of December 31, 2001, but were not included in the computation of diluted earnings per share because the warrants' exercise price of \$20.00 per share was greater than the average market price of the Common Shares for such year.

**(l) Stock Awards**

**Stock Options**

The Company has adopted the provisions of Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees" ("APB No. 25") (see Note 11 for information relating to the Company's stock options), and related interpretations in accounting for its employee stock options. Accordingly, under APB No. 25, compensation expense for stock option grants is recognized by the Company to the extent that the fair value of the underlying stock exceeds the exercise price of the option at the measurement date. As provided under SFAS No. 123, "Accounting for Stock-Based Compensation," the Company has elected to continue to account for stock-based compensation in accordance with APB No. 25 and has provided the required additional pro forma disclosures. Such information has been determined for the Company as if the Company had accounted for its employee

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

stock options under the fair value method of SFAS No. 123. The fair value for the Company's employee stock options has been estimated at the date of grant using the Black-Scholes option valuation model, with the following weighted average assumptions for options issued in 2003, 2002 and 2001, respectively.

	Years Ended December 31,		
	2003	2002	2001
Dividend yield . . . . .	0.0%	0.0%	0.0%
Expected volatility . . . . .	23%-24%	24.0%	41.0%
Risk free interest rate . . . . .	2.9%-3.2%	3.1%	4.0%
Expected option life . . . . .	6.0 years	6.0 years	6.0 years

For purposes of the required pro forma information, the estimated fair value of employee stock options is amortized to expense over the options' vesting period. The weighted average fair value of options granted during the years ended December 31, 2003, 2002 and 2001 was \$2.8 million, \$13.4 million and \$26.0 million, respectively. The Company's net income and net income per share would have been adjusted to the pro forma amounts indicated below:

	Years Ended December 31,		
	2003	2002	2001
	(in thousands, except per share data)		
Net income, as reported . . . . .	\$280,591	\$ 58,982	\$22,016
Total stock-based employee compensation expense under fair value method, net of tax . . . . .	(6,319)	(13,451)	(5,638)
Pro forma net income . . . . .	<u>\$274,272</u>	<u>\$ 45,531</u>	<u>\$16,378</u>
Earnings per share—basic:			
As reported . . . . .	\$ 10.68	\$ 2.93	\$ 1.71
Pro forma . . . . .	\$ 10.44	\$ 2.27	\$ 1.27
Earnings per share—diluted:			
As reported . . . . .	\$ 4.14	\$ 0.99	\$ 1.29
Pro forma . . . . .	\$ 4.05	\$ 0.76	\$ 0.96

The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. In addition, option valuation models, such as the Black-Scholes model, require the input of highly subjective assumptions, including expected stock price volatility. As the Company's employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, the Company believes that the existing option valuation models, such as the Black-Scholes model, may not necessarily provide a reliable single measure of the fair value of employee stock options. The effects of applying SFAS No. 123 as shown in the pro forma disclosures may not be representative of the effects on reported net income for future years.

The effect on net income and earnings per share after applying SFAS No. 123's fair valuation method to stock issued to employees under the Company's Employee Stock Purchase Plan does not

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

materially differ from the pro forma information set forth above with respect to the Company's employee stock options. During December 2002, the Company suspended the operation of its Employee Stock Purchase Plan.

*Restricted Shares*

The Company has adopted the provisions of APB No. 25 and related interpretations in accounting for its restricted share awards. The Company records deferred compensation equal to the market value of the restricted share awards at the measurement date, which is amortized and charged to income over the vesting period. During 2003, 2002 and 2001, the Company issued an aggregate of 205,787, 2,398,794 and 627,949 restricted shares, respectively with weighted average grant date fair values of \$28.98, \$26.95 and \$17.15, respectively.

*(m) Goodwill and Intangible Assets*

The goodwill and intangible assets of acquired businesses represents the difference between the purchase price and the fair value of the net assets of the acquired businesses. The Company recorded goodwill relating to its acquisitions of Hales, AIHC, ART Services, Arch Specialty and Western Diversified and has allocated certain amounts to other intangible assets relating to the acquisition of Western Diversified. The Company ceased amortization of its goodwill beginning in 2002. The Company assesses whether goodwill and intangible assets are impaired by comparing the fair value of each reporting unit to its carrying value, including goodwill and intangible assets. The Company estimates the fair value of each reporting unit by using various methods, including a review of the estimated discounted cash flows expected to be generated by the reporting unit in the future. Such methods include a number of assumptions, including the uncertainty regarding future results and the discount rates used. If the reporting unit's fair value is greater than its carrying value, goodwill and intangible assets are not impaired. Impairment occurs when the implied fair value of a reporting unit's goodwill and intangible assets is less than its carrying value. The implied fair value of goodwill and intangible assets is determined by deducting the fair value of a reporting unit's identifiable assets and liabilities from the fair value of the reporting unit as a whole. The Company conducts its impairment test annually. Additional impairment assessments may be performed on an interim basis if the Company encounters events or changes in circumstances indicating that more likely than not the carrying value of goodwill and intangible assets has been impaired.

*(n) Guaranty Fund Assessments*

Liabilities for guaranty fund and other related assessments in the Company's insurance operations are accrued when the Company receives notice that an amount is payable, or earlier if a reasonable estimate of the assessment can be made.

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

*(o) Reclassifications*

The Company has reclassified the presentation of certain prior year information to conform to the current presentation. Such reclassifications had no effect on the Company's net income, shareholders' equity or cash flows.

*(p) Recent Accounting Pronouncements*

In April 2003, the FASB issued SFAS No. 149, "Amendment of Statement 133 on Derivative Instruments and Hedging Activities." SFAS No. 149 amends and clarifies accounting for derivative instruments, including certain derivative instruments embedded in other contracts, and for hedging activities under SFAS No. 133. SFAS No. 149 is effective for contracts entered into or modified after September 30, 2003 and for hedging relationships designated after September 30, 2003. The Company has adopted SFAS No. 133 as amended by SFAS No. 138 and SFAS No. 149 and interpreted by the Derivatives Implementation Group issues as of October 1, 2003. The Company has evaluated all insurance contracts to determine whether any such contracts are in effect hybrid instruments that contain embedded derivative instruments. The adoption of this guidance did not have a material impact on the results of operations or the financial position of the Company.

In May 2003, the FASB issued SFAS No. 150, "Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity." SFAS No. 150 establishes standards for the classification and measurement of financial instruments with characteristics of both liabilities and equity. SFAS No. 150 is effective for all financial instruments entered into or modified after May 31, 2003 and otherwise was effective beginning in the 2003 third quarter. The Company has not issued financial instruments covered within the scope of SFAS No. 150. The adoption of this guidance did not have a material impact on the results of operations or the financial position of the Company.

In December 2003, the FASB issued FASB Interpretation No. 46R ("FIN 46R"), "Consolidation of Variable Interest Entities." This interpretation of Accounting Research Bulletin No. 51 ("ARB 51"), "Consolidated Financial Statements", which replaces FASB Interpretation No. 46 ("FIN 46"), Consolidation of Variable Interest Entities, addresses consolidation by business enterprises of variable interest entities. FIN 46R clarifies the application of ARB 51 to certain entities in which equity investors do not have the characteristics of a controlling financial interest or do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support. In addition, FIN 46R modified FIN 46 to address certain technical corrections and implementation issues relating to FIN 46. Pursuant to FIN 46, if an enterprise has a controlling financial interest in a variable interest entity, the assets, liabilities and results of operations of the variable interest entity must be included in the consolidated financial statements with those of the business enterprise. An enterprise with an interest in an entity to which the provisions of FIN 46 have not been applied as of December 24, 2003, shall apply the provisions of FIN 46R no later than the end of the first reporting period that ends after March 15, 2004. The provisions of FIN 46 applied immediately to VIE's created after January 31, 2003; however, for VIE's created prior to January 31, 2003 the provisions of FIN 46R are effective for the first year or interim period beginning after March 15, 2004. The provisions of FIN 46R are required to be applied to financial statements of public entities that have interests in variable interest entities, commonly referred to as special-purpose entities for periods ending after December 15, 2003. The Company currently believes that, under FIN 46R, it will be required to consolidate the assets, liabilities and results of operations (if any) of a certain managing general agency

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**2. Significant Accounting Policies (Continued)**

in which one of the Company's subsidiaries has an investment. Such agency ceased producing business in 1999 and is currently running-off its operations. Based on current information, no assets or liabilities of such agency would be required to be reflected on the face of the Company's financial statements. The Company believes that the adoption of FIN 46R will not have a material impact on its consolidated financial statements.

**3. Segment Information**

The Company classifies its businesses into two underwriting segments—reinsurance and insurance—and a corporate and other segment (non-underwriting). The Company's reinsurance and insurance operating segments each have segment managers who are responsible for the overall profitability of their respective segments and who are directly accountable to the Company's chief operating decision makers, the President and Chief Executive Officer of ACGI and the Chief Financial Officer of ACGI. The chief operating decision makers do not assess performance, measure return on equity or make resource allocation decisions on a line of business basis. The Company determined its reportable operating segments using the management approach described in SFAS No. 131, "Disclosures about Segments of an Enterprise and Related Information."

Management measures segment performance based on underwriting income or loss. The Company does not manage its assets by segment and, accordingly, investment income is not allocated to each underwriting segment. In addition, other revenue and expense items are not evaluated by segment. The accounting policies of the segments are the same as those used for the consolidated financial statements. Inter-segment business is allocated to the segment accountable for the underwriting results.

The reinsurance segment consists of the Company's reinsurance underwriting subsidiaries. The reinsurance segment generally seeks to write significant lines on specialty property and casualty reinsurance treaties. Classes of business focused on include casualty, casualty clash, marine and aviation, non-traditional, other specialty, property catastrophe and property excluding property catastrophe (losses on a single risk, both excess of loss and pro rata).

The insurance segment consists of the Company's insurance underwriting subsidiaries which primarily write on a direct basis. The insurance segment currently consists of eight product lines, including casualty, construction and surety, executive assurance, healthcare, professional liability, programs, property, and other (primarily non-standard auto, collateralized protection business and accident and health and corporate risk programs).

The corporate and other segment (non-underwriting) includes net investment income, other fee income and other expenses incurred by the Company, net realized investment gains or losses, net foreign exchange gains or losses and non-cash compensation. The corporate and other segment also includes the results of the Company's merchant banking operations.

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**3. Segment Information (Continued)**

The following table sets forth an analysis of the Company's underwriting income or loss by segment, together with a reconciliation of underwriting income or loss to net income for the year ended December 31, 2003:

	Year Ended December 31, 2003		
	Reinsurance	Insurance (in thousands)	Total
Gross premiums written(1) . . . . .	\$1,624,703	\$1,766,987	\$ 3,226,001
Net premiums written(1) . . . . .	1,566,819	1,171,596	2,738,415
Net premiums earned . . . . .	\$1,329,673	\$ 882,926	\$ 2,212,599
Policy-related fee income . . . . .	—	14,028	14,028
Other underwriting-related fee income . . . . .	5,621	1,733	7,354
Losses and loss adjustment expenses . . . . .	(839,417)	(574,134)	(1,413,551)
Acquisition expenses, net . . . . .	(314,193)	(109,815)	(424,008)
Other operating expenses . . . . .	(33,739)	(133,968)	(167,707)
Underwriting income . . . . .	<u>\$ 147,945</u>	<u>\$ 80,770</u>	<u>\$ 228,715</u>
Net investment income . . . . .			80,992
Net realized investment gains . . . . .			25,317
Other fee income, net of related expenses . . . . .			436
Other income . . . . .			3,011
Other expenses . . . . .			(18,236)
Net foreign exchange gains . . . . .			997
Non-cash compensation . . . . .			(14,732)
Income before income taxes and extraordinary item . . . . .			306,500
Income tax expense . . . . .			(26,725)
Income before extraordinary item . . . . .			279,775
Extraordinary gain, net of \$0 tax expense . . . . .			816
<b>Net income . . . . .</b>			<b><u>\$ 280,591</u></b>
<b>Underwriting Ratios</b>			
Loss ratio . . . . .	63.1%	65.0%	63.9%
Acquisition expense ratio(2) . . . . .	23.6%	10.8%	18.5%
Other operating expense ratio . . . . .	2.5%	15.2%	7.6%
Combined ratio . . . . .	<u>89.2%</u>	<u>91.0%</u>	<u>90.0%</u>

(1) Certain amounts included in the gross premiums written of each segment are related to intersegment transactions and are included in the gross premiums written of each segment. Accordingly, the sum of gross premiums written for each segment does not agree to the total gross premiums written as shown in the table above due to the elimination of intersegment transactions in the total. The reinsurance segment and insurance segment results include \$162.8 million and \$2.9 million, respectively, of gross and net premiums written assumed through intersegment transactions.

(2) The acquisition expense ratio is adjusted to include policy-related fee income.

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**3. Segment Information (Continued)**

The following table sets forth an analysis of the Company's underwriting income or loss by segment, together with a reconciliation of underwriting income or loss to net income for the year ended December 31, 2002:

	Year Ended December 31, 2002		
	Reinsurance	Insurance (in thousands)	Total
Gross premiums written(1) . . . . .	\$ 908,732	\$ 664,559	\$1,487,212
Net premiums written(1) . . . . .	882,700	378,927	1,261,627
Net premiums earned . . . . .	\$ 500,980	\$ 153,996	\$ 654,976
Policy-related fee income . . . . .	—	9,418	9,418
Losses and loss adjustment expenses . . . . .	(315,766)	(108,772)	(424,538)
Acquisition expenses, net . . . . .	(105,391)	(13,570)	(118,961)
Other operating expenses . . . . .	(18,849)	(42,827)	(61,676)
Underwriting income (loss) . . . . .	<u>\$ 60,974</u>	<u>(\$ 1,755)</u>	<u>\$ 59,219</u>
Net investment income . . . . .			51,249
Net realized investment losses . . . . .			(839)
Other fee income, net of related expenses . . . . .			(910)
Other income . . . . .			2,175
Other expenses . . . . .			(9,323)
Net foreign exchange gains . . . . .			2,449
Non-cash compensation . . . . .			(49,480)
Income before income taxes and extraordinary item . . . . .			54,540
Income tax benefit . . . . .			556
Income before extraordinary item . . . . .			55,096
Extraordinary gain, net of \$0 tax expense . . . . .			3,886
<b>Net income</b> . . . . .			<u><b>\$ 58,982</b></u>
<b>Underwriting Ratios</b>			
Loss ratio . . . . .	63.0%	70.6%	64.8%
Acquisition expense ratio(2) . . . . .	21.0%	2.7%	16.7%
Other operating expense ratio . . . . .	3.8%	27.8%	9.4%
Combined ratio . . . . .	<u>87.8%</u>	<u>101.1%</u>	<u>90.9%</u>

(1) Certain amounts included in the gross premiums written of each segment are related to intersegment transactions and are included in the gross premiums written of each segment. Accordingly, the sum of gross premiums written for each segment does not agree to the total gross premiums written as shown in the table above due to the elimination of intersegment transactions in the total. The reinsurance segment results include \$86.1 million of gross and net premiums written assumed through intersegment transactions.

(2) The acquisition expense ratio is adjusted to include policy-related fee income.

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**3. Segment Information (Continued)**

The following table sets forth the reinsurance segment's net premiums written and earned, together with net premiums written by client location for the years ended December 31, 2003 and 2002:

<u>REINSURANCE SEGMENT</u>	Years Ended December 31,			
	2003		2002	
	Amount	% of Total	Amount	% of Total
	(in thousands)			
<b>Net premiums written(1)</b>				
Casualty .....	\$ 648,119	41.4%	\$245,236	27.8%
Other specialty .....	360,148	23.0%	173,087	19.6%
Property excluding property catastrophe .....	302,560	19.3%	166,344	18.8%
Property catastrophe .....	99,562	6.4%	110,989	12.6%
Marine and aviation .....	91,706	5.8%	60,383	6.8%
Non-traditional .....	52,911	3.4%	109,978	12.5%
Casualty clash .....	11,813	0.7%	16,683	1.9%
<b>Total .....</b>	<b><u>\$1,566,819</u></b>	<b><u>100.0%</u></b>	<b><u>\$882,700</u></b>	<b><u>100.0%</u></b>
<b>Net premiums earned(1)</b>				
Casualty .....	\$ 483,393	36.4%	\$ 94,291	18.8%
Other specialty .....	291,467	21.9%	109,293	21.8%
Property excluding property catastrophe .....	287,220	21.6%	87,908	17.6%
Property catastrophe .....	108,153	8.1%	82,702	16.5%
Marine and aviation .....	78,928	5.9%	30,127	6.0%
Non-traditional .....	67,618	5.1%	82,423	16.5%
Casualty clash .....	12,894	1.0%	14,236	2.8%
<b>Total .....</b>	<b><u>\$1,329,673</u></b>	<b><u>100.0%</u></b>	<b><u>\$500,980</u></b>	<b><u>100.0%</u></b>
<b>Net premiums written by client location(1)</b>				
North America .....	\$ 972,012	62.0%	\$515,334	58.4%
Europe .....	446,086	28.5%	254,901	28.9%
Bermuda .....	92,006	5.9%	51,562	2.8%
Asia and Pacific .....	20,912	1.3%	24,796	5.8%
Other .....	35,803	2.3%	36,107	4.1%
<b>Total .....</b>	<b><u>\$1,566,819</u></b>	<b><u>100.0%</u></b>	<b><u>\$882,700</u></b>	<b><u>100.0%</u></b>

(1) Reinsurance segment results include net premiums written and earned of \$162.8 million and \$135.3 million, respectively, assumed through intersegment transactions for the year ended December 31, 2003 and \$86.1 million and \$36.9 million, respectively, for the year ended December 31, 2002. Reinsurance segment results exclude premiums written and earned of \$2.9 million and \$0.9 million, respectively, ceded through intersegment transactions for the year ended December 31, 2003.

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**3. Segment Information (Continued)**

The following table sets forth the insurance segment's net premiums written and earned, together with net premiums written by client location for the years ended December 31, 2003 and 2002:

INSURANCE SEGMENT	Years Ended December 31,			
	2003		2002	
	Amount	% of Total	Amount	% of Total
	(in thousands)			
<b>Net premiums written(1)</b>				
Programs . . . . .	\$ 344,915	29.4%	\$ 88,178	23.3%
Casualty . . . . .	224,596	19.2%	64,165	16.9%
Construction and surety . . . . .	143,581	12.3%	31,254	8.2%
Property . . . . .	121,393	10.4%	50,772	13.4%
Executive assurance . . . . .	114,268	9.7%	49,479	13.1%
Professional liability . . . . .	105,648	9.0%	20,436	5.4%
Healthcare . . . . .	38,127	3.3%	23,624	6.2%
Other . . . . .	79,068	6.7%	51,019	13.5%
<b>Total . . . . .</b>	<b>\$1,171,596</b>	<b>100.0%</b>	<b>\$378,927</b>	<b>100.0%</b>
<b>Net premiums earned(1)</b>				
Programs . . . . .	\$ 280,730	31.8%	\$ 33,948	22.0%
Casualty . . . . .	164,329	18.6%	18,998	12.3%
Executive assurance . . . . .	87,259	9.9%	18,288	11.9%
Property . . . . .	85,199	9.6%	16,638	10.8%
Construction and surety . . . . .	73,601	8.3%	7,071	4.6%
Professional liability . . . . .	71,087	8.1%	5,817	3.8%
Healthcare . . . . .	37,873	4.3%	5,263	3.4%
Other . . . . .	82,848	9.4%	47,973	31.2%
<b>Total . . . . .</b>	<b>\$ 882,926</b>	<b>100.0%</b>	<b>\$153,996</b>	<b>100.0%</b>
<b>Net premiums written by client location(1)</b>				
North America . . . . .	\$1,140,064	97.3%	\$375,725	99.2%
Other . . . . .	31,532	2.7%	3,202	0.8%
<b>Total . . . . .</b>	<b>\$1,171,596</b>	<b>100.0%</b>	<b>\$378,927</b>	<b>100.0%</b>

(1) Insurance segment results include net premiums written and earned of \$2.9 million and \$0.9 million, respectively, assumed through intersegment transactions for the year ended December 31, 2003. Insurance segment results exclude premiums written and earned of \$162.8 million and \$135.3 million, respectively, ceded through intersegment transactions for the year ended December 31, 2003 and \$86.1 million and \$36.9 million, respectively, for the year ended December 31, 2002.

During the year ended December 31, 2001, the Company had only one reportable operating segment—insurance. During 2001, the insurance operating segment generated revenues of \$59.9 million and net income of \$12.4 million. The remaining portion of the Company's net income was generated through the Company's investment activities, offset by other operating expenses. In addition, during

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**3. Segment Information (Continued)**

2001, the Company produced its business through general agents and managing general agents, none of which accounted for more than 10% of total gross premiums written.

**4. Reinsurance**

In the normal course of business, the Company's insurance subsidiaries cede a substantial portion of their premium through pro rata, excess of loss and facultative reinsurance agreements. The Company's reinsurance subsidiaries are currently retaining substantially all of their assumed reinsurance premiums written. The Company's reinsurance subsidiaries participate in "common account" retrocessional arrangements for certain pro rata treaties. Such arrangements reduce the effect of individual or aggregate losses to all companies participating on such treaties, including the reinsurers, such as the Company's reinsurance subsidiaries, and the ceding company. Reinsurance recoverables are recorded as assets, predicated on the reinsurers' ability to meet their obligations under the reinsurance agreements. If the reinsurers are unable to satisfy their obligations under the agreements, the Company's insurance subsidiaries would be liable for such defaulted amounts (see Note 10).

The following table sets forth the effects of reinsurance on the Company's reinsurance and insurance subsidiaries with unaffiliated reinsurers.

	Years Ended December 31,		
	2003	2002	2001
	(in thousands)		
<b>Premiums Written:</b>			
Direct . . . . .	\$1,609,821	\$ 629,988	\$117,406
Assumed . . . . .	1,616,180	857,224	1,796
Ceded . . . . .	(487,586)	(225,585)	(82,986)
Net . . . . .	<u>\$2,738,415</u>	<u>\$1,261,627</u>	<u>\$ 36,216</u>
<b>Premiums Earned:</b>			
Direct . . . . .	\$1,273,110	\$ 345,252	\$110,022
Assumed . . . . .	1,340,268	473,220	619
Ceded . . . . .	(400,779)	(163,496)	(79,723)
Net . . . . .	<u>\$2,212,599</u>	<u>\$ 654,976</u>	<u>\$ 30,918</u>
<b>Losses and Loss Adjustment Expenses Incurred:</b>			
Direct . . . . .	\$ 887,974	\$ 300,950	\$ 99,761
Assumed . . . . .	818,466	305,875	1,091
Ceded . . . . .	(292,889)	(182,287)	(77,404)
Net . . . . .	<u>\$1,413,551</u>	<u>\$ 424,538</u>	<u>\$ 23,448</u>

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**5. Reserve for Losses and Loss Adjustment Expenses**

The following table represents an analysis of losses and loss adjustment expenses and a reconciliation of the beginning and ending reserve for losses and loss adjustment expenses.

	December 31,		
	2003	2002	2001
	(in thousands)		
Reserve for losses and loss adjustment expenses at beginning of year . . . . .	\$ 592,432	\$111,494	—
Unpaid losses and loss adjustment expenses recoverable . . . . .	211,100	90,442	—
Net unpaid losses and loss adjustment expenses at beginning of year . . . . .	381,332	21,052	—
Increase (decrease) in net losses and loss adjustment expenses incurred relating to losses occurring in:			
Current year . . . . .	1,454,533	420,574	\$ 23,025
Prior years . . . . .	(40,982)	3,964	423
Total net incurred losses and loss expenses . . . . .	1,413,551	424,538	23,448
Net losses and loss adjustment expense reserves acquired . . . . .	—	11,370	14,320
Exchange rate effects . . . . .	17,492	642	—
Less net losses and loss adjustment expenses paid relating to losses occurring in:			
Current year . . . . .	154,897	59,288	12,648
Prior years . . . . .	114,962	16,982	4,068
Total net paid losses . . . . .	269,859	76,270	16,716
Net unpaid losses and loss adjustment expenses at end of year . . . . .	1,542,516	381,332	21,052
Unpaid losses and loss adjustment expenses recoverable . . . . .	409,451	211,100	90,442
Reserve for losses and loss expenses at end of year . . . . .	<u>\$1,951,967</u>	<u>\$592,432</u>	<u>\$111,494</u>

Insurance reserves are inherently subject to uncertainty. The reserves for losses and loss adjustment expenses represent estimates involving actuarial and statistical projections at a given point in time of the Company's expectations of the ultimate settlement and administration costs of losses incurred and it is likely that the ultimate liability may exceed or be less than such estimates. The Company's reserving method for 2003 and 2002 was primarily the expected loss method, which is commonly applied when limited loss experience exists. The Company selects the initial expected loss and loss adjustment expense ratios based on information derived by its underwriters and actuaries during the initial pricing of the business. These ratios consider, among other things, rate increases and changes in terms and conditions that have been observed in the market.

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**5. Reserve for Losses and Loss Adjustment Expenses (Continued)**

In its reserving process, the Company recognized that there is a possibility that the assumptions made could prove to be inaccurate due to several factors, including the Company's start-up nature and the fact that very limited historical information has been reported to the Company through December 31, 2003. It is possible that claims in respect of events that have occurred could exceed the Company's reserves and have a material adverse effect on its results of operations in a particular period or the Company's financial condition in general. Net losses and loss adjustment expenses incurred for 2003 and 2002 increased significantly over 2001 due to the Company's October 2001 underwriting initiative.

**6. Deposit Accounting**

Certain policies and contracts are deemed, for financial reporting purposes, not to transfer insurance risk, and are accounted for using the deposit method of accounting. For those contracts that contain an element of underwriting risk, the estimated profit margin is deferred and amortized over the contract period and such amount is included in the Company's underwriting results. When the estimated profit margin is explicit, the margin is reflected as fee income, and when the estimated profit margin is implicit it is reflected as an offset to paid losses. The Company recorded \$7.4 million and \$7.1 million of fee income on such contracts for the years ended December 31, 2003 and 2002, respectively, \$4.1 million and nil as an offset to paid losses, respectively, and, on a notional basis, the amount of premiums attaching to such contracts was \$175.6 million and \$175.8 million, respectively. For those contracts that do not transfer an element of underwriting risk, the expected profit is reflected in earnings over the estimated settlement period using the interest method and such profit is included in investment income. The Company did not record any contracts using the interest method for the years ended December 31, 2003 or 2002.

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**7. Investment Information**

The following tables reconcile estimated fair value and carrying value to the amortized cost of fixed maturities and equity securities:

December 31, 2003				
(in thousands)	Estimated Fair Value and Carrying Value	Gross Unrealized Gains	Gross Unrealized (Losses)	Amortized Cost
Fixed maturities:				
U.S. government and government agencies . . . . .	\$1,343,295	\$ 6,651	\$ (848)	\$1,337,492
Corporate bonds . . . . .	1,106,380	25,662	(1,612)	1,082,330
Asset backed securities . . . . .	690,927	2,400	(1,495)	690,022
Municipal bonds . . . . .	209,568	2,358	(131)	207,341
Mortgage backed securities . . . . .	48,254	2,300	(54)	46,008
	<u>3,398,424</u>	<u>39,371</u>	<u>(4,140)</u>	<u>3,363,193</u>
Equity securities:				
Privately held . . . . .	32,476	4,850	(6)	27,632
Total . . . . .	<u>\$3,430,900</u>	<u>\$44,221</u>	<u>\$(4,146)</u>	<u>\$3,390,825</u>

December 31, 2002				
(in thousands)	Estimated Fair Value and Carrying Value	Gross Unrealized Gains	Gross Unrealized (Losses)	Amortized Cost
Fixed maturities:				
U.S. government and government agencies . . . . .	\$ 179,322	\$ 5,242	\$ (4)	\$ 174,084
Corporate bonds . . . . .	949,003	33,305	(708)	916,406
Asset backed securities . . . . .	24,985	1,937	—	23,048
Mortgage backed securities . . . . .	228,794	7,695	—	221,099
	<u>1,382,104</u>	<u>48,179</u>	<u>(712)</u>	<u>1,334,637</u>
Equity securities:				
Privately held . . . . .	31,536	232	(326)	31,630
Total . . . . .	<u>\$1,413,640</u>	<u>\$48,411</u>	<u>\$(1,038)</u>	<u>\$1,366,267</u>

The Company frequently reviews its investment portfolio for declines in fair value. The Company's process for identifying declines in the fair value of investments that are other than temporary involves consideration of several factors. These factors include (i) the time period in which there has been a significant decline in value, (ii) an analysis of the liquidity, business prospects and overall financial condition of the issuer, (iii) the significance of the decline and (iv) the Company's intent and ability to hold the investment for a sufficient period of time for the value to recover. Generally a change in the market or interest rate environment does not constitute an impairment of an investment but rather a temporary decline. When the Company's analysis of the above factors results in the Company's

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**7. Investment Information (Continued)**

conclusion that declines in fair values are other than temporary, the cost of the securities is written down to fair value and the previously unrealized loss is therefore reflected as a realized loss.

The following table reflects fair value and gross unrealized losses on the Company's fixed maturities and equity securities at December 31, 2003 by length of time that the individual securities have been in a continuous unrealized loss position. At December 31, 2003, 114 fixed maturities and one equity security had been in a continuous unrealized loss position for less than twelve months, while no fixed maturities or equity securities had been in a continuous unrealized loss position for more than twelve months. The unrealized loss position in certain of the Company's fixed maturities at December 31, 2003 principally resulted from changes in the interest rate environment.

(in thousands)	<u>Estimated Fair Value and Carrying Value</u>	<u>Gross Unrealized Losses</u>
<b>Fixed maturities:</b>		
U.S. government and government agencies .....	\$ 590,324	\$ (848)
Corporate bonds .....	183,581	(1,612)
Asset backed securities .....	297,740	(1,495)
Municipal bonds .....	53,805	(131)
Mortgage backed securities .....	6,307	(54)
	<u>1,131,757</u>	<u>(4,140)</u>
<b>Equity securities:</b>		
Privately held .....	<u>1,909</u>	<u>(6)</u>
<b>Total</b> .....	<u><u>\$1,133,666</u></u>	<u><u>\$(4,146)</u></u>

***Fixed Maturities***

Contractual maturities of the Company's fixed maturities at December 31, 2003 and 2002 are shown below. Expected maturities, which are management's best estimates, will differ from contractual

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**7. Investment Information (Continued)**

maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

(in thousands)	December 31, 2003		December 31, 2002	
	Estimated Fair Value	Amortized Cost	Estimated Fair Value	Amortized Cost
Available for sale:				
Due in one year or less . . . . .	\$ 234,674	\$ 233,459	\$ 19,671	\$ 20,149
Due after one year through five years . . . . .	2,252,441	2,225,169	1,058,158	1,023,151
Due after five years through 10 years . . . . .	120,305	118,760	21,966	24,100
Due after 10 years . . . . .	51,823	49,775	28,530	23,090
	2,659,243	2,627,163	1,128,325	1,090,490
Asset backed securities . . . . .	690,927	690,022	228,794	221,099
Mortgage backed securities . . . . .	48,254	46,008	24,985	23,048
Total . . . . .	\$3,398,424	\$3,363,193	\$1,382,104	\$1,334,637

As of December 31, 2003 and 2002, the weighted average contractual maturities of the Company's total fixed maturity and short-term investments, based on fair value, were 3.4 years and 4.5 years, respectively, while the weighted average expected maturities of the Company's total fixed maturity and short-term investments, based on fair value, were 2.0 years and 2.1 years, respectively. As of December 31, 2003 and 2002, approximately 100% of the fixed maturity investments held by the Company were rated investment grade by Standard & Poor's Corporation or Moody's Investors Service, Inc. There were no investments in any entity in excess of 10% of the Company's shareholders' equity at December 31, 2003 or 2002 other than investments issued or guaranteed by the United States government or its agencies.

***Privately Held Equity Securities***

At December 31, 2003, privately held securities of \$32.5 million consisted of \$9.1 million of investments carried under the equity method of accounting and \$23.4 million of securities carried at fair value. At December 31, 2002, privately held securities of \$31.5 million consisted of \$12.4 million of investments carried under the equity method of accounting and \$19.1 million of securities carried at fair value. The Company's investments in privately held equity securities were made as part of its prior investment strategy to hold equity positions in insurance and reinsurance companies or companies providing services to the insurance industry. The Company had investment commitments relating to its privately held securities in the amounts of \$0.4 million at December 31, 2003 and 2002.

***Restricted Assets***

The Company is required to maintain assets on deposit with various regulatory authorities to support its insurance and reinsurance operations. The assets on deposit are available to settle insurance and reinsurance liabilities to third parties. The Company also has investments in segregated portfolios primarily to provide collateral or guarantees for letters of credit to third parties.

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**7. Investment Information (Continued)**

The following table details the value of restricted assets at December 31, 2003 and 2002:

(in thousands)	December 31,	
	2003	2002
Deposits with U.S. regulatory authorities . . . . .	\$ 56,733	\$ 27,380
Deposits with non-U.S. regulatory authorities . . . . .	178	177
Assets used for collateral or guarantees . . . . .	232,244	101,660
Trust funds . . . . .	513	—
<b>Total restricted assets . . . . .</b>	<b>\$289,668</b>	<b>\$129,217</b>

In addition, Arch Re Bermuda maintains assets in trust accounts to support insurance and reinsurance transactions with affiliated U.S. companies. At December 31, 2003 and 2002, such amounts approximated \$1.12 billion and \$233.1 million, respectively.

***Net Investment Income***

The components of net investment income were derived from the following sources:

(in thousands)	Years Ended December 31,		
	2003	2002	2001
Fixed maturities . . . . .	\$81,659	\$48,325	\$ 6,750
Short-term investments . . . . .	2,505	4,201	4,969
Publicly traded equity securities . . . . .	—	—	371
Privately held securities . . . . .	571	407	146
Gross investment income . . . . .	84,735	52,933	12,236
Investment expenses . . . . .	(3,743)	(1,684)	(116)
<b>Net investment income . . . . .</b>	<b>\$80,992</b>	<b>\$51,249</b>	<b>\$12,120</b>

***Realized Investment Gains (Losses)***

Net realized investment gains (losses) were as follows:

(in thousands)	Years Ended December 31,		
	2003	2002	2001
Fixed maturities . . . . .	\$22,488	\$(6,350)	\$(2,116)
Publicly traded equity securities . . . . .	—	(269)	22,896
Privately held securities . . . . .	692	5,780	(2,398)
Other . . . . .	2,137	—	—
Net realized investment gains (losses) . . . . .	25,317	(839)	18,382
Income tax expense . . . . .	(2,245)	(1,779)	(7,242)
<b>Net realized investment gains (losses), net of tax . . . . .</b>	<b>\$23,072</b>	<b>\$(2,618)</b>	<b>\$11,140</b>

Proceeds from the sale of fixed maturities during 2003, 2002 and 2001 were \$2.67 billion, \$407.1 million and \$182.9 million, respectively. Gross gains of \$27.5 million, \$3.6 million and

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**7. Investment Information (Continued)**

\$2.7 million were realized on those sales during 2003, 2002 and 2001, respectively. Gross losses of \$5.0 million, \$10.0 million and \$4.8 million were realized during 2003, 2002 and 2001, respectively. For the year ended December 31, 2003, the Company recorded pre-tax net realized gains of \$25.3 million. The Company recorded net realized gains on certain investments sold by its U.S. subsidiaries, which resulted in an income tax expense of approximately \$2.2 million. Included in "Other" in the table above are net realized gains of \$2.1 million for the year ended December 31, 2003. Such amount consisted of \$1.9 million of proceeds received from a class action lawsuit related to a publicly traded equity security which the Company previously owned and for which the Company had recorded a significant realized loss in a prior year and \$239,000 to reflect the change in fair value of embedded derivatives contained in certain reinsurance contracts which are on a funds withheld basis.

**8. Income Taxes**

ACGL is incorporated under the laws of Bermuda and, under current Bermuda law, is not obligated to pay any taxes in Bermuda based upon income or capital gains. The Company has received a written undertaking from the Minister of Finance in Bermuda under the Exempted Undertakings Tax Protection Act 1966 that, in the event that any legislation is enacted in Bermuda imposing any tax computed on profits, income, gain or appreciation on any capital asset, or any tax in the nature of estate duty or inheritance tax, such tax will not be applicable to ACGL or any of its operations until March 28, 2016. This undertaking does not, however, prevent the imposition of taxes on any person ordinarily resident in Bermuda or any company in respect of its ownership of real property or leasehold interests in Bermuda.

ACGL will be subject to U.S. federal income tax only to the extent that it derives U.S. source income that is subject to U.S. withholding tax or income that is effectively connected with the conduct of a trade or business within the U.S. and is not exempt from U.S. tax under an applicable income tax treaty with the U.S. ACGL will be subject to a withholding tax on dividends from U.S. investments and interest from certain U.S. payors. ACGL does not consider itself to be engaged in a trade or business within the U.S. and, consequently, does not expect to be subject to direct U.S. income taxation. However, because there is uncertainty as to the activities which constitute being engaged in a trade or business within the United States, there can be no assurances that the U.S. Internal Revenue Service will not contend successfully that ACGL or its non-U.S. subsidiaries are engaged in a trade or business in the United States. If ACGL or any of its non-U.S. subsidiaries were subject to U.S. income tax, ACGL's shareholders' equity and earnings could be adversely affected. ACGL's U.S. subsidiaries are subject to U.S. income taxes on their worldwide income.

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**8. Income Taxes (Continued)**

The components of income taxes attributable to operations for the years ended December 31, 2003, 2002 and 2001 were as follows:

(in thousands)	Years Ended December 31,		
	2003	2002	2001
<b>Current expense:</b>			
U.S. Federal .....	\$41,842	\$6,536	\$ 506
U.S. State .....	327	837	150
Non-U.S. ....	44	—	—
	42,213	\$7,373	\$ 656
<b>Deferred (benefit) expense:</b>			
U.S. Federal .....	(15,488)	(7,929)	1,472
U.S. State .....	—	—	—
Non-U.S. ....	—	—	—
	(15,488)	(7,929)	1,472
Income tax expense (benefit) .....	\$26,725	\$ (556)	\$2,128

The expected tax provision computed on pre-tax income at the weighted average tax rate has been calculated as the sum of the pre-tax income in each jurisdiction multiplied by that jurisdiction's applicable statutory tax rate. A reconciliation of the difference between the provision for income taxes and the expected tax provision at the weighted average tax rate for the years December 31, 2003, 2002 and 2001 follows:

(in thousands)	Years Ended December 31,		
	2003	2002	2001
Expected income tax expense computed on pre-tax income at weighted average income tax rate .....	\$22,271	\$2,204	\$9,330
Addition (reduction) in income tax expense (benefit) resulting from:			
Valuation allowance .....	(773)	(7,421)	(8,518)
Write-off of deferred tax asset .....	—	—	251
Goodwill .....	—	—	360
Tax-exempt investment income .....	(280)	(132)	(12)
Limitation on executive compensation .....	581	1,656	—
State taxes, net of U.S. federal tax benefit .....	213	544	98
Prior year adjustment .....	1,249	(452)	—
Other .....	3,464	3,045	619
Income tax expense (benefit) .....	\$26,725	\$ (556)	\$2,128

The Company has net operating loss carryforwards in its U.S. operating subsidiaries totaling \$38.8 million at December 31, 2003. Such net operating losses are currently available to offset future U.S. source taxable income of the Company and expire between 2011 and 2023. The Company also has an alternative minimum tax ("AMT") credit carryforward in the amount of \$1.4 million which can be carried forward without expiration.

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**8. Income Taxes (Continued)**

On November 20, 2001, the Company underwent an ownership change for U.S. federal income tax purposes as a result of the investment led by investment funds associated with Warburg Pincus LLC ("Warburg Pincus") and Hellman and Friedman LLC ("Hellman & Friedman"). As a result of this ownership change, limitations have been imposed upon the utilization of existing net operating losses. Utilization of the net operating losses, capital loss carryforwards and the AMT credit carryforward is limited to approximately \$5.2 million per year in accordance with Section 382 of the Internal Revenue Code of 1986 as amended (the "Code").

In 2000, upon the Company's redomestication to Bermuda, Arch-U.S. distributed substantially its entire public equity portfolio to ACGL, its Bermuda parent, at the current market values and realized gains for tax purposes of \$21.0 million. The associated income tax expense of \$7.4 million reduced the Company's net operating loss carryforwards by a corresponding amount. However, for financial reporting purposes, since the securities had not been sold to an unrelated third party, the realized gain was deferred and was reported as unrealized appreciation in the consolidated financial statements. Accordingly, the related income tax expense was also deferred and reduced unrealized appreciation in the consolidated financial statements. In 2001, the Company divested its public equity portfolio in its entirety and, accordingly, recognized U.S. federal income tax expense of \$7.4 million in its consolidated financial statements.

Deferred income tax assets and liabilities reflect temporary differences based on enacted tax rates between the carrying amounts of assets and liabilities for financial reporting and income tax purposes.

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**8. Income Taxes (Continued)**

Significant components of the Company's deferred income tax assets and liabilities as of December 31, 2003 and 2002 were as follows:

(in thousands)	December 31,	
	2003	2002
Deferred income tax assets:		
Net operating loss . . . . .	\$13,575	\$14,860
Deferred ceding commission . . . . .	5,544	—
AMT credit carryforward . . . . .	1,389	965
Discounting of net unpaid loss reserves . . . . .	11,942	2,807
Net unearned premium reserve . . . . .	11,055	8,583
Compensation liabilities . . . . .	1,901	1,163
Other, net . . . . .	134	156
Total deferred tax assets . . . . .	45,540	28,534
Deferred income tax liabilities:		
Equity in net income on investees, net . . . . .	(1,841)	(969)
Deferred policy acquisition cost . . . . .	—	(2,888)
Depreciation and amortization . . . . .	(3,587)	(89)
Net unrealized appreciation of investments . . . . .	(4,774)	(5,942)
Total deferred tax liabilities . . . . .	(10,202)	(9,888)
Valuation allowance . . . . .	(1,359)	(2,132)
Net deferred income tax asset . . . . .	\$33,979	\$16,514

The Company has provided a valuation allowance to reduce certain deferred tax assets to an amount which management expects to more likely than not be realized. For the years ended December 31, 2003 and 2002, the Company reversed a portion of the valuation allowance on certain of its deferred tax assets and recorded a benefit of \$773,000 and \$7.4 million, respectively. The valuation allowance reversals were based on the Company's restructuring of its U.S.-based insurance operations and its business plan, which included a substantial increase in its taxable investment portfolio in 2002. At December 31, 2003, a valuation allowance of \$1.4 million is provided against a deferred tax asset in one of the Company's subsidiaries that currently does not have a business plan to produce significant future taxable income.

**9. Transactions with Related Parties**

Effective August 1, 2003, Constantine Iordanou became President and Chief Executive Officer of ACGL. Mr. Iordanou succeeded Peter Appel, who remains on the board of directors of ACGL. Effective July 31, 2003, the Company agreed to pay \$2.3 million to Mr. Appel in recognition of his performance during his tenure as President and Chief Executive Officer of ACGL. In addition, Mr. Appel agreed to assist ACGL in seeking to maximize the value of the assets deemed "non-core" under the subscription agreement entered into in connection with the November 2001 capital infusion. In that connection, the Company entered into a non-core business payment agreement with Mr. Appel which provided that Mr. Appel would be paid an amount equal to \$1.5 million if, and only if, the aggregate of the realized values of all non-core assets equaled or exceeded the aggregate of the

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**9. Transactions with Related Parties (Continued)**

adjusted closing book values of all such non-core assets. The agreement also provided that Mr. Appel would be paid an amount equal to 15% of the net excess, if any, of the realized value over the adjusted closing book value of all the non-core assets; provided, however that any such additional amount payable would not exceed \$1.5 million (such that the aggregate amount payable under the non-core business payment agreement would not exceed \$3.0 million). As a result of the resolution between the Company and the original investors from the November 2001 capital infusion regarding the value of the non-core assets (See Note 11, "Share Capital—Series A Convertible Preference Shares"), at December 31, 2003, the Company accrued \$3 million related to the non-core business payment agreement, which amount was subsequently paid to Mr. Appel in February 2004.

In connection with the Company's information technology initiative in 2002, the Company has entered into arrangements with two software companies, which provide document management systems and information and research tools to insurance underwriters, in which Robert Clements and John Pasquesi, Chairman and Vice Chairman of ACGL's board of directors, respectively, each hold minority ownership interests. The Company pays fees under such arrangements based on usage. Under one of these agreements, fees payable are subject to a minimum of approximately \$575,000 for the two-year period ending July 2004. The Company made payments of approximately \$561,000 and \$232,000 under such arrangements for the years ended December 31, 2003 and 2002, respectively.

During 2002, the Company leased temporary office space from Tri-City Brokerage Inc. (together with its affiliates, "Tri-City"), a company in which Peter Appel, former President and Chief Executive Officer of ACGL, Mr. Clements and Distribution Investors, LLC held ownership interests until March 2003. The aggregate rental payments related to such lease were approximately \$247,000 through March 31, 2003. In addition, Tri-City, as broker, placed business with the Company's insurance operations and the Company incurred commission expenses of approximately \$1.1 million under such arrangements for the three months ended March 31, 2003. In March 2003, the Company's merchant banking subsidiary, Hales & Company Inc., received a fee of \$1.25 million from Tri-City for advisory services in connection with the sale of Tri-City to non-affiliated persons.

During the 2002 third quarter, the Company's board of directors accelerated the vesting terms of certain restricted common shares granted to Robert Clements, Chairman of the board, in connection with the November 2001 capital infusion, and Mr. Clements agreed to repay the outstanding \$13.5 million loan previously made to him by the Company on or before November 12, 2002. Mr. Clements was granted 1,689,629 restricted common shares which were initially scheduled to vest in five equal annual amounts commencing on October 23, 2002. The vesting period and the amounts were changed as follows: 60% of the shares vested on October 23, 2002, 20% vested on October 23, 2003 and the remaining shares will vest on October 23, 2004.

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**9. Transactions with Related Parties (Continued)**

The \$13.5 million loan made by the Company to Mr. Clements was used by him to pay income and self employment taxes. Under his retention agreement, Mr. Clements received additional compensation in cash in an amount sufficient to defray the loan's interest costs. In order to facilitate the repayment of the loan, the Company agreed to repurchase, at Mr. Clements' option, an amount of his shares equal to the principal balance of the loan less any cash payment made by Mr. Clements, for a price per share based on the market price for the common shares as reported on the NASDAQ National Market on the date of sale. In addition, the Company agreed to make gross-up payments to Mr. Clements in the event of certain tax liabilities in connection with the repurchase. Pursuant to such arrangements, Mr. Clements sold 411,744 common shares of ACGL for an aggregate purchase price of \$11.5 million. Mr. Clements used all of such sale proceeds and \$2.0 million in cash to repay the entire loan balance on November 12, 2002. The Company's diluted book value per share decreased by approximately \$0.04 following such share repurchase. During the loan period, Mr. Clements received payments of \$638,000 from the Company under his retention agreement, of which \$364,000 was used by him to pay interest on the loan.

The Company agreed to reimburse Warburg Pincus and Hellman & Friedman for their costs and expenses in connection with the November 2001 capital infusion. The Company has reimbursed Warburg Pincus and Hellman & Friedman approximately \$2.3 million in the aggregate under such agreements. For a description of certain agreements entered into by the Company and the investors in connection with the capital infusion, see Note 11, "Share Capital—Series A Convertible Preference Shares."

**10. Commitments and Contingencies**

*Concentrations of Credit Risk*

The creditworthiness of a counterparty is evaluated by the Company, taking into account credit ratings assigned by independent agencies. The credit approval process involves an assessment of factors, including, among others, the counterparty, country and industry credit exposure limits. Collateral may be required, at the discretion of the Company, on certain transactions based on the creditworthiness of the counterparty.

The areas where significant concentrations of credit risk may exist include unpaid losses and loss adjustment expenses recoverable, prepaid reinsurance premiums and paid losses and loss adjustment expenses recoverable net of reinsurance balances payable (collectively "reinsurance recoverables"), investments and cash and cash equivalent balances. The Company's reinsurance recoverables at December 31, 2003 amounted to \$664.1 million and resulted from reinsurance arrangements entered into in the course of its operations. A credit exposure exists with respect to reinsurance recoverables as they may become uncollectible. The Company manages its credit risk in its reinsurance relationships by transacting with reinsurers that it considers financially sound and, if necessary, the Company may hold collateral in the form of funds, trust accounts and/or irrevocable letters of credit. This collateral can be drawn on for amounts that remain unpaid beyond specified time periods on an individual reinsurer basis.

In addition, the Company underwrites a significant amount of its business through brokers and a credit risk exists should any of these brokers be unable to fulfill their contractual obligations with respect to the payments of insurance and reinsurance balances owed to the Company. During 2003, approximately 20.0%, 18.3% and 10.6% of the Company's consolidated gross written premiums were generated from or placed by AON Corporation and its subsidiaries, Marsh & McLennan Companies

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**10. Commitments and Contingencies (Continued)**

and Willis Group Holdings and its subsidiaries, respectively. Each of these companies is large and well established and there are no indications that any of them are financially troubled. No other broker and no one insured or reinsured accounted for more than 10% of gross premiums written for the year ended December 31, 2003.

The Company's available for sale investment portfolio is managed by external managers in accordance with guidelines that have been tailored to meet specific investment strategies, including standards of diversification, which limit the allowable holdings of any single issue. There were no investments in any entity in excess of 10% of the Company's shareholders' equity at December 31, 2003 other than investments issued or guaranteed by the United States government or its agencies.

*Letter of Credit Facilities*

The Company has access to letter of credit facilities ("LOC Facilities") for up to \$300 million. The principal purpose of the LOC Facilities is to issue, as required, evergreen standby letters of credit in favor of primary insurance or reinsurance counterparties with which it has entered into reinsurance arrangements to ensure that such counterparties are permitted to take credit for reinsurance obtained from the Company's reinsurance subsidiaries in United States jurisdictions where such subsidiaries are not licensed or otherwise admitted as an insurer, as required under insurance regulations in the United States, and to comply with requirements of Lloyd's of London in connection with qualifying quota share arrangements. The amount of letters of credit issued is driven by, among other things, the timing and payment of catastrophe losses, loss development of existing reserves, the payment pattern of such reserves, the further expansion of the Company's business and the loss experience of such business.

When issued under the LOC Facilities, such letters of credit are secured by a portion of the Company's investment portfolio. In addition, the LOC Facilities also requires the maintenance of certain financial covenants, with which the Company was in compliance at December 31, 2003. At such date, the Company had approximately \$168.3 million in outstanding letters of credit under the LOC Facility which were secured by investments totaling \$177.6 million. In addition to letters of credit, the Company has and may establish insurance trust accounts in the U.S. and Canada to secure its reinsurance amounts payable as required. At December 31, 2003, CAD \$29.3 million had been set aside in Canadian trust accounts.

*Credit Line*

On September 12, 2003, the Company entered into an unsecured credit facility with a syndicate of banks led by JPMorgan Chase Bank and Banc of America, N.A. (the "Credit Facility"). The Credit Facility is in the form of a 364-day revolving credit agreement that may be converted by the Company into a two-year term loan at expiration. The Credit Facility provides for the borrowing of up to \$300.0 million with interest at a rate selected by the Company equal to either (i) an adjusted London InterBank Offered Rate (LIBOR) plus a margin or (ii) an alternate base rate ("Base Rate"). The Base Rate is the higher of the rate of interest established by JPMorgan Chase Bank as its prime rate or the Federal Funds rate plus 0.5% per annum. The payment terms for amounts converted into a term loan at expiration are as follows: 16.66% due 12 months following expiration, 16.67% due 18 months following expiration and 66.67% due 24 months following expiration. The facility is available to provide capital in support of the Company's growing insurance and reinsurance businesses, as well as other general corporate purposes.

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**10. Commitments and Contingencies (Continued)**

The Company is required to comply with certain covenants under the Credit Facility agreement. These covenants require, among other things, that the Company (i) maintain a debt to shareholders' equity ratio of not greater than 0.35 to 1; (ii) maintain shareholders' equity in excess of \$1.0 billion plus 40% of future aggregate net income (not including any future net losses) and 40% of future aggregate capital raising proceeds; and (iii) the Company's principal insurance and reinsurance subsidiaries maintain at least a "B++" rating from A.M. Best. The Company was in compliance with all covenants contained in the Credit Facility agreement at December 31, 2003.

On September 29, 2003, the Company borrowed \$200.0 million under the Credit Facility at a fixed interest rate of approximately 2.44% through March 2004. The proceeds from such borrowings were contributed to the Company's subsidiaries to support their underwriting activities. The Company incurred interest expense in connection with the facility of \$1.4 million during 2003. In addition, the Company paid \$1.3 million in fees in connection with the Credit Facility during 2003. Such fees were deferred and are being amortized over the loan period. The unamortized balance at December 31, 2003 was \$1.2 million.

***Leases and Purchase Obligations***

At December 31, 2003, the future minimum rental commitments, exclusive of escalation clauses and maintenance costs and net of rental income, for all of the Company's operating leases with remaining non-cancelable terms in excess of one year are as follows:

	<i>(in thousands)</i>
2004 .....	\$ 8,755
2005 .....	8,830
2006 .....	8,678
2007 .....	8,074
2008 .....	7,989
Thereafter .....	<u>32,647</u>
	<u>\$74,973</u>

All of these leases are for the rental of office space, with expiration terms that range from 2004 to 2014. Rental expense (income), net of income from subleases, was approximately \$8.7 million, \$3.2 million and (\$132,000) for the years ended December 31, 2003, 2002 and 2001, respectively.

The Company has also entered into certain agreements which commit the Company to purchase goods or services over the next three years, primarily related to software and computerized systems. Such purchase obligations were approximately \$15.0 million at December 31, 2003.

***Employment and Other Arrangements***

At December 31, 2003, the Company has entered into employment agreements with certain of its executive officers for periods extending up to July 2008. Such employment arrangements provide for compensation in the form of base salary, annual bonus, share-based awards, participation in the Company's employee benefit programs and the reimbursements of expenses.

***Folksamerica***

On May 5, 2000, Arch-U.S. sold the prior reinsurance operations of Arch Re U.S. to Folksamerica in an asset sale. The Folksamerica transaction was structured as a transfer and assumption agreement

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**10. Commitments and Contingencies (Continued)**

(and not reinsurance) and, accordingly, the loss reserves (and any related reinsurance recoverables) related to the transferred business are not included in the Company's balance sheet. However, in the event that Folksamerica is unable to make payment of claims on the reinsurance business assumed by it in the May 2000 sale and the notice given to reinsureds is found not to be an effective release by the reinsured, Arch Re U.S. would be liable for such claims. See Note 13.

**11. Share Capital**

*Authorized and Issued*

The authorized share capital of the Company consists of 200,000,000 Common Shares, par value of \$0.01 per share, and 50,000,000 Preference Shares, par value of \$0.01 per share. Prior to the reorganization described in Note 1, authorized share capital of Arch-U.S. consisted of 80,000,000 Common Shares, par value of \$0.01 per share, and 20,000,000 Preference Shares, par value of \$0.01 per share.

*Common Shares*

Changes in the Company's outstanding Common Shares for the years ended December 31, 2003, 2002 and 2001 are reflected below:

	<u>Years Ended December 31,</u>		
	<u>2003</u>	<u>2002</u>	<u>2001</u>
Common Shares:			
Balance, beginning of year . . . . .	27,725,334	13,513,538	12,708,818
Shares issued . . . . .	296,067	12,275,171	179,878
Restricted shares issued, net . . . . .	205,787	2,398,794	627,949
Shares repurchased and retired . . . . .	<u>(26,816)</u>	<u>(462,169)</u>	<u>(3,107)</u>
Balance, end of year . . . . .	<u>28,200,372</u>	<u>27,725,334</u>	<u>13,513,538</u>

In April 2002, the Company completed an offering of 7,475,000 of its Common Shares and received net proceeds of \$179.2 million. In November 2002, the Company repurchased 411,744 Common Shares for an aggregate purchase price of \$11.5 million (see Note 9).

In November 2001, 905,397 previously existing Class A Warrants were canceled in exchange for 140,380 newly issued Common Shares, and Class B Warrants to purchase 1,770,601 Common Shares were canceled in exchange for a cash payment by the Company of \$7.50 per Class B Warrant (approximately \$13.3 million in the aggregate). During 2002, all 5,401,707 Class A Warrants that were outstanding as of December 31, 2001 were exercised which resulted in the issuance of 4,195,554 Common Shares and the receipt by the Company of cash proceeds totaling \$74.3 million. As of December 31, 2003, warrants outstanding consisted of 150,000 Class B Warrants.

*Restricted Common Shares*

During 2003, 2002 and 2001 the Company issued an aggregate of 205,787, 2,398,794 and 627,949 restricted shares, respectively. The Chairman of the Board of Directors of the Company was granted a total of 1,689,629 restricted shares during 2001. Of such amount, 1,668,157 restricted shares were granted on October 23, 2001 and 21,472 restricted shares were granted on November 19, 2001. These grants were reflected in the Company's consolidated financial statements on the measurement date, which occurred during 2002 (see Note 9). These grants to Mr. Clements were subject to rescission had

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**11. Share Capital (Continued)**

they not been approved by the Company's shareholders prior to October 23, 2002, which approval was obtained in 2002. The Company records deferred compensation equal to the market value of the shares at the measurement date, which is amortized and charged to income over the vesting period. The deferred compensation was \$5.1 million, \$66.2 million and \$10.5 million, and the amortization of the deferred compensation was \$15.4 million, \$49.2 million and \$2.6 million, for the years ended December 31, 2003, 2002 and 2001, respectively. The Company may withhold, or require a participant to remit to the Company, an amount sufficient to satisfy any federal, state or local withholding tax requirements associated with awards under the Company's share award plans. This includes the authority to withhold or receive shares or other property and to make cash payments in respect thereof. The issuance of restricted shares and amortization thereon has no effect on the Company's consolidated shareholders' equity.

*Series A Convertible Preference Shares*

Changes in the Company's outstanding Preference Shares for the years ended December 31, 2003, 2002 and 2001 are reflected below:

	Years Ended December 31,		
	2003	2002	2001
Preference Shares:			
Balance, beginning of year . . . . .	38,844,665	35,687,735	—
Shares issued . . . . .	—	3,706,930	35,687,735
Shares converted to common shares . . . . .	—	(550,000)	—
Balance, end of year . . . . .	38,844,665	38,844,665	35,687,735

On November 20, 2001, the Company issued 35,687,735 Preference Shares and 3,776,025 Class A Warrants in exchange for \$763.2 million in cash and entered into subscription agreements with investors led by Warburg Pincus and Hellman & Friedman and certain members of management (the "Subscription Agreement"). The number of Preference Shares issued was based on the estimated per share price of \$21.38. The estimated per share price was based on (i) the Company's total shareholders' equity as of June 30, 2001 (adjusted for certain amounts as described in the Subscription), divided by (ii) the total number of Common Shares outstanding as of June 30, 2001, which was 12,863,079. During 2002, the Company issued an additional 3,706,930 Preference Shares pursuant to the Subscription Agreement as follows: (i) 875,753 Preference Shares were issued by the Company on June 28, 2002 pursuant to a post-closing purchase price adjustment mechanism under the Subscription Agreement; and (ii) 2,831,177 Preference Shares were issued by the Company on December 16, 2002 pursuant to an agreed upon adjustment under the Subscription Agreement. The Company had agreed to issue to the new investors additional Preference Shares such that the per share price would be adjusted downward by \$1.50 per Preference Share when the closing price of the Company's Common Shares was at least \$30 per share for at least 20 out of 30 consecutive trading days on or prior to September 19, 2005, which condition was met on December 16, 2002. In addition, during December 2002, 550,000 Preference Shares were converted by the holders thereof into an equal number of Common Shares.

Each Preference Share is convertible at any time and from time to time at the option of the holder thereof into one fully paid and nonassessable common share, subject to possible adjustment. The Preference Shares vote, together with the Common Shares, on an as-converted basis. Pursuant to the Subscription Agreement, an adjustment basket relating to certain non-core operations was calculated

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**11. Share Capital (Continued)**

during the 2003 fourth quarter for purposes of determining whether the Company would be required to issue additional Preference Shares to the investors as a purchase price adjustment. The adjustment basket was equal to (1) the difference between value realized upon sale and the GAAP book value at the closing of the capital infusion (November 2001) (as adjusted based on a pre-determined growth rate) of agreed upon non-core businesses; plus (2) the difference between GAAP net book value of the Company's insurance balances attributable to the Company's core insurance operations with respect to any policy or contract written or having an effective date prior to November 20, 2001 at the time of the final adjustment and those balances at the closing; minus (3) reductions in book value arising from costs and expenses relating to the transaction provided under the Subscription Agreement, actual losses arising out of breach of representations under the Subscription Agreement and certain other costs and expenses.

If the adjustment basket had been calculated as less than zero, the Company would have been required to issue additional Preference Shares (or, in certain extreme cases, Preference Shares of a subsidiary) to the investors based on the decrease in value of the components of the adjustment basket. In February 2004, the parties agreed that no purchase price adjustment was required pursuant to the above calculation and, accordingly, no additional preference shares will be issued to the investors. In November 2005, there will be a calculation of a further adjustment basket based on (1) liabilities owed to Folksamerica (if any) under the Asset Purchase Agreement, dated as of January 10, 2000, between the Company and Folksamerica, and (2) specified tax and ERISA matters under the Subscription Agreement.

Pursuant to the shareholders agreement, the Company agreed to restrictions on the composition of its Board of Directors. Pursuant to this agreement, Warburg Pincus and Hellman & Friedman are entitled to nominate a prescribed number of directors based on the respective retained percentages of their Preference Shares purchased in November 2001. Currently, the Company's Board of Directors consists of 12 members, including three directors nominated by Warburg Pincus and two directors nominated by Hellman & Friedman. As long as Warburg Pincus retains at least 75% of their original investment and Hellman & Friedman retains at least 60% of their original investment, these shareholders together will be entitled to nominate a majority of directors to the Company's Board of Directors.

The shareholders agreement also provides that the Company cannot engage in certain transactions, including mergers and acquisitions and transactions in excess of certain amounts, without the consent of a designee of Warburg Pincus and a designee of Hellman & Friedman. In addition, the shareholders agreement provides the investors who provided the 2001 capital infusion with certain other rights, including registration rights.

***Voting Rights Limitation***

At December 31, 2003, the bye-laws of the Company contain a provision limiting the rights of any U.S. person (as defined in section 7701(a)(30) of the Code), that owns shares of the Company, directly, indirectly or constructively (within the meaning of section 958 of the Code), representing more than 9.9% of the voting power of all shares entitled to vote generally at an election of directors. The votes conferred by such shares or such U.S. person will be reduced by whatever amount is necessary so that after any such reduction the votes conferred by the shares of such person will constitute 9.9% of the total voting power of all shares entitled to vote generally at an election of directors. Notwithstanding this provision, the Board of Directors may make such final adjustments to the aggregate number of

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**11. Share Capital (Continued)**

votes conferred by the shares of any U.S. person that the Board of Directors considers fair and reasonable in all circumstances to ensure that such votes represent 9.9% of the aggregate voting power of the votes conferred by all shares of the Company entitled to vote generally at an election of directors. The Company will assume that all shareholders (other than Warburg Pincus and Hellman & Friedman) are U.S. persons unless they otherwise receive assurance satisfactory to them that they are not U.S. persons.

The Company held a special meeting of its shareholders in March 2002 as required by the Subscription Agreement. At such meeting, the shareholders approved, among other things, (1) the issuance of such number of Common Shares issuable upon conversion of the Preference Shares that, together with the number of Common Shares issuable upon exercise of the Class A Warrants, is in excess of the amount that may be issued without shareholder approval under the NASDAQ National Market rules and (2) the adoption of amendments to the provision of the Company's bye-laws that limits voting rights of shareholders to 9.9% of the total voting power of all outstanding voting shares to provide that, as described above, such voting limitation applies only to votes conferred (directly or indirectly or by attribution) by shares of the Company held by any U.S. person.

In September 1995 and April 1999, the Company adopted the 1995 Long Term Incentive and Share Award Plan and the 1999 Long Term Incentive and Share Award Plan. The Company reserved 1,700,000 Common Shares and 900,000 Common Shares, respectively, for issuance under such Stock Plans and, as of December 31, 2002, all of the shares reserved for issuance under these share award plans had been issued.

***Long Term Incentive and Share Award Plans***

In October 2001, the Company adopted the 2001 Long Term Incentive Plan for New Employees (the "New Employee Plan") in order to provide incentives to attract and motivate new hires in connection with the launch of the Company's new underwriting initiative. An aggregate of 4,600,000 Common Shares had been reserved for issuance under the New Employee Plan. Of such amount, 3,295,170 of such shares were awarded under the New Employee Plan. As eligibility under the New Employee Plan was restricted to new hires, none of the shares under the New Employee Plan were available for grants to directors or existing employees. As a result, in order to be in a position to provide long-term incentive compensation for the Company's employees and directors, in June 2002, following shareholder approval, the Company adopted the 2002 Long Term Incentive and Share Award Plan (the "2002 Plan"), and the New Employee Plan was terminated. An aggregate of 3,165,830 Common Shares has been reserved for issuance under the 2002 Plan. The 2002 Plan provides for the grant to eligible employees and directors of stock options, stock appreciation rights, restricted shares, restricted share units payable in Common Shares or cash, share awards in lieu of cash awards, dividend equivalents and other share-based awards. The 2002 Plan, like its predecessor, provides the Company's non-employee directors with the opportunity to receive their annual retainer fee for service as a director in Common Shares.

***Stock Options***

The Company generally issues stock options to officers and directors, with exercise prices equal to the fair market values of the Company's Common Shares on the grant dates. Options to officers generally vest and become exercisable in three equal installments commencing on the grant date and thereafter on the first and second anniversary thereof, and expire ten years after the grant date. Initial

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**11. Share Capital (Continued)**

options granted to non-employee directors vest and become exercisable in three equal installments, commencing on the grant date and annually thereafter.

Information relating to the Company's stock options is set forth below:

	Years Ended December 31,		
	2003	2002	2001
<b>Number of options</b>			
Outstanding, beginning of year	5,599,411	4,068,311	1,222,775
Granted	307,800(1)	1,573,900(2)	2,898,036(3)
Canceled	(23,665)	—	(52,500)
Exercised	(296,067)	(42,800)	—
Outstanding, end of year	<u>5,587,479</u>	<u>5,599,411</u>	<u>4,068,311</u>
Exercisable, end of year	4,822,714	3,867,593	2,698,052
<b>Weighted Average exercise price</b>			
Granted	\$33.52(1)	\$26.28(2)	\$19.99(3)
Canceled	\$28.76	—	\$15.33
Exercised	\$19.66	\$19.28	—
Outstanding, end of year	\$22.54	\$21.85	\$20.09
Exercisable, end of year	\$21.73	\$20.87	\$19.83

- (1) Includes 17,000 stock options granted with an exercise price below the market price of the Company's common shares on the date of grant, with a weighted average exercise price and a weighted average valuation of \$31.41 and \$11.99, respectively; 290,500 options granted with an exercise price equal to the market price of the Company's common shares on the date of grant, with a weighted average exercise price and weighted average valuation of \$33.66 and \$10.38, respectively and 300 options granted with an exercise price above the market price of the Company's common shares on the date of grant, with a weighted average exercise price and a weighted average valuation of \$35.54 and \$10.76, respectively.
- (2) Includes 450,000 stock options granted with an exercise price below the market price of the Company's common shares on the date of grant, with a weighted average exercise price and weighted average valuation of \$23.61 and \$8.91, respectively; 1,123,900 options granted with an exercise price equal to the market price of the Company's common shares on the date of grant, with a weighted average exercise price and weighted average valuation of \$27.37 and \$8.33, respectively and zero options granted with an exercise price above the market price of the Company's common shares on the date of grant.
- (3) Includes zero stock options granted with an exercise price below the market price of the Company's common shares on the date of grant; 608,803 options granted with an exercise price equal to the market price of the Company's common shares on the date of grant, with a weighted average exercise price and weighted average valuation of \$20.03 and \$9.10, respectively and 2,289,233 options granted with an exercise price above the market price of the Company's common shares on the date of grant, with a weighted average exercise price and weighted average valuation of \$19.98 and \$7.29, respectively.

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**11. Share Capital (Continued)**

Refer to Note 2(l) for details related to the required pro forma information of the estimated weighted average fair value of options granted during the years ended December 31, 2003, 2002 and 2001.

The following table summarizes information about the Company's stock options for options outstanding as of December 31, 2003:

<u>Range of Exercise Prices</u>	<u>Options Outstanding</u>			<u>Options Exercisable</u>	
	<u>Number of Options</u>	<u>Weighted Average Remaining Contractual Life in Years</u>	<u>Weighted Average Exercise Price</u>	<u>Number of Options</u>	<u>Weighted Average Exercise Price</u>
\$12.66-\$17.63 . . . . .	540,903	4.98	\$16.42	540,903	\$16.42
\$19.63-\$20.00 . . . . .	2,360,333	7.58	20.00	2,360,333	20.00
\$20.13-\$23.50 . . . . .	956,575	5.54	22.98	814,909	22.89
\$23.80-\$26.58 . . . . .	659,667	8.12	24.83	543,507	24.67
\$26.70-\$29.77 . . . . .	714,034	8.39	27.78	474,598	27.77
\$29.89-\$35.54 . . . . .	347,467	9.17	32.64	145,628	32.19
\$36.13-\$37.04 . . . . .	8,500	9.46	36.58	2,836	36.58
\$12.66-\$37.04 . . . . .	<u>5,587,479</u>	<u>7.25</u>	<u>\$22.54</u>	<u>4,882,714</u>	<u>\$21.73</u>

**12. Retirement Plans**

For employee retirement benefits, the Company maintains defined contribution retirement plans, which vary for each subsidiary. Contributions are based on the participants' eligible compensation. In 2003, 2002 and 2001, the Company expensed \$5.9 million, \$1.8 million and \$0.4 million, respectively, related to these retirement plans.

**13. Acquisition of Subsidiaries and Disposition of Prior Reinsurance Operations**

*Western Diversified Casualty Insurance Company*

On June 23, 2003, the Company acquired Western Diversified, an admitted insurer in 46 states and the District of Columbia, from Western Diversified Services, Inc., a subsidiary of Protective Life Corporation (NYSE: PL), for the purpose of obtaining licenses for the Company's insurance operations. The cost of the acquisition was \$17.1 million, paid in cash. At closing, Western Diversified, which was acquired to support the operations of the Company's insurance segment, had net assets of approximately \$10.1 million. Protective Life Corporation and certain of its affiliates have entered into agreements to reinsure or otherwise assume all liabilities arising out of Western Diversified's business prior to the closing of the acquisition. In connection with the acquisition of Western Diversified, the Company recorded \$7.0 million of goodwill and intangible assets, which primarily consist of state licenses and authorities to conduct insurance business. Such intangible assets have an indefinite life.

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**13. Acquisition of Subsidiaries and Disposition of Prior Reinsurance Operations (Continued)**

*Personal Service Insurance Company*

On November 30, 2002, the Company acquired PSIC, a non-standard automobile insurer licensed in Ohio and Indiana and located in Columbus, Ohio from GuideOne Property & Casualty Insurance Company for \$2.5 million. The Company recorded an extraordinary gain of \$3.9 million, or \$0.07 per share, for the year ended December 31, 2002 from the acquisition of PSIC. The extraordinary gain represented the excess of the fair value of acquired net assets of \$6.4 million over the purchase price of \$2.5 million. The Company recorded an additional extraordinary gain of \$816,000 in 2003, which represented an adjustment to the fair value of PSIC due to the recognition of deferred tax assets as a result of the acquisition. PSIC is included in the Company's insurance segment (see Note 3).

*Arch Specialty Insurance Company*

On February 1, 2002, the Company acquired Arch Specialty (formerly known as Rock River Insurance Company), an approved excess and surplus lines insurer in 46 states and the District of Columbia and an admitted insurer in one other state, from Sentry Insurance a Mutual Company ("Sentry") for the purpose of obtaining excess and surplus lines authorizations for the Company's insurance operations. The cost of the acquisition was \$19.5 million, paid in cash. At closing, Arch Specialty, which is included in the Company's insurance segment (see Note 3), had net assets of approximately \$17.0 million. Sentry, which had an A.M Best rating of "A+" (Superior) as of December 31, 2003, agreed to reinsure or otherwise assume all liabilities arising out of Arch Specialty's business prior to the closing of the acquisition by the Company.

*Arch Risk Transfer Services Ltd.*

On June 22, 2001, the Company completed the acquisition of all of the remaining ownership interests in one of its investee companies, ART Services, for a purchase price of approximately \$38.8 million. The purchase price consisted of approximately \$38.4 million in cash and 24,200 Common Shares. After the Company's acquisition of its initial 27.9% ownership interest in ART Services in March 1998, the investment was carried at its estimated fair value from the initial purchase through March 31, 2001 in accordance with GAAP. The Company accounted for its initial interest in ART Services under "fair value" because the Company did not have the ability to exercise significant influence over this investment due to the Company's limited voting and consent rights. Upon acquiring the remaining ownership interests in ART Services, the Company was required under GAAP governing a "step acquisition" of an investee company to retroactively adopt the equity method of accounting for its original minority ownership interest in ART Services for the periods prior to the acquisition and to restate its historical financial results accordingly. ART Services is included in the Company's insurance segment (see Note 3).

The required change to the equity method of accounting for this investment resulted in a reduction in the Company's book value at December 31, 2001 in the amount of \$3.5 million and decreased net income by \$475,000 for the year ended December 31, 2001. Restating the amounts previously reported decreased the net loss for the year ended December 31, 2000 by \$729,000.

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**13. Acquisition of Subsidiaries and Disposition of Prior Reinsurance Operations (Continued)**

*American Independent Insurance Holding Company*

On February 28, 2001, the Company completed a transaction pursuant to which it acquired all of the common stock of AIHC, previously one of its investee companies. AIHC is a specialty property and casualty insurance holding company that, through its subsidiaries, markets and underwrites non-standard personal automobile liability and physical damage lines of insurance, primarily in Pennsylvania, as well as in Maryland and Delaware. AIHC is included in the Company's insurance segment (see Note 3).

The Company purchased a portion of the outstanding shares of AIHC for \$1.25 million. The remaining outstanding shares of AIHC were redeemed by AIHC in exchange for the right to receive a portion of the proceeds resulting from the final adjudication or settlement of certain lawsuits that AIHC, as plaintiff, has previously filed against certain defendants. A third party also forgave the obligations owing to it under certain notes previously issued by AIHC in the aggregate principal amount of \$4.0 million and returned certain warrants to purchase shares of AIHC in exchange for the right to receive a portion of the proceeds resulting from the final adjudication or settlement of such lawsuits. Immediately after the Company's purchase of AIHC, the Company contributed to the capital of AIHC notes in the aggregate principal amount of \$8.5 million that were issued to the Company in connection with loans it had previously made to AIHC and also returned certain warrants to purchase shares of AIHC. Following the purchase, the Company also made a capital contribution to AIHC in the amount of \$11.0 million.

In connection with the loans the Company had previously made to AIHC, the Company had obtained rights to provide reinsurance to AIHC's subsidiary, American Independent Insurance Company ("American Independent"), for specified periods, which rights had been transferred to Folksamerica in the asset sale on May 5, 2000. In connection with the Company's acquisition of AIHC, Folksamerica released American Independent from these reinsurance commitments at a cost to American Independent of \$1.5 million.

*Pro Forma Financial Information (Unaudited)*

The following unaudited pro forma financial information for the year ended December 31, 2001 includes the audited financial information for ART Services and AIHC for the year ended December 31, 2001 as if the acquisitions had occurred on January 1, 2001. Pro forma financial information has not been prepared for the acquisitions of Arch Specialty and PSIC in 2002 and Western Diversified in 2003 because none of such acquisitions comprised a significant portion of the Company's financial position or results of operations during the year of acquisition.

The pro forma financial information is based upon information available and includes certain assumptions that the Company's management believes are reasonable. The pro forma financial information does not purport to be indicative of the Company's results of operations that would have occurred or resulted had the transactions been completed on such dates nor is the information intended to be a projection of the Company's results of operations or financial condition for any future periods.

Unaudited pro forma results for the year ended December 31, 2001 reflecting the acquisitions of ART Services and AIHC are as follows: (i) total revenues, \$101,872; (ii) net income, \$24,876; (iii) basic earnings per share, \$1.93; and (iv) diluted earnings per share, \$1.46.

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**13. Acquisition of Subsidiaries and Disposition of Prior Reinsurance Operations (Continued)**

*Goodwill Relating to Acquisitions*

The carrying amount of goodwill at December 31, 2003 was \$35.9 million, consisting of \$30.2 million relating to the Company's insurance subsidiaries (\$13.6 million, \$7.0 million, \$6.8 million and \$2.8 million relating to the acquisitions of AIHC, Western Diversified, ART Services and Arch Specialty, respectively) and \$5.7 million relating to the acquisition of Hales. Amortization of goodwill for the year ended December 31, 2001 was \$1.4 million pre-tax, or \$0.9 million after-tax. Net income for the year ended December 31, 2001, adjusted to exclude goodwill amortization expense, would have been \$22.9 million, or \$1.78 and \$1.35 per basic and diluted share, respectively. As required by SFAS No. 142, the Company completed a transitional goodwill impairment test upon adoption and, pursuant to such test, determined that no impairment existed at January 1, 2002. The annual impairment test was completed at December 31, 2003 and, pursuant to such test, the Company determined that no impairment existed at December 31, 2003.

*Folksamerica Transaction and Related Contingencies*

On May 5, 2000, the Company sold the prior reinsurance operations of Arch Re U.S. pursuant to an agreement entered into as of January 10, 2000 with Folksamerica Reinsurance Company and Folksamerica Holding Company (collectively, "Folksamerica"). Folksamerica Reinsurance Company assumed Arch Re U.S.'s liabilities under the reinsurance agreements transferred in the asset sale and Arch Re U.S. transferred to Folksamerica Reinsurance Company assets estimated in an aggregate amount equal in book value to the book value of the liabilities assumed. In consideration for the transfer of Arch Re U.S.'s book of business, Folksamerica paid \$20.084 million (net of a credit equal to \$251,000 granted to Folksamerica for certain tax costs) in cash at the closing, subject to post-closing adjustments based on an independent actuarial report of the claim liabilities transferred and an independent audit of the net assets sold. Following the completion of such report and audit, the parties agreed upon net post-closing adjustments in the amount of approximately \$3.2 million payable by the Company, which consisted of a \$4.2 million reduction in the purchase price less \$1.0 million in net book value of the assets and liabilities actually transferred at closing.

The Folksamerica transaction was structured as a transfer and assumption agreement (and not reinsurance) and, accordingly, the loss reserves (and any related reinsurance recoverables) relating to the transferred business are not included as assets or liabilities on the Company's balance sheet. Folksamerica assumed Arch Re U.S.'s rights and obligations under the reinsurance agreements transferred in the asset sale. The reinsureds under such agreements were notified that Folksamerica had assumed Arch Re U.S.'s obligations and that, unless the reinsureds object to the assumption, Arch Re U.S. will be released from its obligations to those reinsured. None of such reinsureds objected to the assumption. However, Arch Re U.S. will continue to be liable under those reinsurance agreements if the notice is found not to be an effective release by the reinsureds. Folksamerica has agreed to indemnify the Company for any losses arising out of the reinsurance agreements transferred to Folksamerica Reinsurance Company in the asset sale. However, in the event that Folksamerica refuses or is unable to perform its obligations to the Company, Arch Re U.S. may incur losses relating to the reinsurance agreements transferred in the asset sale. Folksamerica has an A.M. Best rating of "A" (Excellent) at December 31, 2003.

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**13. Acquisition of Subsidiaries and Disposition of Prior Reinsurance Operations (Continued)**

*Folksamerica Transaction and Related Contingencies (continued)*

Under the terms of the agreement, \$20 million of the purchase price had been placed in escrow for a period of five years. Such amounts represented restricted funds that appeared under a separate caption entitled "Securities held in escrow" on the Company's consolidated balance sheet at December 31, 2001. These funds were to be used to reimburse Folksamerica if the loss reserves (which were \$32.3 million at the closing of the asset sale) transferred to it in the asset sale relating to business produced on behalf of Arch Re U.S. by a certain managing underwriting agency were deficient as measured at the end of such five-year period or to satisfy certain indemnity claims Folksamerica may have had during such period. On February 25, 2002, the Company reached a definitive settlement agreement with Folksamerica pursuant to which the Company satisfied its obligations under the escrow agreement for consideration of \$17.0 million, plus accrued interest income of \$1.8 million. Accordingly, during the 2001 fourth quarter, the Company recorded an after-tax benefit of \$0.4 million, which consisted of a charge of \$2.5 million, offset by a reversal of a related reserve in the amount of \$2.9 million. The related reserve had been provided for the purchase of reinsurance, which was no longer required due to the fact that the escrow arrangements have been terminated under the above settlement agreement.

Under the terms of the agreement, the Company had also purchased in 2000 reinsurance protection covering the Company's transferred aviation business to reduce the net financial loss to Folksamerica on any large commercial airline catastrophe to \$5.4 million, net of reinstatement premiums. Although the Company believes that any such net financial loss will not exceed \$5.4 million, the Company has agreed to reimburse Folksamerica if a loss is incurred that exceeds \$5.4 million for aviation losses under certain circumstances prior to May 5, 2003. The Company also made representations and warranties to Folksamerica about the Company and the business transferred to Folksamerica for which the Company retains exposure for certain periods, and made certain other agreements, including that the Company would not compete with Folksamerica to acquire or reinsure any treaties included in the assumed business until May 5, 2004. In consideration of a \$2.5 million payment by the Company in October 2002, Folksamerica agreed to terminate this non-competition provision and all related obligations under such provision have been extinguished. The amount was recorded by the Company in the 2002 third quarter and is reflected in acquisition expenses.

In addition, the Company retained its tax and employee benefit liabilities and other liabilities not assumed by Folksamerica, including all liabilities not arising under reinsurance agreements transferred to Folksamerica in the asset sale and all liabilities (other than liabilities arising under reinsurance agreements) arising out of or relating to the managing underwriting agency referred to above. Although Folksamerica has not asserted that any amount is currently due under any of the indemnities provided by the Company under the asset purchase agreement, Folksamerica has indicated a potential indemnity claim under the agreement in the event of the occurrence of certain future events. Based on all available information, the Company has denied the validity of any such potential claim.

**14. Statutory Information**

*Bermuda*

Under The Insurance Act of 1978 (as amended) and related regulations of Bermuda, Arch Re Bermuda, the Company's Bermuda reinsurance and insurance subsidiary, is required to prepare statutory financial statements and file a statutory financial return in Bermuda. The Insurance Act also

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**14. Statutory Information (Continued)**

requires Arch Re Bermuda to maintain certain measures of solvency and liquidity during the year. Declarations of dividends from retained earnings and distributions from additional paid-in-capital are subject to these solvency and liquidity requirements being met. At December 31, 2003, 2002 and 2001, such requirements were met.

Statutory capital and surplus for Arch Re Bermuda, including investments in U.S. insurance and reinsurance subsidiaries, was \$1.43 billion, \$1.2 billion and \$508.0 million at December 31, 2003, 2002 and 2001, respectively. Arch Re Bermuda recorded statutory net income of \$167.0 million for the year ended December 31, 2003, a statutory net loss of \$47.0 million for the year ended December 31, 2002 and statutory net income of \$18,000 for the year ended December 31, 2001. The primary difference between net income and capital and surplus presented under Bermuda statutory accounting principles and net income and shareholder's equity presented in accordance with U.S. GAAP relates to deferred acquisition costs.

Under the Insurance Act, Arch Re Bermuda is registered as a Class 4 insurer and reinsurer, and is restricted with respect to the payment of dividends. Arch Re Bermuda is prohibited, without prior approval of the Bermuda Monetary Authority, from reducing by 15% or more its total statutory capital, as set out in its previous year's financial statements, or approximately \$214.7 million. Dividends or distributions, if any, made by Arch Re Bermuda would result in an increase in available capital at ACGL, Arch Re Bermuda's parent company.

*United States*

The Company's U.S. insurance and reinsurance subsidiaries file financial statements prepared in accordance with statutory accounting practices prescribed or permitted by insurance regulators. Statutory net income and statutory surplus, as reported to the insurance regulatory authorities, differ in certain respects from the amounts prepared in accordance with GAAP. The main differences between statutory net income and GAAP net income relate to deferred acquisition costs and deferred income taxes. In addition to deferred acquisition costs and deferred income tax assets, other differences between statutory surplus and GAAP shareholder's equity are unrealized appreciation or decline in value of investments and non-admitted assets.

Combined statutory surplus of the Company's U.S. insurance and reinsurance subsidiaries was \$409.2 million, \$386.6 million and \$306.8 million at December 31, 2003, 2002 and 2001, respectively. The Company's U.S. insurance and reinsurance subsidiaries had combined statutory net income of \$34.5 million for the year ended December 31, 2003, a statutory net loss of \$455,000 for the year ended December 31, 2002 and statutory net income of \$7.9 million for the year ended December 31, 2001.

The Company's U.S. insurance and reinsurance subsidiaries are subject to insurance laws and regulations in the jurisdictions in which they operate. The ability of the Company's regulated insurance subsidiaries to pay dividends or make distributions is dependent on their ability to meet applicable regulatory standards. These regulations include restrictions that limit the amount of dividends or other distributions, such as loans or cash advances, available to shareholders without prior approval of the insurance regulatory authorities. Dividends or distributions, if any, made by the Company's U.S. regulated insurance and reinsurance subsidiaries to non-insurance affiliates would primarily result in an increase in available capital at Arch-U.S., the Company's U.S. holding company, of which a significant portion is owned by Arch Re Bermuda. The Company's U.S. insurance and reinsurance subsidiaries may not pay any significant dividends or distributions during 2004 without prior regulatory approval.

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**14. Statutory Information (Continued)**

*United States (continued)*

The National Association of Insurance Commissioners (the "NAIC") adopted the Codification of Statutory Accounting Principles guidance, which replaces the current Accounting Practices and Procedures manual, as the NAIC's primary guidance on statutory accounting as of January 1, 2001. The accounting codification did not have a material impact on the results of operations or policyholders' surplus of the Company's insurance subsidiaries.

**15. Comprehensive Income**

Following are the related tax effects allocated to each component of the change in other comprehensive income (loss):

	<u>Before Tax Amount</u>	<u>Tax Expense (Benefit)</u>	<u>Net of Tax Amount</u>
	(in thousands)		
<b>Year Ended December 31, 2003</b>			
Unrealized appreciation (decline) on investments:			
Unrealized holding gains arising during year . . . . .	\$ 18,411	\$ 1,077	\$ 17,334
Less reclassification of net realized investment gains included in net income . . . . .	<u>25,078</u>	<u>2,245</u>	<u>22,833</u>
Change in other comprehensive income (loss) . . . . .	<u>\$ (6,667)</u>	<u>\$ (1,168)</u>	<u>\$ (5,499)</u>
<b>Year Ended December 31, 2002</b>			
Unrealized appreciation (decline) on investments:			
Unrealized holding gains arising during year . . . . .	\$ 46,256	\$ 7,372	\$ 38,884
Less reclassification of net realized investment losses included in net income . . . . .	<u>(839)</u>	<u>1,779</u>	<u>(2,618)</u>
Change in other comprehensive income (loss) . . . . .	<u>\$ 47,095</u>	<u>\$ 5,593</u>	<u>\$ 41,502</u>
<b>Year Ended December 31, 2001</b>			
Unrealized appreciation (decline) on investments:			
Unrealized holding losses arising during year . . . . .	\$ (6,993)	\$ 160	\$ (7,153)
Less reclassification of net realized investment gains included in net income . . . . .	<u>18,382</u>	<u>7,242</u>	<u>11,140</u>
Change in other comprehensive income (loss) . . . . .	<u>\$ (25,375)</u>	<u>\$ (7,082)</u>	<u>\$ (18,293)</u>

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**16. Unaudited Quarterly Financial Information**

Following is a summary of quarterly financial data:

	<u>Fourth Quarter</u>	<u>Third Quarter</u>	<u>Second Quarter</u>	<u>First Quarter</u>
	(in thousands, except per share data)			
<b>2003 Income Statement Data:</b>				
Net premiums written .....	\$627,383	\$774,167	\$ 560,002	\$776,863
Net premiums earned .....	<u>\$690,336</u>	<u>\$608,956</u>	<u>\$ 508,856</u>	<u>\$404,451</u>
Fee income .....	5,719	5,489	4,934	5,676
Net investment income .....	22,240	20,542	19,772	18,438
Net realized investment gains .....	3,863	11,366	3,889	6,199
Other income .....	740	546	587	1,139
Losses and loss adjustment expenses .....	(427,116)	(391,974)	(331,333)	(263,128)
Acquisition expenses .....	(134,385)	(115,851)	(95,620)	(78,152)
Other operating expenses .....	(66,667)	(47,202)	(40,995)	(31,080)
Net foreign exchange (losses) gains .....	(5,522)	3,708	1,761	1,050
Non-cash compensation .....	(3,071)	(3,899)	(3,498)	(4,264)
Income tax expense .....	<u>(2,403)</u>	<u>(9,910)</u>	<u>(6,569)</u>	<u>(7,843)</u>
Income before extraordinary item .....	83,734	81,771	61,784	52,486
Extraordinary gain (net of tax) .....	—	816	—	—
Net income .....	<u>\$ 83,734</u>	<u>\$ 82,587</u>	<u>\$ 61,784</u>	<u>\$ 52,486</u>
<b>Per Share Data:</b>				
Net income:				
Basic .....	\$ 3.15	\$ 3.15	\$ 2.36	\$ 2.02
Diluted .....	\$ 1.22	\$ 1.22	\$ 0.91	\$ 0.78
<b>2002 Income Statement Data:</b>				
Net premiums written .....	\$439,207	\$318,684	\$ 223,026	\$280,710
Net premiums earned .....	<u>\$290,011</u>	<u>\$183,979</u>	<u>\$ 113,459</u>	<u>\$ 67,527</u>
Fee income .....	3,166	3,337	4,131	3,574
Net investment income .....	15,602	14,869	11,611	9,167
Net realized investment (losses) gains .....	(1,014)	(836)	2,476	(1,465)
Other income .....	414	185	778	798
Losses and loss adjustment expenses .....	(173,574)	(120,121)	(80,304)	(50,539)
Acquisition expenses .....	(54,869)	(39,026)	(17,755)	(7,311)
Other operating expenses .....	(29,059)	(19,462)	(14,854)	(13,324)
Net foreign exchange (losses) gains .....	(69)	(726)	3,352	(108)
Non-cash compensation .....	(7,188)	(29,528)	(8,636)	(4,128)
Income tax (expense) benefit .....	<u>(3,795)</u>	<u>(392)</u>	<u>4,968</u>	<u>(225)</u>
Income (loss) before extraordinary item .....	\$ 39,625	\$ (7,721)	\$ 19,226	\$ 3,966
Extraordinary gain (net of tax) .....	3,886	—	—	—
Net income (loss) .....	<u>\$ 43,511</u>	<u>\$ (7,721)</u>	<u>\$ 19,226</u>	<u>\$ 3,966</u>
<b>Per Share Data:</b>				
Net income:				
Basic .....	\$ 1.71	\$ (0.36)	\$ 0.95	\$ 0.30
Diluted .....	\$ 0.65	\$ (0.36)	\$ 0.33	\$ 0.08

**Report of Independent Auditor on  
Financial Statement Schedules**

To the Board of Directors and Shareholders of  
Arch Capital Group Ltd.

Our audits of the consolidated financial statements referred to in our report dated February 13, 2004, appearing on Page F-2 of this Annual Report on Form 10-K also included an audit of the financial statement schedules listed on Page F-1. In our opinion, these financial statement schedules present fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements.

*PricewaterhouseCoopers LLP*

New York, New York  
February 13, 2004

SCHEDULE I

ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES  
SUMMARY OF INVESTMENTS  
OTHER THAN INVESTMENTS IN RELATED PARTIES  
(Dollars in thousands)

	December 31, 2003		
	Amortized Cost	Fair Value	Amount at Which Shown in the Balance Sheet
Type of Investment:			
<b>FIXED MATURITY SECURITIES</b>			
U.S. government and government agencies and authorities . . . . .	\$1,337,492	\$1,343,295	\$1,343,295
Corporate bonds . . . . .	1,082,330	1,106,380	1,106,380
Asset backed securities . . . . .	690,022	690,927	690,927
Municipal bonds . . . . .	207,341	209,568	209,568
Mortgage backed securities . . . . .	46,008	48,254	48,254
Total Fixed Maturity Securities . . . . .	<u>3,363,193</u>	<u>3,398,424</u>	<u>3,398,424</u>
<b>EQUITY SECURITIES</b>			
Privately held . . . . .	27,632	32,476	32,476
Total Equity Securities . . . . .	<u>27,632</u>	<u>32,476</u>	<u>32,476</u>
<b>SHORT-TERM INVESTMENTS</b>	228,816	229,348	229,348
Total Investments . . . . .	<u>\$3,619,641</u>	<u>\$3,660,248</u>	<u>\$3,660,248</u>

SCHEDULE II

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**CONDENSED FINANCIAL INFORMATION OF REGISTRANT**

**Balance Sheet**  
**(Parent Company Only)**  
**(Dollars in thousands)**

	December 31,	
	2003	2002
<b>Assets</b>		
Investment in wholly owned subsidiaries . . . . .	\$1,889,291	\$1,390,117
Fixed maturities available for sale, at fair value (amortized cost: 2003, \$7,069, 2002, \$6,392) . . . . .	7,082	6,463
Short-term investments available for sale, at fair value . . . . .	2,633	367
Privately held securities (cost: 2002, \$5,780) . . . . .	—	5,780
Cash . . . . .	857	1,081
Other assets . . . . .	16,670	13,670
<b>Total Assets</b> . . . . .	<b>\$1,916,533</b>	<b>\$1,417,478</b>
<b>Liabilities</b>		
Revolving credit agreement borrowings . . . . .	\$ 200,000	\$ —
Accounts payable and other liabilities . . . . .	5,804	6,234
	205,804	6,234
<b>Shareholders' Equity</b>		
Preference shares, \$0.01 par value:		
50,000,000 shares authorized (issued: 2003 and 2002, 38,844,665) . . . . .	388	388
Common shares, \$0.01 par value:		
200,000,000 shares authorized (issued: 2003, 28,200,372; 2002, 27,725,334) . .	282	277
Additional paid-in capital . . . . .	1,361,267	1,347,165
Deferred compensation under share award plan . . . . .	(15,004)	(25,290)
Retained earnings . . . . .	327,963	47,372
Accumulated other comprehensive income consisting of unrealized appreciation (decline) in value of investments, net of income tax . . . . .	35,833	41,332
<b>Total Shareholders' Equity</b> . . . . .	<b>1,710,729</b>	<b>1,411,244</b>
<b>Total Liabilities and Shareholders' Equity</b> . . . . .	<b>\$1,916,533</b>	<b>\$1,417,478</b>

SCHEDULE II

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**CONDENSED FINANCIAL INFORMATION OF REGISTRANT (Continued)**

**Statement of Income**  
**(Parent Company Only)**  
**(Dollars In thousands)**

	Year Ended Dec. 31, 2003	Year Ended Dec. 31, 2002	Year Ended Dec. 31, 2001
<b>Revenues</b>			
Net investment income . . . . .	\$ 171	\$ 3,104	\$ 5,945
Net realized investment losses . . . . .	<u>(54)</u>	<u>(218)</u>	<u>(2,350)</u>
Total revenues . . . . .	117	2,886	3,595
<b>Operating Costs and Expenses</b>			
Operating expenses . . . . .	16,122	7,874	4,996
Non-cash compensation . . . . .	<u>7,276</u>	<u>39,782</u>	<u>1,885</u>
Total expenses . . . . .	23,398	47,656	6,881
Loss before income taxes . . . . .	(23,281)	(44,770)	(3,286)
Income tax benefit . . . . .	<u>—</u>	<u>—</u>	<u>—</u>
Loss before equity in net income of wholly owned subsidiaries, other income (loss) and extraordinary item . . . . .	(23,281)	(44,770)	(3,286)
Equity in net income of wholly owned subsidiaries . . . . .	303,213	99,037	25,361
Other income (loss) . . . . .	<u>659</u>	<u>829</u>	<u>(59)</u>
Income before extraordinary item . . . . .	280,591	55,096	22,016
Extraordinary gain—excess of fair value of acquired assets over cost (net of \$0 tax) . . . . .	<u>—</u>	<u>3,886</u>	<u>—</u>
Net Income . . . . .	<u><u>\$280,591</u></u>	<u><u>\$ 58,982</u></u>	<u><u>\$22,016</u></u>

SCHEDULE II

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**CONDENSED FINANCIAL INFORMATION OF REGISTRANT (Continued)**

**Statement of Cash Flows**  
**(Parent Company Only)**  
**(Dollars in thousands)**

	Year Ended Dec. 31, 2003	Year Ended Dec. 31, 2002	Year Ended Dec. 31, 2001
<b>Operating Activities</b>			
Net income . . . . .	\$ 280,591	\$ 58,982	\$ 22,016
Adjustments to reconcile net income to net cash provided by (used for) operating activities:			
Equity in net income of wholly owned subsidiaries . . . . .	(303,213)	(99,037)	(25,361)
Net realized investment losses . . . . .	54	218	2,350
Provisions for non-cash compensation . . . . .	7,276	39,782	2,771
Excess of fair value of net assets acquired over cost . . . . .	—	(3,886)	—
Net change in other assets and liabilities . . . . .	6,179	4,315	(1,074)
<b>Net Cash (Used For) Provided By Operating Activities . . . . .</b>	<b>(9,113)</b>	<b>374</b>	<b>702</b>
<b>Investing Activities:</b>			
Purchases of fixed maturities . . . . .	(22,749)	(86,675)	(490,256)
Release of escrowed assets . . . . .	—	(18,833)	—
Sales of fixed maturities . . . . .	22,008	142,101	480,432
Sales of equity securities . . . . .	6,804	—	—
Net change in short-term investments . . . . .	(2,248)	33,548	64,209
Capital contributions to subsidiaries . . . . .	(200,012)	(305,852)	(734,792)
Purchase of furniture, equipment and other . . . . .	(98)	—	—
Acquisition of subsidiaries . . . . .	—	(4,829)	(61,043)
<b>Net Cash Used For Investing Activities . . . . .</b>	<b>(196,295)</b>	<b>(240,540)</b>	<b>(741,450)</b>
<b>Financing Activities:</b>			
Proceeds from common shares issued . . . . .	6,090	254,338	457
Preference shares issued . . . . .	—	—	740,737
Repurchase of common shares . . . . .	(906)	(13,102)	(48)
Revolving credit agreement borrowings . . . . .	200,000	—	—
Shares issued in connection with acquisition . . . . .	—	—	(387)
<b>Net Cash Provided By Financing Activities . . . . .</b>	<b>205,184</b>	<b>241,236</b>	<b>740,759</b>
Increase in cash . . . . .	(224)	1,070	11
Cash at beginning of period . . . . .	1,081	11	—
Cash at end of period . . . . .	<b>\$ 857</b>	<b>\$ 1,081</b>	<b>\$ 11</b>

SCHEDULE III

ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES  
 SUPPLEMENTARY INSURANCE INFORMATION

(Dollars in thousands)

	Deferred Acquisition Costs, Net	Reserves for Losses and Loss Adjustment Expenses, Net	Unearned Premiums, Net	Net Premiums Earned	Net Investment Income	Losses and Loss Adjustment Expenses Incurred	Amortization of Deferred Acquisition Costs	Other Operating Expenses	Net Premiums Written
<b>December 31, 2003</b>									
Property-Casualty . . . . .	\$275,696	\$1,536,860	\$1,166,937	\$2,193,173	\$80,512	\$1,401,501	\$424,008	\$177,305	\$2,718,989
Accident and Health . . . . .	—	5,656	—	19,426	480	12,050	—	8,638	19,426
Total . . . . .	<u>\$275,696</u>	<u>\$1,542,516</u>	<u>\$1,166,937</u>	<u>\$2,212,599</u>	<u>\$80,992</u>	<u>\$1,413,551</u>	<u>\$424,008</u>	<u>\$185,943</u>	<u>\$2,738,415</u>
<b>December 31, 2002</b>									
Property-Casualty . . . . .	\$148,960	\$ 380,514	\$ 641,119	\$ 653,329	\$51,209	\$ 423,478	\$118,961	\$ 76,176	\$1,259,980
Accident and Health . . . . .	—	818	—	1,647	40	1,060	—	523	1,647
Total . . . . .	<u>\$148,960</u>	<u>\$ 381,332</u>	<u>\$ 641,119</u>	<u>\$ 654,976</u>	<u>\$51,249</u>	<u>\$ 424,538</u>	<u>\$118,961</u>	<u>\$ 76,699</u>	<u>\$1,261,627</u>
<b>December 31, 2001</b>									
Property-Casualty . . . . .	\$ 5,412	\$ 21,052	\$ 29,578	\$ 30,918	\$12,120	\$ 23,448	\$ 813	\$ 27,692	\$ 36,216
Total . . . . .	<u>\$ 5,412</u>	<u>\$ 21,052</u>	<u>\$ 29,578</u>	<u>\$ 30,918</u>	<u>\$12,120</u>	<u>\$ 23,448</u>	<u>\$ 813</u>	<u>\$ 27,692</u>	<u>\$ 36,216</u>

SCHEDULE IV

ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES

REINSURANCE

(In thousands)

	<u>Gross Amount</u>	<u>Ceded to Other Companies</u>	<u>Assumed From Other Companies</u>	<u>Net Amount</u>	<u>Percentage of Amount Assumed to Net</u>
<b>Year Ended December 31, 2003</b>					
Premiums Written:					
Property-Casualty . . . . .	\$1,609,821	(\$487,586)	\$1,596,754	\$2,718,989	58.7%
Accident and Health . . . . .	—	—	19,426	19,426	100.0%
Total . . . . .	<u>\$1,609,821</u>	<u>(\$487,586)</u>	<u>\$1,616,180</u>	<u>\$2,738,415</u>	<u>59.0%</u>
<b>Year Ended December 31, 2002</b>					
Premiums Written:					
Property-Casualty . . . . .	\$ 629,988	(\$225,585)	\$ 855,577	\$1,259,980	67.9%
Accident and Health . . . . .	—	—	1,647	1,647	100.0%
Total . . . . .	<u>\$ 629,988</u>	<u>(\$225,585)</u>	<u>\$ 857,224</u>	<u>\$1,261,627</u>	<u>67.9%</u>
<b>Year Ended December 31, 2001</b>					
Premiums Written:					
Property-Casualty . . . . .	\$ 117,406	(\$ 82,986)	\$ 1,796	\$ 36,216	5.0%
Total . . . . .	<u>\$ 117,406</u>	<u>(\$ 82,986)</u>	<u>\$ 1,796</u>	<u>\$ 36,216</u>	<u>5.0%</u>

## EXHIBIT INDEX

Exhibit Number	Description
3.1	Memorandum of Association of Arch Capital Group Ltd. ("ACGL")(l)
3.2	Bye-Laws of ACGL(l)
3.3.1	Form of Amended and Restated Bye-law 45 and Bye-law 75(r)
3.3.2	Form of Amended and Restated Bye-law 20(w)
4.1	Certificate of Designations of Series A Convertible Preference Shares(r)
4.2	Specimen Common Share Certificate(o)
4.3	Class B Common Share Purchase Warrants issued to MMRCH on September 19, 1995(b) and September 28, 1995(c)
4.4	Shareholders Agreement, dated as of November 20, 2001, by and among ACGL and the shareholders party thereto, conformed to reflect amendments dated as of January 3, 2002, March 15, 2002 and September 16, 2002(aa)
4.5	Subscription Agreement, dated as of October 24, 2001, by and among ACGL and the purchasers party thereto, conformed to reflect amendments dated as of November 20, 2001, January 3, 2002, March 15, 2002 and January 20, 2003 ("Subscription Agreement")(aa)
4.6	Agreement, dated as of January 27, 2004, by and among ACGL and the parties thereto, relating to the Subscription Agreement (filed herewith)
10.1.1	Amended and Restated Subscription Agreement, between ACGL and Trident(b)
10.1.2	Amendment, dated October 31, 2000, to Subscription Agreement, dated as of June 28, 1995, between ACGL and Trident(m)
10.2.1	Amended and Restated Subscription Agreement, between ACGL and MMRCH(b)
10.2.2	Amendment, dated October 31, 2000, to Subscription Agreement, dated as of June 28, 1995, between ACGL and MMRCH(m)
10.3	Amended and Restated Subscription Agreement, between ACGL and Taracay(b)
10.4.1	Lease Agreement, dated as of September 26, 2002, between Arch Insurance Company ("Arch Insurance") and BFP One Liberty Plaza Co. LLC ("BFP") ("Lease")(aa)
10.4.2	First Lease Modification Agreement, dated as of May 7, 2003, to the Lease(dd)
10.4.3	Second Lease Modification Agreement, dated as of July 31, 2003, to the Lease(dd)
10.4.4	Third Lease Modification Agreement, dated as of February 18, 2004, to the Lease (filed herewith)
10.5	Sublease Surrender Agreement, dated as of July 31, 2003, between Arch Insurance and Folksamerica Reinsurance Company ("Folksamerica")(dd)
10.6.1	ACGL 1999 Long Term Incentive and Share Award Plan(g)†
10.6.2	ACGL 1995 Long Term Incentive and Share Award Plan (the "1995 Stock Plan")(b)†
10.6.3	First Amendment to the 1995 Stock Plan(c)†
10.6.4	ACGL Long Term Incentive Plan for New Employees(t)†

Exhibit Number	Description
10.6.5	ACGL 2002 Long Term Incentive and Share Award Plan (the "2002 Plan")(y)†
10.6.6	First Amendment to the 2002 Plan(dd)†
10.6.7	Incentive Compensation Plan of ACGL and its subsidiaries(cc)†
10.7.1	Restricted Share Agreements—Executive Officers(d)†
10.7.2	Restricted Share Agreement—Peter A. Appel—April 24, 2000 grant(n)† and as of January 30, 2001 grants(q)†
10.7.3	Restricted Share Agreements—Robert Clements—May 5, 2000 grants(n)†, January 1, 2001 grant(o)†, as of January 30, 2001 grants(q)†, October 23, 2001 grant(r)† and November 19, 2001 grant(r)†
10.7.4	Restricted Share Agreement, dated as of January 1, 2002, between ACGL and Constantine Iordanou(r)†
10.7.5	Restricted Share Agreement, dated as of January 1, 2002, between ACGL and Constantine Iordanou(r)†
10.7.6	Restricted Share Agreement, dated as of January 18, 2002, between ACGL and John Vollaro ("January Restricted Share Agreement")(x)†
10.7.7	Amended and Restated Restricted Share Agreement, dated as of October 23, 2001, between ACGL and Paul Ingrey(aa)†
10.7.8	Restricted Share Agreement, dated as of October 23, 2001, between ACGL and Dwight Evans(q)†
10.7.9	Restricted Share Agreement, dated as of October 23, 2001, between ACGL and Marc Grandisson(q)†
10.7.10	Restricted Share Agreement, dated as of January 30, 2001, between ACGL and Louis Petrillo(q)†
10.7.11	Restricted Share Agreement, dated as of February 20, 2003, between ACGL and John D. Vollaro (filed herewith)†
10.7.12	Restricted Share Agreement, dated as of February 20, 2003, between ACGL and Louis T. Petrillo (filed herewith)†
10.7.13	Restricted Share Agreement, dated as of February 20, 2003, between ACGL and John Rathgeber (filed herewith)†
10.7.14	Restricted Share Agreement, dated as of February 20, 2003, between ACGL and Dwight R. Evans (filed herewith)†
10.7.15	Restricted Share Unit Agreement, dated as of February 20, 2003, between ACGL and Constantine Iordanou (filed herewith)†
10.7.16	Amendment No. 1 to January Restricted Share Agreement, dated as of March 19, 2003, between ACGL and John Vollaro(aa)†
10.7.17	Restricted Share Agreement, dated as of July 1, 2003, between ACGL and Ralph E. Jones III(cc)†
10.7.18	Agreement, dated as of September 17, 2003, between ACGL and John D. Vollaro (filed herewith)†

Exhibit Number	Description
10.8.1	Stock Option Agreements—Executive Officers—1995 and 1996 grants(d), 1997 and 1998 grants(f) and 2000 grants(n)†
10.8.2	Stock Option Agreements—Robert Clements—1996 grant(d), 1997 grant(e) and 1998 grant(f)†
10.8.3	Amendments to Stock Option Agreements—Robert Clements (dated March 22, 2000)(n) and Executive Officers† and Directors(dated May 5, 2000)(o)†
10.8.4	Stock Option Agreements—Non-Employee Directors—1996 and 1997 annual grants(c), 1998 annual grants(e),1999 annual grants(f), 2000 annual grants(i) and 2001 annual grants(o)†
10.8.5	Stock Option Agreements—Non-Employee Directors—initial grants(f)(i)†
10.8.6	Stock Option Agreement, dated as of July 1, 2003, between ACGL and Ralph E. Jones III(cc)†
10.8.7	Share Option Agreement, dated October 23, 2001, between ACGL and Ian Heap(v)†
10.8.8	Employee Share Option Agreement, dated October 23, 2001, between ACGL and John M. Pasquesi(r)†
10.8.9	Share Option Agreement, dated as of October 23, 2001, between ACGL and John M. Pasquesi(r)†
10.8.10	Share Option Agreement, dated as of October 23, 2001, between ACGL and Peter A. Appel(r)†
10.8.11	Amended and Restated Stock Option Agreement, dated as of October 23, 2001, between ACGL and Paul Ingrey(aa)†
10.8.12	Stock Option Agreement, dated as of October 23, 2001, between ACGL and Dwight Evans(q)†
10.8.13	Stock Option Agreement, dated as of October 23, 2001, between ACGL and Marc Grandisson(q)†
10.8.14	Share Option Agreement, dated as of January 1, 2002, between ACGL and Constantine Iordanou(r)†
10.8.15	Stock Option Agreement, dated as of January 18, 2002, between ACGL and John Vollaro(x)†
10.8.16	Stock Option Agreements, dated as of January 30, 2001 and October 23, 2001, between ACGL and Debra O'Connor(q)†
10.8.17	Stock Option Agreements, dated as of January 30, 2001 and October 23, 2001, between ACGL and Louis Petrillo(q)†
10.8.18	Stock Option Agreement, dated as of June 27, 2002, between ACGL and Dwight Evans(aa)†
10.9.1	Retention Agreement, dated January 4, 2002, among ACGL, Arch U.S. and Robert Clements, including Form of Promissory Note(r)†
10.9.2	Amendment to Retention Agreement, dated as of April 10, 2003, by and among ACGL, Arch U.S. (“Arch Capital Group U.S. Inc. (“Arch U.S.”) and Robert Clements(bb)†
10.9.2	Employment Agreement dated as of June 9, 2000 between ACGL and Debra M. O'Connor(k)†

Exhibit Number	Description
10.9.3	Employment and Change in Control Agreement, dated as of May 5, 2000, between ACGL and Louis T. Petrillo(k)†
10.9.4	Employment Agreement, dated as of October 23, 2001, among ACGL, Arch Reinsurance Ltd. (“Arch Re Bermuda”) and Paul Ingrey(r)†
10.9.6	Employment Agreement, dated as of October 23, 2001, among ACGL, Arch Re Bermuda and Dwight Evans(r)†
10.9.7	Employment Agreement, dated as of October 23, 2001, among ACGL, Arch Re Bermuda and Marc Grandisson(r)†
10.9.8	Employment Agreement, dated as of December 20, 2001, among ACGL, Arch U.S. and Constantine Iordanou (“Iordanou Employment Agreement”)(r)†
10.9.9	Amendment, dated as of August 1, 2003, to Iordanou Employment Agreement(ee)†
10.9.10	Employment Agreement, dated as of January 18, 2002, between ACGL and John Vollaro(x)†
10.9.12	Employment Agreement, dated as of June 4, 2003, between Arch Insurance Group Inc. (“Arch Insurance Group”) and Ralph E. Jones III(cc)†
10.9.13	Agreement, dated as of November 12, 2002, between ACGL and Robert Clements(z)†
10.9.14	Agreement, effective as of July 31, 2003, between ACGL and Peter A. Appel(ee)†
10.9.15	Non-Core Business Payment Agreement, dated August 4, 2003, between ACGL and Peter A. Appel(ee)†
10.10	Assumption of Change in Control Agreements(o)†
10.11.1	ACGL 1995 Employee Stock Purchase Plan(a)†
10.11.2	Arch Re Executive Supplemental Non-Qualified Savings and Retirement Plan (the “Supplemental Plan”) and related Trust Agreement(b)†
10.11.3	Amendment No. 1 to the Adoption Agreement relating to the Supplemental Plan(c)†
10.11.4	Amendment No. 2 to the Adoption Agreement relating to the Supplemental Plan(f)†
10.12	Asset Purchase Agreement, dated as of January 10, 2000, among Arch-U.S., Folksamerica Holding Company, Inc. (“FHC”) and Folksamerica(h)
10.13	Transfer and Assumption Agreement, dated May 5, 2000, between Arch Reinsurance Company (formerly Risk Capital Reinsurance Company)(“Arch Re U.S.”) and FRC(j)
10.14	Escrow Agreement, dated December 28, 2000, among ACGL, FHC, Folksamerica and the Escrow Agent(o)
10.15	Agreement, dated May 5, 2000, among Arch U.S., Arch Re U.S., FHC and Folksamerica regarding Aviation Business(l)
10.16	Agreement and Plan of Merger, dated as of September 25, 2000, among Arch U.S., ACGL, The Arch Purpose Trust and Arch Merger Corp.(l)
10.17	Form of Voting and Disposition Agreement, among Arch U.S., Arch Re U.S. and XL Capital Ltd(h)

Exhibit Number	Description
10.18	Agreement, dated November 20, 2001, among ACGL, Warburg Pincus Private Equity VIII, L.P., Warburg Pincus International Partners, L.P., Warburg Pincus Netherlands International Partners I, C.V., Warburg Pincus Netherlands International II, C.V. and HFCP IV (Bermuda), L.P. (collectively, the "Original Signatories") and Orbital Holdings, Ltd.(r)
10.19	Agreement, dated November 20, 2001, among ACGL, the Original Signatories and Insurance Private Equity Investors, L.L.C.(r)
10.20	Agreement, dated November 20, 2001, among ACGL, the Original Signatories and Farallon Capital Partners, L.P., Farallon Capital Institutional Partners II, L.P., Farallon Capital Institutional Partners III, L.P. and RR Capital Partners, L.P.(r)
10.21	Agreement, dated as of November 8, 2001, among ACGL, the Original Signatories, Trident, Trident II, L.P., MMRCH, Marsh & McLennan Capital Professionals Fund, L.P. and Marsh & McLennan Employees' Securities Company, L.P.(q)
10.22	Management Subscription Agreement, dated as of October 24, 2001, between ACGL and certain members of management(q)
10.23.1	Amended and Restated Letter of Credit and Reimbursement Agreement, dated as of August 12, 2003, by and among Arch Re Bermuda, Arch Re U.S., Alternative Re Limited, Arch Insurance Group, the lenders from time to time party thereto and Fleet National Bank ("Amended and Restated Letter of Credit")(dd)
10.23.2	Amendment to Amended and Restated Letter of Credit, dated as of August 20, 2003(dd)
10.24	Credit Agreement, dated as of September 12, 2003, by and among ACGL, JP Morgan Chase Bank, as Administrative Agent, Bank of America, N.A., as Syndication Agent and Commerzbank AG, New York Branch, Credit Suisse First Boston, acting through its Cayman Islands Branch, and Wachovia Bank, National Association, as Documentation Agents(ee)
10.25	Letter of Credit and Reimbursement Agreement, dated as of November 25, 2003, between Arch Re Bermuda, as obligor, and Barclays Bank PLC, as lender(ff)
12	Statement regarding computation of ratios (filed herewith)
21	Subsidiaries of Registrant (filed herewith)
23	Consent of PricewaterhouseCoopers (filed herewith)
24	Powers of Attorney (filed herewith)
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith)
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith)
32.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (filed herewith)
32.2	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (filed herewith)

(a) Filed as an exhibit to our Registration Statement on Form S-8 (No. 33-99974), as filed with the SEC on December 4, 1995, and incorporated by reference.

- (b) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 1995, as filed with the SEC on March 30, 1996, and incorporated by reference.
- (c) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 1996, as filed with the SEC on March 31, 1997, and incorporated by reference.
- (d) Filed as an exhibit to our Report on Form 10-Q for the period ended June 30, 1997, as filed with the SEC on August 14, 1997, and incorporated by reference.
- (e) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 1997, as filed with the SEC on March 27, 1998, and incorporated by reference.
- (f) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 1998, as filed with the SEC on March 30, 1999, and incorporated by reference.
- (g) Filed as an exhibit to our Definitive Proxy Statement, as filed with the SEC on April 14, 1999, and incorporated by reference.
- (h) Filed as an exhibit to our Report on Form 8-K as filed with the SEC on January 18, 2000, and incorporated by reference.
- (i) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 1999, as filed with the SEC on March 30, 2000, and incorporated by reference.
- (j) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on May 19, 2000, and incorporated by reference.
- (k) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on September 8, 2000, and incorporated by reference.
- (l) Filed as an annex to our Definitive Proxy Statement/Prospectus included in our Registration Statement on Form S-4 (No. 333-45418), as filed with the SEC on September 26, 2000, and incorporated by reference.
- (m) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on November 9, 2000, and incorporated by reference.
- (n) Filed as an exhibit to our Report on Form 10-Q for the period ended September 30, 2000, as filed with the SEC on November 14, 2000, and incorporated by reference.
- (o) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 2000, as filed with the SEC on April 2, 2001, and incorporated by reference.
- (p) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on July 6, 2001, and incorporated by reference.
- (q) Filed as an exhibit to our Report on Form 10-Q for the period ended September 30, 2001, as filed with the SEC on November 14, 2001, and incorporated by reference.
- (r) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on January 4, 2002, and incorporated by reference.
- (s) Filed as an exhibit to our Report on Form 8-K/A, as filed with the SEC on January 7, 2002, and incorporated by reference.
- (t) Filed as an exhibit to our Registration Statement on Form S-8 (No. 333-72182), as filed with the SEC on January 8, 2002, and incorporated by reference.
- (u) Filed as an exhibit to our Registration Statement on Form S-3 (No. 333-82612), as filed with the SEC on February 12, 2002, and incorporated by reference.

- (v) Filed as an exhibit to our Registration Statement on Form S-8 (No. 333-82772), as filed with the SEC on February 14, 2002, and incorporated by reference.
  - (w) Filed as an annex to our Definitive Proxy Statement, as filed with the SEC on June 3, 2002, and incorporated by reference.
  - (x) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 2001, as filed with the SEC on March 18, 2002, and incorporated by reference.
  - (y) Filed as an exhibit to our Report on Form 10-Q for the period ended June 30, 2002, as filed with the SEC on August 14, 2002, and incorporated by reference.
  - (z) Filed as an exhibit to our Report on Form 10-Q for the period ended September 30, 2002, as filed with the SEC on November 14, 2002, and incorporated by reference.
  - (aa) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 2002, as filed with the SEC on March 31, 2003, and incorporated by reference.
  - (bb) Filed as an exhibit to our Report on Form 10-Q for the period ended March 31, 2003, as filed with the SEC on May 14, 2003, and incorporated by reference.
  - (cc) Filed as an exhibit to our Report on Form 10-Q for the period ended June 30, 2003, as filed with the SEC on August 14, 2003, and incorporated by reference.
  - (dd) Filed as an exhibit to our Report on Form 10-Q for the period ended September 30, 2003, as filed with the SEC on November 12, 2003, and incorporated by reference, and incorporated by reference.
  - (ee) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on August 5, 2003, and incorporated by reference.
  - (ff) Filed as an exhibit to Amendment No.1 to the Registration Statement on Form S-3 (No. 333-110190), as filed with the SEC on December 29, 2003, and incorporated by reference.
- † A management contract or compensatory plan or arrangement required to be filed pursuant to Item 16(c) of Form 10-K.

# Corporate Information

## ARCH CAPITAL GROUP LTD.

### Directors and Officers

Robert Clements <sup>2, 4, 6, 7</sup>  
*Chairman*

Constantine Iordanou <sup>2, 4, 5, 7</sup>  
*Director*  
*President and Chief Executive Officer*

Paul B. Ingrey  
*Director*  
*Chairman and Chief Executive Officer of*  
*Arch Reinsurance Ltd.*

John D. Vollaro  
*Executive Vice President, Chief Financial Officer and Treasurer*

Peter A. Appel <sup>2, 5, 7</sup>  
*Director*

Wolfe "Bill" H. Bragin <sup>1, 6</sup>  
*Director*  
*Former Vice President and*  
*Managing Director of GE Asset Management*

John L. Bunce, Jr. <sup>2, 3, 4, 5, 6</sup>  
*Director*  
*Managing Director of Hellman & Friedman LLC*

Sean D. Carney <sup>5, 6, 8</sup>  
*Director*  
*Managing Director of Warburg Pincus LLC*

Kewsong Lee <sup>2, 3, 4, 6</sup>  
*Director*  
*Member and Managing Director of Warburg Pincus LLC and*  
*a General Partner of Warburg Pincus & Co.*

James J. Meenaghan <sup>1, 2, 3, 6, 7</sup>  
*Director*  
*Former Chairman, President and Chief Executive Officer of*  
*Home Insurance Companies*

John M. Pasquesi <sup>2, 5, 8</sup>  
*Vice Chairman*

David R. Tunnell <sup>6, 8</sup>  
*Director*  
*Managing Director of Hellman & Friedman LLC*

Robert F. Works <sup>1, 3, 6, 7</sup>  
*Director*  
*Former Managing Director of Jones Lang LaSalle*

## SHAREHOLDER INFORMATION

### Corporate Address

Wessex House  
45 Reid Street  
Hamilton HM 12  
Bermuda  
(441) 278-9250  
(441) 278-9255 facsimile

### Market Information

The common shares of Arch Capital Group Ltd. are traded over-the-counter (NASDAQ National Market) under the symbol ACGL

### Transfer Agent

American Stock Transfer & Trust Company  
59 Maiden Lane, Plaza Level  
New York, New York 10038

### Shareholder Inquiries

John D. Vollaro  
*Executive Vice President, Chief Financial Officer and Treasurer*  
(441) 278-9250  
(441) 278-9255 facsimile

1 Audit Committee

2 Capital Management Committee

3 Compensation Committee

4 Executive Committee

5 Finance and Investment Committee

6 Nominating Committee

7 Transaction Committee

8 Underwriting Oversight Committee

Arch Capital Group Ltd.

Wessex House  
45 Reid Street  
Hamilton HM 12  
Bermuda

Tel: (441) 278-9250 Fax: (441) 278-9255