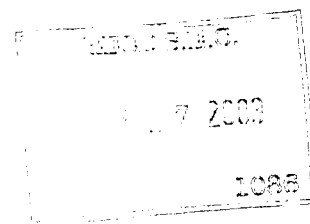




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April 8, 2003

To Our Shareholders:

During 2002, Arch Capital built on the momentum we established in late 2001 when we launched our underwriting initiative, and generated \$1.49 billion of gross premiums written, with net premiums written of \$1.26 billion. Of this amount, our reinsurance and insurance operations contributed net premiums written of \$883 million and \$379 million, respectively. Our after-tax operating income for the year was \$95 million, or \$1.59 per share, and our book value grew from \$18.28 to \$21.20 per share on a fully-diluted basis, adjusted to reflect the issuance of additional preference shares during the year. The combined ratio of our operating units on a GAAP and statutory basis was 90.9% and 89.7%, respectively, for the year.

Under the leadership of Paul Ingrey, Chief Executive Officer of our reinsurance operations, and Dinos Iordanou, Chief Executive Officer of our insurance operations, our reinsurance and insurance business each established itself, within one year of essentially commencing operations, as a significant participant in the marketplace. The growth that each business, on its own, experienced during our first full year of operations is by most measures unmatched by prior start-ups in the insurance industry; taken together, there is simply no precedent in the industry for the simultaneous build-up of these operations. We owe an enormous debt of gratitude to Paul and Dinos and their respective teams for delivering on the promises made when we undertook our underwriting initiative in late 2001.

Our overall strategy during the year was, and continues, to be highly selective in the risks we underwrite, and very opportunistic. We believe that our Bermuda and U.S.-based platforms, broad underwriting expertise and substantial capital, largely unencumbered by pre-2002 uncertainties, has enabled us to identify and participate in the lines of business with the most attractive risk/reward characteristics, and will allow us to adjust to changes in market conditions as demand and pricing trends evolve. We have maintained our focus on keeping our expenses low relative to our capital and premiums, as well as to our competitors. We also invested our assets very conservatively and will continue to do so as long as we believe, as we currently do, that the insurance and reinsurance marketplace offers far greater opportunities to deploy our capital than the investment environment provides.

In gauging the progress of our reinsurance operations, there are a number of performance measures that underscore their accomplishments during the year. As noted, net premiums written in 2002 by our reinsurance segment were \$883 million, with a GAAP and statutory combined ratio of 87.8% and 88.6%, respectively. Our reinsurance group wrote less property catastrophe business than originally anticipated, but far more specialty business, demonstrating flexibility and an ability to seize opportunities as they arose. The number of employees in the

reinsurance group was 60 at year end, which allows us to leverage our capital base with a low operating expense ratio -- our 3.4% statutory expense ratio for 2002 is already significantly below the industry average. Our reinsurance operating system was installed in a timely manner and within budget, and our underwriting, cash, accounting and claims controls are also in place. From both a qualitative and quantitative standpoint, we believe our reinsurance operations have already moved well beyond the start-up phase.

Although our insurance group commenced operations later than our reinsurance business and faced more hurdles (it is more difficult to start and build an insurance business than a reinsurance business), by most measures our insurance operations also made significant progress in 2002. Our insurance group wrote net premiums of \$379 million, with a combined ratio of 101.1% and 94.0% on a GAAP and statutory basis, respectively. More than half of these premiums (\$202 million) were written in the fourth quarter, which provides us with significant momentum to build on in 2003. In addition to its financial performance in 2002, our insurance group established a solid foundation for continued profitable growth. Five of our profit centers (casualty, property, executive assurance, professional liability and healthcare) are fully functional at the home office level (New York), the branch level (San Francisco, Chicago and Atlanta), and in Bermuda. We currently have 530 employees in our insurance group (including 184 in our non-standard automobile operations), with experienced management throughout.

Near the end of the year, our insurance operations also began building our energy and marine capabilities, as well as our construction unit (as part of the build-up of our construction unit, we acquired the renewal rights to Kemper's contract surety business in early 2003, together with a strong, proven management team). In addition, although we underwrote only a small fraction of the program submissions presented to us, we expanded our program business in order to take advantage of the myriad opportunities that have arisen as a result of the greatly reduced capacity for this type of business. While we recognize that program business presents particularly difficult challenges that have caused a number of companies to withdraw from this area, we believe that it is precisely these challenges and withdrawal of capacity that have led to significantly improved pricing and the establishment of better controls. It is an area that we expect to capitalize on for as long as the market continues to offer attractive prices, terms and conditions, but is likely to constitute a diminishing portion of our book of business as we moderate our growth in program business over time and further expand in other areas.

While it is clear that Arch Capital's reinsurance and insurance businesses are off to a very strong start, and our progress in many of the qualitative measures discussed above is important to our long term success, what ultimately matters most to our shareholders is that we generate returns on the capital they have entrusted in us that are at least commensurate with the risks we undertake. We believe that the large, valuable and renewable book of business we produced this year has, in fact, established a strong foundation to achieve this objective. Although our reported GAAP results for 2002 are satisfactory, particularly given our start-up nature, we believe the economic value we have created for our shareholders will eventually prove to be substantially greater than the value suggested by our reported GAAP results.

For insurance and reinsurance companies, GAAP generally requires that revenue be recognized over the terms of the underlying policies or reinsurance contracts, as applicable, and

that our loss reserves be carried on an undiscounted basis. This means for companies with relatively new operations like ours, a number of years will elapse before the income earned from business written in the first full year of operations is recognized, without (because we are new) any revenue being recognized from business written in prior years or income earned on loss reserves relating to prior years. In our case, less than half of the business we generated in 2002 was included in revenue as premiums earned. Moreover, the GAAP requirement that the full, undiscounted value of most of our loss reserves be reflected in our financial statements means a significant portion of the income earned on our reserves will be recognized in future periods, assuming no significant changes in our reserves. This delay in recognizing income is particularly pronounced when a significant portion of premium, as is the case with us, is derived from longer tail, casualty lines of business. The overall effect of these timing differences is to obscure our true underlying economic returns, which we believe, over time, will meaningfully exceed the returns reported in our 2002 results.

The challenges we face as we continue to build our company are many. Even though we are making strong progress in premium growth and important non-financial measures often applied to new companies, we must never lose sight of our ultimate objective -- to generate superior returns on our capital that appropriately reward us for the risks we assume. It is easy to grow revenue in the insurance business; it is difficult to do so profitably. While we are currently in a market environment where there is real opportunity to write profitable business, it is critical that we maintain our focus on disciplined underwriting, and vigilantly monitor the risks we have assumed.

When the market shifts (and eventually it will), we must be unwilling to yield on acceptable prices, terms and conditions for the risks we undertake; we must be prudent managers of our capital and, subject to maintaining appropriate financial strength for our policyholders, willing to return it if insufficient opportunities exist; and, above all, we must be willing to sacrifice premium growth and market share if we cannot profitably deploy our capital, despite whatever outside pressures, however misguided, may exist to do the contrary. In the final analysis, our success will be determined by our profitability and the risk adjusted returns we generate on our capital, not by our revenue growth, our market share or other barometers typically used to measure success in the insurance industry. If we continue to abide by these basic guiding principles, and they become permanently embedded in the culture of our company, we believe that we will have built a very valuable company in a remarkably short period of time.

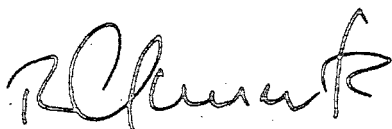
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The transformation of Arch Capital, which began in early 2000 with nine employees, is now nearly complete. With over \$1.4 billion in equity capital, \$1.26 billion of profitable business written in our first full year, and 673 employees worldwide, Arch Capital, through its subsidiaries, is now established as a significant participant in the global insurance and reinsurance marketplace. When our transformation commenced, our stock was trading at \$11.50 per share. Our stock rose to \$15.00 per share at the beginning of 2001, and on September 10, 2001, traded at \$19.20 per share as we continued the building of our fee-based and underwriting platforms. When we decided to focus exclusively on building our underwriting platform

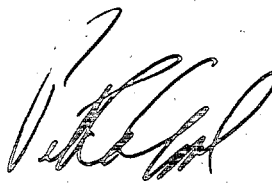


following the events of September 11, 2001, our stock traded up to \$25.75 per share by the end of 2001, and on the last trading day of 2002 our stock traded at \$31.17 per share, a 21% increase during the year. Our stock price advances during this three-year period represents an annual average increase of approximately 40%, while on an average annual basis during the same three-year period, the S&P 500 Property & Casualty Insurance Index and the NASDAQ Insurance Index increased approximately 9% and 11%, respectively, and the S&P 500 Index and NASDAQ decreased approximately 15% and 31%, respectively.

To our shareholders who have been with us from prior to the start of our transformation, we thank you for your patience and support and hope you feel rewarded for your faith in us. To our shareholders who have invested in us more recently, we appreciate the confidence you have in our company and believe you have joined us at the beginning of a long and rewarding period, during which we intend to build a valuable insurance and reinsurance franchise on your behalf.



Robert Clements  
*Chairman*



Peter A. Appel  
*President and Chief Executive Officer*

**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, 2002

OR

- TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 [NO FEE REQUIRED]

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	Name of each Exchange on which Registered
None	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 \$586.0 million.

As of March 25, 2003, there were 27,991,254 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 2003 annual meeting of shareholders to be filed with the Securities and Exchange Commission before April 30, 2003.

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 include:

- our management's ability to successfully implement its business strategy, as described herein;
- acceptance of our products and services and security by brokers and insureds;
- acceptance of our business strategy, security and financial condition by rating agencies and regulators;
- 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 to effectively support our new underwriting initiatives and to develop accurate actuarial data and develop and implement actuarial models and procedures;
- the loss of key personnel;
- the integration of businesses we have acquired or may acquire into our existing operations;
- 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;
- 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 to the risks discussed in “Risk Factors,” 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 certain risks 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 \$1.4 billion in equity 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 are focusing 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. 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 year ended December 31, 2002, we had net premiums written of \$1.26 billion. Of such amount, our reinsurance operations contributed net premiums of \$882.7 million, or 70%, and our insurance operations, which commenced writing business in its new areas of focus during the 2002 second quarter, contributed \$378.9 million, or 30%.

The capital infusion, which closed in November 2001, was led by funds affiliated with Warburg Pincus LLC ("Warburg Pincus funds") and funds affiliated with Hellman & Friedman LLC ("Hellman & Friedman funds"), and also included investments by certain members of our management (or entities affiliated with them). For more information about the capital infusion and certain material terms of the shareholders agreement and management subscription agreement we entered into in connection therewith, see "Risk Factors—Risks Relating to our Company" and note 11, "Share Capital," of the notes accompanying our consolidated financial statements. In April 2002, we completed an offering of 7,475,000 of our 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.

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 [www.archcapgroup.bm](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").

#### Our History

We commenced operations in September 1995 following the completion of the initial public offering of our predecessor, 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.

#### 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."

##### *Our Reinsurance Operations*

Our reinsurance operations are conducted on a worldwide basis through our principal reinsurance subsidiaries, Arch Reinsurance Ltd., a Bermuda company ("Arch Re Bermuda"), and Arch Reinsurance Company, a Nebraska corporation ("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 25, 2003, the group has approximately 60 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.

*Lines of Business.* 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 lines of business 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 write treaties where there is a meaningful amount of actuarial data and loss activity is more predictable.
- *Other Specialty.* We write other specialty lines, including non-standard automobile business, multi-line contracts, surety business, 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 line of 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 line 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, Aviation and Space.* 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 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 by major line of business and by client location for our reinsurance segment:

	Year Ended December 31, 2002	
	Net Premiums Written	% Of Total
	(in thousands)	
<b>Reinsurance Segment</b>		
<b>Major Line of Business(1):</b>		
Casualty . . . . .	\$245,236	27.8%
Other specialty . . . . .	173,087	19.6%
Property excluding property catastrophe . . . . .	166,344	18.8%
Property catastrophe . . . . .	110,989	12.6%
Marine, aviation and space . . . . .	60,383	6.8%
Non-traditional . . . . .	109,978	12.5%
Casualty clash . . . . .	16,683	1.9%
<b>Total . . . . .</b>	<b><u>\$882,700</u></b>	<b><u>100.0%</u></b>
<b>Client Location(1):</b>		
United States . . . . .	\$469,585	53.2%
United Kingdom . . . . .	163,838	18.6%
Bermuda . . . . .	51,562	5.8%
Canada . . . . .	45,749	5.2%
Germany . . . . .	42,899	4.9%
France . . . . .	26,751	3.0%
Japan . . . . .	11,920	1.4%
Switzerland . . . . .	11,806	1.3%
Other . . . . .	58,590	6.6%
<b>Total . . . . .</b>	<b><u>\$882,700</u></b>	<b><u>100.0%</u></b>

(1) Includes \$86.1 million of net premiums written assumed from our insurance segment.

*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 is currently retaining 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."

*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 will be conducted for both specific claims and overall claims procedures at the offices of selected ceding companies. We may make use of outside consultants for claims work.

#### *Our Insurance Operations*

Our insurance operations are conducted in the U.S. and Bermuda. In the U.S., our principal insurance subsidiaries are Arch Insurance Company (formerly known as First American Insurance Company) ("Arch Insurance"), Arch Excess & Surplus Insurance Company (formerly known as Cross River Insurance Company) ("Arch E&S") and Arch Specialty Insurance Company (formerly known as Rock River Insurance Company) ("Arch Specialty"). The principal office in the U.S. is located in New York City, with offices also located in Atlanta, Georgia, Chicago, Illinois, Kansas City, Missouri, Morristown, New Jersey, San Francisco, California, St. Paul, Minnesota and Stamford, Connecticut. We also have a contact office in London which sources underwriting opportunities for our U.S. insurance subsidiaries. Our insurance operations in Bermuda are conducted through Arch Insurance (Bermuda), a division of Arch Re Bermuda, which has an office in Hamilton, Bermuda. We also underwrite non-standard automobile liability and physical damage lines of insurance through our subsidiaries, American Independent Insurance Company ("American Independent") and Personal Service Insurance Company ("PSIC"), based in Conshohocken, Pennsylvania and Columbus, Ohio, respectively. As of March 25, 2003, our insurance group has approximately 530 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 lines 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 business.

- *Centralize Responsibility Within Each Line of Business.* Our insurance group consists of “profit centers” consisting of individual lines of business. Within each profit center, profit center managers oversee the underwriting and other functions within each business region, and regional executives are responsible for overall profitability within each business line. We believe that this organizational structure allows close control of our profitability, and creates clear accountability, within each line of business 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 lines of business. Our insurance senior management provides close control of 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 will be 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.

*Lines of Business.* Our insurance group consists of six profit centers, including casualty, programs, property, executive assurance, healthcare and professional liability. We write business on both an admitted and non-admitted basis.

- *Casualty.* Our casualty profit center writes casualty business on both a primary and excess basis for commercial clients.
- *Programs.* Our programs profit center is comprised of the following three business units: (1) property and casualty programs unit, which targets general liability, commercial automobile, inland marine, personal watercraft, non-catastrophe-exposed and catastrophe-exposed property business, workers’ compensation and umbrella liability coverages; (2) accident and health programs unit; and (3) alternative markets unit, which provides alternative risk transfer services. The alternative markets unit supports our program business by providing alternative market structures for general agents or other clients who wish to participate in the underwriting results of their business.
- *Property.* Our property profit center provides property, energy and marine insurance coverages for commercial clients.
- *Executive Assurance.* Our executive assurance profit center 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.
- *Healthcare.* Our healthcare profit center 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.

- *Professional Liability.* Our professional liability profit center has three 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 (3) miscellaneous professional liability, including coverages for consultants, systems integrations, wholesalers and managing general agents.

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, through American Independent and PSIC, we underwrite non-standard personal automobile liability and physical damage lines of insurance, primarily in Pennsylvania and Ohio, as well as in Maryland and Delaware. We are also managing a portfolio of lenders products underwritten by Arch Insurance prior to the commencement of our new underwriting initiatives in 2001.

During 2003, we added a construction and surety profit center, which will seek to provide primary and excess casualty, contract surety and property coverages. In support of this new initiative, in February 2003, we reached an agreement in principle with the Kemper Insurance Companies to acquire the renewal rights to Kemper's contract and specialty surety products written through the Kemper Surety division, including Lou Jones & Associates. As part of this transaction, Arch Insurance has hired Kemper's surety management team and members of its staff. Under the terms of the transaction, which is subject to definitive documentation, we will not assume any run-off liabilities of the Kemper Surety division, and Kemper will provide services in return for fees during a transitional period while we file our rates and forms for contract and specialty products.

*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 lines of business. One key to this philosophy is the strict adherence to uniform underwriting standards across each profit center 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 by major line of business and by client location for our insurance segment:

	Year Ended December 31, 2002	
	Net Premiums Written (in thousands)	% Of Total
<b>Insurance Segment</b>		
<b>Major Line of Business(1):</b>		
Casualty .....	\$ 95,419	25.2%
Programs .....	93,868	24.8%
Property .....	50,772	13.4%
Executive assurance .....	49,479	13.0%
Healthcare .....	23,624	6.2%
Professional liability .....	20,436	5.4%
Other .....	45,329	12.0%
<b>Total .....</b>	<b><u>\$378,927</u></b>	<b><u>100.0%</u></b>
<b>Client Location(1):</b>		
United States .....	\$375,725	99.2%
United Kingdom .....	1,179	0.3%
Bermuda .....	777	0.2%
Canada .....	555	0.1%
Switzerland .....	307	0.1%
Other .....	384	0.1%
<b>Total .....</b>	<b><u>\$378,927</u></b>	<b><u>100.0%</u></b>

(1) Reflects the cession of \$86.1 million of net premiums written to our reinsurance segment.

*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 program 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."

*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*

At March 25, 2003, we employed a total of approximately 650 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 are building our actuarial staff and will 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, 2002 due to our start-up nature. 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, 2002. 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. 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, 2002.

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, 2002, 2001 and 2000, please refer to note 5, "Reserve for Losses and Loss Adjustment Expenses," of the notes accompanying our consolidated financial statements.

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

	Years Ended December 31,						
	1996	1997	1998	1999	2000	2001	2002
	(in millions)						
Reserves for unpaid losses and loss adjustment expenses, net of reinsurance recoverables . . .	\$ 20	\$71	\$ 186	\$309	—	\$ 21	\$ 381
Paid (cumulative) as of:							
One year later . . . . .	9	19	88	311	—	15	
Two years later . . . . .	10	33	216	311	—		
Three years later . . . . .	12	64	216	311			
Four years later . . . . .	18	64	216				
Five years later . . . . .	18	64					
Six years later . . . . .	18						
Reserve reestimated as of:							
One year later . . . . .	20	68	216	—	—	25	
Two years later . . . . .	19	65	216	—	—		
Three years later . . . . .	18	64	216	—			
Four years later . . . . .	18	64	216				
Five years later . . . . .	18	64					
Six years later . . . . .	18						
Cumulative redundancy (deficiency) . . . . .	<u>\$ 2</u>	<u>\$ 7</u>	<u>\$ (30)</u>	<u>\$ (2)</u>	<u>—</u>	<u>\$ (4)</u>	<u>—</u>
Cumulative redundancy (deficiency) as a percentage of net reserves . . . . .	10.0%	8.5%	(16.1)%	(1.0)%	—	(18.8)%	—
Gross reserve for losses and loss adjustment expenses . . . . .	\$ 20	\$71	\$ 216	\$365	—	\$ 111	\$ 592
Reinsurance recoverable . . . . .	—	—	(30)	(56)	—	(90)	(211)
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>
Gross reestimated reserve . . . . .	18	64	246	367	—	179	592
Reestimated reinsurance recoverable . . . . .	—	—	(30)	(56)	—	(154)	(211)
Net reestimated reserve . . . . .	<u>18</u>	<u>64</u>	<u>216</u>	<u>311</u>	<u>—</u>	<u>25</u>	<u>381</u>
Gross reestimated redundancy (deficiency) . . . .	<u>\$ 2</u>	<u>\$ 7</u>	<u>\$ (30)</u>	<u>\$ (2)</u>	<u>—</u>	<u>\$ (68)</u>	<u>—</u>

During 2002, we experienced a deficiency on both a gross and net basis in our 2001 reported reserves. A significant portion of this deterioration, approximately \$58 million and \$2 million of deficiency on a gross and net basis, respectively, occurred in a small number of program accounts in which, during 2001, we attempted to minimize our risk through the extensive use of reinsurance. The balance of the deficiency, approximately \$10 million and \$2 million on a gross and net basis, respectively, occurred in our non-standard automobile business as a result of an actuarial review performed in 2002.

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—Liquidity and Capital Resources—Certain Matters Which May Affect Our Results of Operations and/or Financial Condition—Reinsurance Protection and Recoverables."

### Investments

At December 31, 2002, consolidated cash and invested assets totaled approximately \$2.0 billion, consisting of \$572.3 million of cash and short-term investments, \$1.4 billion of publicly traded fixed maturity investments and \$31.5 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, 2002, 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 2.1 years.

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

	December 31,			
	2002		2001	
	Estimated Fair Value	% of Total	Estimated Fair Value	% of Total
	(in thousands)			
Cash and short-term investments . . . . .	\$ 572,258	29%	\$ 486,790	48%
Short-term investments held in escrow . . . . .	—	—	22,156	2
Sub-total . . . . .	<u>572,258</u>	<u>29</u>	<u>508,946</u>	<u>50</u>
<b>Fixed maturities:</b>				
U.S. government and government agencies . . . . .	179,322	9	137,861	14
Municipal bonds . . . . .	—	—	—	—
Corporate bonds . . . . .	949,003	48	239,261	23
Mortgage and asset-backed securities . . . . .	253,779	13	91,147	9
Foreign governments . . . . .	—	—	—	—
Sub-total . . . . .	<u>1,382,104</u>	<u>70</u>	<u>468,269</u>	<u>46</u>
Fixed maturities held in escrow . . . . .	—	—	—	—
<b>Equity securities:</b>				
Publicly traded . . . . .	—	—	235	—
Privately held . . . . .	31,536	1	41,608	4
Sub-total . . . . .	<u>31,536</u>	<u>1</u>	<u>41,843</u>	<u>4</u>
<b>Total . . . . .</b>	<u><u>\$1,985,898</u></u>	<u><u>100%</u></u>	<u><u>\$1,019,058</u></u>	<u><u>100%</u></u>



Primarily because of the potential for large claims payments, our investment portfolio is structured to provide a high level of liquidity. The table below shows the contractual maturities of our fixed maturities at December 31, 2002:

	Estimated Fair Value	Amortized Cost
	(in thousands)	
Available for sale:		
Due in one year or less . . . . .	\$ 19,671	\$ 20,149
Due after one year through five years . . . . .	1,058,158	1,023,151
Due after five years through ten years . . . . .	21,966	24,100
Due after 10 years . . . . .	28,530	23,090
Sub-total . . . . .	<u>1,128,325</u>	<u>1,090,490</u>
Mortgage and asset-backed securities . . . . .	253,779	244,147
Total . . . . .	<u>\$1,382,104</u>	<u>\$1,334,637</u>

### Ratings

Our reinsurance subsidiaries, Arch Re U.S. and Arch Re Bermuda, each currently has financial strength ratings of "A-" (Excellent) from A.M. Best. Our principal insurance subsidiaries, Arch Insurance Company, Arch E&S and Arch Specialty, each has 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 "C++" (Marginal) from A.M. Best, and PSIC has a financial strength rating of "A-" (Excellent) from A.M. Best. We do not believe that our non-standard automobile business is particularly ratings-sensitive because its insureds purchase insurance primarily to satisfy state and local insurance and financial reporting requirements.

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, and are not a warranty of an insurer's current or future ability to meet its obligations to policyholders. 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. We can offer no assurances that our ratings will remain at their current levels.

### 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 us and have had longer-term relationships with insureds and brokers than us. 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.

### 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, 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 25, 2003, Arch Re U.S. is licensed or is an accredited or otherwise approved reinsurer in 47 states and the District of Columbia, Arch Insurance is licensed as an insurer in 50 states and the District of Columbia, Arch E&S is licensed or otherwise approved as an excess and surplus lines insurer in 24 states and the District of Columbia and Arch Specialty is licensed or otherwise approved as an excess and surplus lines insurer in 47 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 and, in some instances, prior approval of material transactions between the domestic insurer and an affiliate. 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 applicable state insurance regulator.

*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 2003, 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 11, "Share Capital," 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 and specifies "usual values" for each ratio. Departure from the usual values of the 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, 2002, certain of our U.S.-based subsidiaries generated ratios that were outside of the usual values due, in part, to our new underwriting initiative and the resulting growth in net premiums written and surplus levels. To date, none of these subsidiaries has received any notice of regulatory review.

*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, accredited states are 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, 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 requirement 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 its 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 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 and Arch E&S, 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 2002 direct commercial earned premiums, our U.S. insurance group's deductible for 2003 would be \$13.7 million (*i.e.*, 7% of such earned premiums). The amount of our deductible for 2004 and 2005 could increase substantially, depending upon the amount of direct earned premiums we write in 2003 and 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;
- 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) 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 certain of the risks 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.

### 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. 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.

We may not be successful in competing with others in our industry, 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 industry is highly cyclical, and the value of our common shares may be adversely affected by this cyclical.*

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 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 reinsurance industry. 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.*

We may 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 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 not 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, we can offer no assurance that our reserves will be adequate to cover losses when they materialize. 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. 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."

*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.*

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 lines of 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. 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."

*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 appropriate 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. 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 risk associated with reinsurance underwriting could adversely affect us.*

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.

*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.*

For the purposes of limiting our risk of loss, we use reinsurance and also may use retrocessional arrangements. 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 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.

*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 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 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 and Arch E&S, 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 2002 direct commercial earned premiums, our U.S. insurance group's deductible for 2003 would be \$13.7 million (*i.e.*, 7% of such earned premiums). The amount of our deductible for 2004 and 2005 could increase substantially, depending upon the amount of direct earned premiums we write in 2003 and 2004, and in light of the fact that the deductible percentage increases in such years. Currently, there is uncertainty as to what effect the new act 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 management team was assembled and our business strategy was formulated pursuant to our new underwriting initiative commenced in October 2001.*

We assembled a new management team and other personnel in connection with our new underwriting initiative in October 2001 to meet current and future demand in the global insurance and reinsurance marketplaces. Our future success depends on the successful integration of our new management team and other personnel and their ability to implement our business strategy. The success of the members of our management team in their past endeavors is not necessarily predictive of future results. We cannot assure you that this new management team will have success with our new

underwriting initiative. In addition, the pool of talent from which we actively recruit is limited. 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.

*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) to effectively support our business and our regulatory and reporting requirements. We may not be successful in such efforts.

*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 34.3% and 21.5% of our outstanding voting shares, respectively, as of March 25, 2003. These shareholders are non-U.S. persons (as defined in the Internal Revenue 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 various purchase price adjustments agreed to in connection with it, and the value of our common shares may, therefore, be further diluted.*

The purchase price paid for the securities purchased in the capital infusion was based on the estimated, unaudited U.S. GAAP book value of our common shares as of June 30, 2001 (before giving effect to certain agreed transaction costs incurred in connection with the capital infusion that had not yet been determined), subject to certain adjustments. We are required to recalculate, on designated dates in the future, our June 30, 2001 book value on such dates (after giving effect to the agreed transaction costs) and, if that re-calculated amount is less than the amount used to calculate the

purchase price for the preference shares and warrants, we will be required to issue additional securities, convertible into our common shares, to those investors.

In particular, we agreed to adjust the purchase price paid for the preference shares as described below:

- *Second Anniversary Adjustment.* As soon as practicable after the second anniversary of the closing (or such earlier date as the Warburg Pincus funds and the Hellman & Friedman funds request and we agree), our independent auditors will calculate the adjustment basket as set forth below. ACGL and the Warburg Pincus funds and the Hellman & Friedman funds have the right to make a full review of the adjustment basket determination. We agreed to cause our subsidiaries to maintain the components necessary to calculate the adjustment basket under separate ledgers. If the adjustment basket is less than zero, we agreed to issue additional preference shares to the investors based on the decrease in the value of the components of the adjustment basket. If the adjustment basket is greater than zero, the subscription agreement we entered into with the investors (other than members of our management who were part of the November 2001 capital infusion) in connection with the capital infusion ("Subscription Agreement") allows us to use cash in an amount based on the increase in value of the components of the adjustment basket to repurchase common shares (other than any common shares issued upon conversion of the preference shares or exercise of the class A warrants). The adjustment basket will be equal to:
  - the difference between value realized upon sale and the book value at closing (as adjusted based on a pre-determined growth rate) of the agreed upon non-core businesses; plus
  - the difference between the GAAP net book value of all of our insurance balances with respect to any policy or contract written or having an effective date prior to November 20, 2001 (i.e., premiums receivable, unpaid losses and loss adjustment expenses recoverable, prepaid reinsurance premiums, reinsurance balances receivable, deferred policy acquisition costs, losses and loss adjustment expenses, unearned premiums, reinsurance balances payable, and any other insurance balance attributable to our "core insurance operations," as defined below) at the time of determination of the final adjustment and those balances at the closing; minus
  - reductions in book value arising from (without duplication of any expenses included in the calculation of value realized upon sale of the non-core businesses or any expense otherwise reflected in the determination of the per share price) costs and expenses relating to the investments and transactions provided for under the Subscription Agreement, actual losses arising out of breach of representations under the Subscription Agreement and certain other costs and expenses.
  - Our "core insurance operations" include: (i) Arch Re Bermuda; (ii) Arch Capital Group (U.S.) Inc.; (iii) Arch Re U.S.; (iv) Arch E&S (including funding for Arch Specialty); (v) Arch Risk Transfer Services Ltd.; (vi) Arch Insurance Group Inc., formerly known as First American Financial Corporation; (vii) capital held at ACGL, gross of capital to be invested in unfunded private equity commitments; and (viii) \$2.5 million in segregated assets and liabilities in "cell" accounts formed by Alternative Insurance Company Limited and Alternative Re, Ltd.
  - Our "non-core businesses" are currently defined as American Independent Insurance Holding Company, the direct parent of American Independent, Hales & Company Inc., PSIC, all nonpublic securities held by ACGL, Arch Capital Group (U.S.) Inc. and Arch Re U.S. and all commitments to Distribution Partners, as and when funded.
- *Fourth Anniversary Adjustment.* 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 ACGL, Arch Re U.S., Folksamerica Holding Company, Inc. and Folksamerica Reinsurance Company, and (2) specified tax and ERISA matters under the Subscription Agreement.

We also agreed to form a new, wholly owned subsidiary to hold Arch Re Bermuda as well as all of the "core insurance operations" other than Arch Re U.S. In the event that the adjustments described in this risk factor above are less than zero and their absolute value exceeds \$250.0 million, the Warburg Pincus funds, the Hellman & Friedman funds and the other holders of our preference shares will have the option to exchange their preference shares, in whole or in part (but not for less than \$150.0 million liquidation preference of preference shares), for preference shares of our newly formed subsidiary bearing identical rights and privileges, including the right to convert into, or be exercised for, common shares of our newly formed subsidiary.

*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. On March 25, 2003 there are 27,991,254 common shares outstanding, and there are up to 5,513,911 common shares issuable upon exercise of options or warrants or conversion of convertible securities.

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. See note 10, "Commitments and Contingencies—Concentrations of Credit Risk," of the notes accompanying our consolidated financial statements. Some of our competitors have had longer term relationships with the brokers we use than we have. 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. To the extent that our agents exceed their authorities or otherwise breach obligations owed to us, 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. 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. See "Our Company—Ratings."

*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 investment portfolio consists of fixed income securities. 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, as well as 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 require additional capital in the future which may not be available or only available on unfavorable terms.*

We expect that our expanded underwriting initiative will initially be supported by our existing capital. 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. 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 (see "—Future sales of our common shares, whether by us or our shareholders, could adversely affect their market price"), 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.

*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 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. We also retained our tax and employee benefit liabilities and other liabilities not assumed by Folksamerica, including all liabilities not arising under our reinsurance subsidiary's 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 a certain managing underwriting agency. 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. See note 13, "Acquisition of Subsidiaries and Disposition of Prior Reinsurance Operations," of the notes accompanying our consolidated financial statements and "—We may be required to issue additional preference shares to the investors in the November 2001 capital infusion as a result of various purchase price adjustments agreed to in connection with it, and the value of our common shares may, therefore, be further diluted."

*Some of the provisions of our bye-laws and our shareholders agreement may have the effect of hindering, delaying or preventing third party takeovers, which may 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 the removal of incumbent management. 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.

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.

*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 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.

In addition, our U.S. reinsurance subsidiary, Arch Re U.S., and our U.S. insurance subsidiaries, Arch Insurance, Arch Specialty, Arch E&S, 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. See "Our Company—Regulation."

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 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. 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. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources."

*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. 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 undertaking 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 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.

Bermuda's political structure is based upon a parliamentary system with two major parties, the United Bermuda Party and the Progressive Labour Party. In the most recent election, the Progressive Labour Party gained control of the legislative branch for the first time over the incumbent United Bermuda Party. To date, the government's financial and regulatory policies have not been changed in ways that we believe would materially affect us or our shareholders.

*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. Changes in foreign currency exchange rates can reduce our revenues and increase our liabilities and costs, as measured in the dollar as our functional currency. We have not attempted and currently do not expect to attempt to reduce our exposure to these exchange rate risks by using hedging transactions or by investing in securities

denominated in local (foreign) currencies. We may therefore suffer losses solely as a result of exchange rate fluctuations.

*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) 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. 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.

*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, but did not have "undistributed personal holding company income." See "Tax Matters—Taxation of ACGL—United States—Personal Holding Company Rules."

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 foreign 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, 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, some of which are described under "Tax Matters," no assurances can be given that the IRS 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. See "Tax Matters."

## 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 Internal Revenue Code of 1986, as amended (the "Code"), or regulations or court decisions, there can be no assurance that the Internal Revenue Service ("IRS") 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 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 may be PHCs in respect of 2003. Such subsidiaries did not have "undistributed personal holding company income" in 2002 and, currently, do not expect to have "undistributed personal holding company income" in 2003.

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). To the extent such distributions 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 foreign personal holding company ("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 foreign corporations ("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 IRS 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 IRS 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 may be FPHCs in respect of 2003. We and such subsidiaries did not have "undistributed foreign personal holding company income" in 2002 and, currently, do not expect to have "undistributed foreign personal holding company income" in 2003.

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 Internal Revenue Service 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 63,100 square feet in our New York City location under a lease and a sub-sublease expiring in 2012 and 2009, respectively. The principal U.S. office of our insurance group is located at One Liberty Plaza, New York, New York. Our insurance group also leases a total of approximately 109,000 square feet for our other offices in Atlanta, Georgia, Chicago, Illinois, Columbus, Ohio, Conshohocken, Pennsylvania, Kansas City, Missouri, Morristown, New Jersey, San Francisco, California, St. Paul, Minnesota and Stamford, Connecticut. We lease approximately 4,500 square feet in Hamilton, Bermuda for our Bermuda insurance operations.

For the years ended December 31, 2002, 2001 and 2000, our rental expense (income) was approximately \$3.2 million, (\$132,000) and \$190,000, 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 \$46.9 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 2003.

### 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, 2002, 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 operation and financial condition and liquidity.

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

None.

## PART II

### ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

#### 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, 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

	Three Months Ended			
	December 31, 2001	September 30, 2001	June 30, 2001	March 31, 2001
High .....	\$28.34	\$19.20	\$17.06	\$18.06
Low .....	16.40	15.45	14.81	14.38
Close .....	25.75	16.75	15.75	15.88

On March 25, 2003, the high and low sales prices and the closing price for our common shares as reported on the NASDAQ National Market were \$33.20, \$32.77 and \$33.14, respectively.

#### HOLDERS

As of March 25, 2003, there were approximately 168 holders of record of our common shares, approximately 5,000 beneficial holders of our common shares, 28 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 issued.

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 new 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, 2002:

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 .....	3,104,031	\$20.54	2,770,986
Equity compensation plans not approved by security holders .....	2,495,380	\$23.48	0
Total .....	<u>5,599,411</u>	<u>\$21.85</u>	<u>2,770,986</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, 2002. Such data for the three-year period ended December 31, 2002 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 2002, 2001 and 2000, we believe that the comparisons of our results of operations in such periods are not relevant. 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 new underwriting initiative and the related capital infusions.

	Year Ended December 31,				
	2002	2001	2000	1999	1998
	(in thousands except share and per share data)				
<b>Statement of Operations Data:</b>					
<b>Revenues:</b>					
Net premiums written(1) . . . . .	\$1,261,627	\$ 36,216	\$ (10,604)	\$ 306,726	\$ 234,735
Net premiums earned . . . . .	654,976	30,918	87,530	311,368	206,194
Net investment income . . . . .	51,249	12,120	15,923	20,173	15,687
Net realized investment gains (losses) . . . . .	(839)	18,382	20,045	17,227	25,252
Total revenues . . . . .	721,769	76,454	127,634	344,800	247,133
Income (loss) before income taxes and extraordinary item . . . . .	54,540	24,144	503	(56,199)	2,347
Income (loss) before extraordinary item . . . . .	55,096	22,016	(8,012)	(35,636)	2,852
Extraordinary gain—excess of fair value of acquired net assets over cost (net of \$0 tax)(2) . . . .	3,886	—	—	—	—
Net income (loss) . . . . .	<u>\$ 58,982</u>	<u>\$ 22,016</u>	<u>\$ (8,012)</u>	<u>\$ (35,636)</u>	<u>\$ 2,852</u>
<b>Average shares outstanding:</b>					
Basic(3) . . . . .	20,095,698	12,855,668	13,198,075	17,086,732	17,065,165
Diluted(3) . . . . .	59,662,178	17,002,231	13,198,075	17,086,732	17,718,223
<b>Net income (loss) per share data:</b>					
<b>Basic(3):</b>					
Income (loss) before extraordinary item . . . . .	<u>\$ 2.74</u>	<u>\$ 1.71</u>	<u>\$ (0.61)</u>	<u>\$ (2.09)</u>	<u>\$ 0.17</u>
Extraordinary gain(2) . . . . .	<u>\$ 0.19</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
Net income (loss) . . . . .	<u>\$ 2.93</u>	<u>\$ 1.71</u>	<u>\$ (0.61)</u>	<u>\$ (2.09)</u>	<u>\$ 0.17</u>
<b>Diluted(3):</b>					
Income (loss) before extraordinary item . . . . .	<u>\$ 0.92</u>	<u>\$ 1.29</u>	<u>\$ (0.61)</u>	<u>\$ (2.09)</u>	<u>\$ 0.16</u>
Extraordinary gain(2) . . . . .	<u>\$ 0.07</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>
Net income (loss) . . . . .	<u>\$ 0.99</u>	<u>\$ 1.29</u>	<u>\$ (0.61)</u>	<u>\$ (2.09)</u>	<u>\$ 0.16</u>
Cash dividends per share . . . . .	—	—	—	—	—

	December 31,				
	2002	2001	2000	1999	1998
	(in thousands)				
<b>Balance Sheet Data:</b>					
Cash and invested assets . . . . .	\$1,985,898	\$1,019,058	\$276,053	\$579,874	\$586,788
Unpaid losses and loss adjustment expenses recoverable . . . . .	211,100	90,442	—	55,925	30,468
Total assets . . . . .	2,991,328	1,313,701	295,907	860,175	757,463
Reserves for losses and loss adjustment expenses:					
Before reinsurance recoverable . . . . .	592,432	111,494	—	364,554	216,657
Net of reinsurance recoverable . . . . .	381,332	21,052	—	308,629	186,189
Shareholders' equity . . . . .	1,411,244	1,020,369	272,299	342,330	397,763

	December 31,				
	2002	2001	2000	1999	1998
<b>Book value:</b>					
Per common share(4) . . . . .	\$ 21.48	\$ 20.05	\$ 21.43	\$ 20.03	\$ 23.28
Diluted(5) . . . . .	\$ 21.20	\$ 18.28	\$ 21.43	\$ 20.03	\$ 22.80
<b>Shares outstanding:</b>					
Basic . . . . .	27,725,334	13,513,538	12,708,818	17,087,970	17,087,438
Diluted(5) . . . . .	66,569,999	55,804,038	12,708,818	17,087,970	17,445,619

- (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.
- (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, 2002 and December 31, 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 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 "Our Company—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

#### *The Company*

We are a Bermuda public limited liability company with over \$1.4 billion in equity capital and, through operations in Bermuda and the United States, we write 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 are focusing 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. 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. In April 2002, we completed an offering of 7,475,000 of our 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.

#### *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.

Due to the significant changes in our business during the years 2002, 2001 and 2000, we believe the comparisons of our results of operations in such periods are not relevant.

### *Revenues*

We derive our revenues primarily from our 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, which is GAAP, 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 line 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 has no impact on our shareholders' equity.

### *Recent Industry Performance*

The insurance and reinsurance industry is 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. The events of September 11th and deteriorating underwriting results of the industry accelerated these already improving conditions.

In general, operating conditions continued to improve during 2002 in the insurance and reinsurance marketplace. This improvement reflects losses arising from the events of September 11th, as well as recognition that intense competition in the late 1990s led to inadequate pricing and overly broad terms, conditions and coverages. Such industry developments resulted in impaired financial results and erosion of the industry capital base. Additionally, many established insurers and reinsurers have exited key markets. These developments have provided relatively new insurers and reinsurers, like us, with an opportunity to provide needed underwriting capacity at what we believe to be attractive rates in conjunction with improved terms and conditions.

### 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, 2002. 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.

Insurance 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 system, 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 appropriate 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 reinsurance assumed, case reserves are based on reports received from ceding companies, supplemented by our estimates of reserves for which ceding company reports have not been received. 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. See note 2, "Significant Accounting Policies—Reinsurance Ceded," of the notes accompanying our consolidated financial statements.

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 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. These ratios consider, among other things, rate increases and changes in terms and conditions that have been observed in the market. 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, 2002 due to our start-up nature. As of December 31, 2002, 67% of our total net loss reserves, or \$255.5 million, were IBNR reserves. A 5% change in the IBNR reserves would result in an approximately \$12.8 million change in our total net loss reserves. Such change would represent approximately 24% of our 2002 net income, or approximately \$0.20 per diluted share, and 0.9% of our December 31, 2002 shareholders' equity. 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 particular period or our financial condition in general.

Under GAAP, we are only permitted to establish loss and loss adjustment expense reserves for losses that have occurred on or before the financial statement date. Case reserves and IBNR reserves contemplate these obligations. No contingency reserve allowances are established 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.

#### *Premium Revenues and Related Expenses*

Insurance premiums written are recorded at the policy inception and are earned ratably in accordance with the terms of the policies. Unearned premium reserves represent the portion of such premiums written that relates to the unexpired terms of insurance policies in-force.

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. 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.

As actual premiums are reported 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 could 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 written, net of commissions, is not currently due based on the terms of the underlying contracts.

Reinsurance premiums assumed are earned generally 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 reflected as 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 under those contracts, are recorded based upon the projected experience under these 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 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 business include aggregate stop-loss coverages and financial quota share coverages.

Certain reinsurance contracts included in our non-traditional business, 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 98-7, "Deposit Accounting: Accounting for Insurance and Reinsurance Contracts That Do Not Transfer Insurance Risk." 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. 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.

Under GAAP, 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. Under statutory accounting principles, underwriting expenses are recognized immediately as premiums are written.

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.

### *Collection of Insurance-Related Balances*

We are subject to credit risk with respect to our reinsurance ceded because the ceding of risk to reinsurers does not relieve us of our liability to the clients or companies we insure. 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 provide for probable losses resulting from our inability to collect amounts due from managing general agents, brokers and other clients.

Reinsurance recoverables on paid and unpaid losses were \$225.6 million at December 31, 2002. If 5% of such recoverable balances were deemed uncollectible, such charge would have reduced our 2002 net income by approximately \$11.3 million, pre-tax, or \$7.7 million, after-tax, which represents approximately 13% of 2002 net income, or \$0.13 per diluted share.

### *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. Our deferred income tax asset of \$16.5 million at December 31, 2002 is reflected net of a valuation allowance of \$2.1 million. 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.

### *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 and publicly traded equity 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. See note 2, "Significant Accounting Policies—Investments," of the notes accompanying our consolidated financial statements.

In accordance with SFAS No. 115, "Accounting for Certain Investments in Debt and Equity Securities," we periodically review our investments to determine whether a decline in fair value below the amortized cost basis is other than temporary. If such decline in fair value is judged to be other than temporary, we would write down the investment to fair value as a new cost basis and the amount of the write-down would be charged to income as a realized loss. The new cost basis would not be changed for subsequent recoveries in fair value.

#### *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. In addition, under APB No. 25, we do not recognize compensation expense for stock issued to employees under our stock purchase plan. We suspended the operation of our stock purchase plan in December 2002.

For restricted shares granted, we record deferred compensation equal to the market value of the shares at the measurement date, which is amortized and 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."

#### *Recent Accounting Pronouncements*

In June 2002, the FASB issued SFAS No. 146, "Accounting for Costs Associated with Exit or Disposal Activities." SFAS No. 146 will be applied prospectively to exit or disposal activities initiated after December 31, 2002, and requires companies to recognize costs associated with exit activities when they are incurred, rather than at the date of a commitment to an exit or disposal plan. We are currently evaluating this standard.

In December 2002, the FASB issued SFAS No. 148, "Accounting for Stock-Based Compensation—Transition and Disclosure." SFAS No. 148 amends SFAS No. 123, "Accounting for Stock-Based Compensation," to provide alternative methods of transition for a voluntary change to the fair value based method of accounting for stock-based employee compensation. In addition, SFAS No. 148 amends the disclosure requirements of SFAS No. 123 to require prominent disclosures in both annual and interim financial statements about the method of accounting for stock-based employee compensation and the effect of the method used on reported results. The provisions of SFAS No. 148 are effective for financial statements for fiscal years and interim periods ending after December 15, 2002. We have adopted the disclosure provisions of SFAS No. 148.

In January 2003, the FASB issued FASB Interpretation No. 46, "Consolidation of Variable Interest Entities—an interpretation of ARB No. 51," ("FIN 46") which requires the consolidation of certain entities considered to be variable interest entities ("VIEs"). An entity is considered to be a VIE when it has equity investors which lack the characteristics of a controlling financial interest or its capital is insufficient to permit it to finance its activities without additional subordinated financial support. Consolidation of a VIE by an investor is required when it is determined that the investor will absorb a majority of the VIE's expected losses or residual returns if they occur. FIN 46 provides certain exceptions to these rules, including qualifying special purpose entities subject to the requirements of SFAS No. 140, "Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities." VIEs created after January 31, 2003 must be consolidated immediately, while VIEs that existed prior to February 1, 2003 must be consolidated as of July 1, 2003. Certain ceding companies may meet the definition of a VIE due to the protection provided to the ceding company's equity investors from the absorption of expected losses. We are currently evaluating this standard.

## Results of Operations

Comparisons of our results of operations for the three years ended December 31, 2002, 2001 and 2000 are not relevant due to the significant changes in our business during this period, including (1) our new insurance and reinsurance underwriting initiatives, (2) the significant amount of capital raised by us from November 2001 through September 2002 and (3) our 2001 acquisition activity. In 2000, we also sold our prior reinsurance operations to Folksamerica Reinsurance Company in an asset sale (see note 13, "Acquisitions of Subsidiaries and Disposition of Prior Reinsurance Operations," of the notes accompanying our consolidated financial statements). In addition, because of these factors, as well as the other factors described in this report, including those noted under the sections entitled "Cautionary Note Regarding Forward-Looking Statements" and "Our Company—Risk Factors," our historical financial results, for 2001 and 2000, do not provide you with a meaningful expectation of our future results.

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

	Years Ended December 31,		
	2002	2001	2000
	(in thousands except share data)		
Income (loss) before extraordinary item. . . . .	\$ 55,096	\$ 22,016	\$ (8,012)
Extraordinary gain . . . . .	3,886	—	—
Net income (loss) . . . . .	<u>\$ 58,982</u>	<u>\$ 22,016</u>	<u>\$ (8,012)</u>
Diluted net income (loss) per share. . . . .	<u>\$ 0.99</u>	<u>\$ 1.29</u>	<u>\$ (0.61)</u>
Diluted average shares outstanding . . . . .	<u>59,662,178</u>	<u>17,002,231</u>	<u>13,198,075</u>

Due to the significant number of preference shares outstanding in 2002 and 2001, basic earnings per share data is not meaningful, as discussed below.

The increase in diluted average shares outstanding from 2001 to 2002 was primarily due to: (1) the issuance of 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.



The following table sets forth an analysis of underwriting income or loss, together with a reconciliation of underwriting income or loss to net income or loss for the years ended December 31, 2002, 2001 and 2000:

	Years Ended December 31,		
	2002	2001	2000
	(in thousands)		
Gross premiums written	\$1,487,212	\$119,202	\$102,034
Net premiums written	\$1,261,627	\$ 36,216	\$ (10,604)
Net premiums earned	\$ 654,976	\$ 30,918	\$ 87,530
Policy-related fee income	9,418	8,755	—
Losses and loss adjustment expenses	(424,538)	(23,448)	(76,263)
Acquisition expenses	(118,961)	(813)	(26,756)
Operating expenses	(61,676)	(15,426)	(6,855)
Provision for loss of escrowed assets, net	—	2,414	(15,000)
Underwriting income (loss)—GAAP basis	59,219	2,400	(37,344)
Net investment income	51,249	12,120	15,923
Net realized investment gains (losses)	(839)	18,382	20,045
Other fee income	4,790	3,671	—
Other income	2,175	2,608	1,945
Other expenses	(15,023)	(12,266)	—
Net foreign exchange gains (losses)	2,449	—	(1,159)
Non-cash compensation	(49,480)	(2,771)	(1,098)
Gain on sale of prior reinsurance operations	—	—	2,191
Income before income taxes and extraordinary item	54,540	24,144	503
Income tax benefit (expense)	556	(2,128)	(8,515)
Income (loss) before extraordinary item	55,096	22,016	(8,012)
Extraordinary gain, net of \$0 tax	3,886	—	—
Net income (loss)	\$ 58,982	\$ 22,016	\$ (8,012)

The following table sets forth the components of premiums written:

	Years Ended December 31,		
	2002	2001	2000
	(in thousands)		
<i>Premiums Written:</i>			
Direct	\$ 629,988	\$117,406	—
Assumed	857,224	1,796	\$102,034
Ceded	(225,585)	(82,986)	(19,731)
Unearned premium portfolio transfer and assumption	—	—	(92,907)
Net	\$1,261,627	\$ 36,216	\$ (10,604)

#### *Gross Premiums Written*

Gross premiums written for 2002 were \$1.5 billion, of which 61.1% were attributable to our reinsurance operations and 38.9% were attributable to our insurance operations. For 2001, premiums written were generated from insurance subsidiaries which had been acquired by us during 2001. For 2000, premiums written reflect the results of our prior reinsurance operations, which were sold in May 2000.

### *Ceded Premiums Written*

In the normal course of business, we purchase reinsurance to increase capacity and to limit the impact of individual losses and events on our underwriting results by reinsuring certain levels of risk with other insurance enterprises or reinsurers. During 2002, we ceded approximately 15% of our gross premiums written, substantially all of which relates to our insurance operations.

### *Net Premiums Written*

Net premiums written for 2002 were \$1.26 billion, of which our reinsurance and insurance operations contributed net premiums written of \$882.7 million, or 70%, and \$378.9 million, or 30%, respectively. See “—Segment Information” for additional information on premiums by segment.

### *Combined Ratios*

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.

	Years Ended December 31,		
	2002	2001	2000
<b>Statutory Basis(1)</b>			
Loss ratio .....	64.8%	75.8 %	87.1%
Acquisition expense ratio(2) .....	17.7%	(17.3)%	32.1%
Other operating expense ratio .....	7.2%	42.1 %	4.6%
Combined ratio .....	<u>89.7%</u>	<u>100.6 %</u>	<u>123.8%</u>
<b>GAAP Basis(1)</b>			
Loss ratio .....	64.8%	75.8 %	87.1%
Acquisition expense ratio(2) .....	16.7%	(25.7)%	30.6%
Other operating expense ratio .....	9.4%	49.9 %	7.8%
Combined ratio .....	<u>90.9%</u>	<u>100.0 %</u>	<u>125.5%</u>

(1) The loss ratios for statutory and GAAP are based on earned premiums. The statutory expense ratios are based on net premiums written, while the GAAP expense ratios are based on net premiums earned.

(2) The acquisition expense ratio is reflected net of certain policy-related fee income.

### *Underwriting Results*

For the year ended December 31, 2002, underwriting income for our insurance and reinsurance segments was \$59.2 million, which reflected a 90.9% combined ratio on a GAAP basis. The underwriting results for 2002 benefited from better than expected experience on catastrophe-related business. The loss ratio, which was 64.8% for 2002, was comprised of 11.9 points of paid losses, 13.4 points related to case reserves and 39.5 points related to IBNR reserves, and included 0.6 points related to prior year reserve development in our insurance segment. See “—Segment Information—Insurance Segment” for further discussion. Since most of our business is new, very limited data has been reported to us as of December 31, 2002. As a result, a significant portion of the loss ratio is attributable to the increase in IBNR reserves.

For the year ended December 31, 2001, premiums written, losses incurred and acquisition costs resulted primarily from our insurance subsidiaries which were acquired during 2001. The remaining portion of our net income for 2001 was generated through our investment activities, offset by other operating expenses. The corresponding amounts for the year ended December 31, 2000 reflect the results of our prior reinsurance operations, which were sold in May 2000.

#### *Acquisition and Other Expenses*

The acquisition expense ratio includes commissions, brokerage, premium taxes and other costs incurred to acquire our insurance and reinsurance business. This ratio is stated net of commission income on business ceded to reinsurers and is also calculated net of certain policy-related fee income. This ratio for 2002 was materially influenced by two factors: (1) the mix of insurance and reinsurance business; and (2) the accrual of profit commissions in our reinsurance segment based on the level of claims activity on certain non-traditional contracts during 2002, which increased acquisition expenses and reduced incurred losses by an equivalent amount. Other operating expenses include costs incurred in the staffing of our insurance and reinsurance operations and the building of related infrastructure. Our operating expense ratio is expected to decline in 2003 due to an expected increase in earned premiums; however, consolidated operating expenses are anticipated to increase in 2003 as we continue to build the infrastructure of our insurance operations.

See “—Segment Information” for a discussion regarding the underwriting results of our insurance and reinsurance segments.

#### *Provision for Loss of Escrowed Assets*

In connection with the sale of our prior reinsurance operations in May 2000, we placed \$20.0 million of the purchase price in escrow. The agreement required that these funds would be held for a period of five years to reimburse Folksamerica if certain loss reserves transferred to it in the asset sale became deficient as measured at the end for such five-year period or to satisfy certain indemnity claims Folksamerica may have had during such period. In February 2002, we reached a definitive settlement agreement with Folksamerica pursuant to which we satisfied all of our obligations under the escrow agreement for an amount equal to approximately \$17.0 million, plus accrued interest income of \$1.8 million. In connection with this settlement agreement, for 2001, we recorded a \$2.4 million benefit to reflect the net effects of this agreement. During 2000, our net loss included a \$15.0 million charge related to the escrowed assets. See note 13, “Acquisition of Subsidiaries and Disposition of Prior Reinsurance Operations,” of the notes accompanying our consolidated financial statements.

#### *Net Investment Income*

At December 31, 2002, approximately 98% of our invested assets consisted of fixed maturity and short-term investments, compared to 94% at December 31, 2001, exclusive of securities held in escrow. Net investment income was approximately \$51.2 million, \$12.1 million and \$15.9 million in 2002, 2001 and 2000, respectively. Such amounts are net of investment expenses of \$1.3 million, \$0.1 million and \$0.9 million, respectively. The net investment expenses were offset by advisory fee income that we received from a former investment advisor in the amount of \$1.15 million, \$1.25 million and \$1.25 million in 2002, 2001 and 2000, respectively. The advisory agreement under which we earned such fee income was terminated in 2002.

The substantial increase in net investment income in 2002 was due to the significant increase in our invested assets resulting from (1) the capital raised in November 2001, (2) cash flow from operations and (3) proceeds received from the public offering of our common shares in April 2002 and the exercise of class A warrants in September 2002. The decrease in net investment income in 2001

compared with 2000 primarily reflects the decline in our average invested asset base resulting from the sale of our prior reinsurance operations.

Our investment yields were as follows:

	Years Ended December 31,		
	2002	2001	2000
Pre-tax .....	3.7%	5.2%	4.3%
Net of tax .....	3.2%	4.6%	3.1%

These yields were calculated based on the amortized cost of the portfolio. At December 31, 2002, our investment portfolio primarily consisted of short duration, high quality fixed maturities and short-term investments, and is managed on a total return basis. Yields on future investment income may vary based on economic conditions, investment allocation decisions and other factors. The decline in yields in 2002 is primarily due to a reduction in the level of yields available in the financial markets.

#### *Other Expenses and Other Fee Income*

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. In addition, other expenses and fee income include the results of Hales & Company Inc.

#### *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 "Our Company—Risk Factors—Risks Relating to Taxation" and "Our Company—Tax Matters."

Our weighted average statutory tax rate for the years ended December 31, 2002 and 2001 of 4.0% and 38.6%, respectively, has been calculated by using the pre-tax income (loss) in each jurisdiction multiplied by that jurisdiction's applicable statutory tax rate. The 2002 and 2001 income tax provisions resulted in effective tax rates of 12.5% and 44.0%, respectively, excluding the effect of changes in our valuation allowance in the amount of \$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 jurisdictions due primarily to the varying tax rates in each jurisdiction. The 2002 effective tax rate, excluding the effect of

certain non-cash compensation, net realized investment gains or losses, net foreign exchange gains or losses and other income, was approximately 5.3%. We currently estimate that our comparable income tax provision in 2003 will result in an effective tax rate of approximately 12.5%, 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, 2002, 2001 and 2000.

At December 31, 2002, we have a valuation allowance of \$2.1 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 \$42.5 million at December 31, 2002. Such net operating losses are currently available to offset our future U.S. taxable income and expire between 2011 and 2021. Full utilization of our net operating losses would reduce future taxes payable by \$14.9 million. In addition, we have an alternative minimum tax credit carryforward in the amount of \$1.0 million, which can be carried forward without expiration. In addition, we have capital loss carryforwards of approximately \$0.3 million which expire by 2006. 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, capital loss carryforwards and the alternative minimum tax credit carryforward. See note 8, "Income Taxes," of the notes accompanying our consolidated financial statements.

*Net Realized Gains or Losses on Investments*

Following is summary of net realized investment gains (losses) for the years ended December 31, 2002, 2001 and 2000:

	Years Ended December 31,		
	2002	2001	2000
	(in thousands)		
Fixed maturities . . . . .	\$(6,350)	\$ (2,116)	\$(15,550)
Publicly traded equity securities . . . . .	(269)	22,896	30,088
Privately held securities . . . . .	5,780	(2,398)	177
	(839)	18,382	14,715
Loss on fixed maturities included in gain on sale of prior reinsurance operations . . . . .	—	—	5,330
Net realized investment (losses) gains . . . . .	(839)	18,382	20,045
Income tax expense . . . . .	1,779	7,242	7,408
Net realized investment (losses) gains, net of tax . . . . .	<u>\$(2,618)</u>	<u>\$ 11,140</u>	<u>\$ 12,637</u>

Currently, our portfolio is actively managed to maximize total return within certain specific guidelines. The effect of financial market movements on the investment portfolio will directly impact net realized gains and losses as the portfolio is adjusted and rebalanced.

The net realized 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. In 2000, net realized gains included \$11.0 million of pre-tax losses, or \$8.7 million, after-tax, recorded during the 2000 fourth quarter

resulting from the restructuring of our investment portfolio in connection with our redomestication to Bermuda on November 8, 2000.

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

We underwrite risks on a worldwide basis. At December 31, 2002, approximately 10% of our aggregate net premiums written are denominated in currencies other than our functional currency, which is the U.S. dollar. Net foreign exchange gains for the year ended December 31, 2002 of \$2,449,000 consisted of an unrealized loss of \$36,000 and a realized gain of \$2,485,000. The net unrealized loss resulted from the translation of foreign denominated monetary assets and liabilities at December 31, 2002, as defined and required under GAAP. Foreign exchange gains and losses vary with fluctuations in currency rates. Accordingly, these gains and losses could add significant volatility to our net income in future periods. We have not attempted, and currently do not expect to attempt, to reduce our exposure to these exchange rate risks by using hedging transactions or by investing in securities denominated in local (foreign) currencies. We may therefore suffer losses solely as a result of exchange rate fluctuations.

#### *Other Income*

At December 31, 2002, we held six 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, which, for 2002, amounted to \$2.2 million on a pre-tax basis and is included in other income. Approximately \$0.6 million of such amount was generated from an investment which was sold in April 2002.

#### *Reversal of, or Provision for, Deferred Tax Asset Valuation Allowance*

The reversal of the deferred tax asset valuation allowance was based on our recently completed restructuring of our U.S.-based insurance underwriting operations and our business plan. The tax valuation allowance for the years ended December 31, 2002, 2001 and 2000 is discussed above under "—Income Taxes," and in note 8, "Income Taxes," of the notes accompanying our consolidated financial statements.

#### *Loss on Sale of Prior Reinsurance Operations*

In connection with the sale of our prior reinsurance operations to Folksamerica on May 5, 2000, we recognized an after-tax loss, as described in note 13, "Acquisition of Subsidiaries and Disposition of Prior Reinsurance Operations," of the notes accompanying our consolidated financial statements.

#### *Non-Cash Compensation*

##### *Restricted Stock*

During 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, 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 and the balance of the shares will vest in two equal annual amounts on October 23, 2003 and 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, "Significant Accounting Policies—Stock Options," 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, 2002, 2001 and 2000 was \$13.4 million, \$26.0 million and \$0.9 million, respectively.

Our net income (loss) 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,		
	2002	2001	2000
	(in thousands except share data)		
Net income (loss), as reported . . . . .	\$ 58,982	\$22,016	\$(8,012)
Total stock-based employee compensation expense under fair value method, net of tax . . . . .	<u>(13,451)</u>	<u>(5,638)</u>	<u>(1,890)</u>
Pro forma net income (loss) . . . . .	<u>\$ 45,531</u>	<u>\$16,378</u>	<u>\$(9,902)</u>
Earnings (loss) per share—basic:			
As reported . . . . .	\$ 2.93	\$ 1.71	\$ (0.61)
Pro forma . . . . .	\$ 2.27	\$ 1.27	\$ (0.75)
Earnings (loss) per share—diluted:			
As reported . . . . .	\$ 0.99	\$ 1.29	\$ (0.61)
Pro forma . . . . .	\$ 0.76	\$ 0.96	\$ (0.75)

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. PSIC is included in our insurance segment.

#### *Segment Information*

We classify our businesses into two underwriting segments, reinsurance and insurance. SFAS No. 131, "Disclosures About Segments of an Enterprise and Related Information," requires certain disclosures about operating segments in a manner that is consistent with how management evaluates the performance of the segment. For a description of our underwriting segments, refer to note 3, "Segment Information," of the notes accompanying our consolidated financial statements. Segment performance is evaluated primarily based on underwriting income or loss. Due to the significant changes in our business during the years 2002, 2001 and 2000, we believe that comparisons of the results of operations of our business segments are not relevant.

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.

During the year ended December 31, 2000, due to the sale of our prior reinsurance operations to Folksamerica in May 2000, segment information is not meaningful.



*Reinsurance Segment*

The following table sets forth our reinsurance segment's underwriting results for the year ended December 31, 2002:

	<u>(in thousands)</u>
<b>Operating Information</b>	
Gross premiums written .....	\$ 908,732
Net premiums written .....	<u>\$ 882,700</u>
Net premiums earned .....	\$ 500,980
Losses and loss adjustment expenses .....	(315,766)
Acquisition expenses .....	(105,391)
Operating expenses .....	<u>(18,849)</u>
GAAP underwriting income .....	<u>\$ 60,974</u>
<b>Statutory Basis(1)</b>	
Loss ratio .....	63.0%
Acquisition expense ratio .....	22.2%
Other operating expense ratio .....	<u>3.4%</u>
Combined ratio .....	<u>88.6%</u>
<b>GAAP Basis(1)</b>	
Loss ratio .....	63.0%
Acquisition expense ratio .....	21.0%
Other operating expense ratio .....	<u>3.8%</u>
Combined ratio .....	<u>87.8%</u>

(1) The loss ratios for statutory and GAAP are based on net premiums earned. The statutory expense ratios are based on net premiums written, while the GAAP expense ratios are based on net premiums earned.

*Underwriting Gain.* For the year ended December 31, 2002, the combined ratio on a GAAP basis for the reinsurance segment was 87.8%. The components of the reinsurance segment's underwriting gain are discussed below.

*Premiums Written.* Net premiums written for the year ended December 31, 2002 were \$882.7 million. Of such amount, 59% of net premiums written were generated from pro rata contracts and 41% were derived from excess of loss treaties.

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.

Set forth below is summary information regarding the reinsurance segment's net premiums written and earned by major line of business for the year ended December 31, 2002:

Major Line of Business:	Net Premiums Written	% Of Total	Net Premiums Earned	% Of Total
	(in thousands)			
Casualty . . . . .	\$245,236	27.8%	\$ 94,290	18.8%
Other specialty . . . . .	173,087	19.6%	109,293	21.8%
Property excluding property catastrophe . . . . .	166,344	18.8%	87,907	17.5%
Property catastrophe . . . . .	110,989	12.6%	82,702	16.5%
Marine, aviation and space . . . . .	60,383	6.8%	30,127	6.0%
Non-traditional . . . . .	109,978	12.5%	82,425	16.5%
Casualty clash . . . . .	16,683	1.9%	14,236	2.9%
Total . . . . .	<u>\$882,700</u>	<u>100.0%</u>	<u>\$500,980</u>	<u>100.0%</u>

For information regarding net premiums written produced by geographic location for the reinsurance segment for 2002, refer to note 3, "Segment Information," of the notes accompanying our consolidated financial statements.

Certain reinsurance contracts included in our non-traditional business 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 expected estimated profit margin is deferred and amortized over the contract period and such amount is included in our underwriting results. We recorded \$7.1 million on such contracts for the year ended December 31, 2002 in our underwriting results and, on a notional basis, the amount of premiums attaching to such contracts was \$175.8 million. 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. We did not record any contracts using the interest method for the year ended December 31, 2002.

The reinsurance segment commenced operations with the January 1, 2002 renewal season. As a result, premiums written for the segment reflect only new business. Given this fact and current market conditions, we currently anticipate significant premium growth in 2003, although no assurances can be given to that effect. The amount of premiums written with respect to our various lines of business may fluctuate from year-to-year based on many factors, including changing market conditions.

*Net Premiums Earned.* For 2002, approximately 56.8% of the reinsurance segment's net premiums written were earned. Due to the significant growth in premiums written during 2002, there is a significant difference between written and earned premiums for such year. Of net premiums earned in 2002, 45.8% were generated from pro rata contracts and 54.2% were derived from excess of loss treaties.

*Losses and Loss Adjustment Expenses.* Reinsurance segment losses and loss adjustment expenses incurred for the year ended December 31, 2002 were \$315.8 million. The 63.0% loss ratio included 6.6 points of paid claims, 16.6 points related to case reserves and 39.8 points related to IBNR reserves. 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.* For the year ended December 31, 2002, reinsurance segment acquisition expenses were 21.0% of net premiums earned. The acquisition expense ratio for 2002 was influenced by three factors: (1) our mix of excess of loss business compared to pro rata business, which is typically

written at a higher expense ratio and lower loss ratio than excess of loss business; (2) the accrual of profit commissions based on the level of claims activity on certain non-traditional contracts during 2002, which increased acquisition expenses and decreased losses and loss adjustment expenses by an equivalent amount; and (3) the effect of a \$2.5 million payment to terminate a non-competition covenant, as described in note 13, "Acquisition of Subsidiaries and Disposition of Prior Reinsurance Operations," of the notes accompanying our consolidated financial statements. For the year ended December 31, 2002, other operating expenses were 3.8% of net premiums earned. Since the staffing and infrastructure building of the reinsurance segment has been substantially completed, the anticipated operating expense ratio for 2003 currently is expected to be stable, given current market conditions, although no assurances can be given to that effect.

#### *Insurance Segment*

The following table sets forth our insurance segment's underwriting results for the year ended December 31, 2002:

	<u>(in thousands)</u>
<b>Operating Information</b>	
Gross premiums written .....	<u>\$ 578,480</u>
Net premiums written .....	<u>\$ 378,927</u>
Net premiums earned .....	\$ 153,996
Policy-related fee income .....	9,418
Losses and loss adjustment expenses .....	(108,772)
Acquisition expenses .....	(13,570)
Operating expenses .....	<u>(42,827)</u>
GAAP underwriting loss .....	<u>\$ (1,755)</u>
<b>Statutory Basis(1)</b>	
Loss ratio .....	70.6%
Acquisition expense ratio(2) .....	7.3%
Other operating expense ratio .....	<u>16.1%</u>
Combined ratio .....	<u>94.0%</u>
<b>GAAP Basis(1)</b>	
Loss ratio .....	70.6%
Acquisition expense ratio(2) .....	2.7%
Other operating expense ratio .....	<u>27.8%</u>
Combined ratio .....	<u>101.1%</u>

(1) The loss ratios for statutory and GAAP are based on net premiums earned. The statutory expense ratios are based on net premiums written, while the GAAP expense ratios are based on net premiums earned.

(2) The acquisition expense ratio reflects acquisition expenses net of policy-related fee income.

*Underwriting Loss.* For the year ended December 31, 2002, the combined ratio on a GAAP basis for the insurance segment was 101.1%, which included 2.6 points related to development of prior year reserves in our non-standard automobile and program business. Our total combined statutory ratio for 2002 was 94.0%. In calculating expenses incurred under GAAP, only a portion of operating expenses are deferred. Accordingly, when premiums are growing rapidly, the GAAP expense ratio will be higher

than the statutory expense ratio. With respect to businesses in a start-up phase, like us, the statutory expense ratio generally provides a more accurate indication of a company's cost of producing business. The components of the insurance segment's underwriting loss are discussed below.

*Premiums Written.* During 2002, our insurance segment began staffing its specialty operations and established new profit centers in various specialty lines, which significantly contributed to revenues in the latter half of the year. Accordingly, gross premiums written and net premiums written in 2002 increased significantly over 2001 levels to \$578.5 million and \$378.9 million, respectively. In addition, in our program business, we substantially reduced the amount of premiums ceded to unaffiliated reinsurers and added a significant number of new programs. We currently expect that premiums written in the insurance segment will continue to increase substantially in 2003, although no assurance can be given to that effect.

Set forth below is summary information regarding the insurance segment's net premiums written and earned by major line of business for the year ended December 31, 2002:

Major Line of Business:	Net Premiums Written	% Of Total	Net Premiums Earned	% Of Total
	(in thousands)			
Casualty . . . . .	\$ 95,419	25.2%	\$ 26,069	16.9%
Programs . . . . .	93,868	24.8%	36,921	24.0%
Property . . . . .	50,772	13.4%	16,638	10.8%
Executive assurance . . . . .	49,479	13.0%	18,288	11.9%
Healthcare . . . . .	23,624	6.2%	5,263	3.4%
Professional liability . . . . .	20,436	5.4%	5,817	3.8%
Other . . . . .	45,329	12.0%	45,000	29.2%
Total . . . . .	<u>\$378,927</u>	<u>100.0%</u>	<u>\$153,996</u>	<u>100.0%</u>

For information regarding net premiums written produced by geographic location for the insurance segment for the year ended December 31, 2002, refer to note 3, "Segment Information," of the notes accompanying our consolidated financial statements.

*Net Premiums Earned.* For 2002, approximately 40.6% of the insurance segment net premiums written were earned. Due to the significant growth in premiums written during 2002, there is a significant difference between written and earned premiums for such year.

*Policy-Related Fee 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.

*Losses and Loss Adjustment Expenses.* Insurance segment losses and loss adjustment expenses incurred for 2002 were \$108.8 million. The 70.6% loss ratio included 29.1 points of paid claims (of which 16.5 points were generated from our non-standard automobile business), 3 points related to case reserves and 38.5 points related to IBNR reserves. Our 2002 reported loss ratio reflects a 2.6 point, or \$4 million, deficiency in our 2001 reported reserves. Approximately 49% of this deficiency occurred in a small number of program accounts written during 2000 and 2001 and the balance of 51% was in our non-standard automobile business as a result of an actuarial review performed in 2002. 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 of 2.7% was calculated net of certain policy-related fee income (which reduced the ratio by approximately 6 points), and was influenced by, among other things (1) the amount of business ceded to unaffiliated reinsurers and (2) the amount of business written on a surplus lines (non-admitted) basis. The combination of these two factors resulted in a significant reduction in our acquisition expense ratio for 2002. Other operating expenses for 2002 were 27.8% of net premiums earned, and reflected the start-up nature of the insurance segment. We currently expect that operating expenses will continue to increase as we continue to build our insurance group's infrastructure. However, as a percentage of net premiums earned, operating expenses are currently expected to decline in 2003 since net premiums earned are expected to grow significantly, although no assurances can be given to that effect.

In building our insurance segment's infrastructure, we capitalized certain software development costs. At December 31, 2002, approximately \$8.6 million of such costs were capitalized and will be amortized over the software's useful life.

#### 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 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 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.

During 2002, ACGL contributed its ownership interest in Arch-U.S. and the U.S. insurance and reinsurance group to Arch Re Bermuda, which increased Arch Re Bermuda's surplus to approximately \$1.2 billion as of December 31, 2002. In addition, our U.S. group was restructured in April 2002 such that Arch Re U.S. has become the parent of our principal U.S. insurance subsidiaries, Arch Insurance, Arch Specialty and Arch E&S. At December 31, 2002, Arch Re U.S.'s statutory capital and surplus was approximately \$359 million. On a consolidated basis, our aggregate invested assets, including cash and short-term investments, totaled approximately \$2.0 billion at December 31, 2002. As of such date, and following such restructurings, ACGL's readily available cash, short-term investments and marketable securities, excluding amounts held by our regulated insurance and reinsurance subsidiaries, totaled \$8 million.

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, 2002, Arch Re Bermuda had statutory capital and surplus as determined under Bermuda law of \$1.2 billion (including ownership interests in its wholly owned subsidiaries). Accordingly, as of December 31, 2002, 15% of Arch Re Bermuda's capital, or approximately \$179 million, is available for dividends without prior approval under Bermuda law, as discussed above. As of December 31, 2002, our U.S. insurance and reinsurance subsidiaries, on a consolidated basis, may not pay any significant dividends or distributions during 2003 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.

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 payable and operating costs. Consolidated cash provided by (used for) operating activities for the years ended December 31, 2002 and 2001 was approximately \$669.1 million and (\$5.6) million, respectively.

Our expanded underwriting activities will initially be supported by our capital, and we expect that our other operational needs for the foreseeable future 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. We have an effective shelf registration statement with the Securities and Exchange Commission. It permits us to issue various types of securities, including unsecured debt securities, preference shares and common shares, from time to time, up to an aggregate of \$500 million. During April 2002, we issued 7,475,000 of our common shares and received net proceeds of approximately \$179 million, net of transaction costs. The net proceeds of the offering were principally used to increase the surplus of our insurance and reinsurance subsidiaries. The unused portion of our shelf registration is approximately \$309 million following the offering in April 2002. Any additional issuance of common shares by us could have the effect of diluting our earnings per share and our book value per share.

From August to September 2002, an aggregate of 3,748,946 common shares were issued upon the exercise of all 3,842,450 outstanding class A warrants, which were exercisable for \$20.00 per share and were scheduled to expire on September 19, 2002. The proceeds from the exercise of class A warrants on a cash basis increased shareholders' equity by approximately \$74.3 million. In October 2002, ACGL contributed such proceeds to Arch Re Bermuda.

At December 31, 2002 and December 31, 2001, our consolidated shareholders' equity was approximately \$1.4 billion and \$1.0 billion, respectively. The substantial increase in consolidated shareholders' equity was primarily attributable to the effects of (1) operating income for the year ended December 31, 2002, (2) proceeds received by us from the issuance of common shares in the stock

offering in April 2002 and the exercise of class A warrants in September 2002 and (3) an increase in unrealized appreciation of investments.

#### 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 new company with relatively no 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 appropriate 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."

##### *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, 2002, ceded premiums written represented approximately 15% of gross premiums written. In our insurance segment, we retained a greater amount of premiums written in our program business in 2002 as compared to 2001 as a result of the new underwriting initiative and our improved financial position. The development of loss reserves, on a gross basis, from 2001 and prior years in our program business in the amount of \$58 million substantially increased our amounts recoverable from reinsurers in 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, 2002, approximately 81% of our reinsurance recoverables on paid and unpaid losses of \$225.6 million (not including prepaid reinsurance premiums) were due from carriers which had an A.M. Best rating of "A-" or better. We had no amounts recoverable on unpaid losses from a single entity or group of entities that exceeded 5% of our total shareholders' equity.

The following table details our reinsurance recoverables at December 31, 2002:

	% Of Total	Best A.M. Rating(1)
Sentry Insurance a Mutual Company(2) . . . . .	16.7%	A+
Lloyd's of London syndicates(3) . . . . .	12.3%	A-
Hartford Fire Insurance Company . . . . .	8.0%	A+
Swiss Reinsurance America Corporation . . . . .	6.4%	A++
Folksamerica Reinsurance Company . . . . .	6.4%	A-
Alternative market recoverables(4) . . . . .	5.2%	NR
GMAC Insurance Group . . . . .	4.8%	A+
Odyssey Reinsurance Corporation . . . . .	4.0%	A
GE Reinsurance Corporation . . . . .	3.9%	A+
AXA Corporate Solutions Reinsurance Company . . . . .	3.2%	B
St. Paul Fire & Marine Insurance Company . . . . .	3.1%	A
Gerling Global Reinsurance Corporation of America . . . . .	2.4%	NR
PMA Capital Insurance Company . . . . .	2.4%	A-
Lumbermens Mutual Casualty Company . . . . .	1.7%	B
Trenwick America Reinsurance Corporation . . . . .	0.2%	C
Commercial Risk Re-insurance Company . . . . .	0.1%	B++
All other(5) . . . . .	19.2%	
Total . . . . .	<u>100.0%</u>	

- (1) The financial strength ratings are as of March 25, 2003 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: ratings of "A++" and "A+" are designated "Superior"; the "A" and "A-" ratings are designated "Excellent"; the "B++" rating is designated "Very Good"; the "B" rating is designated "Fair"; and the "C" rating is designated "Weak". 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 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 Insurance a Mutual Company ("Sentry"), agreed to reinsure or otherwise assume all liabilities arising out of Arch Specialty's business prior to the closing of the acquisition. The balance due from Sentry includes all such amounts.
- (3) The A.M. Best group rating of "A-" (Excellent) has been applied to all Lloyd's of London syndicates.
- (4) Includes amounts recoverable from separate cell accounts in our alternative markets unit. Approximately 85% of such amounts are collateralized with letters of credit or deposit funds.
- (5) The following table provides a breakdown of the "All other" category by A.M. Best rating:

	% Of Total
Companies rated A- or better . . . . .	12.9%
Companies not rated . . . . .	6.3%
Total . . . . .	<u>19.2%</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, and severe winter weather and fires. Catastrophes can also cause losses in non-property lines of 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 result-oriented court or arbitration panel favoring the insured or ceding company will 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.

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 severe catastrophic events 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 a catastrophic event 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 2003 exposures, our insurance operations have entered into a reinsurance treaty which provides coverage for catastrophe-related losses equal to 95% of the first \$70 million in excess of a \$50 million retention of such 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 results of operations 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 and currently do not expect to attempt to reduce our exposure to these exchange rate risks by using hedging transactions or by investing in securities denominated in local (foreign) currencies. We may therefore suffer losses solely as a result of exchange rate fluctuations.

#### *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) to effectively support our business and our regulatory and reporting requirements, and no assurances can be given as to the success of these endeavors.

#### *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 insurance subsidiaries, Arch Insurance, Arch Specialty and Arch E&S, each currently have financial strength ratings of "A-" (Excellent) from A.M. Best. With respect to our non-standard automobile insurers, American Independent has a financial strength rating of "C++" (Marginal) from A.M. Best, and PSIC has a financial strength rating of "A-" (Excellent) from A.M. Best. We do not believe that American Independent or PSIC's non-standard automobile business are particularly ratings sensitive because their insureds purchase insurance primarily to satisfy state and local insurance and financial responsibility requirements.

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. 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.

#### Contractual Obligations and Commercial Commitments

At December 31, 2002, the future minimum rental commitments, exclusive of escalation clauses and maintenance costs and net of rental income, for all of our operating leases with remaining non-cancelable terms in excess of one year are as follows:

	<u>(in thousands)</u>
2003 .....	\$ 5,983
2004 .....	6,329
2005 .....	5,965
2006 .....	5,754
2007 .....	5,079
Thereafter .....	<u>18,756</u>
	<u>\$47,866</u>

All of these leases are for the rental of office space, with expiration terms that range from 2004 to 2012. Rental expense (income), net of income from subleases, was approximately \$3.2 million, (\$132,000) and \$190,000 for the years ended December 31, 2002, 2001 and 2000, respectively.

In April 2002, we established a letter of credit facility for up to \$200 million. The principal purpose of this facility 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. Such letters of credit when issued are secured by a portion of our investment portfolio. In addition, the letter of credit facility also requires the maintenance of certain financial covenants, which we were in compliance with at December 31, 2002. At such date, we had approximately \$77.6 million in outstanding letters of credit which were secured by investments totaling \$89.2 million. 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.

This bank facility expires April 16, 2003. It is anticipated that the letter of credit facility will be renewed on expiry, but such renewals are 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. 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. If we are unable to post security in the form of letters of credit or trust funds when required, our operations could be significantly and negatively affected.

#### Investments

At December 31, 2002, consolidated cash and invested assets totaled approximately \$2.0 billion, consisting of \$572.2 million of cash and short-term investments, \$1.4 billion of publicly traded fixed maturity securities and \$31.5 million of privately held securities. At December 31, 2002, 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 2.1 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. At December 31, 2002, there were no securities in our investment portfolio which had market values below their cost basis for a period longer than six months.

The following table reconciles the estimated fair value and carrying value of our fixed maturity securities and equity securities to amortized cost at December 31, 2002:

	Estimated Fair Value and Carrying Value	Gross Unrealized Gains	Gross Unrealized (Losses)	Amortized Cost
		(in thousands)		
Fixed maturities:				
U.S. government and government agencies . . . . .	\$ 179,322	\$ 5,242	\$ (4)	\$ 174,084
Corporate bonds . . . . .	949,003	33,305	(708)	916,406
Mortgage and asset backed securities . . . . .	253,779	9,632	—	244,147
	<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 following table presents the Standard & Poor's credit quality distribution of our fixed maturity securities at December 31, 2002:

	Estimated Fair Value and Carrying Value	% of Total
	(in thousands)	
Fixed Maturities:		
AAA . . . . .	\$ 464,494	33.6%
AA . . . . .	98,511	7.1%
A . . . . .	503,198	36.4%
BBB . . . . .	315,901	22.9%
Total . . . . .	<u>\$1,382,104</u>	<u>100.0%</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. Our investment portfolio is currently managed on a total return basis. The total return approach may result in realized gains or losses in any given period as the portfolio is adjusted to reflect perceived changes in relative value.

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, 2002, our private equity portfolio consisted of six investments totaling \$31.5 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 6, "Investment Information," of the notes accompanying our consolidated financial statements.

We have not invested in 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 mortgage-backed securities which contain embedded options. Our investments in mortgage-backed securities, which amounted to approximately \$253.8 million at December 31, 2002, or 12.7% of cash and invested assets, are classified as available for sale and are not held for trading purposes.

#### Book Value Per Share

Our diluted per share book value at December 31, 2002 increased to \$21.20 from \$18.28 at December 31, 2001, as adjusted on a pro forma basis to give effect to the issuance during 2002 of additional preference shares, as described below. The increase in diluted book value per share was primarily attributable to the effects of (1) operating income for the year ended December 31, 2002, (2) an increase in unrealized appreciation of investments, (3) the issuance of 7,475,000 common shares in the stock offering completed in April 2002 and (4) the issuance of 3,748,946 common shares upon the exercise of 3,842,450 class A warrants in September 2002.

The following book value per share calculations are based on shareholders' equity of approximately \$1.4 billion and \$1.0 billion at December 31, 2002 and 2001, respectively. Book value per share excludes the effects of stock options and class B warrants.

	December 31, 2002		December 31, 2001	
	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) . . . . .	27,725,334	\$ 21.48	13,513,538	\$20.05
Series A convertible preference shares(2) . . . . .	38,844,665	\$ 21.20	39,394,665	\$19.29
Dilutive class A warrants(3) . . . . .	—	—	1,206,206	\$18.86
Restricted common shares(4) . . . . .	—	—	1,689,629	\$18.28
Common shares and potential common shares . . . . .	<u>66,569,999</u>		<u>55,804,038</u>	

(1) Book value per common share at December 31, 2002 and December 31, 2001 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 and \$749.4 million, respectively, 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.

- (2) Includes 35,687,735 preference shares that were issued on November 20, 2001 in exchange for \$763.2 million of cash. 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) total shareholders' equity as of June 30, 2001 (adjusted for certain amounts as described in the Subscription Agreement entered in connection with the capital infusion), divided by (ii) the total number of common shares outstanding as of June 30, 2001, which was 12,863,079. In addition, the amount of preference shares at December 31, 2002 includes an additional 3,706,930 preference shares issued pursuant to the Subscription Agreement as follows: (i) 875,753 preference shares were issued 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 on December 16, 2002 pursuant to an agreed upon adjustment under the Subscription Agreement. We 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 our 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. 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. In addition, in December 2002, 550,000 preference shares were converted into an equal number of our common shares.
- (3) Includes the net number of common shares that could be issued upon the assumed exercise of class A warrants calculated at December 31, 2001 using the treasury stock method. Class A warrants to purchase an aggregate of 5,401,707 common shares were outstanding as of December 31, 2001. Class A warrants were exercisable at \$20 per share and were scheduled to expire on September 19, 2002. 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 us of cash proceeds totaling \$74.3 million.
- (4) Represents restricted common shares issued in connection with the November 2001 capital infusion transaction. These restricted common shares are included in common shares at December 31, 2002.

Pursuant to the Subscription Agreement, a post-closing purchase price adjustment will be calculated in November 2003 (or such earlier date as agreed upon by us and the investors) based on an adjustment basket. The adjustment basket will be equal to (1) the difference between value realized upon sale and the GAAP book value at the closing of the capital infusion in 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 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, which will be calculated by our independent auditors, is less than zero, we will issue additional preference shares to the investors based on the decrease in value of the components of the adjustment basket. If the adjustment basket is greater than zero, we are allowed to use cash in an amount based on the increase in value of the components of the adjustment basket to repurchase common shares (other than any common shares issued upon conversion of the preference shares or exercise of the class A warrants). 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. For a more detailed description of these adjustment provisions, see "Our Company—Risk Factors—Risks Relating to Our Company—We may be required to issue additional preference shares to the investors in the November 2001 capital infusion as a result of various purchase price adjustments agreed to in connection with it, and the value of our common shares may, therefore, be further diluted."

#### *Inflation*

Our ultimate exposure for losses and loss adjustment expenses on claims not yet settled is increased by the effects of inflation, and changes in inflation therefore could be a significant factor in determining the appropriateness of our reserves for losses and loss adjustment expenses and our premium rates. Generally, our methods of calculating the reserves for losses and loss adjustment expenses and determining our premium rates take into account the anticipated effects of inflation. However, until claims are ultimately settled, the full effect of inflation on our results cannot be known.

#### *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, 2002. 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, 2002 presents hypothetical losses in cash flows, earnings and fair values of market sensitive instruments which were held by us on December 31, 2002 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*

The aggregate hypothetical loss generated from an immediate parallel, adverse shift in the treasury yield curve of 100 basis points would result in a decrease in market value of approximately \$39.1 million on our fixed income portfolio, including short-term investments, as of December 31, 2002, and would decrease diluted book value per share by approximately \$0.59 as of such date.

#### *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, 2002 were carried at a fair value of \$31.5 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 \$3.2 million at December 31, 2002.

*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, 2002 would have resulted in approximately \$8.7 million of unrealized losses. 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-43 and S-1 through S-7 below.

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

None.



### 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 2003, which we intend to file with the SEC before April 30, 2003.

#### 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

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. CONTROLS AND PROCEDURES

Our management, including our chief executive officer and chief financial officer, have conducted an evaluation of the effectiveness of disclosure controls and procedures pursuant to Exchange Act Rule 13a-14. Based on that evaluation, our chief executive officer and chief financial officer concluded that the disclosure controls and procedures are effective in ensuring 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 significant changes in internal controls, or in factors that could significantly affect internal controls, subsequent to the date our chief executive officer and chief financial officer completed their evaluation.

## 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

We filed the following reports on Form 8-K during the fourth quarter of 2002: (1) November 7 to furnish the 2002 third quarter earnings release issued by ACGL and to report that ACGL had entered into amendments to restricted share agreements with Robert Clements, the chairman of the board, and that ACGL and Mr. Clements had entered into a share repurchase agreement; and (2) November 14 for the purpose of providing the certifications of the president and the chief financial officer of ACGL under Section 906 of the Sarbanes-Oxley Act of 2002. We also filed a report on Form 8-K on February 25, 2003 to furnish the 2002 fourth quarter earnings release issued by ACGL.

### ITEM 16. 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.

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/ PETER A. APPEL

Name: Peter A. Appel  
Title: President & Chief Executive Officer

March 31, 2003

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/ PETER A. APPEL</u> Peter A. Appel	President and Chief Executive Officer (Principal Executive Officer) and Director	March 31, 2003
* <u>Robert Clements</u>	Chairman and Director	March 31, 2003
<u>/s/ JOHN D. VOLLARO</u> John D. Vollaro	Executive Vice President, Chief Financial Officer and Treasurer (Principal Financial and Principal Accounting Officer)	March 31, 2003
* <u>Wolfe "Bill" H. Bragin</u>	Director	March 31, 2003
* <u>John L. Bunce, Jr.</u>	Director	March 31, 2003
* <u>Robert E. Glanville</u>	Director	March 31, 2003

<u>Name</u>	<u>Title</u>	<u>Date</u>
* _____ Paul B. Ingrey	Director	March 31, 2003
* _____ Constantine Iordanou	Director	March 31, 2003
* _____ Kewsong Lee	Director	March 31, 2003
* _____ James J. Meenaghan	Director	March 31, 2003
* _____ John M. Pasquesi	Director	March 31, 2003
* _____ David R. Tunnell	Director	March 31, 2003
* _____ Robert F. Works	Director	March 31, 2003

\* 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

Certification of Chief Executive Officer  
Pursuant to Section 302 of the  
Sarbanes-Oxley Act of 2002

I, Peter A. Appel, certify that:

1. I have reviewed this annual report on Form 10-K of Arch Capital Group Ltd.;
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this annual report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for the registrant and we have:
  - a. designed such disclosure controls and procedures to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
  - b. evaluated the effectiveness of the registrant's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
  - c. presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
  - a. all significant deficiencies in the design or operation of internal controls which could adversely affect the registrant's ability to record, process, summarize and report financial data and have identified for the registrant's auditors any material weaknesses in internal controls; and
  - b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls; and
6. The registrant's other certifying officers and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

Date: March 31, 2003

By: /s/ PETER A. APPEL  
Name: Peter A. Appel  
Title: President and Chief Executive Officer



## 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 Accountants

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, 2002 and 2001, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2002 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.



February 19, 2003



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

	December 31,	
	2002	2001
<b>Assets</b>		
<b>Investments:</b>		
Fixed maturities available for sale, at fair value (amortized cost: 2002, \$1,334,637; 2001, \$467,154) . . . . .	\$1,382,104	\$ 468,269
Short-term investments available for sale, at fair value (amortized cost: 2002, \$480,541; 2001, \$477,058) . . . . .	480,541	476,820
Publicly traded equity securities available for sale, at fair value (cost: 2002, \$—; 2001, \$960) . . . . .	—	235
Securities held in escrow, at fair value (amortized cost: 2002, \$—; 2001, \$22,156) . .	—	22,156
Privately held securities (cost: 2002, \$31,630; 2001, \$41,587) . . . . .	31,536	41,608
<b>Total investments</b> . . . . .	<b>1,894,181</b>	<b>1,009,088</b>
Cash . . . . .	91,717	9,970
Accrued investment income . . . . .	17,127	7,572
Premiums receivable . . . . .	343,716	59,463
Funds held by reinsureds . . . . .	58,351	—
Unpaid losses and loss adjustment expenses recoverable . . . . .	211,100	90,442
Paid losses and loss adjustment expenses recoverable . . . . .	14,462	14,418
Prepaid reinsurance premiums . . . . .	120,191	58,961
Goodwill . . . . .	28,867	26,336
Deferred income tax asset . . . . .	16,514	13,716
Deferred acquisition costs, net . . . . .	148,960	5,412
Other assets . . . . .	46,142	18,323
<b>Total Assets</b> . . . . .	<b>\$2,991,328</b>	<b>\$1,313,701</b>
<b>Liabilities</b>		
Reserve for losses and loss adjustment expenses . . . . .	\$ 592,432	\$ 111,494
Unearned premiums . . . . .	761,310	88,539
Reinsurance balances payable . . . . .	89,191	47,029
Reserve for loss of escrowed assets . . . . .	—	18,833
Investment accounts payable . . . . .	45,960	1,746
Other liabilities . . . . .	91,191	25,691
<b>Total Liabilities</b> . . . . .	<b>1,580,084</b>	<b>293,332</b>
<b>Commitments and Contingencies</b>		
<b>Shareholders' Equity</b>		
Preference shares (\$.01 par value, 50,000,000 shares authorized, issued: 2002, 38,844,665; 2001, 35,687,735) . . . . .	388	357
Common shares (\$.01 par value, 200,000,000 shares authorized, issued: 2002, 27,725,334; 2001, 13,513,538) . . . . .	277	135
Additional paid-in capital . . . . .	1,347,165	1,039,887
Deferred compensation under share award plans . . . . .	(25,290)	(8,230)
Retained earnings (deficit) . . . . .	47,372	(11,610)
Accumulated other comprehensive income consisting of unrealized appreciation (decline) in value of investments, net of income tax . . . . .	41,332	(170)
<b>Total Shareholders' Equity</b> . . . . .	<b>1,411,244</b>	<b>1,020,369</b>
<b>Total Liabilities and Shareholders' Equity</b> . . . . .	<b>\$2,991,328</b>	<b>\$1,313,701</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,		
	2002	2001	2000
<b>Revenues</b>			
Net premiums written . . . . .	\$ 1,261,627	\$ 36,216	(\$ 10,604)
(Increase) decrease in unearned premiums . . . . .	(606,651)	(5,298)	98,134
Net premiums earned . . . . .	654,976	30,918	87,530
Net investment income . . . . .	51,249	12,120	15,923
Net realized investment (losses) gains . . . . .	(839)	18,382	20,045
Fee income . . . . .	14,208	12,426	—
Other income . . . . .	2,175	2,608	1,945
Gain on sale of prior reinsurance operations . . . . .	—	—	2,191
<b>Total revenues</b> . . . . .	<b>721,769</b>	<b>76,454</b>	<b>127,634</b>
<b>Expenses</b>			
Losses and loss adjustment expenses . . . . .	424,538	23,448	76,263
Acquisition expenses . . . . .	118,961	813	26,756
Other operating expenses . . . . .	76,699	27,692	6,855
Net foreign exchange (gains) losses . . . . .	(2,449)	—	1,159
Non-cash compensation . . . . .	49,480	2,771	1,098
Provision for loss of escrowed assets, net . . . . .	—	(2,414)	15,000
<b>Total expenses</b> . . . . .	<b>667,229</b>	<b>52,310</b>	<b>127,131</b>
<b>Income Before Income Taxes and Extraordinary Item</b> . . . . .	<b>54,540</b>	<b>24,144</b>	<b>503</b>
<b>Income taxes:</b>			
Current . . . . .	7,373	656	—
Deferred . . . . .	(7,929)	1,472	8,515
<b>Income tax (benefit) expense</b> . . . . .	<b>(556)</b>	<b>2,128</b>	<b>8,515</b>
<b>Income (Loss) Before Extraordinary Item</b> . . . . .	<b>55,096</b>	<b>22,016</b>	<b>(8,012)</b>
Extraordinary gain—excess of fair value of acquired net assets over cost (net of \$0 tax) . . . . .	3,886	—	—
<b>Net Income (Loss)</b> . . . . .	<b>\$ 58,982</b>	<b>\$ 22,016</b>	<b>(\$ 8,012)</b>
<b>Net Income (Loss) Per Share Data</b>			
<b>Basic:</b>			
Income (loss) before extraordinary item . . . . .	\$ 2.74	\$ 1.71	(\$ 0.61)
Extraordinary gain . . . . .	\$ 0.19	—	—
<b>Net income (loss)</b> . . . . .	<b>\$ 2.93</b>	<b>\$ 1.71</b>	<b>(\$ 0.61)</b>
<b>Diluted:</b>			
Income (loss) before extraordinary item . . . . .	\$ 0.92	\$ 1.29	(\$ 0.61)
Extraordinary gain . . . . .	\$ 0.07	—	—
<b>Net income (loss)</b> . . . . .	<b>\$ 0.99</b>	<b>\$ 1.29</b>	<b>(\$ 0.61)</b>
<b>Average Shares Outstanding</b>			
Basic . . . . .	20,095,698	12,855,668	13,198,075
Diluted . . . . .	59,662,178	17,002,231	13,198,075

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,		
	2002	2001	2000
<b>Preference Shares</b>			
Balance at beginning of year	\$ 357	—	—
Preference shares issued	31	\$ 357	—
Balance at end of year	<u>388</u>	<u>357</u>	<u>—</u>
<b>Common Shares</b>			
Balance at beginning of year	135	127	\$ 171
Common shares issued	147	11	4
Common shares retired	(5)	(3)	(48)
Balance at end of year	<u>277</u>	<u>135</u>	<u>127</u>
<b>Additional Paid-in Capital</b>			
Balance at beginning of year	1,039,887	288,016	342,034
Common shares issued	319,866	11,345	5,736
Common shares retired	(13,097)	(48)	(59,754)
Preference shares issued	(316)	740,380	—
Stock options issued	825	194	—
Balance at end of year	<u>1,347,165</u>	<u>1,039,887</u>	<u>288,016</u>
<b>Deferred Compensation Under Share Award Plan</b>			
Balance at beginning of year	(8,230)	(341)	(317)
Restricted common shares issued	(66,245)	(10,466)	(1,122)
Deferred compensation expense recognized	49,185	2,577	1,098
Balance at end of year	<u>(25,290)</u>	<u>(8,230)</u>	<u>(341)</u>
<b>Retained Earnings (Deficit)</b>			
Balance at beginning of year	(11,610)	(30,916)	(22,175)
Adjustment to retroactively adopt the equity method of accounting for the original investment in ART Services	—	(2,710)	(3,439)
Balance at beginning of year, as adjusted	(11,610)	(33,626)	(25,614)
Net income (loss)	58,982	22,016	(8,012)
Balance at end of year	<u>47,372</u>	<u>(11,610)</u>	<u>(33,626)</u>
<b>Treasury Shares, At Cost</b>			
Balance at beginning of year	—	—	(387)
Treasury shares purchased	—	(48)	(59,415)
Treasury shares retired	—	48	59,802
Balance at end of year	<u>—</u>	<u>—</u>	<u>—</u>
<b>Accumulated Other Comprehensive Income</b>			
<b>Unrealized Appreciation (Decline) in Value of Investments, Net of Income Tax</b>			
Balance at beginning of year	(170)	18,432	27,188
Adjustment to retroactively adopt the equity method of accounting for the original investment in ART Services	—	(309)	(745)
Balance at beginning of year, as adjusted	(170)	18,123	26,443
Change in unrealized appreciation (decline)	41,502	(18,293)	(8,320)
Balance at end of year	<u>41,332</u>	<u>(170)</u>	<u>18,123</u>
<b>Total Shareholders' Equity</b>	<u>\$1,411,244</u>	<u>\$1,020,369</u>	<u>\$272,299</u>

See Notes to Consolidated Financial Statements

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

	Years Ended December 31,		
	<u>2002</u>	<u>2001</u>	<u>2000</u>
Comprehensive Income (Loss)			
Net income (loss) . . . . .	\$ 58,982	\$ 22,016	\$ (8,012)
Other comprehensive income (loss), net of tax			
Unrealized appreciation (decline) in value of investments:			
Unrealized holding gains (losses) arising during year . . . . .	38,884	(7,153)	4,317
Reclassification of net realized losses (gains) included in net income . . . . .	<u>2,618</u>	<u>(11,140)</u>	<u>(12,637)</u>
Other comprehensive income (loss) . . . . .	<u>41,502</u>	<u>(18,293)</u>	<u>(8,320)</u>
Comprehensive Income (Loss) . . . . .	<u>\$100,484</u>	<u>\$ 3,723</u>	<u>\$(16,332)</u>

See Notes to Consolidated Financial Statements

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

	Years Ended December 31,		
	2002	2001	2000
<b>Operating Activities</b>			
Net income (loss) . . . . .	\$ 58,982	\$ 22,016	(\$ 8,012)
Adjustments to reconcile net income (loss) to net cash provided by (used for) operating activities:			
Net realized investment losses (gains) . . . . .	839	(18,382)	(11,542)
Provision for non-cash compensation . . . . .	49,480	2,771	1,098
Reserve for loss of escrowed assets . . . . .	—	3,733	15,000
Net unrealized foreign exchange gains . . . . .	36	—	—
Excess of fair value of net assets acquired over cost . . . . .	(3,886)	—	—
Changes in:			
Reserve for losses and loss adjustment expenses, net of unpaid losses and loss adjustment expenses recoverable . . . . .	348,268	8,309	7,069
Unearned premiums, net of prepaid reinsurance premiums . . . . .	606,360	8,558	(5,226)
Premiums receivable . . . . .	(279,419)	(8,331)	10,733
Deferred acquisition costs . . . . .	(143,548)	(1,076)	344
Funds held by reinsureds . . . . .	(58,294)	—	—
Reinsurance balances payable . . . . .	41,554	560	(5,121)
Accrued investment income . . . . .	(9,332)	(5,181)	3,095
Paid losses and loss adjustment expenses recoverable . . . . .	6,823	(13,568)	(11,093)
Deferred income tax asset . . . . .	(8,099)	1,665	6,855
Other liabilities . . . . .	57,870	(1,605)	8,098
Other items, net . . . . .	1,418	(5,098)	(8,669)
<b>Net Cash Provided By (Used For) Operating Activities . . . . .</b>	<b>669,052</b>	<b>(5,629)</b>	<b>2,629</b>
<b>Investing Activities</b>			
Purchases of fixed maturity investments . . . . .	(1,253,637)	(560,246)	(131,788)
Release of escrowed assets . . . . .	(18,833)	—	—
Sales of fixed maturity investments . . . . .	407,144	182,904	228,456
Purchases of equity securities . . . . .	—	—	(18,233)
Sales of equity securities . . . . .	13,726	47,144	89,862
Net sales (purchases) of short-term investments . . . . .	45,666	(365,238)	(171,173)
Acquisitions, net of cash . . . . .	(4,829)	(34,444)	(1,792)
Sales or disposal (purchases) of furniture, equipment and other . . . . .	(17,710)	(6,311)	6
Proceeds from sale of prior reinsurance operations . . . . .	—	—	517
<b>Net Cash Used For Investing Activities . . . . .</b>	<b>(828,473)</b>	<b>(736,191)</b>	<b>(4,145)</b>
<b>Financing Activities</b>			
Proceeds from common shares issued . . . . .	254,338	457	4,498
Preference shares issued . . . . .	—	740,737	—
Repurchase of common shares . . . . .	(13,102)	(48)	3,430
Debt retirement . . . . .	(68)	(450)	—
Shares issued in connection with acquisitions . . . . .	—	(387)	(4,388)
<b>Net Cash Provided By Financing Activities . . . . .</b>	<b>241,168</b>	<b>740,309</b>	<b>3,540</b>
Increase (decrease) in cash . . . . .	81,747	(1,511)	2,024
Cash beginning of year . . . . .	9,970	11,481	9,457
<b>Cash end of year . . . . .</b>	<b>\$ 91,717</b>	<b>\$ 9,970</b>	<b>\$ 11,481</b>
Net income taxes paid . . . . .	\$ 2,863	\$ 330	—

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"), 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 consolidation. The preparation of financial statements in conformity with GAAP requires

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

2. Significant Accounting Policies (Continued)

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 recorded at the policy inception and are earned in accordance with the terms of the policies. 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, the premium is earned evenly over the term. 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.

Premiums written include estimates based on reports received from 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.

Reinsurance premiums assumed are earned generally on a pro rata basis over the terms of the underlying policies or reinsurance contracts. Unearned premium reserves represent the portion of premiums written that relates to the unexpired terms of contracts in force.

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 under these experience-related contracts, are recorded based upon the projected ultimate experience under these contracts.

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

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

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 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.

Under GAAP, 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. Under statutory accounting principles, underwriting expenses are recognized immediately as premiums are written.

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 line 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.

*(c) Deposit Accounting*

Certain reinsurance contracts included in the Company's non-traditional business, 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 98-7, "Deposit Accounting: Accounting for Insurance and Reinsurance Contracts That Do Not Transfer Insurance Risk." 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. 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.

*(d) 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 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 included as unpaid losses and loss adjustment expenses recoverable. Reinsurance premiums and unpaid losses and loss



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

2. Significant Accounting Policies (Continued)

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.

*(e) 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.

*(f) 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 and publicly traded equity 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 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.

In accordance with SFAS No. 115, "Accounting for Certain Investments in Debt and Equity Securities," the Company periodically reviews its investments to determine whether a decline in fair value below the amortized cost basis is other than temporary. If such decline in fair value is judged to be other than temporary, the Company would write down the investment to fair value as a new cost basis and the amount of the write-down would be charged to income as a realized loss. 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

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

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

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.

*(g) 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 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 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 primarily recorded on an undiscounted basis.

*(h) Foreign Exchange*

The United States dollar is the functional currency for all of the Company's business. Unhedged 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. Revenues and expenses denominated in foreign currencies are translated at average exchange rates during the year. Under GAAP, 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. Pursuant to GAAP, accounts that are classified as non-monetary, such as deferred acquisition costs and the unearned premium reserves, are not revalued.

*(i) 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.

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

2. Significant Accounting Policies (Continued)

(j) Earnings Per Share Data

Earnings per share are computed in accordance with SFAS No. 128, "Earnings Per Share." The calculation of basic earnings per share excludes dilution 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 exercised for 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.

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

	Years Ended December 31,		
	2002	2001	2000
(in thousands, except share and per share data)			
<b>Basic Earnings Per Share:</b>			
Net income (loss) . . . . .	\$ 58,982	\$ 22,016	\$ (8,012)
Divided by:			
Weighted average shares outstanding for the period . . . . .	20,095,698	12,855,668	13,198,075
Basic earnings (loss) per share . . . . .	<u>\$ 2.93</u>	<u>\$ 1.71</u>	<u>\$ (0.61)</u>
<b>Diluted Earnings Per Share:</b>			
Net income (loss) . . . . .	\$ 58,982	\$ 22,016	\$ (8,012)
Divided by:			
Weighted average shares outstanding for the period . . . . .	20,095,698	12,855,668	13,198,075
Effect of dilutive securities:			
Preference shares . . . . .	36,818,376	4,106,534	—
Warrants . . . . .	905,135	—	—
Nonvested restricted shares . . . . .	1,004,055	5,987	—
Employee stock options . . . . .	838,914	34,042	—
Total shares . . . . .	<u>59,662,178</u>	<u>17,002,231</u>	<u>13,198,075</u>
Diluted earnings (loss) per share . . . . .	<u>\$ 0.99</u>	<u>\$ 1.29</u>	<u>\$ (0.61)</u>

Stock options to purchase 161,131, 1,237,305 and 1,101,004 Common Shares at per share prices averaging \$29.44, \$21.33 and \$20.82 were outstanding as of December 31, 2002, 2001 and 2000, 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 \$27.93, \$17.71 and \$15.17, 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 and 2000, 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 years.

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

2. Significant Accounting Policies (Continued)

(k) 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 stock options under the fair value method of this statement. 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 2002, 2001 and 2000, respectively:

	Years Ended December 31,		
	2002	2001	2000
Dividend yield . . . . .	0.0%	0.0%	0.0%
Expected volatility . . . . .	24.0%	41.0%	32.0%
Risk free interest rate . . . . .	3.1%	4.0%	5.0%
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, 2002, 2001 and 2000 was \$13.4 million, \$26.0 million and \$0.9 million, respectively. The Company's net income (loss) and net income (loss) per share would have been adjusted to the pro forma amounts indicated below:

	Years Ended December 31,		
	2002	2001	2000
	<small>(in thousands, except per share data)</small>		
Net income (loss), as reported . . . . .	\$ 58,982	\$22,016	\$(8,012)
Total stock-based employee compensation expense under fair value method, net of tax . . . . .	<u>(13,451)</u>	<u>(5,638)</u>	<u>(1,890)</u>
Pro forma net income (loss) . . . . .	<u>\$ 45,531</u>	<u>\$16,378</u>	<u>\$(9,902)</u>
Earnings (loss) per share—basic:			
As reported . . . . .	\$ 2.93	\$ 1.71	\$ (0.61)
Pro forma . . . . .	\$ 2.27	\$ 1.27	\$ (0.75)
Earnings (loss) per share—diluted:			
As reported . . . . .	\$ 0.99	\$ 1.29	\$ (0.61)
Pro forma . . . . .	\$ 0.76	\$ 0.96	\$ (0.75)

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

2. Significant Accounting Policies (Continued)

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 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.

*(l) Goodwill*

Goodwill 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 and Arch Specialty and has not allocated any amounts to other intangible assets relating to such acquisitions. The Company ceased amortization of its goodwill beginning in 2002 (see Note 2(o)). The Company assesses whether goodwill is impaired by comparing the fair value of each reporting unit to its carrying value, including goodwill. If the reporting unit's fair value is greater than its carrying value, goodwill is not impaired. Impairment occurs when the implied fair value of a reporting unit's goodwill is less than its carrying value. The implied fair value of goodwill 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 goodwill 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 has been impaired.

*(m) 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.

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

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

*(n) Restatements*

The Company filed with the Securities and Exchange Commission ("SEC") an amended Form 10-K for the year ended December 31, 2000 and an amended Form 10-Q for the quarter ended March 31, 2001 to restate the financial statements included in such filings. The restatements were required as a result of the Company's acquisition of the remaining ownership interests in ART Services in June 2001. 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. The accompanying consolidated financial statements include the effects of this required restatement and should be read in conjunction with the restated financial statements contained in such amended SEC filings.

*(o) Recent Accounting Pronouncements*

In June 2001, the FASB issued SFAS No. 142, "Goodwill and Other Intangible Assets," which become effective for the Company on January 1, 2002. SFAS No. 142 requires, among other things, the discontinuance of the amortization of goodwill and the introduction of impairment testing in its place. The adoption of SFAS No. 142 resulted in the Company's discontinuation of amortization of its goodwill beginning in 2002. The Company will continue to be required to perform impairment tests annually and whenever events or circumstances indicate that the value of goodwill or other intangible assets might be impaired. Under SFAS No. 142, goodwill recorded after June 30, 2001 is not amortized, and goodwill recorded prior to July 1, 2001 has been amortized through the year ended December 31, 2001. In addition, the standard includes provisions for the reclassification of certain existing recognized intangibles such as goodwill, reassessment of the useful lives of existing recognized intangibles, reclassification of certain intangibles out of previously reported goodwill and the identification of reporting units for purposes of assessing potential future impairments of goodwill. The adoption of SFAS No. 142 did not have a material impact on the Company's financial position or results of operations.

In June 2002, the FASB issued SFAS No. 146, "Accounting for Costs Associated with Exit or Disposal Activities." SFAS No. 146 will be applied prospectively to exit or disposal activities initiated after December 31, 2002 and requires companies to recognize costs associated with exit activities when they are incurred, rather than at the date of a commitment to an exit or disposal plan. The Company is currently evaluating this standard.

In December 2002, the FASB issued SFAS No. 148, "Accounting for Stock-Based Compensation—Transition and Disclosure." SFAS No. 148 amends SFAS No. 123 to provide alternative methods of transition for a voluntary change to the fair value based method of accounting for stock-based employee compensation. In addition, SFAS No. 148 amends the disclosure requirements of SFAS No. 123 to require prominent disclosures in both annual and interim financial statements about the method of accounting for stock based employee compensation and the effect of the method used on reported results. The provisions of SFAS No. 148 are effective for financial statements for fiscal years and interim periods ending after December 15, 2002. The disclosure provisions of SFAS No. 148 have been adopted by the Company.

In January 2003, the FASB issued FASB Interpretation No. 46, "Consolidation of Variable Interest Entities—an interpretation of ARB No. 51," which requires the consolidation of certain entities

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

2. Significant Accounting Policies (Continued)

considered to be variable interest entities ("VIEs"). An entity is considered to be a VIE when it has equity investors which lack the characteristics of a controlling financial interest or its capital is insufficient to permit it to finance its activities without additional subordinated financial support. Consolidation of a VIE by an investor is required when it is determined that the investor will absorb a majority of the VIE's expected losses or residual returns if they occur. FIN 46 provides certain exceptions to these rules, including qualifying special purpose entities subject to the requirements of SFAS No. 140, "Accounting for Transfers and Servicing of Financial Assets and Extinguishments of Liabilities." VIEs created after January 31, 2003 must be consolidated immediately, while VIEs that existed prior to February 1, 2003 must be consolidated as of July 1, 2003. Certain ceding companies may meet the definition of a VIE due to the protection provided to the ceding company's equity investors from the absorption of expected losses. The Company is currently evaluating this standard.

3. Segment Information

The determination of the Company's business segments is based on how the Company monitors the performance of its underwriting operations. The Company classifies its businesses into two underwriting segments—reinsurance and insurance—and a corporate and other segment (non-underwriting). 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. Management measures segment performance based on underwriting income or loss. The accounting policies of the segments are the same as those used for the consolidated financial statements. Inter-segment insurance business is allocated to the segment accountable for the underwriting results in accordance with SFAS No. 131, "Disclosures about Segments of an Enterprise and Related Information."

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

The insurance segment consists of the Company's insurance underwriting subsidiaries which primarily write on a direct basis. The insurance segment consists of six profit centers, including property, casualty, executive assurance, healthcare, professional liability insurance and program business, and other (primarily non-standard auto and collateralized protection business).

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 Hales, the Company's merchant banking subsidiary.

**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:

<u>Operating Information by Segment</u>	<u>Year Ended December 31, 2002</u>		
	<u>Reinsurance</u>	<u>Insurance</u> (in thousands)	<u>Total</u>
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 . . . . .	(105,391)	(13,570)	(118,961)
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 . . . . .			4,790
Other income . . . . .			2,175
Other expenses . . . . .			(15,023)
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 income taxes . . . . .			<u>55,096</u>
Extraordinary gain, net of \$0 tax expense . . . . .			3,886
Net income . . . . .			<u>\$ 58,982</u>
<b>Underwriting Ratios(2)</b>			
Loss ratio . . . . .	63.0%	70.6%	64.8%
Acquisition expense ratio(3) . . . . .	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) Reinsurance segment results include \$86.1 million of net premiums written assumed from the insurance segment.
- (2) Underwriting ratios are calculated based on net premiums earned.
- (3) The acquisition expense ratio is adjusted to include certain policy-related fee income.



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

3. Segment Information (Continued)

Set forth below is summary information regarding net premiums written by client location and by major line of business for the reinsurance and insurance segments for the year ended December 31, 2002:

	Year Ended December 31, 2002	
	Net Premiums Written	% Of Total
	(in thousands)	
<b>Reinsurance Segment</b>		
Client Location(1):		
United States . . . . .	\$469,585	53.2%
United Kingdom . . . . .	163,838	18.6%
Bermuda . . . . .	51,562	5.8%
Canada . . . . .	45,749	5.2%
Germany . . . . .	42,899	4.9%
France . . . . .	26,751	3.0%
Japan . . . . .	11,920	1.4%
Switzerland . . . . .	11,806	1.3%
Other . . . . .	58,590	6.6%
Total . . . . .	<u>\$882,700</u>	<u>100.0%</u>
Major Line of Business(1):		
Casualty . . . . .	\$245,236	27.8%
Other specialty . . . . .	173,087	19.6%
Property excluding property catastrophe . . . . .	166,344	18.8%
Property catastrophe . . . . .	110,989	12.6%
Marine, aviation and space . . . . .	60,383	6.8%
Non-traditional business . . . . .	109,978	12.5%
Casualty clash . . . . .	16,683	1.9%
Total . . . . .	<u>\$882,700</u>	<u>100.0%</u>
<b>Insurance Segment</b>		
Client Location(1):		
United States . . . . .	\$375,725	99.2%
United Kingdom . . . . .	1,179	0.3%
Bermuda . . . . .	777	0.2%
Canada . . . . .	555	0.1%
Switzerland . . . . .	307	0.1%
Other . . . . .	384	0.1%
Total . . . . .	<u>\$378,927</u>	<u>100.0%</u>
Major Line of Business(1):		
Casualty . . . . .	\$ 95,419	25.2%
Programs . . . . .	93,868	24.8%
Property . . . . .	50,772	13.4%
Executive assurance . . . . .	49,479	13.0%
Healthcare . . . . .	23,624	6.2%
Professional liability . . . . .	20,436	5.4%
Other . . . . .	45,329	12.0%
Total . . . . .	<u>\$378,927</u>	<u>100.0%</u>

(1) Reinsurance segment results include \$86.1 million of net premiums written assumed from the insurance segment.

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

**3. Segment Information (Continued)**

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 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.

During the year ended December 31, 2000, due to the sale of the Company's prior reinsurance operations to Folksamerica in May 2000 (see Note 13), segment information is not meaningful and, accordingly, is not presented herein.

**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. With respect to 2000 results reflected below, the table sets forth the effects of reinsurance on the Company's prior reinsurance operations, which were sold in May 2000 to Folksamerica (see Note 13).

	Years Ended December 31,		
	2002	2001	2000
	(in thousands)		
<i>Premiums Written:</i>			
Direct .....	\$ 629,988	\$117,406	—
Assumed .....	857,224	1,796	\$102,034
Ceded .....	(225,585)	(82,986)	(19,731)
Unearned premium portfolio transfer and assumption .....	—	—	(92,907)
Net .....	<u>\$1,261,627</u>	<u>\$ 36,216</u>	<u>\$ (10,604)</u>
<i>Premiums Earned:</i>			
Direct .....	\$ 345,252	\$110,022	—
Assumed .....	473,220	619	\$107,404
Ceded .....	(163,496)	(79,723)	(19,874)
Net .....	<u>\$ 654,976</u>	<u>\$ 30,918</u>	<u>\$ 87,530</u>
<i>Losses and Loss Adjustment Expenses Incurred:</i>			
Direct .....	\$ 300,950	\$ 99,761	—
Assumed .....	305,875	1,091	\$ 88,676
Ceded .....	(182,287)	(77,404)	(12,413)
Net .....	<u>\$ 424,538</u>	<u>\$ 23,448</u>	<u>\$ 76,263</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 for the years indicated. With respect to 2000 results, the table includes the reserve activity on the Company's prior reinsurance operations, which were sold in May 2000 to Folksamerica (see Note 13).

	December 31,		
	2002	2001	2000
	(in thousands)		
Reserve for losses and loss adjustment expenses at beginning of year . . . . .	\$111,494	—	\$364,554
Unpaid losses and loss adjustment expenses recoverable . . . . .	90,442	—	(55,925)
Net unpaid losses and loss adjustment expenses at beginning of year . . . . .	21,052	—	308,629
Increase in net losses and loss adjustment expenses incurred relating to losses occurring in:			
Current year . . . . .	420,574	\$ 23,025	73,563
Prior years . . . . .	3,964	423	2,700
Total net incurred losses and loss expenses . . . . .	424,538	23,448	76,263
Net losses and loss adjustment expense reserves acquired . . . . .	11,370	14,320	—
Exchange rate effects . . . . .	642	—	—
Less net losses and loss adjustment expenses paid relating to losses occurring in:			
Current year . . . . .	59,288	12,648	311,330
Prior years . . . . .	16,982	4,068	73,562
Total net paid losses . . . . .	76,270	16,716	384,892
Net unpaid losses and loss adjustment expenses at end of year . . . . .	381,332	21,052	—
Unpaid losses and loss adjustment expenses recoverable . . . . .	211,100	90,442	—
Reserve for losses and loss expenses at end of year . . . . .	<u>\$592,432</u>	<u>\$111,494</u>	<u>—</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 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.

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, 2002. 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

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

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

incurred for 2002 increased significantly over 2001 due to the Company's October 2001 underwriting initiative.

6. Deposit Accounting

Certain reinsurance contracts included in the Company's non-traditional business 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. The Company recorded \$7.1 million on such contracts for the year ended December 31, 2002 in its underwriting results and, on a notional basis, the amount of premiums attaching to such contracts was \$175.8 million. 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 year ended December 31, 2002.

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, 2002			Amortized Cost
	Estimated Fair Value and Carrying Value	Gross Unrealized Gains	Gross Unrealized (Losses)	
	(in thousands)			
Fixed maturities:				
U.S. government and government agencies . . . . .	\$ 179,322	\$ 5,242	\$ (4)	\$ 174,084
Corporate bonds . . . . .	949,003	33,305	(708)	916,406
Mortgage and asset backed securities . . . . .	253,779	9,632	—	244,147
	<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>

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

**7. Investment Information (Continued)**

	December 31, 2001			Amortized Cost
	Estimated Fair Value and Carrying Value	Gross Unrealized Gains	Gross Unrealized (Losses)	
	(in thousands)			
<b>Fixed maturities:</b>				
U.S. government and government agencies . . . . .	\$137,861	\$2,026	\$ (782)	\$136,617
Corporate bonds . . . . .	239,261	1,414	(1,538)	239,385
Mortgage and asset backed securities . . . . .	91,147	321	(326)	91,152
	<u>468,269</u>	<u>3,761</u>	<u>(2,646)</u>	<u>467,154</u>
<b>Equity securities:</b>				
Publicly traded . . . . .	235	—	(725)	960
Privately held . . . . .	41,608	21	—	41,587
	<u>41,843</u>	<u>21</u>	<u>(725)</u>	<u>42,547</u>
<b>Total . . . . .</b>	<u>\$510,112</u>	<u>\$3,782</u>	<u>\$(3,371)</u>	<u>\$509,701</u>

*Fixed Maturities*

Contractual maturities of the Company's fixed maturities at December 31, 2002 are shown below. Expected maturities, which are management's best estimates, will differ from contractual maturities because borrowers may have the right to call or prepay obligations with or without call or prepayment penalties.

	December 31, 2002	
	Estimated Fair Value	Amortized Cost
	(in thousands)	
<b>Available for sale:</b>		
Due in one year or less . . . . .	\$ 19,671	\$ 20,149
Due after one year through five years . . . . .	1,058,158	1,023,151
Due after five years through 10 years . . . . .	21,966	24,100
Due after 10 years . . . . .	28,530	23,090
	<u>1,128,325</u>	<u>1,090,490</u>
Mortgage and asset-backed securities . . . . .	253,779	244,147
<b>Total . . . . .</b>	<u>\$1,382,104</u>	<u>\$1,334,637</u>

As of December 31, 2002, the weighted average contractual and expected maturities of the Company's total fixed maturity and short-term investments, based on fair value, were 4.5 years and 2.1 years, respectively. Approximately 100% of the fixed maturity investments held by the Company at December 31, 2002 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

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

**7. Investment Information (Continued)**

shareholders' equity at December 31, 2002 other than investments issued or guaranteed by the United States government or its agencies.

*Net Investment Income*

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

	Years Ended December 31,		
	2002	2001	2000
	(in thousands)		
Fixed maturities . . . . .	\$48,325	\$ 6,750	\$ 9,728
Short-term investments . . . . .	4,201	4,969	5,167
Publicly traded equity securities . . . . .	—	371	1,373
Privately held securities . . . . .	407	146	513
Gross investment income . . . . .	52,933	12,236	16,781
Investment expenses . . . . .	1,684	116	858
Net investment income . . . . .	<u>\$51,249</u>	<u>\$12,120</u>	<u>\$15,923</u>

*Realized Investment Gains (Losses)*

Net realized investment gains (losses) were as follows:

	Years Ended December 31,		
	2002	2001	2000
	(in thousands)		
Fixed maturities . . . . .	\$(6,350)	\$(2,116)	\$(15,550)
Publicly traded equity securities . . . . .	(269)	22,896	30,088
Privately held securities . . . . .	5,780	(2,398)	177
	(839)	18,382	14,715
Loss on fixed maturities included in gain on sale of prior reinsurance operations . . . . .	—	—	5,330
Net realized investment (losses) gains . . . . .	(839)	18,382	20,045
Income tax expense . . . . .	1,779	7,242	7,408
Net realized investment (losses) gains, net of tax . . . . .	<u>\$(2,618)</u>	<u>\$11,140</u>	<u>\$ 12,637</u>

Proceeds from the sale of fixed maturities during 2002, 2001 and 2000 were approximately \$536 million, \$183 million and \$228 million, respectively. Gross gains of \$3.7 million, \$2.7 million and \$1.1 million were realized on those sales during 2002, 2001 and 2000, respectively. Gross losses of \$10.0 million, \$4.8 million and \$16.6 million (of which \$7.6 million related to losses resulting from restructuring the Company's investment portfolio in connection with its redomestication to Bermuda in November 2000) were realized during 2002, 2001 and 2000, respectively. For the year ended December 31, 2002, the Company recorded pre-tax net realized investment losses of \$0.8 million. The Company realized net realized gains on certain of its U.S. source investments which resulted in an income tax expense of approximately \$1.8 million.

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

7. Investment Information (Continued)

*Securities Pledged and on Deposit*

At December 31, 2002, securities with an estimated fair value of \$24.8 million were on deposit with the Insurance Department of the State of Nebraska and other state insurance departments in order to comply with insurance laws.

*Privately Held Equity Securities*

At December 31, 2002 and 2001, privately held securities of \$31.5 million and \$41.6 million consisted of \$12.4 million and \$19.8 million, respectively, of investments carried under the equity method of accounting and \$19.1 and \$21.8 million of securities carried at fair value, respectively. 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 and \$3.7 million at December 31, 2002 and 2001, respectively.

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 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, 2002, 2001 and 2000 were as follows:

	Years Ended December 31,		
	2002	2001	2000
	(in thousands)		
<b>Current expense:</b>			
U.S. Federal . . . . .	\$ 6,536	\$ 506	—
U.S. State . . . . .	837	150	—
Non-U.S. . . . .	—	—	—
	<u>\$ 7,373</u>	<u>\$ 656</u>	<u>—</u>
<b>Deferred (benefit) expense:</b>			
U.S. Federal . . . . .	(7,929)	1,472	\$8,515
U.S. State . . . . .	—	—	—
Non-U.S. . . . .	—	—	—
	<u>(7,929)</u>	<u>1,472</u>	<u>8,515</u>
Income tax (benefit) expense . . . . .	<u>\$ (556)</u>	<u>\$2,128</u>	<u>\$8,515</u>

The expected tax provision computed on pre-tax income (loss) at the weighted average tax rate has been calculated as the sum of the pre-tax income (loss) 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, 2002, 2001 and 2000 follows:

	Years Ended December 31,		
	2002	2001	2000
	(in thousands)		
Expected income tax expense computed on pre-tax income (loss) at weighted average income tax rate . . . . .	\$ 2,204	\$ 9,330	\$ (102)
Addition (reduction) in income tax expense (benefit) resulting from:			
Valuation allowance . . . . .	(7,421)	(8,518)	5,650
Write-off of deferred tax asset . . . . .	—	251	2,993
Goodwill . . . . .	—	360	—
Tax-exempt investment income . . . . .	(132)	(12)	(341)
Dividend received deduction . . . . .	—	—	(250)
Limitation on executive compensation . . . . .	1,656	—	397
Other . . . . .	3,137	717	168
Income tax (benefit) expense . . . . .	<u>\$ (556)</u>	<u>\$ 2,128</u>	<u>\$8,515</u>

The Company has net operating loss carryforwards in its U.S. operating subsidiaries totaling \$42.5 million at December 31, 2002. Such net operating losses are currently available to offset future U.S. source taxable income of the Company and expire between 2011 and 2021. The Company also has an alternative minimum tax ("AMT") credit carryforward in the amount of \$1.0 million which can be carried forward without expiration. In addition, the Company has capital loss carryforwards of approximately \$0.3 million, which expire by 2006.



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.

In 2000, upon the Company's redomestication to Bermuda, Arch-U.S. distributed substantially all of its 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. In addition, in 2000, the Company had written-off \$2.0 million of deferred tax assets relating to losses recognized in the consolidated financial statements on the Company's privately held investments, which amount will not be deductible in future U.S. income tax returns since Arch-U.S. distributed these investments to ACGL, its Bermuda parent.

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. Significant components of the Company's deferred income tax assets and liabilities as of December 31, 2002 and 2001 were as follows:

	December 31,	
	2002	2001
	(in thousands)	
Deferred income tax assets:		
Net operating loss . . . . .	\$14,860	\$15,151
Reserve for loss of escrowed assets . . . . .	—	5,950
AMT credit carryforward . . . . .	965	965
Discounting of net unpaid loss reserves . . . . .	2,807	335
Net unearned premium reserve . . . . .	8,583	1,975
Compensation liabilities . . . . .	1,163	—
Other, net . . . . .	67	1,403
Total deferred tax assets . . . . .	<u>28,445</u>	<u>25,779</u>
Deferred income tax liabilities:		
Equity in net income on investees, net . . . . .	(969)	(551)
Deferred policy acquisition costs . . . . .	(2,888)	(1,718)
Net unrealized appreciation of investments . . . . .	(5,942)	(240)
Total deferred tax liabilities . . . . .	<u>(9,799)</u>	<u>(2,509)</u>
Valuation allowance . . . . .	(2,132)	(9,554)
Net deferred income tax asset . . . . .	<u>\$16,514</u>	<u>\$13,716</u>

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

**8. Income Taxes (Continued)**

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 year ended December 31, 2002, the Company reversed a portion of the valuation allowance on certain of its deferred tax assets and recorded a benefit of \$7.4 million. The valuation allowance reversal was based on the Company's restructuring of its U.S.-based insurance operations and its new business plan, which included a substantial increase in its taxable investment portfolio. In addition, for the year ended December 31, 2001, as a result of the Company's capital infusion and new underwriting initiative, which resulted in an increase in the Company's taxable investment portfolio, the Company reversed a valuation allowance on certain deferred tax assets and recorded a benefit of \$8.5 million. At December 31, 2002, a valuation allowance of \$2.1 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**

During 2002, the Company's Board of Directors accelerated the vesting terms of certain restricted common shares granted to the Robert Clements, Chairman of the Board of Directors, 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 the Company by 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 have been changed as follows: 60% of the shares vested on October 23, 2002 and the balance of the shares will vest in two equal annual amounts on October 23, 2003 and October 23, 2004 (see Note 11).

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 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, 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, the Company 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. The Company's book value per diluted share decreased by approximately \$0.04 per share following such share repurchase. During the loan period, compensation to Mr. Clements under his retention agreement included payments of \$638,000 from the Company, 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.

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 Mr. Clements and John Pasquesi, the Vice Chairman of ACGL's Board of Directors, each own minority ownership interests. The Company will pay 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

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

9. Transactions with Related Parties (Continued)

July 2004. The Company has made payments of approximately \$232,000 under such arrangements for the year ended December 31, 2002.

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."

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, President and Chief Executive Officer of ACGL, Mr. Clements and Distribution Investors, LLC hold ownership interests, for aggregate rental expense of approximately \$201,000 for the year ended December 31, 2002. In addition, Tri-City, as broker, has placed business with the Company's insurance operations and the Company has incurred commission expenses of approximately \$1.5 million under such arrangements for the year ended December 31, 2002. During 2002, Hales was engaged by Tri-City to provide advisory services in connection with the potential sale of Tri-City.

As of December 31, 2002, the Company has committed to invest an additional \$0.4 million as a member of the general partner of Distribution Investors, LLC, a fund affiliated with Hales.

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, 2002 amounted to \$256.6 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.

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

10. Commitments and Contingencies (Continued)

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 2002, approximately 20.2%, 16.6% and 11.9% of the Company's consolidated gross written premiums were generated from or placed by Marsh & McLennan Companies, AON Corporation and its subsidiaries and Willis Group Holdings and its subsidiaries, respectively. Each of these companies are large, well established companies 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, 2002.

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, 2002 other than investments issued or guaranteed by the United States government or its agencies.

*Letter of Credit Facility*

In April 2002, the Company established a letter of credit facility for up to \$200 million. The principal purpose of this facility is to issue, as required, evergreen standby letters of credit in favor of primary insurance or reinsurance counterparties with which the Company has entered into reinsurance arrangements. Such letters of credit, when issued, are secured by a portion of the Company's investment portfolio. In addition, the letter of credit facility also requires that the Company comply with certain other financial covenants. At December 31, 2002, the Company had approximately \$77.6 million in outstanding letters of credit which were secured by investments totaling \$89.2 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. This bank facility expires April 16, 2003. It is anticipated that the letter of credit facility will be renewed on expiry, but such renewals are subject to the availability of credit from banks which the Company utilizes.

*Leases*

At December 31, 2002, 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:

	<u>(in thousands)</u>
2003 .....	\$ 5,983
2004 .....	6,329
2005 .....	5,965
2006 .....	5,754
2007 .....	5,079
Thereafter .....	<u>18,756</u>
	<u>\$47,866</u>

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

10. Commitments and Contingencies (Continued)

All of these leases are for the rental of office space, with expiration terms that range from 2004 to 2012. Rental expense (income), net of income from subleases, was approximately \$3.2 million, (\$132,000) and \$190,000 for the years ended December 31, 2002, 2001 and 2000, respectively.

*Employment and Other Arrangements*

At December 31, 2002, the Company has entered into employment agreements with certain of its executive officers for periods extending up to October 2006. 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 (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, 2002, 2001 and 2000 are reflected below:

	Years Ended December 31,		
	2002	2001	2000
Common Shares:			
Balance, beginning of year . . . . .	13,513,538	12,708,818	17,109,736
Shares issued . . . . .	12,275,171	179,878	318,079
Restricted shares issued . . . . .	2,398,794	627,949	74,218
Shares repurchased . . . . .	(462,169)	(3,107)	(4,793,215)
Balance, end of year . . . . .	<u>27,725,334</u>	<u>13,513,538</u>	<u>12,708,818</u>

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

11. Share Capital (Continued)

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, 2002, warrants outstanding consisted of 150,000 Class B Warrants.

In March 2000, the Company repurchased from XL Capital, then the Company's single largest shareholder, all of the 4,755,000 Common Shares held by it for a purchase price of \$12.45 per share, or a total of \$59.2 million.

*Restricted Common Shares*

During 2002, 2001 and 2000, the Company issued an aggregate of 2,398,794, 627,949 and 74,218 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 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 \$66.2 million, \$10.5 million and \$1.1 million, and the amortization of the deferred compensation was \$49.2 million, \$2.6 million and \$1.1 million, for 2002, 2001 and 2000, 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, 2002, 2001 and 2000 are reflected below:

	Years Ended December 31,		
	2002	2001	2000
Preference Shares:			
Balance, beginning of year	35,687,735	—	—
Shares issued	3,706,930	35,687,735	—
Shares converted to common shares	(550,000)	—	—
Balance, end of year	<u>38,844,665</u>	<u>35,687,735</u>	<u>—</u>

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

11. Share Capital (Continued)

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 Agreement entered into in connection with the capital infusion), 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 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 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, a post-closing purchase price adjustment will be calculated in November 2003 (or such earlier date as agreed upon by the Company and the investors thereunder) based on an adjustment basket. The adjustment basket will be 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. 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 the Company and Folksamerica, and (2) specified tax and ERISA matters under the Subscription Agreement.

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

**11. Share Capital (Continued)**

Pursuant to the shareholders agreement entered into in connection with the capital infusion in November 2001, 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, 2002, 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 Internal Revenue Code of 1986, as amended (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 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.

*Long Term Incentive and Share Award Plans*

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



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

11. Share Capital (Continued)

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.

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 Board of Directors service 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 options granted to non-employee directors vest and become exercisable in three equal installments, commencing on the grant date and annually thereafter. Annual options granted to non-employee directors in office on January 1 of each year vest on the first anniversary of the grant date.

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

**11. Share Capital (Continued)**

Information relating to the Company's stock options is set forth below:

	Years Ended December 31,		
	2002	2001	2000
<b>Number of options</b>			
Outstanding, beginning of year	4,068,311	1,222,775	1,281,356
Granted	1,573,900	2,898,036	146,000
Canceled	—	(52,500)	(204,581)
Exercised	(42,800)	—	—
Outstanding, end of year	<u>5,599,411</u>	<u>4,068,311</u>	<u>1,222,775</u>
Exercisable, end of year	3,867,593	2,698,052	1,122,000
<b>Average exercise price</b>			
Granted	\$ 26.28	\$ 19.97	\$ 15.13
Canceled	—	\$ 15.33	\$ 21.02
Exercised	\$ 19.28	—	—
Outstanding, end of year	\$ 21.85	\$ 20.09	\$ 20.18
Exercisable, end of year	\$ 20.87	\$ 19.83	\$ 20.23

The following table summarizes information about the Company's stock options for options outstanding as of December 31, 2002:

Range of Exercise Prices	Options Outstanding			Options Exercisable	
	Number Outstanding at Dec. 31, 2002	Weighted Average Remaining Contractual Life in Years	Weighted Average Exercise Price	Number Exercisable at Dec. 31, 2002	Weighted Average Exercise Price
\$12.66-\$17.63	661,003	6.0	\$16.38	660,903	\$16.38
\$19.63-\$20.00	2,430,883	8.4	\$20.00	1,852,102	\$20.00
\$20.13-\$23.00	605,525	4.4	\$22.57	605,525	\$22.57
\$23.13-\$23.80	718,100	9.0	\$23.62	338,711	\$23.66
\$24.00-\$27.00	574,000	9.2	\$25.98	207,011	\$25.95
\$27.09-\$30.17	573,600	9.4	\$28.31	191,237	\$28.31
\$30.32-\$31.28	36,300	9.4	\$30.76	12,104	\$30.76
\$12.66-\$31.28	<u>5,599,411</u>	<u>8.0</u>	<u>\$21.85</u>	<u>3,867,593</u>	<u>\$20.87</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 2002, 2001 and 2000, the Company expensed \$1.8 million, \$0.4 million and \$0.3 million, respectively, related to these retirement plans.

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

13. Acquisition of Subsidiaries and Disposition of Prior Reinsurance Operations

*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 ("GuideOne") 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 represents the excess of the fair value of acquired net assets of \$6.4 million over the purchase price of \$2.5 million. 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 \$19.5 million. 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, 2002, 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.

*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

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

13. Acquisition of Subsidiaries and Disposition of Prior Reinsurance Operations (Continued)

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 or PSIC because neither comprised a significant portion of the Company's financial position or results of operations for the year ended December 31, 2002.

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.

*Goodwill Relating to Acquisitions*

The carrying amount of goodwill at December 31, 2002 was \$28.9 million, consisting of \$23.2 million relating to the Company's insurance subsidiaries (\$13.6 million, \$6.8 million and \$2.8 million relating to the acquisitions of AIHC, ART Services and Arch Specialty, respectively) and

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

13. Acquisition of Subsidiaries and Disposition of Prior Reinsurance Operations (Continued)

\$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, 2002 and, pursuant to such test, the Company determined that no impairment existed at December 31, 2002.

*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 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).

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

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

**13. Acquisition of Subsidiaries and Disposition of Prior Reinsurance Operations (Continued)**

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 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, 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 \$1.2 billion and \$508.0 million at December 31, 2002 and 2001,

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

14. Statutory Information (Continued)

respectively. Arch Re Bermuda recorded 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 \$179.0 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 \$386.6 million, \$306.8 million and \$29.9 million at December 31, 2002, 2001 and 2000, respectively. The Company's U.S. insurance and reinsurance subsidiaries had a combined statutory net loss of \$455,000 for the year ended December 31, 2002 and statutory net income of \$7.9 million and \$59.6 million for the years ended December 31, 2001 and 2000, respectively.

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 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. As of December 31, 2002, the Company's U.S. insurance and reinsurance subsidiaries may not pay any significant dividends or distributions during 2003 without prior regulatory approval.

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.

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

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)			
<i>Year Ended December 31, 2002</i>			
Unrealized appreciation (decline) on investments:			
Unrealized holding gains (losses) arising during year . . . . .	\$ 46,256	\$ 7,372	\$ 38,884
Less reclassification of net realized 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>
<i>Year Ended December 31, 2001</i>			
Unrealized appreciation (decline) on investments:			
Unrealized holding gains (losses) arising during year . . . . .	\$ (6,993)	\$ 160	\$ (7,153)
Less reclassification of net realized 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>
<i>Year Ended December 31, 2000</i>			
Unrealized appreciation (decline) on investments:			
Unrealized holding gains (losses) arising during year . . . . .	\$ 4,745	\$ 428	\$ 4,317
Less reclassification of net realized gains included in net income . . . . .	<u>20,045</u>	<u>7,408</u>	<u>12,637</u>
Change in other comprehensive income (loss) . . . . .	<u>\$(15,300)</u>	<u>\$(6,980)</u>	<u>\$ (8,320)</u>



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

16. Unaudited Quarterly Financial Information

Following is a summary of quarterly financial data:

(in thousands, except per share data)	Fourth Quarter	Third Quarter	Second Quarter	First Quarter
<b>2002 Income Statement Data:</b>				
Net premiums written	\$ 439,207	\$ 318,684	\$223,026	\$280,710
Net premiums earned	\$ 290,011	\$ 183,979	\$113,459	\$ 67,527
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	(3,795)	(392)	4,968	(225)
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 (loss)				
Basic	\$ 1.71	(\$ 0.36)	\$ 0.95	\$ 0.30
Diluted	\$ 0.65	(\$ 0.36)	\$ 0.33	\$ 0.08
<b>2001 Income Statement Data:</b>				
Net premiums written	\$ 12,212	\$ 14,448	\$ 6,719	\$ 2,837
Net premiums earned	\$ 11,921	\$ 11,799	\$ 5,565	\$ 1,633
Fee income	3,476	3,524	3,711	1,715
Net investment income	3,373	2,509	3,078	3,160
Net realized investment gains (losses)	(37)	(190)	9,605	9,004
Equity in net income of investees	721	966	33	888
Losses and loss adjustment expenses	(7,181)	(9,196)	(5,526)	(1,545)
Acquisition (expenses) income	(2,157)	(337)	1,199	482
Other operating expenses	(11,852)	(7,399)	(4,761)	(3,679)
Net foreign exchange gains (losses)	—	—	—	—
Non-cash compensation	(1,863)	(275)	(275)	(359)
Provision for loss of escrowed assets, net of other related reserves(1)	2,414	—	—	—
Income tax benefit (expense)	5,916	(509)	(4,229)	(3,306)
Net income	<u>\$ 4,731</u>	<u>\$ 892</u>	<u>\$ 8,400</u>	<u>\$ 7,993</u>
<b>Per Share Data:</b>				
Net income				
Basic	\$ 0.37	\$ 0.07	\$ 0.65	\$ 0.63
Diluted	\$ 0.16	\$ 0.07	\$ 0.65	\$ 0.63

(1) Excludes expenses of \$1.5 million in the 2001 fourth quarter which were charged against investment income, representing accrued investment income related to the loss of escrowed assets.

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**Report of Independent Accountants 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 19, 2003, 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*

February 19, 2003

## SCHEDULE I

ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES  
SUMMARY OF INVESTMENTS  
OTHER THAN INVESTMENTS IN RELATED PARTIES  
(Dollars in thousands)

	December 31, 2002		
	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 . . . . .	\$ 174,084	\$ 179,322	\$ 179,322
Corporate bonds . . . . .	916,406	949,003	949,003
Mortgage and asset-backed securities . . . . .	244,147	253,779	253,779
Total Fixed Maturity Securities . . . . .	<u>1,334,637</u>	<u>1,382,104</u>	<u>1,382,104</u>
<b>EQUITY SECURITIES</b>			
Privately held . . . . .	31,630	31,536	31,536
Total Equity Securities . . . . .	<u>31,630</u>	<u>31,536</u>	<u>31,536</u>
<b>SHORT-TERM INVESTMENTS</b> . . . . .	480,541	480,541	480,541
Total Investments . . . . .	<u>\$1,846,808</u>	<u>\$1,894,181</u>	<u>\$1,894,181</u>

## SCHEDULE II

ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES  
CONDENSED FINANCIAL INFORMATION OF REGISTRANT

Balance Sheet  
(Parent Company Only)  
(Dollars in thousands)

	December 31,	
	<u>2002</u>	<u>2001</u>
<b>Assets</b>		
Investment in wholly owned subsidiaries . . . . .	\$1,390,117	\$ 878,814
Fixed maturities available for sale, at fair value (amortized cost: 2002, \$6,392, 2001, \$79,717) . . . . .	6,463	79,872
Short-term investments available for sale, at fair value . . . . .	367	11,536
Securities held in escrow, at fair value (amortized cost: 2002, —, 2001, \$22,156) . . . . .	—	22,156
Privately held securities (cost: 2002, \$5,780, 2001, \$26,722) . . . . .	5,780	26,722
Cash . . . . .	1,081	11
Other assets . . . . .	13,670	5,918
<b>Total Assets</b> . . . . .	<u>\$1,417,478</u>	<u>\$1,025,029</u>
<b>Liabilities</b>		
Accounts payable and other liabilities . . . . .	\$ 6,234	\$ 4,660
<b>Shareholders' Equity</b>		
Preference shares, \$0.01 par value: 50,000,000 shares authorized (issued: 2002, 38,844,665; 2001, 35,687,735) . . . . .	388	357
Common shares, \$0.01 par value: 200,000,000 shares authorized (issued: 2002, 27,725,334; 2001, 13,513,538) . . . . .	277	135
Additional paid-in capital . . . . .	1,347,165	1,039,887
Deferred compensation under share award plan . . . . .	(25,290)	(8,230)
Retained earnings (deficit) . . . . .	47,372	(11,610)
Accumulated other comprehensive income consisting of unrealized appreciation (decline) in value of investments, net of income tax . . . . .	41,332	(170)
<b>Total Shareholders' Equity</b> . . . . .	<u>1,411,244</u>	<u>1,020,369</u>
<b>Total Liabilities and Shareholders' Equity</b> . . . . .	<u>\$1,417,478</u>	<u>\$1,025,029</u>

ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES  
CONDENSED FINANCIAL INFORMATION OF REGISTRANT (Continued)

Statement of Income  
(Parent Company Only)  
(Dollars in thousands)

	Successor(1)		Predecessor	
	Year Ended Dec. 31, 2002	Year Ended Dec. 31, 2001	For the period from Nov. 8, 2000 to Dec. 31, 2000	For the period from Jan. 1, 2000 to Nov. 7, 2000
<b>Revenues</b>				
Net investment income . . . . .	\$ 3,104	\$ 5,945	\$ 1,245	\$1,032
Net investment losses . . . . .	(218)	(2,350)	(11)	(1)
Loss on sale of reinsurance operations . . . . .	—	—	—	(442)
Total revenues . . . . .	2,886	3,595	1,234	589
<b>Operating Costs and Expenses</b>				
Operating expenses . . . . .	7,874	4,996	502	794
Non-cash compensation . . . . .	39,782	1,885	—	—
Total expenses . . . . .	47,656	6,881	502	794
Income (loss) before income taxes . . . . .	(44,770)	(3,286)	732	(205)
Income tax benefit . . . . .	—	—	—	(67)
Income (loss) before equity in net income (loss) of wholly owned subsidiaries, other income (loss) and extraordinary item . . . . .	(44,770)	(3,286)	732	(138)
Equity in net income (loss) of wholly owned subsidiaries . . . . .	99,037	25,361	(8,950)	563
Other income (loss) . . . . .	829	(59)	(219)	—
Income (loss) before extraordinary item . . . . .	55,096	22,016	(8,437)	425
Extraordinary gain—excess of fair value of acquired assets over cost (net of \$0 tax) . . . . .	3,886	—	—	—
Net Income (Loss) . . . . .	<u>\$ 58,982</u>	<u>\$22,016</u>	<u>\$(8,437)</u>	<u>\$ 425</u>

(1) Refer to reorganization described in Note 1 of the notes accompanying the consolidated financial statements.

ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES  
CONDENSED FINANCIAL INFORMATION OF REGISTRANT (Continued)

Statement of Cash Flows  
(Parent Company Only)  
(Dollars in thousands)

	Successor(1)		Predecessor	
	Year Ended Dec. 31, 2002	Year Ended Dec. 31, 2001	For the period from Nov. 8, 2000 to Dec. 31, 2000	For the period from Jan. 1, 2000 to Nov. 7, 2000
<b>Operating Activities</b>				
Net income (loss) . . . . .	\$ 58,982	\$ 22,016	\$(8,437)	\$ 425
Adjustments to reconcile net income (loss) to net cash provided by (used for) operating activities:				
Equity in net (income) loss of wholly owned subsidiaries . . . . .	(99,037)	(25,361)	8,950	(563)
Net investment (gains)/losses . . . . .	219	2,350	11	1
Provisions for non-cash compensation . . . . .	39,783	2,771	—	—
Excess of fair value of net assets acquired over cost . . . . .	(3,886)	—	—	—
Net change in other assets and liabilities . . .	4,313	(1,074)	2,243	7,109
<b>Net Cash Provided By Operating Activities . . .</b>	<b>374</b>	<b>702</b>	<b>2,767</b>	<b>6,972</b>
<b>Investing Activities:</b>				
Purchases of fixed maturities . . . . .	(86,675)	(490,256)	(14,007)	(3,500)
Release of escrowed assets . . . . .	(18,833)	—	—	—
Sales of fixed maturities . . . . .	142,101	480,432	16,012	4,000
Net change in short-term investments . . . . .	33,548	64,209	(4,772)	(3,077)
Capital contributions to subsidiaries . . . . .	(305,852)	(734,792)	—	—
Acquisition of subsidiaries . . . . .	(4,829)	(61,043)	—	—
<b>Net Cash Used For Investing Activities . . . . .</b>	<b>(240,540)</b>	<b>(741,450)</b>	<b>(2,767)</b>	<b>(2,577)</b>
<b>Financing Activities:</b>				
Proceeds from common shares issued . . . . .	254,338	457	—	101
Preference shares issued . . . . .	—	740,737	—	—
Repurchase of common shares . . . . .	(13,102)	(48)	—	3,430
Shares issued in connection with acquisition .	—	(387)	—	—
<b>Net Cash Provided By Financing Activities . . .</b>	<b>241,236</b>	<b>740,759</b>	<b>—</b>	<b>3,531</b>
Increase in cash . . . . .	1,070	11	0	7,926
Cash at beginning of period . . . . .	11	0	0	4,313
<b>Cash at end of period . . . . .</b>	<b>\$ 1,081</b>	<b>\$ 11</b>	<b>\$ 0</b>	<b>\$12,239</b>

(1) Refer to reorganization described in Note 1 of the notes accompanying the consolidated financial statements.

## 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	Premium Revenue	Net Investment Income	Losses and Loss Adjustment Expenses Incurred	Amortization of Deferred Acquisition Costs	Other Operating Expenses	Premiums Written
<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>
<b>December 31, 2000</b>									
Property-Casualty . . . . .	—	—	—	\$ 60,402	\$15,923	\$ 56,600	\$ 18,996	\$ 6,855	\$ 56,316
Accident and Health . . . . .	—	—	—	27,128	—	19,663	7,760	—	25,987
Unearned premium portfolio transfer and assumption . . . . .	—	—	—	—	—	—	—	—	(92,907)
Total . . . . .	<u>—</u>	<u>—</u>	<u>—</u>	<u>\$ 87,530</u>	<u>\$15,923</u>	<u>\$ 76,263</u>	<u>\$ 26,756</u>	<u>\$ 6,855</u>	<u>\$ (10,604)</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</b>					
<b>December 31, 2002</b>					
<b>Premiums Written:</b>					
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</b>					
<b>December 31, 2001</b>					
<b>Premiums Written:</b>					
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>
<b>Year Ended</b>					
<b>December 31, 2000</b>					
<b>Premiums Written:</b>					
Property-Casualty . . . . .	—	\$ 19,731	\$ 76,047	\$ 56,316	135.0%
Accident and Health . . . . .	—	—	25,987	25,987	100.0%
Unearned premium portfolio transfer and assumption . . . . .	—	—	(92,907)	(92,907)	—
Total . . . . .	<u>—</u>	<u>\$ 19,731</u>	<u>\$ 9,127</u>	<u>\$ (10,604)</u>	<u>N/M</u>



## EXHIBIT INDEX

<u>Exhibit Number</u>	<u>Description</u>
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, among ACGL and the shareholders party thereto, conformed to reflect amendments dated as of January 3, 2002, March 15, 2002 and September 16, 2002 (filed herewith)
4.5	Subscription Agreement, dated as of October 24, 2001, between 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 (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 and BFP One Liberty Plaza Co. LLC (filed herewith)
10.4.2	Sub-sublease, dated as of December 31, 2002, between Arch Insurance Company and Folksamerica Reinsurance Company (filed herewith)
10.5.1	ACGL 1999 Long Term Incentive and Share Award Plan(g)†
10.5.2	ACGL 1995 Long Term Incentive and Share Award Plan (the "1995 Stock Plan")(b)†
10.5.3	First Amendment to the 1995 Stock Plan(c)†
10.5.4	ACGL Long Term Incentive Plan for New Employees(t)†
10.5.5	ACGL 2002 Long Term Incentive and Share Award Plan(y)†
10.6.1	Restricted Share Agreements—Executive Officers(d)
10.6.2	Restricted Share Agreement—Peter A. Appel—April 24, 2000 grant(n)† and as of January 30, 2001 grants(q)†
10.6.3	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)†
10.6.4	Restricted Share Agreement, dated as of January 1, 2002, between ACGL and Constantine Iordanou(r)†
10.6.5	Restricted Share Agreement, dated as of January 1, 2002, between ACGL and Constantine Iordanou(r)†

<u>Exhibit Number</u>	<u>Description</u>
10.6.6	Restricted Share Agreement, dated as of January 18, 2002, between ACGL and John Vollaro(x)†
10.6.7	Amended and Restated Restricted Share Agreement, dated as of October 23, 2001, between ACGL and Paul Ingrey (filed herewith)†
10.6.8	Restricted Share Agreement, dated as of October 23, 2001, between ACGL and Dwight Evans(q)†
10.6.9	Restricted Share Agreement, dated as of October 23, 2001, between ACGL and Marc Grandisson(q)†
10.6.10	Restricted Share Agreement, dated as of January 30, 2001, between ACGL and Louis Petrillo(q)†
10.6.11	Amendment No. 1 to Restricted Share Agreement, dated as of March 19, 2003, between ACGL and John Vollaro (filed herewith)†
10.7.1	Stock Option Agreements—Executive Officers—1995 and 1996 grants, (d) 1997 and 1998 grants(f) and 2000 grants(n)†
10.7.2	Stock Option Agreements—Robert Clements—1996 grant,(d) 1997 grant(e) and 1998 grant(f)
10.7.3	Amendments to Stock Option Agreements—Robert Clements (dated March 22, 2000)(n) and Executive Officers† and Directors (dated May 5, 2000)(o)†
10.7.4	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)†
10.7.5	Stock Option Agreements—Non-Employee Directors—initial grants(f)(i)†
10.7.6	Share Option Agreement, dated October 23, 2001, between ACGL and Ian Heap(v)†
10.7.7	Employee Share Option Agreement, dated October 23, 2001, between ACGL and John M. Pasquesi(r)†
10.7.8	Share Option Agreement, dated as of October 23, 2001, between ACGL and John M. Pasquesi(r)†
10.7.9	Share Option Agreement, dated as of October 23, 2001, between ACGL and Peter A. Appel(r)†
10.7.10	Amended and Restated Stock Option Agreement, dated as of October 23, 2001, between ACGL and Paul Ingrey (filed herewith)†
10.7.11	Stock Option Agreement, dated as of October 23, 2001, between ACGL and Dwight Evans(q)†
10.7.12	Stock Option Agreement, dated as of October 23, 2001, between ACGL and Marc Grandisson(q)†
10.7.13	Share Option Agreement, dated as of January 1, 2002, between ACGL and Constantine Iordanou(r)†
10.7.14	Stock Option Agreement, dated as of January 18, 2002, between ACGL and John Vollaro(x)†
10.7.15	Stock Option Agreements, dated as of January 30, 2001 and October 23, 2001, between ACGL and Debra O'Connor(q)†
10.7.16	Stock Option Agreements, dated as of January 30, 2001 and October 23, 2001, between ACGL and Louis Petrillo(q)†
10.7.17	Stock Option Agreement, dated as of June 27, 2002, between ACGL and Dwight Evans (filed herewith)†

<u>Exhibit Number</u>	<u>Description</u>
10.8.1	Retention Agreement, dated January 4, 2002, among ACGL, Arch U.S. and Robert Clements, including Form of Promissory Note(r)†
10.8.2	Employment Agreement dated as of June 9, 2000 between ACGL and Debra M. O'Connor(k)†
10.8.3	Employment and Change in Control Agreement, dated as of May 5, 2000, between ACGL and Louis T. Petrillo(k)†
10.8.4	Employment Agreement, dated as of October 23, 2001, among ACGL, Arch Reinsurance Ltd. (Arch Re Bermuda) and Paul Ingrey(r)†
10.8.5	Employment Agreement, dated as of October 23, 2001, among ACGL, Arch Re Bermuda and Dwight Evans(r)†
10.8.6	Employment Agreement, dated as of October 23, 2001, among ACGL, Arch Re Bermuda and Marc Grandisson(r)†
10.8.7	Employment Agreement, dated as of December 20, 2001, among ACGL, Arch U.S. and Constantine Iordanou(r)†
10.8.8	Employment Agreement, dated as of January 18, 2002, between ACGL and John Vollaro(x)†
10.8.9	Employment Agreement, dated October 23, 2001, between ACGL and John M. Pasquesi(r)†
10.8.10	Agreement, dated as of November 12, 2002, between ACGL and Robert Clements(z)
10.9	Assumption of Change in Control Agreements(o)
10.10.1	ACGL 1995 Employee Stock Purchase Plan(a)†
10.10.2	Arch Re Executive Supplemental Non-Qualified Savings and Retirement Plan (the "Supplemental Plan") and related Trust Agreement(b)†
10.10.3	Amendment No. 1 to the Adoption Agreement relating to the Supplemental Plan(c)†
10.10.4	Amendment No. 2 to the Adoption Agreement relating to the Supplemental Plan(f)†
10.11	Asset Purchase Agreement, dated as of January 10, 2000, among Arch-U.S., Folksamerica Holding Company, Inc. ("FHC") and Folksamerica Reinsurance Company ("FRC")(h)
10.12	Transfer and Assumption Agreement, dated May 5, 2000, between Arch Re and FRC(j)
10.13	Escrow Agreement, dated December 28, 2000, among ACGL, FHC, FRC and the Escrow Agent(o)
10.14	Agreement, dated May 5, 2000, among Arch-U.S., Arch Re, FHC and FRC regarding Aviation Business(l)
10.15	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)
10.16	Form of Voting and Disposition Agreement, among Arch U.S., Arch Re and XL Capital Ltd(h)
10.17	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)
10.18	Agreement, dated November 20, 2001, among ACGL, the Original Parties and Insurance Private Equity Investors, L.L.C.(r)
10.19	Agreement, dated November 20, 2001, among ACGL, the Original Parties 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)

<u>Exhibit Number</u>	<u>Description</u>
10.20	Agreement, dated as of November 8, 2001, among ACGL, the Investors, Trident, Trident II, L.P., MMRCH, Marsh & McLennan Capital Professionals Fund, L.P. and Marsh & McLennan Employees' Securities Company, L.P.(q)
10.21	Management Subscription Agreement, dated as of October 24, 2001, between ACGL and certain members of management(q)
10.22.1	Letter of Credit and Reimbursement Agreement, dated as of April 17, 2002, by and among Arch Re Bermuda, Arch Re U.S., Alternative Re, Alternative Re Limited, Arch Insurance Company and Fleet National Bank ("Letter of Credit")(y)
10.22.2	Amendment to Letter of Credit, dated as of November 4, 2002 (filed herewith)
10.22.3	Amendment to Letter of Credit, dated as of November 27, 2002 (filed herewith)
10.22.4	Amendment to Letter of Credit, dated as of January 1, 2003 (filed herewith)
21	Subsidiaries of Registrant (filed herewith)
23	Consent of PricewaterhouseCoopers (filed herewith)
24	Powers of Attorney (filed herewith)
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(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.
- † A management contract or compensatory plan or arrangement required to be filed pursuant to Item 14(c) of Form 10-K.

# Corporate Information

## ARCH CAPITAL GROUP LTD.

### Directors and Officers

Robert Clements <sup>3, 5, 6</sup>  
*Chairman*

Peter A. Appel <sup>4, 6</sup>  
*Director*  
*President and Chief Executive Officer*

Paul B. Ingrey  
*Director*  
*Chairman and Chief Executive Officer of*  
*Arch Reinsurance Ltd.*

Constantine Iordanou  
*Director*  
*President and Chief Executive Officer of*  
*Arch Capital Group (U.S.) Inc.*

John D. Vollaro  
*Executive Vice President, Chief Financial Officer and Treasurer*

Wolfe "Bill" H. Bragin <sup>5</sup>  
*Director*  
*Former Vice President and*  
*Managing Director of GE Asset Management*

John L. Bunce, Jr. <sup>2, 3, 4, 5</sup>  
*Director*  
*Managing Director of Hellman & Friedman LLC*

Robert E. Glanville <sup>5</sup>  
*Director*  
*Vice President of Warburg Pincus LLC*

Kewsong Lee <sup>1, 2, 3, 4, 5</sup>  
*Director*  
*Member and Managing Director of Warburg Pincus LLC and*  
*a General Partner of Warburg Pincus & Co.*

James J. Meenaghan <sup>1, 2, 5, 6</sup>  
*Director*  
*Former Chairman, President and Chief Executive Officer of*  
*Home Insurance Companies*

John M. Pasquesi <sup>4</sup>  
*Executive Vice Chairman*

David R. Tunnell <sup>5</sup>  
*Director*  
*Managing Director of Hellman & Friedman LLC*

Robert F. Works <sup>1, 2, 5, 6</sup>  
*Director*  
*Former Managing Director of Jones Lang LaSalle*

## SHAREHOLDER INFORMATION

### Corporate Address

Wessex House, 3rd Floor  
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

4 Finance and Investment Committee

2 Compensation Committee

5 Nominating Committee

3 Executive Committee

6 Transaction Committee

**Arch Capital Group Ltd.**

Wessex House, 3rd Floor

45 Reid Street

Hamilton HM 12

Bermuda

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