



<i>Amounts in millions, except percentages and per share amounts</i>			
	<u>2012</u>	<u>2011</u>	<u>Change</u>
Book value per common share at year-end	\$ 36.19	\$ 31.76	13.9%
After-tax operating income*	\$ 350.6	\$ 303.4	15.6%
Per share	\$ 2.54	\$ 2.19	16.0%
Operating return on average common equity	7.7%	7.2%	
Net income available to common shareholders	\$ 557.7	\$ 410.3	35.9%
Per share	\$ 4.03	\$ 2.97	35.7%
Net income return on average common equity	12.2%	9.7%	
Combined ratio	95.4%	98.3%	
Gross premiums written	\$3,869.2	\$3,436.5	12.6%
Net premiums written	\$3,052.2	\$2,673.3	14.2%
Net investment income	\$ 294.9	\$ 338.2	(12.8%)
Per share	\$ 2.13	\$ 2.45	(13.1%)
Weighted average common shares and common share equivalents outstanding	138.3	138.3	
<i>All per share amounts are on a diluted basis.</i>			

### **To Our Shareholders:**

Arch had a good year in 2012 with reasonable operating results as insurance and reinsurance markets continued to recover modestly from a prolonged soft underwriting cycle. During the year, we continued to develop new specialty lines of business and increased our net premiums written by 14.2% as pricing improved and prospective returns became more favorable. We will continue to grow the Company so long as market conditions allow us to do so profitably.

Arch is a Bermuda-based specialty insurer and reinsurer with a global market presence. Our strategies are aimed at being disciplined underwriters in all phases of the market cycle; hiring, motivating and retaining excellent people; and selectively pursuing opportunities where we can effectively apply our knowledge and expertise.

We evaluate the success of our strategies against two primary benchmarks: growth of book value per share, which creates long-term value for shareholders, and operating return on average common equity (ROE), which measures the generation of earnings and efficient use of capital and is a primary driver of book value growth. Book value per share increased 13.9% in 2012 to \$36.19 at year-end and has now advanced at a compound annual rate of 17.7% over the past decade, a strong performance. Operating ROE was 7.7% in 2012, up from 7.2% in 2011. We seek to achieve an average annual ROE of 15% over an underwriting cycle, recognizing that our ROE may exceed our

\*After-tax operating income, which is a non-GAAP measure of financial performance, is defined as net income available to common shareholders, excluding net realized gains or losses, net impairment losses included in earnings, equity in net income or loss of investment funds accounted for using the equity method, net foreign exchange gains or losses and loss on repurchase of preferred shares, net of income taxes. The reconciliation of GAAP and definition of after-tax operating income can be found in the Company's Annual Report on Form 10-K, filed with the SEC on February 11, 2013, under the caption "Management's Discussion and Analysis of Financial Condition and Results of Operations." A copy of the Form 10-K is available on the Company's web site and accompanies this letter.

target in some years and may fall short in others. We believe our ROE in 2012, although below our target, was reasonable in light of the year's underwriting climate and historically low yields on fixed income investments. Our operating ROE has averaged 15.7% per year for the past decade.

In recent years, our ROE based on net income, which includes realized gains and other investment-related items, has exceeded our operating ROE. This is due, in part, to our focus on the total return of the investment portfolio and an increased allocation to alternative investments following the 2008 financial crisis. For 2012, 2011 and 2010, our net income ROE was 12.2%, 9.7% and 20.1%, respectively, compared to operating ROE of 7.7%, 7.2% and 12.1% for those years.

## **2012 Operating Results**

We achieved these results, including our growth in book value per share in 2012, through a combination of solid underwriting results and favorable relative investment returns.

After-tax operating income available to shareholders, which consists primarily of underwriting income and net investment income, was \$350.6 million in 2012, or \$2.54 per share, a 16.0% per-share increase over 2011. Our GAAP combined ratio, a measure of underwriting performance, improved to 95.4% in 2012 from 98.3% in 2011. Our combined ratio in 2012 consisted of a loss ratio of 63.4% and an underwriting expense ratio of 32.0%, compared with a loss ratio of 65.6% and an underwriting expense ratio of 32.7% in 2011.

Results for 2012 included a loss of \$203.5 million, net of reinsurance and the effects of reinstatement premiums, from Superstorm Sandy, one of the costliest natural disasters in U.S. history. Apart from Sandy, 2012 was a relatively mild year in terms of catastrophe losses. Our total net losses from catastrophic events were \$259.2 million in 2012 and \$404.1 million in 2011.

On the positive side of the ledger, after-tax operating income included net favorable reserve development of \$218.4 million in 2012 and \$275.5 million in 2011, reflecting the release of a portion of earlier-year reserves to earnings. This marked the Company's 10<sup>th</sup> consecutive year of favorable reserve development, an indication that our reserving policies have been conservative and we have established our reserves adequately. However, there is no guarantee that favorable reserve development will continue.

Cash flow from operations was \$921.6 million in 2012, up 6.4% from 2011.

## **Investment Results**

Our investment portfolio continued to grow in 2012, with total investable assets reaching \$13.05 billion at year-end, a 5.9% increase from 12 months earlier. Portfolio growth was generated by operating cash flow and investment returns partially offset by share repurchases in the fourth quarter. The portfolio generated \$294.9 million of net investment income in 2012, or \$2.13 per share, down 13.1% from 2011 on a per-share basis, primarily reflecting the impact of lower prevailing interest rates. The portfolio's pre-tax investment income yield was 2.51% in 2012 and 2.89% in 2011.

We manage the portfolio with a focus on total return, since total return contributes directly to our goal of increasing book value per share. From that perspective, we did well in 2012. Total return—which consists of net

investment income, net realized gains and losses, changes in unrealized gains and losses, and equity in the net income or losses of investment funds accounted for using the equity method—was 5.88% in 2012 and 3.81% in 2011. We believe our total return in 2012 was among the best in our peer group of property and casualty insurance companies.

We divide the portfolio for investment purposes into three main categories: investments generated by insurance operations, investments supported by our senior notes and hybrid securities, and common shareholders' equity. For our insurance liabilities, senior notes and hybrid securities, we generally match the duration of our investments to the duration of our obligations in an attempt to minimize, on an economic basis, the effects of interest rate movements. For our common shareholders' equity, we vary the duration based on our view of potential returns and the outlook for investments and the economy in general. In 2012, we continued to maintain a relatively short duration for the overall portfolio, reflecting our caution about the risk-reward relationship for fixed income securities. The effective duration of the portfolio was 3.06 years at December 31, 2012 and 2.99 years at December 31, 2011.

We invest conservatively to preserve and grow capital and provide a solid foundation for our underwriting activities. At year-end, 87.0% of our investable assets were in fixed maturity and short-term investments with an average credit quality of "AA-/Aa2." During the year, we continued to seek to augment the total return of the portfolio by adding to our small positions in equities and alternative investments. Equities and alternative investments accounted for approximately 13% of investable assets at the end of 2012.

#### **Underwriting Market Conditions and Premiums Written**

Pricing for commercial insurance and reinsurance showed modest improvement across most product lines in 2012, continuing an upturn that had begun in the second half of 2011. We believe that the upturn was driven in large measure by low investment returns, which have forced insurers to seek better underwriting results in order to achieve adequate overall profitability. As admitted carriers have become more selective, more business is returning to the excess and surplus markets where terms and pricing are more favorable, which should provide us with additional opportunities. We believe we are in a favorable position, by virtue of our underwriting skill and strong balance sheet, to compete for well-priced business as it becomes available.

We had reduced our net premiums written each year from 2006 through 2010 when pricing was weak and returns on many lines were inadequate. We resumed our premium growth in the past two years as pricing improved and we found more opportunities that met our return requirements. We increased our net premiums written by 6.5% in 2011 and 14.2% in 2012 to \$3.05 billion for the year. Net premiums written in the fourth quarter of 2012 were \$613.1 million, a 20.0% increase over the fourth quarter of 2011.

Our business mix in 2012 was 60% insurance and 40% reinsurance, based on net premiums written, compared with 64% insurance and 36% reinsurance in 2011. We remain selective in both sectors and believe that pricing, although it has improved, still has a long way to go before underwriting returns are satisfactory on most product lines. As always, we adapt our book of business to those opportunities offering the best risk-reward potential.

Net premiums written for our insurance business increased 6.0% in 2012 to \$1.83 billion. Approximately half of this increase came from higher prices and half from increases in exposure for new and renewal business. We benefited not only from an improving rate environment, but also from increases in ratable exposures as our customers recovered economically. The major trends that had prevailed in our insurance business in 2011 continued

in 2012. We wrote more insurance in both years for smaller and mid-sized accounts, where returns were generally more attractive than for larger accounts. In addition, we wrote more program business in both years, and we emphasized short- and medium-tail lines. On the other hand, we have remained relatively cautious about writing casualty insurance and other long-tail lines. Even though pricing improved for many long-tail lines in 2012, further improvement is needed before most long-tail business meets our profitability targets, especially in a low interest rate environment.

Net premiums written for our reinsurance business were \$1.23 billion in 2012, up 28.9% from 2011. As in insurance, we continued to emphasize short-tail lines such as property catastrophe coverage and de-emphasized casualty coverage because of what we view as inadequate pricing. Our co-insurance arrangement with a U.K. automobile insurer, mentioned in last year's annual report, produced approximately \$116 million of net premiums written in 2012 with an excellent ROE. However, pricing in the U.K. auto reinsurance market has weakened somewhat in recent months, and we are not certain whether the arrangement will generate as much revenue in 2013 as it did in 2012. We remain alert to other "one-off" opportunities where we can provide reinsurance for a limited period of time at attractive returns.

### **New Business Initiatives**

With a view to the future, we have steadily broadened the Company's business in recent years by adding new specialty lines. We consider these newer lines to be long-term investments that are expected to contribute to results over time.

In February 2013, we took an important step to expand our position in mortgage insurance by signing a definitive agreement to acquire CMG Mortgage Insurance Company (CMG MI) from its current owners, PMI Mortgage Insurance Co. (PMI), and CMFG Life Insurance Company (CUNA Mutual). We also agreed to acquire PMI's mortgage insurance operating platform and related assets. PMI has been in rehabilitation under the receivership of the Arizona Department of Insurance since 2011. This transaction will allow us to enter the rapidly improving U.S. mortgage insurance market by giving us a comprehensive mortgage insurance operating platform and nationwide mortgage insurance licenses. It is consistent with our strategy of moving into new specialty lines of business where we can hire experienced teams that fit our corporate culture and where we can apply our underwriting discipline to achieve excellent long-term results. The new operation will complement our existing European-based mortgage insurance and global reinsurance operations and allow us to underwrite mortgage insurance and reinsurance on a worldwide basis. The transaction is expected to close by late 2013, subject to obtaining all required approvals.

In 2012, we completed the acquisition of Ariel Re's credit and surety reinsurance operations based in Zurich, giving us more depth in the foreign surety and trade credit business while continuing to build our European underwriting platform.

We have made progress in Canada since opening a branch office in Toronto in 2005. In January 2013, we established a more permanent presence by forming a Canadian subsidiary, Arch Insurance Canada Ltd. At the same time, we broadened our product offerings by adding title insurance.

Earlier initiatives continued to perform well and meet expectations. They include our property facultative reinsurance division established in 2007, our Lloyd's syndicate formed in 2009, our life and accident and health reinsurance business established in 2010 and the strengthening of our accident and health insurance unit in 2010.

We recently launched a website, *www.RoamRight.com*, to sell travel accident insurance directly to the public. This is our first venture into marketing an insurance product through the Internet and other channels designed to reach consumers directly.

### **Balance Sheet and Capital Management**

We have consistently maintained a conservative balance sheet with low leverage, providing the capacity to write more business quickly as opportunities arise. Total capital was \$5.57 billion at the end of 2012, an 11.6% increase from year-end 2011. Debt and hybrids were a modest 13.0% of total capital at the end of 2012. In the second quarter, we refinanced our \$325 million of preferred shares by retiring our Series A and B classes and replacing them with a new Series C preferred, resulting in \$3.9 million of annual savings in preferred share dividend costs.

First and foremost, we seek to deploy the Company's capital effectively in our underwriting operations. However, in those periods when we have excess capital that is not needed for underwriting, we return the excess to shareholders, its rightful owners. In determining the amount of excess that can be returned, we maintain a safety margin above the capital level required to support our financial strength ratings. To that end, we repurchased 3.9 million Arch common shares at an average price of \$43.84, or a total of \$172.1 million, in the fourth quarter of 2012. At year-end, \$769.9 million was available for repurchases under the Board of Directors' authorization.

The Company maintained its "A+" or equivalent financial strength ratings from the four major rating agencies, with a stable outlook in each case. In reaffirming its "A+" (Superior) rating in January 2013, A.M. Best Company said the decision reflected "Arch's continued superior operating performance amidst challenging market conditions, consistently excellent capitalization and demonstrated enterprise risk management."

Arch reached a milestone in 2012 when it surpassed \$6 billion in market capitalization for the first time.

### **Arch People**

We can have wonderful strategies but they do not mean much without great people to execute them. Arch is built around its employees. We are talent intensive, not people intensive, and take pride in our highly skilled, motivated people at all levels of the Company. They work together in a culture of performance, accountability, teamwork and ethical conduct.

In 2012, we made an off-cycle award of 1.0 million restricted common shares and restricted common share units, together with share appreciation rights and stock options covering 1.0 million common shares, to key individuals throughout the organization, from senior managers to trainees. The awards will cliff vest on the fifth anniversary of the grant and are aimed at maintaining our intellectual capital.

We had several management changes in September 2012 that demonstrate the depth and strength of our management team and our ability to promote from within. In September, Mark Lyons became Executive Vice President and Chief Financial Officer of the Company. He succeeded John Hele, who left Arch to join a large life insurance company. We appreciate the contributions John made to Arch and wish him well in his new position.

Mark joined Arch in 2002 and served as Chairman and Chief Executive Officer of Arch Worldwide Insurance Group before his recent promotion. David McElroy, who joined Arch Insurance in 2009 as President of the Financial & Professional Liability Group, succeeded Mark as Chairman and Chief Executive Officer of Arch

Worldwide Insurance Group. Mike Murphy, who joined Arch in 2002 and was President of the Property & Casualty Group of Arch Insurance, was promoted to President of Arch Insurance Group (U.S.) and Chief Underwriting Officer of Arch Worldwide Insurance Group. We are very pleased to have David and Mike leading our insurance operations into the future.

In July, we promoted Maamoun Rajeh to President and Chief Executive Officer of Arch Reinsurance Europe Underwriting Limited. He succeeded Helmut Söhler, who became Vice Chairman of Arch Worldwide Reinsurance Group. Maamoun joined us in 2001 and had served as Chief Underwriting Officer of Arch Reinsurance Ltd. (Arch Re Bermuda) before assuming his current position.

During the year, we formed a six-member Executive Strategy Committee to capitalize on strategic opportunities and oversee operational expansion. Joining me on the committee are Messrs. Lyons, McElroy and Murphy, Marc Grandisson, Chairman and Chief Executive Officer of Arch Worldwide Reinsurance Group, and Nicolas Papadopoulo, President and Chief Executive Officer of Arch Re Bermuda. The group formalizes what we previously did informally—that is, meet periodically to review operational and strategic issues and report on those issues to the Board of Directors.

Wolfe “Bill” H. Bragin, who joined our Board of Directors in 2002, will not be standing for re-election at our upcoming annual general meeting of shareholders. We thank Bill for his many important contributions during his more than 11 years of service as a Director of Arch.

### **Summary**

Arch is entering its 12<sup>th</sup> year in 2013, with a proven ability to succeed across a variety of insurance and reinsurance market conditions. We are pleased with the market improvement that took place in 2012 and hope it will continue in 2013 since further improvement is needed for the industry to achieve satisfactory profitability. However, we are prepared for the environment regardless of whether pricing is up, down or flat. An important part of our strategy is that we do not attempt to predict the market. Instead, we manage the Company with a philosophy of being disciplined in all markets, managing our capital effectively and taking advantage of whatever opportunities are available to us. We accomplish this in large part by actively preserving and investing in our Company’s culture, and aligning management’s strategies and decisions with the interests of our shareholders. This approach has produced excellent long-term results for shareholders in the past, and we believe it will continue to do so in the future.

A great many people have contributed to the success of the Company. I offer personal thanks to each of our shareholders, distributors and clients for your continued support. Arch could not exist without you. Thank you also to each of our employees for your important part in helping make Arch the successful global insurer and reinsurer it is today.



Constantine “Dinos” Iordanou  
*Chairman, President and Chief Executive Officer*

March 15, 2013

**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, 2012

OR

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

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

Commission File No. 0-26456

**ARCH CAPITAL GROUP LTD.**

(Exact name of registrant as specified in its charter)

**Bermuda**

(State or other jurisdiction of  
incorporation or organization)

**Not applicable**

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

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

(Address of principal executive offices)

**(441) 278-9250**

(Registrant's telephone number, including area code)

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

Title of each class	Name of each exchange on which registered
Common Shares, \$0.0033 par value per share 6.75% Non-Cumulative Preferred Shares, Series C, \$0.01 par value per share	NASDAQ Stock Market (Common Shares) New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Exchange Act: **None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.  
Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act 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 whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) 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 a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer  Accelerated filer  Non-accelerated filer  Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange 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 Stock Market as of the last business day of the Registrant's most recently completed second fiscal quarter, was approximately \$5.11 billion.

As of February 22, 2013, there were 132,953,548 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 2013 annual meeting of shareholders to be filed with the Securities and Exchange Commission pursuant to Regulation 14A before April 30, 2013.



**ARCH CAPITAL GROUP LTD.**

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## CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

The Private Securities Litigation Reform Act of 1995 (“PSLRA”) provides a “safe harbor” for forward-looking statements. This report or any other written or oral statements made by or on behalf of us may include 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, for purposes of the PSLRA or otherwise, can generally be identified by the use of forward-looking terminology such as “may,” “will,” “expect,” “intend,” “estimate,” “anticipate,” “believe” or “continue” and similar statements of a future or forward-looking nature 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, elsewhere in this report and in our periodic reports filed with the Securities and Exchange Commission (“SEC”), and include:

- our ability to successfully implement our business strategy during “soft” as well as “hard” markets;
- acceptance of our business strategy, security and financial condition by rating agencies and regulators, as well as by brokers and our insureds and reinsureds;
- our ability to maintain or improve our ratings, which may be affected by our ability to raise additional equity or debt financings, by ratings agencies’ existing or new policies and practices, as well as other factors described herein;
- general economic and market conditions (including inflation, interest rates, foreign currency exchange rates, prevailing credit terms and the depth and duration of a recession) and conditions specific to the reinsurance and insurance markets (including the length and magnitude of the current “soft” market) in which we operate;
- competition, including increased competition, on the basis of pricing, capacity, coverage terms or other factors;
- developments in the world’s financial and capital markets and our access to such markets;
- our ability to successfully enhance, integrate and maintain operating procedures (including information technology) to effectively support our current and new business;
- the loss of key personnel;
- the integration of businesses we have acquired or may acquire into our existing operations;
- accuracy of those estimates and judgments utilized in the preparation of our financial statements, including those related to revenue recognition, insurance and other reserves, reinsurance recoverables, investment valuations, intangible assets, bad debts, income taxes, contingencies and litigation, and any determination to use the deposit method of accounting, which 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 relatively limited historical information has been reported to us through December 31, 2012;
- 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;
- 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, third party administrators 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;
- our investment performance, including legislative or regulatory developments that may adversely affect the fair value of our investments;
- the impact of the continued weakness of the U.S., European countries and other key economies, projected budget deficits for the U.S., European countries and other governments and the consequences associated with possible additional downgrades of securities of the U.S., European countries and other governments by credit rating agencies, and the resulting effect on the value of securities in our investment portfolio as well as the uncertainty in the market generally;
- losses relating to aviation business and business produced by a certain managing underwriting agency for which we may be liable to the purchaser of our prior reinsurance business or to others in connection with the May 5, 2000 asset sale described in our periodic reports filed with the SEC;
- changes in accounting principles or policies or in our application of such accounting principles or policies;
- changes in the political environment of certain countries in which we operate or underwrite business;
- 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/or changes in regulations or tax laws applicable to us, our subsidiaries, brokers or customers; and
- the other matters set forth under Item 1A “Risk Factors,” Item 7 “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and other sections of this Annual Report on Form 10-K, as well as the other factors set forth in Arch Capital Group Ltd.’s other documents on file with the SEC, and management’s response to any of the aforementioned factors.

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

As used in this report, references to “we,” “us,” “our” or the “Company” refer to the consolidated operations of Arch Capital Group Ltd. (“ACGL”) and its subsidiaries. Tabular amounts are in U.S. Dollars in thousands, except share amounts, unless otherwise noted. We refer you to Item 1A “Risk Factors” for a discussion of risk factors relating to our business.

### OUR COMPANY

#### General

Arch Capital Group Ltd. is a Bermuda public limited liability company with approximately \$5.57 billion in capital at December 31, 2012 and, through operations in Bermuda, the United States, Europe and Canada, writes insurance and reinsurance on a worldwide basis. While we are positioned to provide a full range of property and casualty insurance and reinsurance lines, we focus on writing specialty lines of insurance and reinsurance. For 2012, we wrote \$3.05 billion of net premiums and reported net income available to common shareholders of \$557.7 million. Book value per common share was \$36.19 at December 31, 2012, compared to \$31.76 per share at December 31, 2011.

ACGL’s registered office is located at Clarendon House, 2 Church Street, Hamilton HM 11, Bermuda (telephone number: (441) 295-1422), and its principal executive offices are located at Wessex House, 45 Reid Street, Hamilton HM 12, Bermuda (telephone number: (441) 278-9250). ACGL makes available free of charge through its website, located at [www.archcapgroup.bm](http://www.archcapgroup.bm), its 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 SEC. The public may read and copy any materials ACGL files with the SEC at the SEC’s Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling 1-800-SEC-0330. The SEC also maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC (such as ACGL) and the address of that site is [www.sec.gov](http://www.sec.gov).

#### Our History

Our current operations were built on an existing underwriting platform through an underwriting initiative in October 2001 to meet current and future demand in the global insurance and reinsurance markets. Since that time, we have attracted a proven management team with extensive industry experience and enhanced our existing global underwriting platform for our insurance and reinsurance businesses. It is our belief that our underwriting platform, our experienced management team and our strong capital base that is unencumbered by significant pre-2002 risks have enabled us to establish a strong presence in the insurance and reinsurance markets.

Prior to the 2001 underwriting initiative, our insurance underwriting platform consisted of Arch Insurance (Bermuda), a division of Arch Reinsurance Ltd. (“Arch Re Bermuda”), our Bermuda-based reinsurer and insurer, and our U.S.-licensed insurers, Arch Insurance Company (“Arch Insurance”), Arch Excess & Surplus Insurance Company (“Arch E&S”) and Arch Specialty Insurance Company (“Arch Specialty”). We established Arch Insurance Company (Europe) Limited (“Arch Insurance Company Europe”), our United Kingdom-based subsidiary, in 2004, and we expanded our North American presence when Arch Insurance opened a branch office in Canada in 2005. In January 2013, Arch Insurance Canada Ltd. (“Arch Insurance Canada”), a Canada domestic company, commenced operations and replaced the Canada branch of Arch Insurance. In 2009, we established a managing agent and syndicate at Lloyd’s of London (“Lloyd’s”). Our Lloyd’s syndicate 2012 (“Arch Syndicate

2012”) commenced underwriting in 2009. See “Operations—Insurance Operations” for further details on our insurance operations.

Prior to the 2001 underwriting initiative, our reinsurance underwriting platform consisted of Arch Re Bermuda and Arch Reinsurance Company (“Arch Re U.S.”), our U.S.-licensed reinsurer. Our reinsurance operations in Europe began in November 2006 with the formation of a Swiss branch of Arch Re Bermuda, and the formation of a Danish underwriting agency in 2007. In addition to the U.S. reinsurance activities of Arch Re U.S., we launched our property facultative reinsurance underwriting operations in 2007, which underwrite in the U.S., Canada and Europe. We formed Arch Reinsurance Europe Underwriting Limited (“Arch Re Europe”), our Ireland-based reinsurance company, in 2008. In 2011, we formed Arch Mortgage Insurance Limited (“Arch Mortgage”), which is authorized to underwrite mortgage insurance from its base in Ireland, and launched treaty operations in Canada. We completed the acquisition of the credit and surety reinsurance operations of Ariel Reinsurance Company Ltd. (“Ariel Re”) based in Zurich, Switzerland in April 2012. See “Operations—Reinsurance Operations” for further details on our reinsurance operations.

In February 2013, our U.S.-based subsidiaries entered into a definitive agreement to acquire CMG Mortgage Insurance Company (“CMG MI”) from its current owners, PMI Mortgage Insurance Co. (“PMI”), which is in rehabilitation under the receivership of the Arizona Department of Insurance since 2011, and CMFG Life Insurance Company. We also agreed to acquire PMI’s mortgage insurance operating platform and related assets from PMI. It is anticipated that the transaction will close within 12 months, subject to approvals of the Arizona receivership court, applicable regulators and government-sponsored enterprises (“GSE”), and the satisfaction of customary closing conditions. At closing, it is currently estimated that the Company’s U.S.-based subsidiaries will pay aggregate consideration of approximately \$300 million. Additional amounts may be paid based on the actual results of CMG MI’s pre-closing portfolio over an agreed upon period. In connection with the closing of the transactions, PMI and an affiliate of our U.S.-based subsidiaries will enter into a quota share reinsurance agreement pursuant to which such affiliate, as the reinsurer, will agree to provide 100% quota share indemnity reinsurance to PMI for all certificates of insurance that were issued by PMI between and including January 1, 2009 and December 31, 2011 that are not in default as of an agreed upon effective date. Subject to applicable regulatory and GSE approvals, such affiliate also will provide quota share reinsurance to CMG MI through a reinsurance agreement that will become effective prior to the closing. In addition, we will enter into a services agreement with PMI to provide for necessary services to administer the run-off of PMI’s legacy business at the direction of PMI.

The growth of our insurance and reinsurance platforms was supported through the net proceeds of: (1) an equity capital infusion of \$763 million led by funds affiliated with Warburg Pincus LLC (“Warburg Pincus funds”) and Hellman & Friedman LLC (“Hellman & Friedman funds”) in late 2001; (2) a public offering of 7.5 million of our common shares with net proceeds of \$179 million in April 2002; (3) the exercise of class A warrants by our principal shareholders and other investors in September 2002, which provided net proceeds of \$74 million; (4) a March 2004 public offering of 4.7 million of our common shares with net proceeds of \$179 million; (5) a May 2004 public offering of \$300 million principal amount of our 7.35% senior notes due May 2034; (6) a February 2006 public offering of \$200 million of our 8.00% series A non-cumulative preferred shares; and (7) a May 2006 public offering of \$125 million of our 7.875% series B non-cumulative preferred shares. In April 2012, we completed a public offering of \$325 million of our 6.75% series C non-cumulative preferred shares and redeemed the series A and series B preferred shares at a redemption price of \$25.00 per share plus all declared and unpaid dividends up to (but excluding) the redemption date. ACGL has the right to redeem all or a portion of the series C preferred shares at a liquidation preference price of \$25.00 per share beginning in April 2017.

The board of directors of ACGL has authorized the investment in ACGL’s common shares through a share repurchase program. Repurchases under the share repurchase program may be effected

from time to time in open market or privately negotiated transactions. Since the inception of the share repurchase program in February 2007 through December 31, 2012, ACGL has repurchased 108.7 million common shares for an aggregate purchase price of \$2.73 billion. At December 31, 2012, the total remaining authorization under the share repurchase program was \$769.9 million.

## **Operations**

We classify our businesses into two underwriting segments, insurance and reinsurance. 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—Results of Operations.”

### ***Our Insurance Operations***

Our insurance operations are conducted in Bermuda, the United States, Europe, Canada, Australia and South Africa. Our insurance operations in Bermuda are conducted through Arch Insurance (Bermuda), a division of Arch Re Bermuda. In the U.S., our insurance group’s principal insurance subsidiaries are Arch Insurance, Arch Specialty, Arch E&S and Arch Indemnity Insurance Company (“Arch Indemnity”). Arch Insurance is an admitted insurer in 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands and Guam. Arch Insurance operated a branch office in Canada through January 1, 2013, at which point its operations were assumed by Arch Insurance Canada. Arch Insurance Canada is a Canada domestic company which is authorized in all Canadian provinces and territories. Arch Specialty is an approved excess and surplus lines insurer in 49 states, the District of Columbia, Puerto Rico and the U.S. Virgin Islands and an admitted insurer in one state. Arch E&S, which is not currently writing business, is an approved excess and surplus lines insurer in 47 states and the District of Columbia and an admitted insurer in one state. Arch Indemnity, which is not currently writing business, is an admitted insurer in 49 states and the District of Columbia. The headquarters for our insurance group’s U.S. support operations (excluding underwriting units) is in Jersey City, New Jersey. The insurance group has additional offices throughout the U.S., including four regional offices located in Alpharetta, Georgia, Chicago, Illinois, New York, New York and San Francisco, California. Arch Insurance Canada is headquartered in Toronto, Ontario with other regional offices in Canada.

Our insurance group’s European operations are conducted on two platforms: Arch Insurance Company Europe and Arch Syndicate 2012 (the U.K. insurance operations are collectively referred to as “Arch Insurance Europe”). Arch Insurance Europe conducts its operations from London. Arch Insurance Company Europe is approved as an excess and surplus lines insurer in 27 states and the District of Columbia and also has branches in Denmark, Germany, Italy, Spain and Sweden. Arch Underwriting at Lloyd’s Ltd (“AUAL”) is the managing agent of Arch Syndicate 2012 and is responsible for the daily management of Arch Syndicate 2012. Arch Syndicate 2012 has enhanced our underwriting platform by providing us with access to Lloyd’s extensive distribution network and worldwide licenses. Arch Underwriting at Lloyd’s (Australia) Pty Ltd, based in Sydney, Australia, and Arch Underwriting Managers at Lloyd’s (South Africa) (Pty) Limited, based in Johannesburg, South Africa, are Lloyd’s services companies which underwrite exclusively for Arch Syndicate 2012.

As of February 25, 2013, our insurance group had approximately 1,165 employees.

*Strategy.* Our insurance group’s strategy is to operate in lines of business in which underwriting expertise can make a meaningful difference in operating results. The insurance group focuses on talent-intensive rather than labor-intensive business and seeks to operate profitably (on both a gross and net basis) across all of its product lines. To achieve these objectives, our insurance group’s operating principles are to:

- *Capitalize on Profitable Underwriting Opportunities.* Our insurance group believes that its experienced management and underwriting teams are positioned to locate and identify business

with attractive risk/reward characteristics. As profitable underwriting opportunities are identified, our insurance group will continue to seek to make additions to its product portfolio in order to take advantage of market trends. This may include adding underwriting and other professionals with specific expertise in specialty lines of insurance.

- *Centralize Responsibility for Underwriting.* Our insurance group consists of a range of product lines. The underwriting executive in charge of each product line oversees all aspects of the underwriting product development process within such product line. Our insurance group believes that centralizing the control of such product line with the respective underwriting executive allows for close management of underwriting and creates clear accountability for results. Our U.S. insurance group has four regional offices, and the executive in charge of each region is primarily responsible for all aspects of the marketing and distribution of our insurance group's products, including the management of broker and other producer relationships in such executive's respective region. In our non-U.S. offices, a similar philosophy is observed, with responsibility for the management of each product line residing with the senior underwriting executive in charge of such product line.
- *Maintain a Disciplined Underwriting Philosophy.* Our insurance group's underwriting philosophy is to generate an underwriting profit through prudent risk selection and proper pricing. Our insurance group believes that the key to this approach is adherence to uniform underwriting standards across all types of business. Our insurance group's senior management closely monitors the underwriting process.
- *Focus on Providing Superior Claims Management.* Our insurance group believes that claims handling is an integral component of credibility in the market for insurance products. Therefore, our insurance group believes that its ability to handle claims expeditiously and satisfactorily is a key to its success. Our insurance group employs experienced claims professionals and also utilizes experienced external claims managers (third party administrators) where appropriate.
- *Utilize a Brokerage Distribution System.* Our insurance group believes that by utilizing a brokerage distribution system, consisting of select international, national and regional brokers, both wholesale and retail, it can efficiently access a broad customer base while maintaining underwriting control and discipline.

Our insurance group writes business on both an admitted and non-admitted basis. Our insurance group focuses on the following areas:

- *Casualty.* Our insurance group's casualty unit writes primary and excess casualty insurance coverages, including railroad and middle market energy business.
- *Construction.* Our insurance group's construction unit provides primary and excess casualty coverages to middle and large accounts in the construction industry.
- *Executive Assurance.* Our insurance group's executive assurance unit focuses on directors' and officers' liability insurance coverages for corporate, private equity, venture capital, real estate investment trust, limited partnership, financial institution and not-for-profit clients of all sizes. This unit also writes employment practices liability insurance, pension trust errors and omissions/ fiduciary liability insurance, fidelity bonds, kidnap and ransom extortion insurance, representations and warranties insurance and various financial institution professional liability coverages.
- *Healthcare.* Our insurance group's healthcare unit provides medical professional and general liability insurance coverages for the healthcare industry, including excess professional liability programs for large, integrated hospital systems, outpatient facilities, clinics and long-term care facilities.

- *Lenders products.* Our insurance group's lenders products unit provides collateral protection, debt cancellation and service contract reimbursement products to banks, credit unions, automotive dealerships and original equipment manufacturers. The unit also underwrites other specialty programs that pertain to automotive lending and leasing.
- *National Accounts.* Our insurance group's national accounts unit provides a wide range of products for middle and large accounts and specializes in loss sensitive primary casualty insurance programs, including large deductible, self-insured retention and retrospectively rated programs.
- *Professional Liability.* Our insurance group's professional liability unit insures large law firms and accounting firms and professional programs, as well as miscellaneous professional liability, including coverages for consultants, network security, securities broker-dealers, wholesalers, captive agents and managing general agents. The professional liability unit also provides coverage for environmental and design professionals, including coverages for architectural and engineering firms and construction projects and pollution legal liability coverage for fixed sites.
- *Programs.* Our insurance group's programs unit targets program managers with unique expertise and niche products offering general liability, commercial automobile, inland marine and property business with minimal catastrophe exposure. This unit offers primarily package policies, underwriting workers' compensation and umbrella liability business in support of desirable package programs.
- *Property, Energy, Marine and Aviation.* Our insurance group's property unit provides primary and excess general property insurance coverages, including catastrophe-exposed property coverage, for commercial clients and onshore and offshore property insurance coverages for commercial clients primarily in the energy industry. The property unit also provides contractors all risk, erection all risk, aviation (which is currently in runoff) and stand alone terrorism insurance coverage for commercial clients.
- *Surety.* Our insurance group's surety unit provides contract and commercial surety coverages, including contract bonds (payment and performance bonds) primarily for medium and large contractors and commercial surety bonds for Fortune 1,000 companies and smaller transaction business programs. The surety unit also provides specialty contract bonds for homebuilders and developers.
- *Travel and Accident.* Our insurance group's travel and accident unit provides specialty travel and accident and related insurance products for individual and group travelers, as well as travel agents and suppliers.
- *Other.* Our insurance group also includes the following units: (i) excess workers' compensation, which provides excess workers' compensation and employer's liability insurance coverages for qualified self-insured groups, associations and trusts in a wide range of businesses; (ii) alternative market risks, including captive insurance programs; and (iii) accident and health, which provides accident, disability and medical plan insurance coverages for employer groups, medical plan members, students and other participant groups.

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

- risk selection;
- desired attachment point;



- limits and retention management;
- due diligence, including financial condition, claims history, management, and product, class and territorial exposure;
- underwriting authority and appropriate approvals; and
- collaborative decision making.

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

<u>INSURANCE SEGMENT</u>	<u>Year Ended December 31,</u>					
	<u>2012</u>		<u>2011</u>		<u>2010</u>	
	<u>Amount</u>	<u>% of Total</u>	<u>Amount</u>	<u>% of Total</u>	<u>Amount</u>	<u>% of Total</u>
<b>Net premiums written</b>						
Programs . . . . .	\$ 352,867	19.3	\$ 297,985	17.3	\$ 273,076	16.5
Property, energy, marine and aviation . . .	294,690	16.1	335,589	19.5	321,529	19.4
Professional liability . . . . .	260,705	14.3	237,860	13.8	268,176	16.2
Executive assurance . . . . .	250,904	13.7	231,405	13.4	219,458	13.2
Construction . . . . .	130,201	7.1	120,405	7.0	112,827	6.8
Casualty . . . . .	112,307	6.2	114,235	6.6	107,962	6.5
Lenders products . . . . .	86,987	4.8	86,694	5.0	92,921	5.6
National accounts . . . . .	80,929	4.4	80,973	4.7	67,925	4.1
Travel and accident . . . . .	80,489	4.4	71,940	4.2	71,237	4.3
Surety . . . . .	53,271	2.9	42,475	2.5	34,149	2.1
Healthcare . . . . .	36,814	2.0	35,652	2.1	37,508	2.3
Other(1) . . . . .	85,170	4.8	66,066	3.9	52,195	3.0
Total . . . . .	<u>\$1,825,334</u>	<u>100.0</u>	<u>\$1,721,279</u>	<u>100.0</u>	<u>\$1,658,963</u>	<u>100.0</u>
<b>Net premiums written by client location</b>						
United States . . . . .	\$1,314,577	72.0	\$1,208,007	70.2	\$1,183,238	71.3
Europe . . . . .	271,278	14.9	273,578	15.9	272,348	16.4
Asia and Pacific . . . . .	120,492	6.6	119,523	6.9	99,776	6.0
Other . . . . .	118,987	6.5	120,171	7.0	103,601	6.3
Total . . . . .	<u>\$1,825,334</u>	<u>100.0</u>	<u>\$1,721,279</u>	<u>100.0</u>	<u>\$1,658,963</u>	<u>100.0</u>
<b>Net premiums written by underwriting location</b>						
United States . . . . .	\$1,254,623	68.7	\$1,153,835	67.0	\$1,133,173	68.3
Europe . . . . .	472,132	25.9	463,855	26.9	436,483	26.3
Other . . . . .	98,579	5.4	103,589	6.1	89,307	5.4
Total . . . . .	<u>\$1,825,334</u>	<u>100.0</u>	<u>\$1,721,279</u>	<u>100.0</u>	<u>\$1,658,963</u>	<u>100.0</u>

(1) Includes excess workers' compensation, employer's liability, alternative markets and accident and health business.

*Marketing.* Our insurance group's products are marketed principally through a group of licensed independent retail and wholesale brokers. Clients (insureds) are referred to our insurance group through a large number of international, national and regional brokers and captive managers who receive from the insured or insurer a set fee or brokerage commission usually equal to a percentage of gross premiums. In the past, our insurance group also entered into contingent commission

arrangements with some brokers that provide for the payment of additional commissions based on volume or profitability of business. Currently, some of our contracts with brokers provide for additional commissions based on volume. We have also entered into service agreements with select international brokers that provide access to their proprietary industry analytics. In general, our insurance group has no implied or explicit commitments to accept business from any particular broker and neither brokers nor any other third parties have the authority to bind our insurance group, except in the case where underwriting authority may be delegated contractually to select program administrators. Such administrators are subject to a due diligence financial and operational review prior to any such delegation of authority and ongoing reviews and audits are carried out as deemed necessary by our insurance group to assure the continuing integrity of underwriting and related business operations. 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 exceed their underwriting authorities or if our agents, our insureds or other third parties commit fraud or otherwise breach obligations owed to us.” For information on major brokers, see note 14, “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, our insurance group may cede a portion of its premium on a quota share or excess of loss basis through treaty or facultative reinsurance agreements. Reinsurance arrangements do not relieve our insurance group from its primary obligations to 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 principal insurance subsidiaries, with oversight by a group-wide reinsurance steering committee (“RSC”), are selective with regard to reinsurers, seeking to place reinsurance with only those reinsurers which meet and maintain specific standards of established criteria for financial strength. The RSC evaluates the financial viability of its reinsurers through financial analysis, research and review of rating agencies’ reports and also monitors reinsurance recoverables and collateral with unauthorized reinsurers. The financial analysis includes ongoing assessments of reinsurers, including a review of the financial stability, appropriate licensing, reputation, claims paying ability and underwriting philosophy of each reinsurer. Our insurance group will continue to evaluate its reinsurance requirements. See note 4, “Reinsurance,” of the notes accompanying our consolidated financial statements.

For catastrophe-exposed insurance business, our insurance group seeks to limit the amount of exposure to catastrophic losses it assumes through a combination of managing aggregate 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—Critical Accounting Policies, Estimates and Recent Accounting Pronouncements—Ceded Reinsurance” and “Risk Factors—Risks Relating to Our Industry—The failure of any of the loss limitation methods we employ could have a material adverse effect on our financial condition or results of operations.”

*Claims Management.* Our insurance group’s claims management function is performed by claims professionals, as well as experienced external claims managers (third party administrators), where appropriate. In addition to investigating, evaluating and resolving claims, members of our insurance group’s claims departments work with underwriting professionals as functional teams in order to develop products and services desired by the group’s clients.

#### ***Our Reinsurance Operations***

Our reinsurance operations are conducted on a worldwide basis through our reinsurance subsidiaries, Arch Re Bermuda, Arch Re U.S. and Arch Re Europe. Arch Re Bermuda is a registered Class 4 insurer and long-term insurer and is headquartered in Hamilton, Bermuda. Arch Re U.S. is

licensed or is an accredited or otherwise approved reinsurer in 50 states and the District of Columbia and operates out of its office in Morristown, New Jersey. Our property facultative reinsurance operations are conducted primarily through Arch Re U.S. with certain executive functions conducted through Arch Re Facultative Underwriters Inc. located in Farmington, Connecticut. The property facultative reinsurance operations have offices throughout the U.S., Canada and in Europe. Arch Re Europe, licensed and authorized as a non-life reinsurer and a life reinsurer, is headquartered in Dublin, Ireland with branch offices in Zurich and London. In 2011, we formed Arch Mortgage, which was authorized as a non-life insurer in Ireland in December 2011. Treaty operations in Canada were commenced in 2011 through the Canadian branch of Arch Insurance, but, from January 1, 2013, are conducted through Arch Insurance Canada. Mortgage insurance and reinsurance is underwritten in Europe through Arch Mortgage. Arch Risk Partners Ltd. (“Arch Risk Partners”), a U.K. based insurance intermediary authorized by the FSA in February 2012, acts on behalf of Arch Mortgage and Arch Re Bermuda in the arrangement of mortgage insurance and reinsurance. Our reinsurance operations acquired the credit and surety reinsurance operations of Ariel Re based in Zurich, Switzerland in April 2012. In the transaction, which was accounted for as a business combination under GAAP, we acquired approximately \$84.1 million of net unearned premiums along with other insurance balances.

As of February 25, 2013, our reinsurance group had approximately 220 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 operations. The reinsurance group’s operating principles are to:

- *Actively Select and Manage Risks.* Our reinsurance group only underwrites business that meets certain profitability criteria, and it emphasizes disciplined underwriting over premium growth. To this end, our reinsurance group maintains centralized control over reinsurance underwriting guidelines and authorities.
- *Maintain Flexibility and Respond to Changing Market Conditions.* Our reinsurance group’s organizational structure and philosophy allows it to take advantage of increases or changes in demand or favorable pricing trends. Our reinsurance group believes that its existing platforms in Bermuda, the U.S., Europe and Canada, broad underwriting expertise and substantial capital facilitates adjustments to its mix of business geographically and by line and type of coverage. Our reinsurance group believes that this flexibility allows it to participate in those market opportunities that provide the greatest potential for underwriting profitability.
- *Maintain a Low Cost Structure.* Our reinsurance group believes that maintaining tight control over its staffing level and operating primarily as a broker market reinsurer permits it to maintain low operating costs relative to its capital and premiums.

Our reinsurance group writes business on both a proportional and non-proportional basis and writes both treaty and facultative business. 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.

The reinsurance group's treaty operations generally seek to write significant lines on less commoditized classes of coverage, such as specialty property and casualty reinsurance treaties. However, with respect to other classes of coverage, such as property catastrophe and casualty clash, the reinsurance group's treaty operations participate in a relatively large number of treaties where they believe that they can underwrite and process the business efficiently. The reinsurance group's property facultative operations write reinsurance on a facultative basis whereby they assume part of the risk under primarily single insurance contracts. Facultative reinsurance is typically purchased by ceding companies for individual risks not covered by their reinsurance treaties, for unusual risks or for amounts in excess of the limits on their reinsurance treaties.

Our reinsurance group focuses on the following areas:

- *Casualty.* Our reinsurance group reinsures third party liability and workers' compensation exposures from ceding company clients primarily on a treaty basis. The exposures that it reinsures include, among others, executive assurance, professional liability, workers' compensation, excess and umbrella liability and healthcare business. Our reinsurance group writes this business on a proportional and non-proportional basis. On proportional and non-proportional "working casualty business," which is treated separately from casualty clash business, our reinsurance group prefers to write treaties where there is a meaningful amount of actuarial data and where loss activity is more predictable.
- *Marine and Aviation.* Our reinsurance group writes marine business, which includes coverages for energy, hull, cargo, specie, liability and transit, and aviation business, which includes coverages for airline and general aviation risks. Business written may also include space business, which includes coverages for satellite assembly, launch and operation for commercial space programs.
- *Other Specialty.* Our reinsurance group writes other specialty lines, including U.K. motor primarily emanating from one significant client, surety, accident and health, workers' compensation catastrophe, agriculture, trade credit and political risk.
- *Property Catastrophe.* Our reinsurance group reinsures catastrophic perils for our reinsureds on a treaty basis. Treaties in this type of business provide protection for most catastrophic losses that are covered in the underlying policies written by our reinsureds. The primary perils in our reinsurance group's portfolio include hurricane, earthquake, flood, tornado, hail and fire. Our reinsurance group 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 a 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.
- *Property Excluding Property Catastrophe.* Our reinsurance group's treaty reinsurance operations reinsure individual property risks of a ceding company. Property per risk treaty and pro rata reinsurance contracts written by our treaty reinsurance group cover claims from individual insurance policies issued by reinsureds and include both personal lines and commercial property exposures (principally covering buildings, structures, equipment and contents). The primary perils in this business include fire, explosion, collapse, riot, vandalism, wind, tornado, flood and earthquake. Our reinsurance group's property facultative operations focus on commercial property risks on an excess of loss basis.
- *Other.* Our reinsurance group writes mortgage reinsurance on both a proportional and non-proportional basis on a global basis and direct mortgage insurance in Europe along with life reinsurance business on both a proportional and non-proportional basis. Besides death risk, the portfolio may include short and long-term disability risk from accident or natural causes. In

addition, our reinsurance group writes casualty clash business and, in limited instances, writes non-traditional business which is intended to provide insurers with risk management solutions that complement traditional reinsurance.

*Underwriting Philosophy.* Our reinsurance group employs 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 it anticipates placing at risk. A number of our reinsurance group's underwriters are also actuaries. It is our reinsurance group's belief that employing actuaries on the front-end of the underwriting process gives it an advantage in evaluating risks and constructing a high quality book of business.

As part of the underwriting process, our reinsurance group typically assesses a variety of factors, including:

- adequacy of underlying rates for a specific class of business and territory;
- 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 aggregate exposures in that area;
- historical loss data for the cedent and, where available, for the industry as a whole in the relevant regions, in order to compare the cedent's historical loss experience to industry averages;
- projections of future loss frequency and severity; and
- the perceived financial strength of the cedent.

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

REINSURANCE SEGMENT	Year Ended December 31,					
	2012		2011		2010	
	Amount	% of Total	Amount	% of Total	Amount	% of Total
<b>Net premiums written</b>						
Other specialty(1) . . . . .	\$ 297,962	24.3	\$211,019	22.2	\$131,158	15.4
Property catastrophe . . . . .	283,677	23.1	246,793	25.9	202,989	23.8
Property excluding property catastrophe(2) . . . . .	265,783	21.7	226,013	23.7	249,791	29.3
Casualty(3) . . . . .	216,067	17.6	181,957	19.1	186,774	21.9
Marine and aviation . . . . .	84,649	6.9	77,309	8.1	77,063	9.0
Other(4) . . . . .	78,763	6.4	8,956	1.0	4,302	0.6
Total . . . . .	<u>\$1,226,901</u>	<u>100.0</u>	<u>\$952,047</u>	<u>100.0</u>	<u>\$852,077</u>	<u>100.0</u>
<b>Net premiums written by client location</b>						
United States . . . . .	\$ 629,614	51.3	\$512,319	53.8	\$496,947	58.3
Europe . . . . .	341,674	27.9	250,809	26.4	195,006	22.9
Asia and Pacific . . . . .	104,398	8.5	75,590	7.9	28,116	3.3
Bermuda . . . . .	72,864	5.9	60,246	6.3	75,517	8.9
Other . . . . .	78,351	6.4	53,083	5.6	56,491	6.6
Total . . . . .	<u>\$1,226,901</u>	<u>100.0</u>	<u>\$952,047</u>	<u>100.0</u>	<u>\$852,077</u>	<u>100.0</u>
<b>Net premiums written by underwriting location</b>						
Bermuda . . . . .	\$ 595,999	48.6	\$531,254	55.8	\$461,890	54.2
United States . . . . .	379,239	30.9	323,731	34.0	307,639	36.1
Europe . . . . .	223,861	18.2	83,892	8.8	74,513	8.7
Other . . . . .	27,802	2.3	13,170	1.4	8,035	1.0
Total . . . . .	<u>\$1,226,901</u>	<u>100.0</u>	<u>\$952,047</u>	<u>100.0</u>	<u>\$852,077</u>	<u>100.0</u>

- (1) Includes U.K. motor, trade credit, surety, workers' compensation catastrophe, accident and health and other.
- (2) Includes facultative business.
- (3) Includes professional liability, executive assurance and healthcare business.
- (4) Includes mortgage, life, casualty clash and other.

*Marketing.* Our reinsurance group generally markets its reinsurance products through brokers, except our property facultative reinsurance group, which generally deals directly with the ceding companies. Brokers do not have the authority to bind our reinsurance group with respect to reinsurance agreements, nor does our reinsurance group commit in advance to accept any portion of the business that brokers submit to them. Our reinsurance group generally pays brokerage fees to brokers based on negotiated percentages of the premiums written through such brokers. For information on major brokers, see note 14, "Commitments and Contingencies—Concentrations of Credit Risk," of the notes accompanying our consolidated financial statements.

*Risk Management and Retrocession.* Our reinsurance group currently purchases "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.

Our reinsurance group will continue to evaluate its retrocessional requirements. See note 4, “Reinsurance,” of the notes accompanying our consolidated financial statements.

For catastrophe exposed reinsurance business, our reinsurance group seeks to limit the amount of exposure it assumes from any one reinsured and the amount of the aggregate exposure to catastrophe losses from a single event 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—Critical Accounting Policies, Estimates and Recent Accounting Pronouncements—Ceded Reinsurance” and “Risk Factors—Risks Relating to Our Industry—The failure of any of the loss limitation methods we employ could have a material adverse effect on our financial condition or results of operations.”

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

### **Employees**

As of February 25, 2013, ACGL and its subsidiaries employed approximately 1,450 full-time employees.

### **Reserves**

Reserve estimates are derived after extensive consultation with individual underwriters, actuarial analysis of the loss reserve development and comparison with industry benchmarks. Our reserves are established and reviewed by experienced internal actuaries. Generally, reserves are established without regard to whether we may subsequently contest the claim. We do not currently discount our loss reserves except for excess workers’ compensation and employers’ liability loss reserves in our insurance operations.

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. 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. The timing and amounts of actual claim payments related to recorded reserves vary based on many factors including large individual losses and changes in the legal environment, as well as general market conditions. The ultimate amount of the claim payments could differ materially from our estimated amounts. Certain lines of business written by us, such as excess casualty, have loss experience characterized as low frequency and high severity. This may result in significant variability in loss payment patterns and, therefore, may impact the related asset/liability investment management process in order to be in a position, if necessary, to make these payments. 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 table below represents the development of loss reserves as determined under accounting principles generally accepted in the United States of America (“GAAP”) for 2002 through 2012:

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

(U.S. dollars in millions)	Years Ended December 31,										
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Reserve for losses and loss adjustment expenses, net of reinsurance recoverables . . . . .	\$ 381	\$ 1,543	\$ 2,875	\$ 4,063	\$ 4,911	\$ 5,483	\$ 5,938	\$ 6,214	\$ 6,395	\$ 6,638	\$ 7,104
Cumulative net paid losses as of:											
One year later . . . . .	82	278	449	745	843	954	1,167	1,106	1,127	1,169	
Two years later . . . . .	141	437	811	1,332	1,486	1,817	2,114	1,943	1,938		
Three years later . . . . .	172	596	1,110	1,688	2,040	2,308	2,768	2,561			
Four years later . . . . .	204	706	1,300	1,993	2,375	2,755	3,222				
Five years later . . . . .	218	787	1,478	2,249	2,680	3,023					
Six years later . . . . .	233	853	1,629	2,447	2,867						
Seven years later . . . . .	243	930	1,740	2,603							
Eight years later . . . . .	257	967	1,797								
Nine years later . . . . .	261	993									
Ten years later . . . . .	265										
Net re-estimated reserve as of:											
One year later . . . . .	340	1,444	2,756	3,986	4,726	5,173	5,749	6,067	6,110	6,416	
Two years later . . . . .	335	1,353	2,614	3,809	4,387	4,959	5,620	5,826	5,927		
Three years later . . . . .	335	1,259	2,487	3,541	4,164	4,849	5,466	5,711			
Four years later . . . . .	313	1,237	2,353	3,381	4,107	4,740	5,403				
Five years later . . . . .	316	1,187	2,305	3,359	4,026	4,680					
Six years later . . . . .	302	1,183	2,291	3,301	3,989						
Seven years later . . . . .	291	1,191	2,255	3,327							
Eight years later . . . . .	292	1,177	2,271								
Nine years later . . . . .	287	1,201									
Ten years later . . . . .	293										
Cumulative net redundancy . . . . .	<u>\$ 88</u>	<u>\$ 342</u>	<u>\$ 604</u>	<u>\$ 736</u>	<u>\$ 922</u>	<u>\$ 803</u>	<u>\$ 535</u>	<u>\$ 503</u>	<u>\$ 468</u>	<u>\$ 222</u>	
Cumulative net redundancy as a percentage of net reserves . . . . .	23.2	22.2	21.0	18.1	18.8	14.6	9.0	8.1	7.3	3.3	
Gross reserve for losses and loss adjustment expenses . . . . .	\$ 592	\$ 1,912	\$ 3,493	\$ 5,453	\$ 6,463	\$ 7,092	\$ 7,667	\$ 7,873	\$ 8,098	\$ 8,456	\$ 8,933
Reinsurance recoverable . . . . .	(211)	(369)	(618)	(1,390)	(1,552)	(1,609)	(1,729)	(1,659)	(1,703)	(1,818)	(1,829)
Net reserve for losses and loss adjustment expenses . . . . .	<u>\$ 381</u>	<u>\$ 1,543</u>	<u>\$ 2,875</u>	<u>\$ 4,063</u>	<u>\$ 4,911</u>	<u>\$ 5,483</u>	<u>\$ 5,938</u>	<u>\$ 6,214</u>	<u>\$ 6,395</u>	<u>\$ 6,638</u>	<u>\$ 7,104</u>
Gross re-estimated reserve . . . . .	492	1,462	2,741	4,629	5,294	6,084	6,878	7,195	7,447	8,107	
Re-estimated reinsurance recoverable . . . . .	(199)	(261)	(470)	(1,302)	(1,305)	(1,404)	(1,475)	(1,484)	(1,520)	(1,691)	
Net re-estimated reserve . . . . .	<u>293</u>	<u>1,201</u>	<u>2,271</u>	<u>3,327</u>	<u>3,989</u>	<u>4,680</u>	<u>5,403</u>	<u>5,711</u>	<u>5,927</u>	<u>6,416</u>	
Gross re-estimated redundancy . . . . .	<u>\$ 100</u>	<u>\$ 443</u>	<u>\$ 738</u>	<u>\$ 846</u>	<u>\$ 1,109</u>	<u>\$ 901</u>	<u>\$ 651</u>	<u>\$ 466</u>	<u>\$ 323</u>	<u>\$ 349</u>	

The preceding table does not present accident or policy year development data and, instead, presents an analysis of the claim development of gross and net balance sheet reserves existing at each calendar year-end in subsequent calendar years. 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 re-estimated 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 ending reserves at December 31, 2002 through December 31, 2011.

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. The reserves of acquired business relate to our purchase of the credit and surety reinsurance operations of Ariel Re in April 2012.

	Year Ended December 31,		
	2012	2011	2010
Reserve for losses and loss adjustment expenses at beginning of year . . . . .	\$ 8,456,210	\$ 8,098,454	\$ 7,873,412
Unpaid losses and loss adjustment expenses recoverable . . . . .	1,818,047	1,703,201	1,659,500
Net reserve for losses and loss adjustment expenses at beginning of year . . . . .	6,638,163	6,395,253	6,213,912
Net incurred losses and loss adjustment expenses relating to losses occurring in:			
Current year . . . . .	2,082,805	2,012,569	1,664,411
Prior years . . . . .	(221,528)	(285,016)	(146,696)
Total net incurred losses and loss adjustment expenses . .	1,861,277	1,727,553	1,517,715
Net losses and loss adjustment expense reserves of acquired business . . . . .	31,977	—	—
Foreign exchange losses (gains) . . . . .	38,184	(32,020)	(29,089)
Net paid losses and loss adjustment expenses relating to losses occurring in:			
Current year . . . . .	(295,984)	(325,273)	(200,789)
Prior years . . . . .	(1,169,395)	(1,127,350)	(1,106,496)
Total net paid losses and loss adjustment expenses . . . . .	(1,465,379)	(1,452,623)	(1,307,285)
Net reserve for losses and loss adjustment expenses at end of year . . . . .	7,104,222	6,638,163	6,395,253
Unpaid losses and loss adjustment expenses recoverable . . . . .	1,829,070	1,818,047	1,703,201
Reserve for losses and loss adjustment expenses at end of year . . . . .	<u>\$ 8,933,292</u>	<u>\$ 8,456,210</u>	<u>\$ 8,098,454</u>

Our initial reserving method to date has to a large extent been the expected loss method, which is commonly applied when limited loss experience exists. We select the initial expected loss and loss adjustment expense ratios based on information derived by our underwriters and actuaries during the initial pricing of the business, supplemented by industry data where appropriate. These ratios consider, among other things, rate changes and changes in terms and conditions that have been observed in the market. Any estimates and assumptions made as part of the reserving process could prove to be inaccurate due to several factors, including the fact that relatively limited historical information has been reported to us through December 31, 2012. We employ a number of different reserving methods depending on the segment, the line of business, the availability of historical loss experience and the stability of that loss experience. Over time, we have given additional weight to our historical loss experience in our reserving process due to the continuing maturation of our reserves, and the increased

availability and credibility of the historical experience. For additional information regarding the key underlying movements in our losses and loss adjustment expenses by segment, see “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations.”

Unpaid and paid losses and loss adjustment expenses recoverable were approximately \$1.87 billion at December 31, 2012. 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 materially adversely affect our financial condition and results of operations. Although we monitor the financial condition of our reinsurers and retrocessionaires and attempt to place coverages only with substantial, financially sound carriers, we may not be successful in doing so.

### Investments

At December 31, 2012, consolidated cash and invested assets totaled approximately \$13.05 billion, as summarized in the table below. See “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Financial Condition, Liquidity and Capital Resources—Financial Condition—Investable Assets” and note 7, “Investment Information,” of the notes accompanying our financial statements.

The following table summarizes the fair value of our cash and invested assets at December 31, 2012 and 2011:

	December 31,	
	2012	2011
Fixed maturities available for sale, at fair value . . . . .	\$ 9,839,988	\$ 9,375,604
Fixed maturities, at fair value(1) . . . . .	363,541	147,779
Fixed maturities pledged under securities lending agreements, at fair value(2) . . . . .	42,600	56,393
Total fixed maturities . . . . .	10,246,129	9,579,776
Short-term investments available for sale, at fair value . . . . .	722,121	904,219
Short-term investments pledged under securities lending agreements, at fair value(2) . . . . .	8,248	—
Cash . . . . .	371,041	351,699
Equity securities available for sale, at fair value . . . . .	312,749	299,584
Equity securities, at fair value(1) . . . . .	25,954	87,403
Other investments available for sale, at fair value . . . . .	549,280	238,111
Other investments, at fair value(1) . . . . .	527,971	131,721
TALF investments, at fair value(3) . . . . .	—	387,702
Investments accounted for using the equity method(4) . . . . .	307,105	380,507
Total cash and investments . . . . .	13,070,598	12,360,722
Securities sold but not yet purchased(5) . . . . .	(6,924)	(27,178)
Securities transactions entered into but not settled at the balance sheet date . . . . .	(18,540)	(17,339)
Total investable assets . . . . .	<u>\$13,045,134</u>	<u>\$12,316,205</u>

(1) Represents securities which are carried at fair value under the fair value option and reflected as “investments accounted for using the fair value option” on our balance sheet. Changes in the carrying value of such securities are recorded in net realized gains or losses.

- (2) This table excludes the collateral received and reinvested and includes the fixed maturities and short-term investments pledged under securities lending agreements, at fair value.
- (3) During the 2012 fourth quarter, we sold all investments held under the Federal Reserve's Term Asset-Backed Securities Loan Facility ("TALF") and the related secured financing was extinguished accordingly.
- (4) Changes in the carrying value of investment funds accounted for using the equity method are recorded as "equity in net income (loss) of investments funds accounted for using the equity method" rather than as an unrealized gain or loss component of accumulated other comprehensive income.
- (5) Represents our obligation to deliver equity securities that we did not own at the time of sale. Such amounts are included in "other liabilities" on our balance sheet.

Our current investment guidelines and approach stress preservation of capital, market liquidity and diversification of risk. Our investments are subject to market-wide risks and fluctuations, as well as to risks inherent in particular securities. While maintaining our emphasis on preservation of capital and liquidity, we expect our portfolio to become more diversified and, as a result, we may in the future expand into areas which are not part of our current investment strategy. At December 31, 2012, approximately 93% of our fixed maturities and fixed maturities pledged under securities lending agreements were rated investment grade, compared to 95% at December 31, 2011. Our fixed maturities, fixed maturities pledged under securities lending agreements and short-term investments had an average credit quality rating of "AA-" from Standard & Poor's Rating Services ("S&P") and "Aa1" from Moody's Investors Service ("Moody's") at December 31, 2012, compared to "AA" from S&P and "Aa1" from Moody's at December 31, 2011. Our investment portfolio had an average effective duration of approximately 3.06 years and 2.99 years at December 31, 2012 and 2011, respectively.

The credit quality distribution of our fixed maturities and fixed maturities pledged under securities lending agreements (excluding TALF investments for the 2011 period) at December 31, 2012 and 2011 are shown below:

<u>Rating(1)</u>	<u>December 31, 2012</u>		<u>December 31, 2011</u>	
	<u>Fair Value</u>	<u>% of Total</u>	<u>Fair Value</u>	<u>% of Total</u>
U.S. government and government agencies(2) . . . . .	\$ 2,523,212	24.6	\$3,154,480	32.9
AAA . . . . .	3,413,431	33.3	3,229,161	33.7
AA . . . . .	1,563,846	15.3	1,425,249	14.9
A . . . . .	1,501,156	14.7	884,957	9.2
BBB . . . . .	538,140	5.3	412,566	4.3
BB . . . . .	174,527	1.7	140,029	1.5
B . . . . .	220,772	2.2	165,003	1.7
Lower than B . . . . .	175,866	1.7	114,672	1.2
Not rated . . . . .	135,179	1.2	53,659	0.6
Total . . . . .	<u>\$10,246,129</u>	<u>100.0</u>	<u>\$9,579,776</u>	<u>100.0</u>

- (1) For individual fixed maturities, S&P ratings are used. In the absence of an S&P rating, ratings from Moody's are used, followed by ratings from Fitch Ratings.
- (2) Includes U.S. government-sponsored agency mortgage backed securities and agency commercial mortgage backed securities.

For 2012, 2011 and 2010, set forth below is the pre-tax total return (before investment expenses) of our investment portfolio (including fixed maturities, short-term investments and fixed maturities and short-term investments pledged under securities lending agreements) compared to the benchmark return against which we measured our portfolio during the year. The benchmark return index is a customized combination of indices intended to approximate a target portfolio by asset mix and average credit quality while also matching the approximate estimated duration and currency mix of our insurance and reinsurance liabilities (see “Management’s Discussion and Analysis of Financial Condition and Results of Operations—General—Financial Measures—Total Return on Investments”).

	<u>Arch Portfolio(1)</u>	<u>Benchmark Return</u>
Pre-tax total return (before investment expenses):		
Year ended December 31, 2012 . . . . .	5.88%	4.90%
Year ended December 31, 2011 . . . . .	3.81%	4.80%
Year ended December 31, 2010 . . . . .	7.00%	6.38%

(1) Our investment expenses were approximately 0.22%, 0.22% and 0.19%, respectively, of average invested assets in 2012, 2011 and 2010.

## Ratings

Our ability to underwrite business is dependent upon the quality of our claims paying ability and financial strength ratings as evaluated by independent agencies. Such ratings from third party internationally recognized statistical rating organizations or agencies are instrumental in establishing the competitive positions of companies in our industry. We believe that the primary users of such ratings include commercial and investment banks, policyholders, brokers, ceding companies and investors. Insurance ratings are also used by insurance and reinsurance intermediaries as an important means of assessing the financial strength and quality of insurers and reinsurers, and have become an increasingly important factor in establishing the competitive position of insurance and reinsurance companies. These ratings are often an important factor in the decision by an insured or intermediary of whether to place business with a particular insurance or reinsurance provider. Periodically, rating agencies evaluate us to confirm that we continue to meet their criteria for the ratings assigned to us by them. A.M. Best Company (“A.M. Best”) maintains a letter scale rating system ranging from “A++” (Superior) to “F” (In Liquidation). Moody’s maintains a letter scale rating from “Aaa” (Exceptional) to “NP” (Not Prime). S&P maintains a letter scale rating system ranging from “AAA” (Extremely Strong) to “R” (Under Regulatory Supervision). Fitch Ratings (“Fitch”) maintains a letter scale rating system ranging from “AAA” (Exceptionally Strong) to “C” (Distressed).

Our reinsurance subsidiaries, Arch Re U.S., Arch Re Bermuda, Arch Re Europe (S&P and Fitch only) and Arch Mortgage (S&P only), and our principal insurance subsidiaries, Arch Insurance, Arch E&S, Arch Specialty, Arch Insurance Company Europe and Arch Insurance Canada (S&P and A.M. Best only), each currently has a financial strength rating of “A+” (Excellent, the second highest out of fifteen rating levels) with a stable outlook from A.M. Best, “A1” (Good, the fifth highest out of 21 rating levels) with a stable outlook from Moody’s, “A+” (Strong, the fifth highest out of 21 rating levels) with a stable outlook from S&P, and “A+” (Strong, the fifth highest out of 24 rating levels) with a stable outlook from Fitch. A.M. Best has assigned a financial strength rating of “NR-3” (Rating Procedure Inapplicable”) to Arch Indemnity, which is not writing business currently. Lloyd’s has financial strength ratings of “A” (Excellent) with a stable outlook from A.M. Best, “A+” (Strong) with a stable outlook from S&P and “A+” (Strong) with a stable outlook from Fitch.

ACGL has received counterparty (issuer) credit ratings of “A–” (seventh highest out of 21 rating levels) with a stable outlook from S&P, “A3” (seventh highest out of 21 rating levels) with a stable outlook from Moody’s and “A” long term issuer rating (sixth highest out of 23 rating levels) with a stable outlook from Fitch. A counterparty credit rating provides an opinion on an issuer’s overall capacity and willingness to meet its financial commitments as they become due, but is not specific to a particular financial obligation.

The financial strength ratings assigned by rating agencies to insurance and reinsurance companies represent independent opinions of financial strength and ability to meet policyholder obligations and are not directed toward the protection of investors, nor are they recommendations to buy, hold or sell any securities. We can offer no assurances that our ratings will remain at their current levels, or that our security will be accepted by brokers and our insureds and reinsureds. A ratings downgrade or the potential for such a downgrade, or failure to obtain a necessary rating, 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. In addition, under certain of the reinsurance agreements assumed by our reinsurance operations, upon the occurrence of a ratings downgrade or other specified triggering event with respect to our reinsurance operations, such as a reduction in surplus by specified amounts during specified periods, our ceding company clients may be provided with certain rights, including, among other things, the right to terminate the subject reinsurance agreement and/or to require that our reinsurance operations post additional collateral. In the event of a ratings downgrade or other triggering event, the exercise of such contract rights by our clients could have a material adverse effect on our financial condition and results of operations, as well as our ongoing business and operations. See “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Financial Condition, Liquidity and Capital Resources—Liquidity and Capital Resources.”

### **Competition**

The worldwide reinsurance and insurance businesses are highly competitive. We compete, and will continue to compete, with major U.S. and non-U.S. insurers and reinsurers, some of which have greater financial, marketing and management resources than we have and have had longer-term relationships with insureds and brokers than 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.

In our insurance business, we compete with insurers that provide specialty property and casualty lines of insurance, including: ACE Limited, Alleghany Corporation, Allied World Assurance Company, Ltd., American International Group, Inc., AXIS Capital Holdings Limited, Berkshire Hathaway, Inc., Chubb Corporation, CNA, Endurance Specialty Holdings Ltd., The Hartford Financial Services Group, Inc., HCC Insurance Holdings, Inc., Ironshore Inc., Liberty Mutual Insurance, Lloyd’s, Markel Insurance Company, RLI Corp., The Travelers Companies, W.R. Berkley Corp., XL Group plc and Zurich Insurance Group. In our reinsurance business, we compete with reinsurers that provide property and casualty lines of reinsurance, including ACE Limited, Alleghany Corporation, Alterra Capital Holdings Limited, Argo International Holdings, Ltd., AXIS Capital Holdings Limited, Berkshire Hathaway, Inc., Endurance Specialty Holdings Ltd., Everest Re Group Ltd., Hannover Rückversicherung AG, Lloyd’s, Montpelier Re Holdings Ltd., Munich Re Group, PartnerRe Ltd., Platinum Underwriters Holdings, Ltd., RenaissanceRe Holdings Ltd., Swiss Reinsurance Company, Validus Holdings Ltd and XL Group plc. We do not believe that we have a significant market share in any of our markets.

### **Enterprise Risk Management**

Enterprise Risk Management (“ERM”) is a key element in our philosophy, strategy and culture. We employ an ERM framework that includes underwriting, reserving, investment, credit and operational risks. Risk appetite and exposure limits are set by our executive management team, reviewed with our board of directors and board level committees and routinely discussed with business unit management. These limits are integrated into our operating guidelines and the exposures are

aggregated and monitored periodically by our corporate risk management team. The reporting, review and approval of risk management information is integrated into our annual planning process, capital modeling and allocation, reinsurance purchasing strategy and reviewed at insurance business reviews, reinsurance underwriting meetings and board level committees. For a discussion of our risk management policies, see “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies, Estimates and Recent Accounting Pronouncements—Ceded Reinsurance” and “Risk Factors—Risks Relating to Our Industry—The failure of any of the loss limitation methods we employ could have a material adverse effect on our financial condition or results of operations.”

## **Regulation**

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

*The Insurance Act 1978 of Bermuda and Related Regulations (the “Insurance Act”).* As a holding company, ACGL is not subject to Bermuda insurance regulations; however, its wholly-owned subsidiary, Arch Re Bermuda, is subject to the Insurance Act. The Insurance Act 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. We believe that we are in compliance with all applicable regulations under the Insurance Act.

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, insurers carrying on general business and insurers carrying on special purpose business. There are six general business classifications (Classes 1, 2, 3, 3A, 3B and 4), five long-term business classifications (Classes A, B, C, D and E) and one classification of special purpose insurer.

As Arch Re Bermuda carries on both long-term and general business, it is required to be registered as both a long-term and as a general business insurer under the Insurance Act. Accordingly, Arch Re Bermuda is registered as a Class 4 general business insurer and as a Class C long-term insurer. Class 4 insurers are regarded as large commercial underwriters and are subject to the strictest regulation. Class C insurers are regarded as small commercial underwriters and are subject to less stringent regulation.

*Minimum Paid-Up Share Capital.* Arch Re Bermuda is required to maintain fully paid-up share capital of \$1.25 million.

*Principal Representative and Principal Office.* An insurer is required to maintain a principal office and to appoint and maintain a principal representative in Bermuda. It is the duty of the principal representative upon 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 immediately notify the BMA and to make a report in writing to the BMA within 14 days of the prior notification setting out all the particulars of the case that are available to the principal representative.

Where there has been a significant loss which is reasonably likely to cause the insurer to fail to comply with its enhanced capital requirement (in respect of its general business, as described in more detail below), the principal representative must also furnish the BMA with a capital and solvency

return reflecting an enhanced capital requirement prepared using post-loss data. The principal representative must provide this within 45 days of notifying the BMA regarding the loss.

Furthermore, where a notification has been made to the BMA regarding a material change to an insurer's business or structure (including a merger or amalgamation), the principal representative has 30 days from the date of such notification to furnish the BMA with unaudited interim statutory financial statements in relation to such period if so requested by the BMA, together with a general business solvency certificate in respect of those statements.

*Approved Independent Auditor.* All insurers must appoint an independent auditor who annually audits and reports on the insurer's financial statements prepared under generally accepted accounting principles ("GAAP") or international financial reporting standards ("IFRS") and statutory financial statements and the statutory financial return of the insurer, all of which, in the case of Arch Re Bermuda, are required to be filed annually with the BMA. The independent auditor must be approved by the BMA.

*Approved Actuary.* As a Class C insurer, Arch Re Bermuda 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.

*Approved Loss Reserve Specialist.* As a 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.

*Annual Financial Statements, Annual Statutory Financial Return and Annual Capital and Solvency Return.* Arch Re Bermuda must prepare annual statutory financial statements as prescribed in the Insurance Act with respect to both its general business and its long-term business. The statutory financial statements are distinct from the annual GAAP basis financial statements referred to below. The statutory financial return for a Class 4 insurer shall include a report of the approved independent auditor on the statutory financial statement of such insurer, solvency certificates, the statutory financial statements for the general business, the opinion of the loss reserve specialist and a schedule of reinsurance ceded. The statutory financial return for a long-term insurer shall include a report of the approved independent auditor on the statutory financial statements of such insurer, the statutory financial statements related to the long-term business, a declaration of the statutory ratios, the long-term business solvency certificate and a certificate from the approved actuary. Arch Re Bermuda is also required to file audited GAAP basis annual financial statements, which must be available to the public. In addition, Arch Re Bermuda is required to file a capital and solvency return in respect of its general business and long-term business. The capital and solvency return for its general business includes its relevant regulatory risk-based capital model, a schedule of fixed income investments by ratings categories, a schedule of net reserves for losses and loss expense provisions by line of business, a schedule of premiums written by line of business, a schedule of risk management and a schedule of fixed income securities, a schedule of commercial insurer's solvency self assessment, a schedule of catastrophe risk return, a schedule of loss triangles or reconciliation of net loss reserves and a schedule of eligible capital. The capital and solvency return for its long-term business includes its regulatory risk-based capital model for long-term business.

*Minimum Solvency Margins.* Arch Re Bermuda, as a Class 4 insurer, must ensure that the value of its general business assets exceeds the amount of its general business liabilities by an amount greater than the prescribed minimum solvency margins and enhanced capital requirement pertaining to its general business. Accordingly, Arch Re Bermuda is required, with respect to its general business, to maintain a minimum solvency margin equal to the greatest of (i) \$100 million, (ii) 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 (iii) 15% of net discounted aggregate losses and loss expense provisions and other insurance reserves. As a long-term insurer, Arch Re Bermuda is also required, with respect to its long-term business, to maintain a minimum solvency margin equal to 50%, 75% and 100% of the greater of \$500,000 or 1.5% of its assets for 2011, 2012 and 2013, respectively. For the purpose of this calculation, assets are defined as the total assets pertaining to its long-term business reported on the balance sheet in the relevant year less the amounts held in a segregated account.

*Enhanced Capital Requirement.* As a Class 4 insurer, Arch Re Bermuda is required to maintain available statutory capital and surplus pertaining to its general business at a level equal to or in excess of its enhanced capital requirement (“ECR”) which is established by reference to either the BSCR model (“BSCR”) or an approved internal capital model. The BSCR is a risk-based capital model which provides a method for determining an insurer’s capital requirements (statutory capital and surplus) by taking into account the risk characteristics of different aspects of the insurer’s business. While not specifically referred to in the Insurance Act, the BMA has also established a target capital level (“TCL”) for each Class 4 insurer equal to 120% of its ECR. While a Class 4 insurer is not currently required to maintain its statutory capital and surplus at this level, the TCL serves as an early warning tool for the BMA, and failure to maintain statutory capital at least equal to the TCL will likely result in increased regulatory oversight.

*Eligible Capital.* To enable the BMA to better assess the quality of the insurer’s capital resources, as a Class 4 insurer, Arch Re Bermuda is required to disclose the makeup of its capital in accordance with the 3-tiered capital system that came into operation on January 1, 2013. Under this system, all of the insurer’s capital instruments will be classified as either basic or ancillary capital, which in turn will be classified into one of three tiers based on their “loss absorbency” characteristics. Highest quality capital will be classified Tier 1 Capital, lesser quality capital will be classified as either Tier 2 Capital or Tier 3 Capital. The maximum amount of Tier 1, Tier 2 or Tier 3 Capital that may be used to support Arch Re Bermuda’s minimum solvency margin, ECR and TCL will be determined in accordance with the current insurance eligible capital rules. Tier 1, Tier 2 and Tier 3 Capital may, until January 1, 2024, include capital instruments that do not satisfy the requirement that the instrument be non-redeemable or settled only with the issuance of an instrument of equal or higher quality upon a breach, or if it would cause a breach, of the ECR. Where the BMA has previously approved the use of certain instruments for capital purposes, the BMA’s consent must be obtained if such instruments are to remain eligible for use in satisfying the minimum solvency margin pertaining to its general business and its ECR.

*Minimum Liquidity Ratio.* Arch Re Bermuda is required to maintain a minimum liquidity ratio for general business equal to 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).

*Restrictions on Dividends and Distributions.* Arch Re Bermuda is prohibited from declaring or paying any dividends during any financial year if it is in breach of its enhanced capital requirement or its general business or long-term solvency margins or its minimum liquidity ratio or if the declaration or payment of such dividends would cause such a breach. If it has failed to meet its minimum solvency margins 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. 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 BMA an affidavit stating that it will continue to meet the required margins.

*Reduction of Capital.* Without the approval of the BMA, Arch Re Bermuda is prohibited 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.

*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. 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 extent (as so certified) of the liabilities of the insurer's long-term business. In addition, the amount of such dividend shall not exceed the aggregate of that excess and any other funds properly available for payment of dividends, being funds arising out of business of the insurer other than its long-term business.

*Restrictions on Transfer of Business and Winding-Up.* As a long-term insurer, Arch Re Bermuda may only transfer long-term business, other than long-term business that is reinsurance business, with the sanction of the applicable Bermuda court. A long-term insurer may only be wound-up or liquidated by order of the applicable Bermuda court.

*Fit and Proper Controllers.* The BMA maintains supervision over the controllers of all registered insurers in Bermuda. A controller includes: (i) the managing director of the registered insurer or its parent company; (ii) the chief executive of the registered insurer or of its parent company; (iii) a shareholder controller; and (iv) any person in accordance with whose directions or instructions the directors of the registered insurer or of its parent company are accustomed to act. The definition of shareholder controller is set out in the Insurance Act, but generally refers to (i) a shareholder who holds 10% or more of the shares carrying rights to vote at a shareholders' meeting of the registered insurer or its parent company, or (ii) a shareholder who is entitled to exercise 10% or more of the voting power at any shareholders' meeting of such registered insurer or its parent company, or (iii) a shareholder who is able to exercise significant influence over the management of the registered insurer or its parent company by virtue of its shareholding or its entitlement to exercise, or control the exercise of, the voting power at any shareholders' meeting. A shareholder controller that owns 10% or more but less than 20% of the shares as described above is defined as a 10% shareholder controller; a shareholder controller that owns 20% or more but less than 33% of the shares as described above is defined as a 20% shareholder controller; a shareholder controller that owns 33% or more but less than 50% of the shares as described above is defined as a 33% shareholder controller; and a shareholder controller that owns 50% or more of the shares as described above is defined as a 50% shareholder controller.

Where the shares of the shareholder of a registered insurer, or the shares of its parent company, are traded on a recognized stock exchange, and such shareholder becomes a 10%, 20%, 33% or 50% shareholder controller of the insurer, that shareholder shall, within 45 days, notify the BMA in writing that such shareholder has become such a controller. Any person or entity who contravenes the Insurance Act by failing to give notice or knowingly becoming a shareholder controller before the required 45 days has elapsed is guilty of an offense and liable to a fine.

The BMA may file a notice of objection to any shareholder who has become a controller of any description where it appears that such shareholder is, or is no longer, a fit and proper shareholder to be a controller of the registered insurer. Any person who continues to be a controller of any description after having received a notice of objection shall be guilty of an offense.

*Notification by Registered Person of Change of Controllers and Officers.* All registered insurers are required to give written notice to the BMA of the fact that a person has become, or ceased to be, a controller or officer of the registered insurer within 45 days of becoming aware of such fact. An officer in relation to a registered insurer means a director, chief executive or senior executive performing duties of underwriting, actuarial, risk management, compliance, internal audit, finance or investment matters.

*Notification of Material Changes.* All registered insurers are required to give notice to the BMA of their intention to effect a material change within the meaning of the Insurance Act. For the purposes of the Insurance Act, the following changes are material: (i) the transfer or acquisition of insurance business being part of a scheme falling under section 25 of the Insurance Act or section 99 of the Companies Act; (ii) the amalgamation with or acquisition of another firm; (iii) engaging in unrelated business that is retail business, (iv) the acquisition of a controlling interest in an undertaking that is engaged in non-insurance business which offers services and products to persons who are not affiliates of the insurer, (v) outsourcing all or substantially all of the company's actuarial, risk management and internal audit functions, (vi) outsourcing all or a material part of an insurer's underwriting activity, (vii) the transfer other than by way of reinsurance of all or substantially all of a line of business, and (viii) the expansion into a material new line of business.

No registered insurer shall take any steps to give effect to a material change unless it has first served notice on the BMA that it intends to effect such material change and before the end of 14 days, either the BMA has notified such company in writing that it has no objection to such change or that period has lapsed without the BMA having issued a notice of objection. Any insurer who fails to give the required notice or which effects a material change, or allows such material change to be effected, before the prescribed period has elapsed or after having received a notice of objection from the BMA shall be guilty of an offense.

*Insurance Code of Conduct.* Arch Re Bermuda is subject to the Insurance Code of Conduct (the "Insurance Code"), which establishes duties and standards which must be complied with to ensure it implements sound corporate governance, risk management and internal controls. Failure to comply with the requirements under the Insurance Code will be a factor taken into account by the BMA in determining whether an insurer is conducting its business in a sound and prudent manner as prescribed by the Insurance Act. Failure to comply with the requirements of the Insurance Code could result in the BMA exercising its powers of intervention and will be a factor in calculating the operational risk charge applicable in accordance with that insurer's risk based capital model.

*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, the insurer has not been carrying on business in accordance with sound insurance principles.

*Group Supervision.* The BMA may, in respect of an insurance group, determine whether it is appropriate for it to act as its group supervisor. An insurance group is defined as a group of companies that conducts exclusively, or mainly, insurance business. The BMA may make such determination where it ascertains that (i) the group is headed by a "specified insurer" (that is to say, it is headed by either a Class 3A, Class 3B or Class 4 general business insurer or a Class C, Class D or Class E long term insurer or another class of insurer designated by order of the BMA); or (ii) where the insurance group is not headed by a "specified insurer", where it is headed by a parent company which is incorporated in

Bermuda or (iii) where the parent company of the group is not a Bermuda company, in circumstances where the BMA is satisfied that the insurance group is directed and managed from Bermuda or the insurer with the largest balance sheet total is a specified insurer.

Where the BMA determines that it should act as the group supervisor, it shall designate a specified insurer that is a member of the insurance group to be the designated insurer (the “Designated Insurer”) and it shall give to the Designated Insurer and other competent authorities written notice of its intention to act as group supervisor.

In 2011, the BMA notified Arch Re Bermuda that it intended to act as group supervisor and that it had designated Arch Re Bermuda as the “Designated Insurer” of our group of insurance and reinsurance companies. Pursuant to its powers under the Insurance Act, the BMA will maintain a register of particulars for every insurance group for which it acts as the group supervisor detailing, among other things, the names and addresses of the Designated Insurer; each member company of the insurance group falling within the scope of group supervision; the principal representative of the insurance group in Bermuda; other competent authorities supervising other member companies of the insurance group; and the insurance group auditors. The Designated Insurer must notify the BMA of any changes to the above details entered on the register of an insurance group.

As group supervisor, the BMA will perform a number of supervisory functions including (i) coordinating the gathering and dissemination of information which is of importance for the supervisory task of other competent authorities; (ii) carrying out a supervisory review and assessment of the insurance group; (iii) carrying out an assessment of the insurance group’s compliance with the rules on solvency, risk concentration, intra-group transactions and good governance procedures; (iv) planning and coordinating, with other competent authorities, supervisory activities in respect of the insurance group, both as a going concern and in emergency situations; (v) coordinating any enforcement action that may need to be taken against the insurance group or any of its members; and (vi) planning and coordinating meetings of colleges of supervisors (consisting of insurance regulators) in order to facilitate the carrying out of the functions described above.

In carrying out its functions, the BMA may make rules for (i) assessing the financial situation and the solvency position of the insurance group and/or its members and (ii) regulating intra-group transactions, risk concentration, governance procedures, risk management and regulatory reporting and disclosure.

*Group Solvency and Group Supervision.* The current insurance group supervision and insurance group solvency rules (together, “Group Rules”) will apply to Arch Re Bermuda so long as the BMA remains our group supervisor. The BMA has implemented and imposed many of the additional requirements described in this section as part of its efforts to gain equivalence under Solvency II. Due to the delays in the implementation of Solvency II in Europe, it is not expected that the European Commission will take a final decision on whether or not it will recognize the regime in Bermuda to be equivalent to that laid down in Solvency II until 2013, at the earliest. If the European Commission does not recognize the regime in Bermuda, this could mean that Arch Re Bermuda and its European Union-regulated affiliates may be subject to group supervision in Bermuda and the European Union, respectively. In addition, through the Group Rules, the BMA may take action which affects ACGL. A summary of the Group Rules is set forth below.

- *Annual Group Financial Statements.* Every insurance group is required to prepare and submit, on an annual basis, Group financial statements prepared in accordance with either IFRS or GAAP, together with group statutory financial statements.

The group GAAP financial statements must be audited annually by the group’s approved auditor who is required to prepare an auditor’s report thereon in accordance with generally accepted auditing standards. In addition, every insurance group must prepare group statutory financial statements (which will include, in statutory form, a group balance sheet, a group income statement, a group statement of capital and surplus, and notes thereto). The Designated Insurer is required to file with the BMA the group statutory financial statements and the audited group GAAP financial statements with the BMA within five months from the end of the relevant financial year (unless specifically extended).

- *Annual Group Statutory Financial Return and Annual Capital and Solvency Return.* Every insurance group is required to prepare an annual group statutory financial return which shall include, among other things, a report of the approved group auditor (for the GAAP financial statements only), an insurance group business solvency certificate, the opinion of a group actuary (exempt for 2012 filing), an insurance group capital and solvency certificate (and a declaration, optional for the 2012 filing, signed by two directors of the Designated Insurer and either the chief risk or chief financial officer of the parent company declaring that the return fairly represents the financial condition of the insurance group in all material respects), particulars of ceded reinsurance comprising the top ten unaffiliated reinsurers for which the group has the highest recoverable balances and any reinsurer with recoverable balances exceeding 15% of the insurance group's statutory capital and surplus, a list of non-insurance financial regulated entities owned by the group and summary details of all adjustments applied to the group financial statements in the form of a reconciliation of amounts reported as total group assets, total group liabilities, net group income and total group statutory capital and surplus. Both the annual group statutory financial return and the group capital and solvency return must be submitted to the BMA by the Designated Insurer within five months after its financial year end (unless specifically extended).
- *Quarterly Group Financial Statements.* The Designated Insurer is required to prepare and file quarterly group financial returns with the BMA on or before the last day of the months May, August and November of each year. The quarterly group financial returns consist of (i) quarterly group unaudited (consolidated) financial statements for each financial quarter (which must minimally include a balance sheet and income statement and must also be recent and not reflect a financial position that exceeds two months) and (ii) a list and details of material intra-group transactions and risk concentrations (including, where applicable, exposure value (face value and market value, if the latter is available), counterparties involved (including their location), summary details of the purpose, terms, costs, duration and performance triggers relating to the transaction), details surrounding all intra-group reinsurance and retrocession arrangements (including aggregated values of the exposure limits by counterparties, aggregated premium flows and the proportion of the group's insurance business exposure covered by internal reinsurance, retrocession and other risk transfer arrangements) and details of the top ten counterparties and any other counterparty exposures exceeding 10% of the insurance group's statutory capital and surplus.
- *Group Solvency Self Assessment ("GSSA").* Group Rules require the board of directors of the parent company of the insurance group (the "Parent Board") to establish solvency self assessment procedures for the group that factors in all the foreseeable reasonably material risks. Such procedures should be carried out at least annually and assess the quality and quantity of the capital required to adequately cover the risks to which the insurance group is exposed. Such procedures must also be an integral part of the group's risk management framework and be reviewed and evaluated on a regular basis by the Parent Board. In particular, the GSSA should, among other things, demonstrate consideration of the relationship between risk management, the quality and quantity of capital resources, the impact of risk mitigation techniques and diversification and correlation effects between material risks; a description of the group's risk appetite; be forward-looking; include appropriate stress and scenario testing and appropriately reflect all assets and liabilities, material off-balance sheet arrangements, material intra group transactions, relevant managerial practices, systems and controls and a valuation basis that is aligned with the risk characteristics and business model of the group.
- *Minimum Group Solvency Margin and Group Enhanced Capital Requirement ("Group ECR").* Effective January 1, 2013, the Designated Insurer must ensure that the value of the insurance group's assets exceeds the amount of the group's liabilities by the aggregate minimum margin of

solvency of each qualifying member of the group (the “Group MSM”). A member is a qualifying member of the insurance group if it is subject to solvency requirements in the jurisdiction in which it is registered.

Where the parent company exercises control in relation to any member of the group, the minimum margin of solvency of such member shall be its individual minimum solvency margin. Where the parent company exercises significant influence on any member of the group, the minimum margin of solvency applicable to that member for purposes of calculating the Group MSM shall be an amount equal to the parent company’s percentage shareholding in the member multiplied by that member’s minimum margin of solvency. “Control” and “significant influence” shall be determined in accordance with either the IFRS or GAAP used to prepare the insurance group’s IFRS or GAAP financial statements.

Effective December 31, 2013, the group will be required to maintain available group capital and surplus at a level equal to 50% of the Group ECR and this requirement will increase by increments of 10% in each of the following five years until 100% ECR is required in 2018. This phasing in schedule is conditioned upon the BMA making further adjustments that would be either needed or appropriate once the effective date of Solvency II capital requirements is finalized.

Similar to the BSCR for individual insurers, the Group BSCR model is a risk-based capital model which provides a method for determining an insurer’s capital requirements (statutory capital and surplus) by taking into account the risk characteristics of different aspects of the insurance group’s business. The Group BSCR formulae establish capital requirements for eight categories of risk: fixed income investment risk, equity investment risk, interest rate/liquidity risk, premium risk, reserve risk, credit risk, catastrophe risk and operational risk. For each category, the capital requirement is determined by applying factors to asset, premium, reserve, creditor, probable maximum loss and operation items, with higher factors applied to items with greater underlying risk and lower factors for less risky items.

- *Group Eligible Capital.* To enable the BMA to better assess the quality of the group’s capital resources, the Designated Insurer is required to disclose the makeup of its group’s capital in accordance with a ‘3-tiered capital system’. The eligible capital requirements come into effect on January 1, 2014, and under the current proposed system, all of the insurance group’s capital instruments will be classified as either basic or ancillary capital which in turn will be classified into one of 3 tiers based on their “loss absorbency” characteristics. Highest quality capital will be classified Tier 1 Capital, lesser quality capital will be classified as either Tier 2 Capital or Tier 3 Capital. Under this regime, not more than certain specified percentages of Tier 1, Tier 2 and Tier 3 Capital may be used to satisfy the Group’s MSM and Group ECR requirements. Tier 1, Tier 2 and Tier 3 Capital may, until January 1 2024, include capital instruments that do not satisfy the requirement that the instrument be non-redeemable or settled only with the issuance of an instrument of equal or higher quality upon a breach, or if redemption would cause a breach, of the Group ECR.
- *Group Governance.* Group Rules require the Parent Board to establish and effectively implement corporate governance policies and procedures, which it must be periodically review to ensure they continue to support the overall organizational strategy of the group. In particular, the Parent Board must:
  - ensure that operational and oversight responsibilities of the group are clearly defined and documented and that the reporting of material deficiencies and fraudulent activities are transparent and devoid of conflicts of interest;

- establish systems for identifying on a risk sensitive basis those policies and procedures that must be reviewed annually and those policies and procedures that must be reviewed at other regular intervals;
- establish a risk management and internal controls framework and ensure that it is assessed regularly and such assessment is reported to the Parent Board and the chief and senior executives;
- establish and maintain sound accounting and financial reporting procedures and practices for the group; and
- establish and keep under review group functions relating to actuarial, compliance, internal audit and risk management functions which must address certain specific requirements as set out in the Group Rules.

*Designated Insurer Notification Obligations.* The Designated Insurer must notify the BMA upon reaching a view that there is a likelihood of the insurance group or any member of the group becoming insolvent or that a reportable “event” has, to the Designated Insurer’s knowledge, occurred or is believed to have occurred. Examples of a reportable “event” include a failure by the insurance group or any member of the group to comply substantially with a requirement imposed upon it under the Group Rules relating to its solvency position, governance and risk management or supervisory reporting and disclosures; failure by the Designated Insurer to comply with a direction given to it under the Insurance Act in respect of the group or any of its members; a criminal conviction imposed upon any member of the group whether in Bermuda or abroad; material breaches of any statutory requirements by any member of the group located outside of Bermuda that could lead to supervisory or enforcement action by a competent authority; or a significant loss that is reasonably likely to cause the insurance group to be unable to comply with its Group ECR. Within 30 days of such notification to the BMA, the Designated Insurer must furnish the BMA with a written report setting out all the particulars of the case that are available to it and within 45 days it must furnish a group capital and solvency return that reflects the Group ECR that has been prepared using post-loss data and unaudited financial statements for such period as the BMA shall require together with a declaration of solvency in respect thereof. The Designated Insurer must also notify the BMA in writing within 14 days of becoming aware that a requirement of the Group Rules conflicts with the laws of another jurisdiction where a member of the insurance group operates.

Except in circumstances where another member of the group is regulated by a competent authority in an equivalent jurisdiction and the Designated Insurer has within 90 days provided the BMA with written notice of the same, the Designated Insurer shall not permit another member of the group to give effect to a material change unless it has first served notice on the BMA that a member of the group intends to effect such material change and before the end of 14 days, either the BMA has notified the Designated Insurer in writing that it has no objection to such change or that period has lapsed without the BMA having issued a notice of objection. The following events constitute material group changes that must be notified to the BMA: (i) the amalgamation with or acquisition of another firm, (ii) engaging in unrelated business that is retail business, (iii) the acquisition of a controlling interest in an undertaking that is engaged in non-insurance business which offers services and products to persons who are not affiliates of the insurer, (iv) outsourcing all or substantially all of the company’s actuarial, risk management and internal audit functions, (v) outsourcing all or a material part of an insurer’s underwriting activity, (vi) the transfer other than by way of reinsurance of all or substantially all of a line of business, and (vii) the expansion into a material new line of business.

In respect of the parent company of an insurance group, the Designated Insurer is required to give written notice to the BMA of the fact that a person has become, or ceased to be, a controller or officer of the parent company of the insurance group within 45 days of becoming aware of such fact. An officer in relation to the parent company of the insurance group means a director, chief executive or

senior executive performing duties of underwriting, actuarial, risk management, compliance, internal audit, finance or investment matters.

If it appears to the BMA that the Designated Insurer is in breach of any provision of the Insurance Act or the Group Rules, the BMA may give the Designated Insurer such directions as appear to the BMA to be desirable for safeguarding the interests of policyholders and potential policyholders of the insurance group.

*BMA's Powers of Intervention, Obtaining Information, Reports and Documents and Providing Information to other Regulatory Authorities.* The BMA may, by notice in writing served on a registered person or a Designated Insurer, require the registered person or a Designated Insurer to provide such information and/or documentation as the BMA may reasonably require with respect to matters that are likely to be material to the performance of its supervisory functions under the Insurance Act. In addition, it may require such person's auditor, underwriter, accountant or any other person with relevant professional skill to prepare a report on any aspect pertaining thereto. In the case of a report, the person so appointed shall immediately give the BMA written notice of any fact or matter of which he becomes aware or which indicates to him that any condition attaching to his registration under the Insurance Act is not or has not or may not be or may not have been fulfilled and that such matters are likely to be material to the performance of its functions under the Insurance Act. If it appears to the BMA to be desirable in the interests of the clients of a registered person or relevant insurance group, the BMA may also exercise these powers in relation to subsidiaries, parent companies and other affiliates of the registered person or designated insurer.

If the BMA deems it necessary to protect the interests of the policyholders or potential policyholders of an insurer or insurance group, it may appoint one or more competent persons to investigate and report on the nature, conduct or state of the insurer's or the insurance group's business, or any aspect thereof, or the ownership or control of the insurer or insurance group. If the person so appointed thinks it necessary for the purposes of his investigation, he may also investigate the business of any person who is or has been at any relevant time, a member of the insurance group or of a partnership of which the person being investigated is a member. In this regard, it shall be the duty of every person who is or was a controller, officer, employee, agent, banker, auditor, accountant, barrister and attorney or insurance manager to produce to the person appointed such documentation as he may reasonably require for purposes of his investigation, and to attend and answer questions relevant to the investigation and to otherwise provide such assistance as may be necessary in connection therewith.

Where the BMA suspects that a person has failed to properly register under the Insurance Act or that a registered person or designated insurer has failed to comply with a requirement of the Insurance Act or that a person is not, or is no longer, a fit and proper person to perform functions in relation to a regulated activity, it may, by notice in writing, carry out an investigation into such person (or any other person connected thereto). In connection therewith, the BMA may require every person who is or was a controller, officer, employee, agent, banker, auditor, accountant, barrister and attorney or insurance manager to make a report and produce such documents in his care, custody and control and to attend before the BMA to answer questions relevant to the BMA's investigation and to take such actions as the BMA may direct. The BMA may also enter any premises for the purposes of carrying out its investigation and may petition the court for a warrant if it believes a person has failed to comply with a notice served on him or there are reasonable grounds for suspecting the completeness of any information or documentation produced in response to such notice or that its directions will not be complied with or that any relevant documents would be removed, tampered with or destroyed.

The BMA has the power to assist other regulatory authorities, including foreign insurance regulatory authorities, with their investigations involving insurance and reinsurance companies in Bermuda if it is satisfied that the assistance being requested is in connection with the discharge of regulatory responsibilities and that such cooperation is in the public interest. The grounds for disclosure

by the BMA to a foreign regulatory authority without consent of the insurer are limited and the Insurance Act provides for sanctions for breach of the statutory duty of confidentiality.

#### ***Certain Other Bermuda Law Considerations***

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 (i) 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, (ii) 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, (iii) the acquisition of any bonds or debentures secured by any land in Bermuda, other than certain types of Bermuda government securities or (iv) 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 Bermuda Companies Act 1981, as amended (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: (i) the company is, or would after the payment be, unable to pay its liabilities as they become due; or (ii) the realizable value of the company’s assets would thereby be less than its liabilities. See “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Financial Condition, Liquidity and Capital Resources—Liquidity and Capital Resources” and note 20, “Statutory Information,” of the notes accompanying our financial statements.

Under Bermuda law, only persons who are Bermudians, spouses of Bermudians, holders of a permanent resident’s certificate or holders of a working resident’s certificate (“exempted persons”) may engage in 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 of our current key employees are not exempted persons and, as such, 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 exempted person is available who meets the minimum standards reasonably required by the employer.

#### ***U.S. Insurance Regulation***

*General.* In common with other insurers, our U.S. based subsidiaries are subject to extensive governmental regulation and supervision in the various states and jurisdictions in which they are domiciled and licensed and/or approved to conduct business. The laws and regulations of the state of domicile have the most significant impact on operations. This regulation and supervision is designed to protect policyholders rather than investors. Generally, regulatory authorities have broad regulatory powers over such matters as licenses, standards of solvency, premium rates, policy forms, marketing practices, claims practices, investments, security deposits, methods of accounting, form and content of financial statements, reserves and provisions for unearned premiums, unpaid losses and loss adjustment expenses, reinsurance, minimum capital and surplus requirements, dividends and other distributions to shareholders, periodic examinations and annual and other report filings. In addition, transactions among affiliates, including reinsurance agreements or arrangements, as well as certain third party transactions, require prior regulatory approval from, or prior notice to and no disapproval by, the



applicable regulator under certain circumstances. Certain insurance regulatory requirements are highlighted below. In addition, regulatory authorities conduct periodic financial, claims and market conduct examinations. Arch Insurance Company Europe is also subject to certain governmental regulation and supervision in the various states where it has been approved as an excess and surplus lines insurer.

Several years ago, a number of brokers and insurers entered into settlements with state and federal agencies arising out of the investigation by the New York Attorney General and others into contingent commission payments to brokers (and the disclosures relating to such payments), alleged “bid-rigging,” alleged “steering,” and other practices in the insurance industry. We cannot predict the effect these settlements, the pending civil litigation that arose out of the investigations or any current or future government investigations or prosecutions and/or resulting changes in insurance practices (including future legislation and/or regulations that may become applicable to our business) will have on the insurance industry, the regulatory framework or our business. See “Risk Factors—Risks Relating to Our Industry—Our reliance on brokers subjects us to their credit risk.” Although certain brokers have announced new fee structures in response to the industry investigations and, as part of these new initiatives, have requested that our insurance subsidiaries enter into standardized payment arrangements, we have determined to negotiate payment arrangements with our brokers on a case by case basis. However, this has not affected certain agreements between our insurance subsidiaries and managing general agents providing for the payment to such agents of additional commissions based upon the profitability of the business produced by those agents.

*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, except for certain mandated provisions that must be included in order for a ceding company to obtain credit for reinsurance ceded, the terms and conditions of reinsurance agreements generally are not subject to regulation by any governmental authority. This contrasts with admitted 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.

Certain provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (the “Dodd-Frank Act”), which became effective on July 21, 2011, provide that only the state in which a primary insurer is domiciled may regulate the financial statement credit for reinsurance taken by that primary insurer; other states will no longer be able to require additional collateral from unauthorized reinsurers or otherwise impose their own credit for reinsurance laws on primary insurers that are only licensed in such other states.

A primary insurer ordinarily will enter into a reinsurance agreement only if it can obtain credit for the reinsurance ceded on its U.S. statutory-basis 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;
- if the reinsurer is an “accredited” or otherwise approved reinsurer in the state in which the primary insurer is domiciled;
- 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 applies, 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 domiciled.

Arch Re U.S. is licensed or is an accredited or otherwise approved reinsurer in 50 states and the District of Columbia. Arch Insurance is licensed as an insurer in 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands and Guam with a branch office in Canada (authorized to underwrite until December 31, 2012). Arch Specialty is licensed in one state and approved as an excess and surplus lines insurer in 49 states, the District of Columbia, Puerto Rico and the U.S. Virgin Islands. Arch E&S is licensed in one state and approved as an excess and surplus lines insurer in 47 states and the District of Columbia. Arch Indemnity is licensed as an insurer in 49 states and the District of Columbia. Arch Insurance Company Europe is approved as an excess and surplus lines insurer in 27 states and the District of Columbia. Neither Arch Re Bermuda nor Arch Re Europe expects to become licensed, accredited or so approved in any U.S. jurisdiction.

In November 2011, the National Association of Insurance Commissioners (“NAIC”) adopted amendments to its Credit for Reinsurance Model Law and Regulation (the “NAIC Credit for Reinsurance Model Act”). In states that have enacted legislation adopting the amendments to the NAIC Credit for Reinsurance Model Act, full credit is to be allowed to U.S. ceding insurers for reinsurance ceded to qualified non-U.S. reinsurers based upon less than 100% collateralization. Under the amended NAIC Credit for Reinsurance Model Act, collateral requirements may be reduced for international reinsurers meeting certain criteria as to financial strength and reliability that are domiciled in countries that are found to have strong systems of domestic insurance regulation. Such reinsurers would be eligible to apply for “certified reinsurer” status in the states that have adopted the amendments to the NAIC Credit for Reinsurance Model Act and approved reinsurers would be permitted to post collateral at reduced levels. The new collateral levels apply on a prospective basis only. These new standards can only come into effect on a state-by-state basis. A state legislature must enact the amendments to the NAIC Credit for Reinsurance Model Act before the standards can become operative in that state. Prior to the adoption of the amendments to the NAIC Credit for Reinsurance Model Act, four states (Florida, Indiana, New York and New Jersey) enacted legislative amendments authorizing full financial statement credit for reinsurance ceded to unauthorized reinsurers that meet criteria similar to those included in the NAIC Credit for Reinsurance Model Act. Arch Re Bermuda is approved in Florida and New York to post reduced collateral.

*Holding Company Acts.*  All states have enacted legislation that regulates insurance holding company systems. These regulations generally provide that each insurance company in the system is required to register with the insurance department of its state of domicile and furnish information concerning the operations of companies within the holding company system which may materially affect the operations, management or financial condition of the insurers within the system. All transactions within a holding company system affecting insurers must be fair and reasonable. Notice to the state insurance departments is required prior to the consummation of certain material transactions between an insurer and any entity in its holding company system. In addition, certain of such transactions cannot be consummated without the applicable insurance department’s prior approval, or its failure to disapprove after receiving notice. The holding company acts also prohibit any person from directly or indirectly acquiring control of a U.S. insurance company unless that person has filed an application with specified information with the insurance company’s domiciliary commissioner and has obtained the commissioner’s prior approval. Under most states’ statutes, including Missouri and Nebraska, acquiring 10% or more of the voting securities of an insurance company or its parent company is presumptively considered an acquisition of control of the insurance company, although such presumption may be rebutted. Accordingly, any person or entity that acquires, directly or indirectly, 10% or more of the voting securities of ACGL without the prior approval of the commissioner will be in violation of these laws and may be subject to injunctive action requiring the disposition or seizure of those securities by

the commissioner or prohibiting the voting of those securities, or to other actions that may be taken by the commissioner. In 2010, the NAIC adopted amendments to the Insurance Holding Company System Regulatory Act and Regulation, which, among other changes, introduce the concept of “enterprise risk” within an insurance holding company system. If and when the amendments are adopted by a particular state, the amended Insurance Holding Company System Regulatory Act and Regulation would impose more extensive informational requirements on parents and other affiliates of licensed insurers or reinsurers with the purpose of protecting them from enterprise risk, including requiring an annual enterprise risk report by the ultimate controlling person identifying the material risks within the insurance holding company system that could pose enterprise risk to the licensed companies. The amended Insurance Holding Company System Regulatory Act also requires any controlling person of a U.S. insurance company seeking to divest its controlling interest in the insurance company to file with the commissioner a confidential notice of the proposed divestiture at least 30 days prior to the cessation of control; after receipt of the notice, the commissioner shall determine those instances in which the parties seeking to divest or to acquire a controlling interest will be required to file for or obtain approval of the transaction. The amended Insurance Holding Company System Regulatory Act and Regulation must be adopted by the individual states for the new requirements to apply to U.S. domestic insurers and reinsurers. To date, only ten states (California, Connecticut, Indiana, Kentucky, Louisiana, Nebraska, Pennsylvania, Rhode Island, Texas and West Virginia) have enacted legislation adopting the amended Insurance Holding Company System Regulatory Act. It is not clear if and when other states will adopt these changes; however, the NAIC is seeking to make the amendments part of its accreditation standards for state solvency regulation, which would motivate states to adopt the amendments promptly.

*Enterprise Risk.* The NAIC has increased its focus on risks within an insurer’s holding company system that may pose enterprise risk to the insurer. “Enterprise risk” is defined as any activity, circumstance, event or series of events involving one or more affiliates of an insurer that, if not remedied promptly, is likely to have a material adverse effect upon the financial condition or the liquidity of the insurer or its insurance holding company system as a whole. As noted above, the NAIC recently adopted amendments to its Model Insurance Holding Company System Regulatory Act and Regulation, which include, among other amendments, a requirement for the ultimate controlling person to file an enterprise risk report. In 2012, the NAIC adopted the Risk Management and Own Risk and Solvency Assessment (“ORSA”) Model Act, which requires domestic insurers to maintain a risk management framework and establishes a legal requirement for domestic insurers to conduct an ORSA in accordance with the NAIC’s ORSA Guidance Manual. The ORSA Model Act provides that domestic insurers, or their insurance group, must regularly conduct an ORSA consistent with a process comparable to the ORSA Guidance Manual process. The ORSA Model Act also provides that, no more than once a year, an insurer’s domiciliary regulator may request that an insurer submit an ORSA summary report, or any combination of reports that together contain the information described in the ORSA Guidance Manual, with respect to the insurer and/or the insurance group of which it is a member. If and when the ORSA Model Act is adopted by a particular state, the ORSA Model Act would impose more extensive filing requirements on parents and other affiliates of domestic insurers.

*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 prior regulatory approval. Such dividends or distributions may be subject to applicable withholding or other taxes. See “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Financial Condition, Liquidity and Capital Resources—Liquidity and Capital Resources” and note 20, “Statutory Information,” of the notes accompanying our financial statements.

*Insurance Regulatory Information System Ratios.* The 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 13 industry ratios (referred to as “IRIS ratios”) and specifies “usual values” for each ratio. Departure from the usual values of the IRIS ratios can lead to inquiries from individual state insurance commissioners as to certain aspects of an insurer’s business. Certain of our U.S.-based subsidiaries generate IRIS ratios that are outside of the usual values. To date, none of these subsidiaries has received any notice of regulatory review regarding the IRIS ratios but there is no assurance that we may not be notified in the future.

*Accreditation.* The NAIC has instituted its Financial Regulation 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, other states may not 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 E&S, Arch Specialty and Arch Indemnity 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.

An insurer will be subject to varying degrees of regulatory action depending on how its statutory surplus compares to its risk-based capital calculation. For equity investments in an insurance company affiliate, the risk-based capital requirements for the equity securities of such affiliate would generally be our U.S.-based subsidiaries’ proportionate share of the affiliate’s risk-based capital requirement.

Under the approved formula, an insurer’s total adjusted capital is compared to its authorized control level risk-based capital. 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. 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 states by the guaranty funds to cover these losses. Participation in state-assigned risk plans 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. 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 in recent years has shown some 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. based subsidiaries' capital and operations, and such laws or regulations could materially adversely affect their business. In addition, a number of federal laws affect and apply to the insurance industry, including various privacy laws and the economic and trade sanctions implemented by the Office of Foreign Assets Control ("OFAC"). OFAC maintains and enforces economic sanctions against certain foreign countries and groups and prohibits U.S. persons from engaging in certain transactions with certain persons or entities. OFAC has imposed civil penalties on persons, including insurance and reinsurance companies, arising from violations of its economic sanctions program.

*Terrorism Risk Insurance Program Reauthorization Act of 2007.* The Terrorism Risk Insurance Act of 2002 was amended and extended by the Terrorism Risk Insurance Extension Act of 2005 and amended and extended again by the Terrorism Risk Insurance Program Reauthorization Act of 2007 ("TRIPRA") through December 31, 2014. TRIPRA provides a federal backstop for insurance related losses resulting from any act of terrorism on U.S. soil or against certain U.S. air carriers, vessels or foreign missions. Under TRIPRA, all U.S. based property and casualty insurers are required to make terrorism insurance coverage available in specified commercial property and casualty insurance lines. Under TRIPRA, the federal government will pay 85% 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. An insurer's deductible for each year is based on the insurer's direct commercial earned premiums for property and casualty insurance, excluding certain lines of business such as commercial auto, surety, professional liability and earthquake lines of business, for the prior calendar year multiplied by 20%. The specified percentages for prior periods were 15% for 2005, 17.5% for 2006, 20% for 2007, 20% for 2008 through 2012.

Our U.S.-based property and casualty insurers, Arch Insurance, Arch Specialty, Arch E&S and Arch Indemnity, are subject to TRIPRA. TRIPRA specifically excludes reinsurance business and, accordingly, does not apply to our reinsurance operations. Our insurance group's deductible for 2012 was approximately \$220 million (i.e., 20.0% of earned premiums). Based on 2012 direct commercial earned premiums, our insurance group's deductible for 2013 will be approximately \$239 million (i.e., 20.0% of such earned premiums). TRIPRA extends through 2014.

*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 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. Since 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.

*The Dodd-Frank Wall Street Reform and Consumer Protection Act.* The Dodd-Frank Act creates the Federal Insurance Office ("FIO") within the Department of Treasury, which is not a federal regulator or supervisor of insurance, but will monitor the insurance industry for systemic risk, administer the TRIPRA, consult with the states regarding insurance matters and develop federal policy on aspects of international insurance matters. The FIO has sought comment from the insurance industry in connection with the preparation of reports, which have not yet been released, on (i) modernization of the insurance regulatory system and (ii) the global reinsurance market and the regulation of reinsurance. The Dodd-Frank Act also created a uniform system for non-admitted insurance premium tax payments based on the home state of the policyholder and provides for single state regulation for financial solvency and credit for reinsurance as discussed above.

*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. One initiative that has been ongoing for several years is the Solvency Modernization Initiative ("SMI"), which is a self-examination of the U.S. insurance solvency regulation framework being undertaken by the NAIC. This includes a review of international developments regarding supervision, banking supervision, international accounting standards and their potential use in U.S. insurance regulation. The SMI is focusing on five key areas: capital requirements, governance and risk management, group supervision, statutory accounting and financial reporting and reinsurance.

We are unable to predict whether any of these proposed 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. See "—U.S. Insurance Regulation—General."

#### ***United Kingdom Insurance Regulation***

*General.* The Financial Services Authority (the "FSA") regulates insurance and reinsurance companies and firms carrying on insurance mediation activities operating in the U.K. under the Financial Services and Markets Act 2000 (the "FSMA"). In May 2004, Arch Insurance Company Europe was licensed and authorized by the FSA. It holds the relevant permissions for the classes of insurance business which it underwrites in the U.K. In 2009, AUAL was licensed and authorized by the FSA and the Lloyd's Franchise Board. AUAL holds the relevant permissions for the classes of insurance business which are underwritten in the U.K. by Arch Syndicate 2012. Arch Syndicate 2012 has one member, Arch Syndicate Investments Ltd. Arch Risk Partners was licensed and authorized by the FSA in February 2012 to conduct insurance mediation activities. All U.K. companies are also subject to a range of statutory provisions, including the laws and regulations of the Companies Acts 2006 (as amended) (the "U.K. Companies Acts").

The primary statutory goals of the FSA are to maintain and promote confidence in the U.K. financial system, secure the appropriate degree of protection for consumers and reduce financial crime. The FSA regulatory regime imposes risk management, solvency and capital requirements on U.K. insurance companies. The FSA has broad authority to supervise and regulate insurance companies and

firms carrying on insurance mediation which extends to enforcement of the provisions of the FSMA and intervention in the operations of an insurance company. The FSA regime is based on principles from which all of its rules and guidance derive. Among these principles, the FSA increasingly emphasizes a “culture of compliance” in those firms it regulates. The FSA carries out regular Advanced Risk Responsive Operating Framework (“ARROW”) assessments of regulated firms to ensure compliance with its rules and guidance. The FSA conducted risk assessments of Arch Insurance Company Europe in 2006 and 2008 and of Arch Insurance Company Europe and AUAL in 2011. The assessments provided the FSA’s views on Arch Insurance Company Europe’s and AUAL’s risk profile and regulatory capital requirements. In some cases, the FSA may require remedial action or adjustments to a company’s management, operations, capital requirements, claims management or business plan. The U.K. government announced in 2010 that the FSA will be replaced by two new agencies, the Prudential Regulation Authority (“PRA”) and the Financial Conduct Authority (“FCA”). The legislation effecting this change, the Financial Services Act 2012, will come into effect on April 1, 2013, at which point the PRA and FCA will take over regulatory responsibility for the insurance and reinsurance industries in the U.K. The objectives of the PRA are to promote the safety and soundness of all firms it supervises and to secure an appropriate degree of protection for policyholders. The objectives of the FCA are to ensure customers receive financial services and products that meet their needs, to promote sound financial systems and markets and to ensure that firms are stable and resilient with transparent pricing information and which compete effectively and have the interests of their customers and the integrity of the market at the heart of how they run their business. The current responsibilities of the FSA will be split so that the PRA will assume responsibility for prudential regulation of banks and insurers, while the FCA will assume responsibility for the conduct of business regulation in the wholesale and retail markets. Both the PRA and FCA entered into consultation processes in the fall of 2012 regarding proposed changes to existing regulatory rules. The results of those consultation processes have not yet been published. The PRA and FCA will adopt methods of assessing firms under their supervision. Where reference is made to the FSA in this document, the PRA or FCA, as applicable, will assume responsibility on April 1, 2013. Arch Insurance Company Europe and AUAL, will be subject to regulation by both the PRA and FCA. Arch Risk Partners will be subject to regulation by the FCA only.

*Lloyd’s Supervision.* The operations of AUAL and related Arch Syndicate 2012 and its corporate member, Arch Syndicate Investments Ltd (“ASIL”), are subject to the byelaws and regulations made by (or on behalf of) the Council of Lloyd’s, and requirements made under those byelaws. The Council of Lloyd’s, established in 1982 by Lloyd’s Act 1982, has overall responsibility and control of Lloyd’s. Those byelaws, regulations and requirements provide a framework for the regulation of the Lloyd’s market, including specifying conditions in relation to underwriting and claims operations of Lloyd’s participants. Lloyd’s is also subject to the provisions of the FSMA and is itself authorized and regulated as an insurer by the FSA (and will be subject to regulation by the PRA and FCA). Those entities acting within the Lloyd’s market are required to comply with the requirements of the FSMA and provisions of the FSA’s rules, although the FSA has delegated certain of its powers, including some of those relating to prudential requirements, to Lloyd’s. ASIL, as a member of Lloyd’s, is required to contribute 0.5% of Arch Syndicate 2012’s premium income limit for each year of account to the Lloyd’s central fund. The Lloyd’s central fund is available if members of Lloyd’s assets are not sufficient to meet claims for which the member is liable. As a member of Lloyd’s, ASIL may also be required to contribute to the central fund by way of a supplement to a callable layer of up to 3% of Arch Syndicate 2012’s premium income limit for the relevant year of account. In addition, AUAL, on behalf of Arch Syndicate 2012, is approved to underwrite excess and surplus lines insurance in most states in the U.S. through Lloyd’s licenses. Such activities must be in compliance with the Lloyd’s requirements.

*Financial Resources.* Arch Insurance Company Europe, AUAL (on behalf of itself, Arch Syndicate 2012 and ASIL) and Arch Risk Partners are each required to demonstrate to the FSA that each has adequate financial assets to meet the financial resources requirement for its category. When the FSA is

split into the PRA and FCA, Arch Insurance Company Europe and AUAL (on behalf of itself, Arch Syndicate 2012 and ASIL) will each be required to demonstrate the adequacy of its financial assets to the PRA, while Arch Risk Partners will be required to demonstrate the adequacy of its financial assets to the FCA. On a periodic basis, Arch Insurance Europe is required to provide the FSA and Lloyd's with its own risk-based assessment of its capital needs, taking into account comprehensive risk factors, including market, credit, operational, liquidity and group risks to generate a revised calculation of its expected liabilities which, in turn, enable the FSA and Lloyd's to provide individual capital guidance and requirements to Arch Insurance Europe. When the FSA is split into the PRA and FCA, similar requirements from the PRA will take effect. Arch Insurance Europe's surplus is above the risk-based capital threshold allowed by the FSA's individual capital assessment of Arch Insurance Europe. The FSA requires that Arch Insurance Europe maintain a margin of solvency calculation based on the classes of business for which it is authorized and within its premium income projections applied to its worldwide general business.

*Reporting Requirements.* Like all U.K. companies, Arch Insurance Europe and Arch Risk Partners must file and submit their annual audited financial statements in accordance with IFRS and related reports to the Registrar of Companies under the U.K. Companies Acts together with an annual return of certain core corporate information and changes from the prior year. This requirement is in addition to the regulatory returns required to be filed annually with the FSA for Arch Insurance Company Europe, AUAL and Arch Risk Partners and, in the case of AUAL and ASIL, Lloyd's.

*Financial Services Compensation Scheme.* The Financial Services Compensation Scheme ("FSCS") is a scheme established under FSMA to compensate eligible policyholders of insurance companies who may become insolvent. FSCS is funded by levies it has the power to impose on all insurers. Arch Insurance Europe and/or Arch Risk Partners could be required to pay levies to FSCS.

*Restrictions on Acquisition of Control.* Under FSMA, the prior consent of the FSA is required before any person can become a controller or increase its control over any regulated company, including Arch Insurance Company Europe, AUAL and Arch Risk Partners, or over the parent undertaking of any regulated company. Therefore, the FSA's prior consent is required before any person can become a controller of ACGL. Prior consent is also required from Lloyd's before any person can become a controller or increase its control over a corporate member or a managing agent or a parent undertaking of a corporate member or managing agent. A controller is defined for these purposes as a person who holds (either alone or in concert with others) 10% or more of the shares or voting power in the relevant company or its parent undertaking.

*Restrictions on Payment of Dividends.* Under English law, all companies are restricted from declaring a dividend to their shareholders unless they have "profits available for distribution." The calculation as to whether a company has sufficient profits is based on its accumulated realized profits minus its accumulated realized losses. U.K. insurance regulatory laws do not prohibit the payment of dividends, but the FSA requires that insurance companies and insurance intermediaries maintain certain solvency margins and may restrict the payment of a dividend by Arch Insurance Company Europe, AUAL, ASIL or Arch Risk Partners. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Financial Condition, Liquidity and Capital Resources—Liquidity and Capital Resources" and note 20, "Statutory Information," of the notes accompanying our financial statements.

*European Union Considerations.* Through their respective authorizations in the U.K., a Member State of the European Union ("EU"), Arch Insurance Company Europe's, AUAL's and Arch Risk Partners' authorizations are recognized throughout the European Economic Area ("EEA"), subject only to certain notification and application requirements. This authorization enables Arch Insurance Company Europe, AUAL and Arch Risk Partners to establish a branch in any other Member State of the EU, where such entity will be subject to the insurance regulations of each such Member State with



respect to the conduct of its business in such Member State, but remain subject only to the financial and operational supervision by the FSA. The framework for the establishment of branches in Member States of the EU other than the U.K. was generally set forth, and remains subject to, directives adopted by the European Council, the legislative body of the EU, which directives are then implemented in each Member State. Arch Insurance Company Europe currently has branches in Denmark, Germany, Italy, Spain and Sweden and may establish branches in other Member States of the EU in the future. Further, through its authorizations in an EU Member State, Arch Risk Partners, Arch Insurance Company Europe and AUAL have the freedom to provide insurance services anywhere in the EEA subject to compliance with certain rules governing such provision, including notification to the FSA.

On November 25, 2009, the EU adopted a new directive directed at insurance and reinsurance companies known as Solvency II. Solvency II is a new regulatory regime which will impose economic risk-based solvency requirements across all EU Member States and consists of three pillars: (1) Pillar I—quantitative capital requirements, based on a valuation of the entire balance sheet; (2) Pillar II—qualitative regulatory review, which includes governance, internal controls, enterprise risk management and supervisory review process; and (3) Pillar III—market discipline, which is accomplished through reporting of the insurer’s financial condition to regulators and the public. Secondary legislation under Solvency II is currently being discussed by the European Parliament and Council and by the European Commission, and the directive will then have to be implemented in the U.K. by the U.K. Government, the PRA and the FCA (and in all other EU jurisdictions by their respective governments and insurance supervisors). The Solvency II directive is currently due to be transposed into national law by EU Member States on June 30, 2013 and will apply to firms on January 1, 2014, although this date may be further postponed. Arch Insurance Company Europe, AUAL and Syndicate 2012 will be required to comply with Solvency II requirements.

### *Canada Insurance Regulation*

The Canadian branch of Arch Insurance, as well as Arch Insurance Canada, the newly formed Canadian company which commenced underwriting on January 1, 2013, are subject to federal, as well as provincial and territorial, regulation in Canada. The Office of the Superintendent of Financial Institutions (“OSFI”) is the federal regulatory body that, under the Insurance Companies Act (Canada), regulates federal Canadian and non-Canadian insurance companies operating in Canada. The primary goal of OSFI is to supervise the safety and soundness of insurance companies with the aim of securing the appropriate level of protection of insureds by imposing risk management, solvency and capital requirements on such companies. Arch Insurance Canada is subject to regulation in the provinces and territories in which it underwrites insurance, and the primary goal of insurance regulation at the provincial and territorial levels is to govern the market conduct of insurance companies. Arch Insurance Canada is licensed to carry on insurance business by OSFI and in each province and territory.

Under the Insurance Companies Act (Canada), the Canadian branch office is required to maintain an adequate margin of assets over liabilities in Canada, calculated in accordance with a test promulgated by OSFI called the Branch Adequacy of Assets Test. In addition, under the Insurance Companies Act (Canada), Arch Insurance Canada is required to maintain an adequate amount of capital in Canada, calculated in accordance with a test promulgated by OSFI called the Minimum Capital Test (“MCT”). Arch Insurance Canada and the branch operation of Arch Insurance are required to file financial information with OSFI on an ongoing basis, including annual audited financial statements in accordance with Canadian generally accepted accounting principles and other returns and quarterly unaudited financial statements. The appointed actuary of our Canadian operations must report annually on the adequacy of their reserves. OSFI’s continuing supervision includes analysis of this information and periodic examinations of the Canadian branch office. OSFI has implemented a risk-based methodology for assessing insurance companies operating in Canada known as its

“Supervisory Framework”. In applying the Supervisory Framework, OSFI considers the inherent risks of the business and the quality of risk management for each significant activity of operating entity.

### *Ireland Insurance and Reinsurance Regulation*

*General.* The Central Bank of Ireland (“CBOI”) regulates insurance and reinsurance companies authorized in Ireland. We have two Irish operating subsidiaries: Arch Re Europe and Arch Mortgage. Arch Re Europe was licensed and authorized by the CBOI as a non-life reinsurer in October 2008 and as a life reinsurer in November 2009. Arch Mortgage was licensed and authorized by the CBOI as a non-life insurer in December 2011.

Both Arch Re Europe and Arch Mortgage are subject to the regulation and supervision of the CBOI. Arch Re Europe must comply with the European Communities (Reinsurance) Regulations, 2006, rules made thereunder and, insofar as relevant to reinsurance, the Irish Insurance Acts 1909 to 2009, regulations promulgated there under, regulations relating to reinsurance business promulgated under the European Communities Act 1972, the Irish Central Bank Acts 1942 to 2011 as amended, regulations promulgated there under and directions, guidelines and codes of conduct issued by the CBOI. Irish authorized reinsurers, such as Arch Re Europe, are also subject to the general body of Irish laws and regulations including the provisions of the Companies Acts 1963-2012. Arch Mortgage must comply with the Irish Insurance Acts 1909 to 2009, regulations promulgated thereunder, regulations relating to insurance business promulgated under the European Communities Act 1972, the Irish Central Bank Acts 1942 to 2011, as amended, regulations promulgated thereunder and directions and guidelines and codes of conduct issued by the CBOI.

*Financial Resources.* Both Arch Re Europe and Arch Mortgage are required to maintain reserves, particularly in respect of underwriting liabilities and a solvency margin as provided for in the Irish insurance acts and regulations mentioned above. Arch Re Europe must maintain assets constituting statutory reserves which must comply with principles including obligations to secure sufficiency, liquidity, security, quality, profitability and currency matching of investments. An appointed actuary must opine on the adequacy of the statutory reserves of both Arch Re Europe and Arch Mortgage annually.

*Reporting Requirements.* Like most Irish companies, Arch Re Europe and Arch Mortgage must file and submit their annual audited financial statements in accordance with Irish generally accepted accounting principles and related reports to the Registrar of Companies (“Registrar”) under the Companies Acts 1963-2012 together with an annual return of certain core corporate information. Changes to core corporate information during the year must also be notified to the Registrar. These requirements are in addition to the regulatory returns required to be filed annually with the CBOI.

*Restrictions on Payment of Dividends.* Under Irish company law, Arch Re Europe and Arch Mortgage are permitted to make distributions only out of profits available for distribution. A company’s profits available for distribution are its accumulated, realized profits, so far as not previously utilized by distribution or capitalization, less its accumulated, realized losses, so far as not previously written off in a reduction or reorganization of capital duly made. Further, the CBOI has powers to intervene if a dividend payment were to lead to a breach of regulatory capital requirements. See “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Financial Condition, Liquidity and Capital Resources—Liquidity and Capital Resources” and note 20, “Statutory Information,” of the notes accompanying our financial statements.

*European Union Considerations.* As a reinsurance company authorized in Ireland, a Member State of the EU, Arch Re Europe’s authorization is recognized throughout the EEA, subject only to any notification requirements imposed by other EU Member States. This authorization enables Arch Re Europe to provide reinsurance services, or to establish a branch, in any other Member State of the

EEA. Although, in doing so, it may be subject to the laws of such Member States with respect to the conduct of its business in such Member State, company law registrations and other matters, it will remain subject to financial and operational supervision by the CBOI only. Arch Re Europe has a branch in Denmark, Arch Re Accident & Health ApS (“Arch Re Denmark”), which is an underwriting agency underwriting accident and health business for Arch Re Europe. Arch Re Europe also has a branch in the U.K., which underwrites non-life reinsurance risk for Arch Re Europe. Finally, Arch Re Europe also has a branch outside the EEA, Arch Reinsurance Europe Underwriting Limited, Dublin (Ireland), Zurich Branch (“Arch Re Europe Swiss Branch”).

As an insurance company authorized in Ireland, a Member State of the EU, Arch Mortgage’s authorization is recognized throughout the EEA, subject to certain notification requirements imposed under the European Directives and there being no objection from the CBOI and the Member States concerned, and it may establish branches and provide insurance services in all EEA Member States.

#### ***Switzerland Reinsurance Regulation***

In November 2006, Arch Re Bermuda opened Arch Reinsurance Ltd., Hamilton (Bermuda), European Branch Zurich (“Arch Re Bermuda Swiss Branch”). In December 2008, Arch Re Europe opened Arch Re Europe Swiss Branch as a branch office. Upon the opening of this branch in the fourth quarter of 2008, the operations of Arch Re Bermuda Swiss Branch were transferred to Arch Re Europe Swiss Branch. Arch Re Bermuda Swiss Branch was formally de-registered from the commercial register of the Canton of Zurich in early 2009. As both Arch Re Europe and Arch Re Bermuda are domiciled outside of Switzerland and their activities were and are limited to reinsurance, their respective branches in Switzerland were and are not required to be licensed by the Swiss insurance regulatory authorities.

#### ***European Union Insurance and Reinsurance Regulation***

The single system established in the EU for regulation and supervision of the general insurance sector and its single passport regime had until 2007 applied only to direct insurance, and there was no common regulation of reinsurance in the EU. However, direct insurers established in a Member State of the EEA who were also authorized by their domestic regulatory authorities to transact reinsurance have had freedom to establish branches in and provide insurance services to all EEA states and that freedom has in practice been extended to their reinsurance activities. In December 2005, the EU published the Reinsurance Directive (the “Directive”) as a first step in harmonization of reinsurance regulation in the single market. Member States of the EU and the EEA were required to implement the Directive by December 2007. Pure reinsurers established in a Member State of the EU now have freedom to establish branches in and provide services to all EEA states under a regime comparable to that enjoyed by direct insurers, and they will be subject to similar rules in relation to licensing and financial supervision.

Arch Insurance Company Europe, AUAL and Arch Risk Partners, being established in the U.K. and authorized by the FSA, are able, subject to regulatory notifications and there being no objection from the FSA and the Member States concerned, to establish branches and provide insurance and reinsurance services in all EEA Member States. Arch Re Europe, being established in Ireland and authorized by the CBOI to write reinsurance, is able, subject to similar regulatory notifications and there being no objection from the CBOI and the Member States concerned, to establish branches and provide reinsurance services in those EEA states which have implemented the Directive. The Directive itself does not prohibit EEA insurers from obtaining reinsurance from reinsurers licensed outside the EEA, such as Arch Re Bermuda. As such, and subject to the specific rules in particular Member States, Arch Re Bermuda may do business from Bermuda with insurers in EEA Member States, but it may not directly operate its reinsurance business within the EEA. Unless agreement is reached between the European Commission and Bermuda to accord Bermuda based reinsurers with market access on the

basis of the equivalent nature of Bermuda regulation, each individual EEA Member State may impose conditions on reinsurance provided by Bermuda based reinsurers which could restrict their future provision of reinsurance to the EEA Member State concerned. A number of EEA Member States currently restrict the extent to which Bermudian reinsurers may promote their services in those Member States, and a few have certain prohibitions on the purchase of insurance from reinsurers not authorized in the EEA. The Directive is scheduled to be repealed and replaced by new provisions under Solvency II on January 1, 2014. However, this may change depending on whether the implementation date for Solvency II is extended again from January 1, 2014.

Article 172 of Solvency II will, when it comes into force, provide that reinsurance contracts concluded by insurance undertakings in the EEA with reinsurers having their head office in a country whose solvency regime has been determined to be equivalent to Solvency II shall be treated in the same manner as reinsurance contracts with undertakings in the EEA authorized under Solvency II. The European Commission is considering whether the solvency regime in Bermuda is equivalent to that laid down in Solvency II. In October 2011, the European Insurance and Occupational Pensions Authority (“EIOPA”), which is established under European Law as an independent advisory body to the European Parliament, the European Council and the European Commission and specifically to assist in preparing equivalence decisions, advised that Bermuda meets the criteria set out in EIOPA’s methodology for equivalence assessments under Solvency II subject to certain caveats set out in EIOPA’s report. EIOPA will revisit its assessment of the equivalence of the solvency regime in Bermuda when implementation measures for Solvency II have been agreed.

## **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 Limited, 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 LLP, 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 shares (common shares or series C non-cumulative preferred shares), or of a person treated as a holder of our 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 shares.

### **Taxation of ACGL**

#### ***Bermuda***

Under current Bermuda law, ACGL is not subject to tax on income or profits, withholding, capital gains or capital transfers. ACGL has 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 ACGL or to any of our operations or our shares, debentures or other obligations until March 31, 2035. 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 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 U.S. excise taxes on insurance and reinsurance premium and 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 U.S. 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 U.S. Internal Revenue Service will not contend successfully that ACGL or its non-U.S. subsidiaries are or have been engaged in a trade or business in the United States. A foreign corporation deemed to be so engaged would be subject to U.S. income tax, as well as the branch profits tax, on its income, which is treated as effectively connected with the conduct of that trade or business unless the corporation is entitled to relief under the permanent establishment provisions of a tax treaty. Such income tax, if imposed, would be based on effectively connected income computed in a manner generally analogous to that applied to the income of a domestic corporation, except that deductions and credits generally are not permitted unless the foreign corporation has timely filed a U.S. federal income tax return in accordance with applicable regulations. Penalties may be assessed for failure to file tax returns. The 30% branch profits tax is imposed on net income after subtracting the regular corporate tax and making certain other adjustments.

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

The Treaty clearly applies to premium income, but may be construed as not protecting investment income. If ACGL's Bermuda insurance subsidiaries were considered to be engaged in a U.S. trade or business and were entitled to the benefits of the Treaty in general, but the Treaty were not found to protect investment income, a portion of such subsidiaries' investment income could be subject to U.S. federal income tax.

Non-U.S. insurance companies carrying on an insurance business within the United States have a certain minimum amount of effectively connected net investment income, determined in accordance with a formula that depends, in part, on the amount of U.S. risk insured or reinsured by such companies. If any of ACGL's non-U.S. insurance subsidiaries is considered to be engaged in the

conduct of an insurance business in the United States, a significant portion of such company's investment income could be subject to U.S. income tax.

Non-U.S. 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), subject to exemption under the Code or reduction by applicable treaties.

The United States also imposes an excise tax on insurance and reinsurance premiums paid to non-U.S. insurers or reinsurers with respect to risks located in the United States. The rates of tax, unless reduced by an applicable U.S. tax treaty, are 4% for non-life insurance premiums and 1% for life insurance and all reinsurance premiums.

### *United Kingdom*

Our U.K. subsidiaries are companies incorporated and have their central management and control in the U.K., and are therefore resident in the U.K. for corporation tax purposes. As a result, they will be subject to U.K. corporate tax on their respective worldwide profits. The main rate of U.K. corporation tax for the financial year starting April 1, 2012 is 24% on profits, but progressive decreases in the rate have been announced to take effect on April 1, 2013 through 2014 from 23% to 21%.

### *Canada*

In January 2005, Arch Insurance received its federal license to commence underwriting in Canada and began writing business in the first quarter of 2005 through its branch operation. Effective January 1, 2013, the branch operation was domesticated into Arch Insurance Canada, a new Canadian federal insurance company subsidiary of Arch Insurance. The branch operation will be taxed on net business income earned in Canada in 2012. Canadian income taxes for the branch operation in 2012 will also be creditable to our U.S. operations. Arch Insurance Canada is taxed on its worldwide income. The general federal corporate income tax rate in Canada is currently 15%. Provincial and territorial corporate income tax rates are added to the general federal corporate income tax rate and generally vary between 10% and 16%.

### *Ireland*

Arch Re Europe was licensed and authorized by the CBOI as a non-life reinsurer in October 2008 and as a life reinsurer in November 2009. Arch Mortgage was licensed and authorized by the CBOI as a non-life insurer in 2011. Each of Arch Re Europe and Arch Mortgage is incorporated and resident in Ireland for corporation tax purposes and will be subject to Irish corporate tax on its worldwide profits, including the profits of Arch Re Europe Swiss Branch and its newly authorized U.K. branch. Any creditable foreign tax (i.e., Swiss or U.K.) payable will be creditable against Arch Re Europe's Irish corporate tax liability on the results of Arch Re Europe's Swiss and U.K. branches. The current rate of Irish corporation tax applicable to such profits is 12.5%.

### *Switzerland*

Arch Re Europe Swiss Branch is subject to Swiss corporation tax on the profit which is allocated to the branch. The effective tax rate is approximately 21.17% for Swiss federal, cantonal and communal corporation taxes on the profit. The effective tax rate of the annual cantonal and communal capital taxes on the equity which is allocated to Arch Re Europe Swiss Branch is approximately 0.172%.

## *Denmark*

Arch Re Denmark, established as a subsidiary of Arch Re Bermuda, is subject to Danish corporation taxes on its profits at a rate of 25%.

### **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 and our series C non-cumulative preferred shares (“preferred 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 and preferred shares as capital assets and as beneficial owners. 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 or preferred 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 there under 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 our common shares or preferred shares or the shareholders. Persons considering making an investment in the common shares or preferred 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 or preferred 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 our common shares or preferred 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.* The preferred shares should be properly classified as equity rather than debt for U.S. federal income tax purposes. Subject to the discussions below relating to the potential application of the CFC, “related person insurance income” (“RPII”) and PFIC rules, as defined below, cash distributions, if any, made with respect to our common shares or preferred shares will constitute dividends for U.S. federal income tax purposes to the extent paid out of our current or accumulated earnings and profits (as computed using U.S. tax principles). If a U.S. Holder of our common shares or our preferred shares is an individual or other non-corporate holder, dividends paid, if any, to that holder that constitute qualified dividend income will be taxable at the rate applicable for long-term capital gains (generally up to 20%), provided that such person meets a holding period requirement. Generally in order to meet the holding period requirement, the United States Person must hold the common shares for more than 60 days during the 121-day period beginning 60 days before the ex-dividend date and must hold preferred shares for more than 90 days during the 181-day period beginning 90 days before the ex-dividend date. Dividends paid, if any, with respect to common shares or preferred shares generally will be qualified dividend income, provided the common shares or preferred shares are readily tradable on an established securities market in the U.S. in the year in which the shareholder receives the dividend (which should be the case for shares that are listed on the NASDAQ Stock Market or the New York Stock Exchange) and ACGL is not considered to be a passive foreign investment company in either the year of the distribution or the preceding taxable year. No assurance can be given that the preferred shares will be considered readily tradable on an established securities market in the United States. See “—Taxation of Our U.S. Shareholders” below.

For taxable years beginning after December 31, 2012, a U.S. Holder that is an individual, estate or a trust that does not fall into a special class of trusts that is exempt from such tax, will be subject to a 3.8% tax on the lesser of (1) the U.S. Holder’s “net investment income” for the relevant taxable year and (2) the excess of the U.S. Holder’s modified adjusted gross income for the taxable year over a certain threshold (which in the case of individual will be between \$125,000 and \$250,000, depending on the individual’s circumstances). A U.S. Holder’s net investment income will generally include its dividend income and its net gains from the disposition of our common shares and preferred shares, unless such dividend income or net gains are derived in the ordinary course of the conduct of a trade or business (other than a trade or business that consists of certain passive or trading activities).

Distributions with respect to the common shares and the preferred shares will not be eligible for the dividends received deduction allowed to U.S. corporations under the Code. To the extent distributions on our common shares and preferred shares exceed our earnings and profits, they will be treated first as a return of the U.S. Holder’s basis in our common shares and our preferred 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, RPII and PFIC rules, holders of common shares and preferred shares generally will recognize capital gain or loss for U.S. federal income tax purposes on the sale, exchange or disposition of common shares or preferred shares, as applicable.

*Redemption of Preferred Shares.* A redemption of the preferred shares will be treated under section 302 of the Code as a dividend if we have sufficient earnings and profits, unless the redemption satisfies one of the tests set forth in section 302(b) of the Code enabling the redemption to be treated as a sale or exchange, subject to the discussion herein relating to the potential application of the CFC, RPII and PFIC rules. Under the relevant Code section 302(b) tests, the redemption should be treated as a sale or exchange only if (1) is substantially disproportionate, (2) constitutes a complete



termination of the holder's stock interest in us or (3) is "not essentially equivalent to a dividend." In determining whether any of these tests are met, shares considered to be owned by the holder by reason of certain constructive ownership rules set forth in the Code, as well as shares actually owned, must generally be taken into account. It may be more difficult for a United States Person who owns, actually or constructively by operation of the attribution rules, any of our other shares to satisfy any of the above requirements. The determination as to whether any of the alternative tests of section 302(b) of the Code is satisfied with respect to a particular holder of the preference shares depends on the facts and circumstances as of the time the determination is made.

## **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. Depending upon the ownership of these investors and as a result of certain attribution rules, we and our foreign subsidiaries could be controlled foreign corporations ("CFCs"). That status as a CFC would not cause us or any of our subsidiaries to be subject to U.S. federal income tax. Such status also would have 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 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 shares or those of our foreign subsidiaries (taking into account shares actually owned by such U.S. Holder as well as shares attributed to such U.S. Holder under the Code or the regulations there under) (a "10% U.S. Voting Shareholder") would be affected by our status as a CFC. The preferred shares generally should not be considered voting stock for purposes of determining whether a United States Person would be a "10% U.S. Voting Shareholder." The shares may, however, become entitled to vote (as a class along with any other class of preferred shares of ACGL then outstanding) for the election of two additional members of the board of directors of ACGL if ACGL does not declare and pay dividends for the equivalent of six or more dividend periods. In such case, the preferred shares should be treated as voting stock for as long as such voting rights continue. 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 there under) common shares owned by such funds may be considered a 10% U.S. Voting Shareholder. If we are a CFC, a U.S. Holder that is considered a 10% U.S. Voting Shareholder would 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 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 there under.

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

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

If the U.S. Internal Revenue Service or U.S. Treasury Department were to make Section 1248 and the Form 5471 filing requirement applicable to the sale of our shares, we would notify shareholders that Section 1248 of the Code and the requirement to file Form 5471 will apply to dispositions of our 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 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.

### ***Tax-Exempt Shareholders***

Tax-exempt entities may be required to treat certain Subpart F insurance income, including RPII, that is includible in income by the tax-exempt entity as unrelated business taxable income. Prospective investors that are tax exempt entities are urged to consult their tax advisors as to the potential impact of the unrelated business taxable income provisions of the Code.

### ***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 or preferred shares. In general, a shareholder receives an “excess distribution” if the amount of the distribution is more than 125% of the average distribution with respect to the

shares during the three preceding taxable years (or shorter period during which the taxpayer held the stock). In general, the penalty tax is equivalent to an interest charge on taxes that are deemed due during the period the shareholder owned the shares, computed by assuming that the excess distribution or gain (in the case of a sale) with respect to the shares was taxable in equal portions throughout the holder's period of ownership. The interest charge is equal to the applicable rate imposed on underpayments of U.S. federal income tax for such period. A U.S. shareholder may avoid some of the adverse tax consequences of owning shares in a PFIC by making a qualified electing fund ("QEF") election. A QEF election is revocable only with the consent of the IRS and has the following consequences to a shareholder:

- For any year in which ACGL is not a PFIC, no income tax consequences would result.
- For any year in which 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 believe that we are not a PFIC, and we will use reasonable best efforts to cause us and each of our non-U.S. insurance subsidiaries not to constitute a PFIC.

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 or preferred 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 or preferred 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 such 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.

### ***Possible Medicare Tax***

If a trust or estate that is otherwise treated as a Non-U.S. Holder has any beneficiaries that are U.S. taxpayers, such trust or beneficiaries may be subject to the medicare tax described under "—Taxation of Shareholders—United States Taxation". If you are a non-U.S. trust or estate that has any U.S. beneficiaries, you should consult your own tax advisors regarding the potential application of this medicare tax.

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

Non-U.S. holders of common shares or preferred 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 or our preferred 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 1A. RISK FACTORS**

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

### **Risks Relating to Our Industry**

***We operate in a highly competitive environment, and we may not be able to compete successfully in our industry.***

The insurance and reinsurance industry is highly competitive. We compete with major U.S. and non-U.S. insurers and reinsurers, many of which have greater financial, marketing and management resources than we do, as well as other potential providers of capital willing to assume insurance and/or reinsurance risk. We also compete with new companies that continue to be formed to enter the insurance and reinsurance markets. In addition, continued consolidation within the insurance and reinsurance industry will further enhance the already competitive underwriting environment. These consolidated entities may use their enhanced market power and broader capital base to negotiate price reductions for products and services that compete with ours, and we may experience rate declines and possibly write less business. In our insurance business, we compete with insurers that provide specialty property and casualty lines of insurance, including ACE Limited, Alleghany Corporation, Allied World Assurance Company, Ltd., American International Group, Inc., AXIS Capital Holdings Limited, Berkshire Hathaway, Inc., Chubb Corporation, CNA, Endurance Specialty Holdings Ltd., The Hartford Financial Services Group, Inc., HCC Insurance Holdings, Inc., Ironshore Inc., Liberty Mutual Insurance, Lloyd’s, Markel Insurance Company, RLI Corp., The Travelers Companies, W.R. Berkley Corp., XL Group plc and Zurich Insurance Group. In our reinsurance business, we compete with reinsurers that provide property and casualty lines of reinsurance, including ACE Limited, Alleghany Corporation, Alterra Capital Holdings Limited, Argo International Holdings, Ltd., AXIS Capital Holdings Limited, Berkshire Hathaway, Inc., Endurance Specialty Holdings Ltd., Everest Re Group Ltd., Hannover Rückversicherung AG, Lloyd’s, Montpelier Re Holdings Ltd., Munich Re Group, PartnerRe Ltd., Platinum Underwriters Holdings, Ltd., RenaissanceRe Holdings Ltd., Swiss Reinsurance Company, Validus Holdings Ltd and XL Group plc. We do not believe that we have a significant market share in any of our markets.

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.

Our competitive position is based on many factors, including our perceived overall financial strength, ratings assigned by independent rating agencies, geographic scope of business, client and broker relationships, premiums charged, contract terms and conditions, products and services offered (including the ability to design customized programs), appropriate and timely claim payments, reputation, experience and qualifications of employees and local presence. We may not be successful in competing with others on any of these bases, and the intensity of competition in our industry may erode profitability and result in less favorable policy terms and conditions for insurance and reinsurance companies generally, including us.

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

Historically, insurers and reinsurers have experienced significant fluctuations in operating results due to competition, frequency of occurrence or severity of catastrophic events, levels of capacity, general economic conditions, changes in equity, debt and other investment markets, changes in legislation, case law and prevailing concepts of liability and other factors. In particular, demand for reinsurance is influenced significantly by the underwriting results of primary insurers and prevailing general economic conditions. The supply of insurance and reinsurance is related to prevailing prices and levels of surplus capacity that, in turn, may fluctuate in response to changes in rates of return being realized in the insurance and reinsurance industry on both underwriting and investment sides. As a result, the insurance and reinsurance business historically has been a cyclical industry characterized by periods of intense price competition due to excessive underwriting capacity as well as periods when shortages of capacity permitted favorable premium levels and changes in terms and conditions. The supply of insurance and reinsurance has increased over the past several years and may increase further, either as a result of capital provided by new entrants or by the commitment of additional capital by existing insurers or reinsurers. Continued increases in the supply of insurance and reinsurance may have consequences for us, including fewer contracts written, lower premium rates, increased expenses for customer acquisition and retention, and less favorable policy terms and conditions.

***Claims for catastrophic events could cause large losses and substantial volatility in our results of operations and could have a material adverse effect on our financial position and results of operations. As a result, the value of our securities, including our common shares and preferred shares, may fluctuate widely.***

We have large aggregate exposures to natural and man-made catastrophic events. Catastrophes can be caused by various events, including hurricanes, floods, windstorms, earthquakes, hailstorms, tornados, explosions, severe winter weather, fires, droughts and other natural disasters. Catastrophes can also cause losses in non-property business such as workers' compensation or general liability. In addition to the nature of the property business, we believe that economic and geographic trends affecting insured property, including inflation, property value appreciation and geographic concentration tend to generally increase the size of losses from catastrophic events over time. Actual losses from future catastrophic events may vary materially from estimates due to the inherent uncertainties in making such determinations resulting from several factors, including the potential inaccuracies and inadequacies in the data provided by clients, brokers and ceding companies, the modeling techniques and the application of such techniques, the contingent nature of business interruption exposures, the effects of any resultant demand surge on claims activity and attendant coverage issues.

In addition, over the past several years, changing weather patterns and climatic conditions, such as global warming, have added to the unpredictability and frequency of natural disasters in certain parts of the world and created additional uncertainty as to future trends and exposures. Although the loss experience of catastrophe insurers and reinsurers has historically been characterized as low frequency, there is a growing consensus today that climate change increases the frequency and severity of extreme

weather events and, in recent years, the frequency of major catastrophes appears to have increased. Claims for catastrophic events, or an unusual frequency of smaller losses in a particular period, could expose us to large losses and cause substantial volatility in our results of operations, which could have a material adverse effect on our ability to write new business and cause the value of our securities, including our common shares and preferred shares, to fluctuate widely.

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

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. It is difficult to predict the timing of such events with statistical certainty or estimate the amount of loss any given occurrence will generate. In certain instances, we specifically insure and reinsure risks resulting from acts of terrorism. Even in cases where we attempt to exclude losses from terrorism and certain other similar risks from some coverages written by us, we may not be successful in doing so. Moreover, irrespective of the clarity and inclusiveness of policy language, there can be no assurance that a court or arbitration panel will not limit enforceability of policy language or otherwise issue a ruling adverse to us. Accordingly, while we believe our reinsurance programs, together with the coverage provided under TRIPRA, are sufficient to reasonably limit our net losses relating to potential future terrorist attacks, we can offer no assurance that our available capital will be adequate to cover losses when they materialize. To the extent that an act of terrorism is certified by the Secretary of the Treasury, our U.S. insurance operations may be covered under TRIPRA for up to 85% of its losses for 2012 and future years, in each case subject to a mandatory deductible of 20% of our prior year's direct earned premium for covered property and liability coverages for 2012 through 2014. 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. It is not possible to completely eliminate 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.

***The insurance and reinsurance industry is subject to regulatory and legislative initiatives or proposals from time to time which could adversely affect our business.***

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.

The extreme turmoil in the financial markets has increased the likelihood of changes in the way the financial services industry is regulated. Governmental authorities in the U.S. and worldwide have become increasingly interested in potential risks posed by the insurance industry as a whole, and to commercial and financial systems in general. While we cannot predict the exact nature, timing or scope of possible governmental initiatives, there may be increased regulatory intervention in our industry in the future. For example, the U.S. federal government has increased its scrutiny of the insurance regulatory framework in recent years, and some state legislators have considered or enacted laws that will alter and likely increase state regulation of insurance and reinsurance companies and holding companies. Moreover, the NAIC, which is an association of the insurance commissioners of all 50 states and the District of Columbia, regularly reexamines existing laws and regulations. There are also a variety of proposals being considered by various state legislatures.

Solvency II, the EU regulatory regime which was enacted in November 2009, imposes new solvency and governance requirements across all EU Member States. Although Solvency II was originally supposed to have become effective by November 1, 2012, a proposed Omnibus II directive was to set

revised dates for transposition and implementation of Solvency II by the EU Member States. However, there have been a series of delays in the European Parliament vote to approve the Omnibus II directive. To avoid legal uncertainty, the EU Commission enacted a short directive which amends Solvency II with regard to the dates of its transposition and implementation by EU Member States. The current proposed date for transposition of Solvency II by EU Member States, as set out in this short amending directive, is June 30, 2013 with the implementation of Solvency II by January 1, 2014. While no formal announcement has been made by the European Commission, there has been much focus on the failure to proceed with the European Parliament vote on Omnibus II. It is now possible that agreement on issues central to finalization of Omnibus II will be postponed until completion of the next quantitative impact study due to be completed in March 2013. Further delay in the implementation of Solvency II is likely, but the extent and nature of the delay is uncertain. The detail of the Solvency II project will be set out in “delegated acts” and binding technical standards which will be issued by the European Commission and will be legally binding. No official drafts for any of these measures have been released. Solvency II imposes significant requirements for our EU-based regulated companies which require substantial documentation and implementation effort. Regulators in Bermuda and other jurisdictions in which we operate are also considering various proposals for financial and regulatory reform. The BMA has implemented and imposed additional requirements on the companies it regulates, such as Arch Re Bermuda, as part of its efforts to achieve equivalence under Solvency II. While the BMA regulates Arch Re Bermuda as a long-term and general business insurer under the Insurance Act in Bermuda, the impact of the Group Rules may have an adverse effect on ACGL and our operations. The future impact of such initiatives, if any, on our results of operations or our financial condition cannot be determined at this time. 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, including the capital we are required to hold. In light of the delays in implementation of Solvency II, it is unclear when the European Commission will take a final decision on whether or not it will recognize the solvency regime in Bermuda to be equivalent to that laid down in Solvency II. If the European Commission does not recognize the regime in Bermuda to be equivalent, this could have an adverse effect on our operations.

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

Our success is dependent upon our ability to assess accurately the risks associated with the businesses that we insure and reinsure. We establish reserves for losses and loss adjustment expenses which represent estimates involving actuarial and statistical projections, at a given point in time, of our expectations of the ultimate settlement and administration costs of losses incurred. We utilize actuarial models as well as available historical insurance industry loss ratio experience and loss development patterns to assist in the establishment of loss reserves. Most or all of these factors are not directly quantifiable, particularly on a prospective basis, and the effects of these and unforeseen factors could negatively impact our ability to accurately assess the risks of the policies that we write. In addition, there may be significant reporting lags between the occurrence of the insured event and the time it is actually reported to the insurer and additional lags between the time of reporting and final settlement of claims. Unfavorable development in any of these factors could cause the level of reserves to be inadequate. In addition, the estimation of loss reserves is also more difficult during times of adverse economic conditions due to unexpected changes in behavior of claimants and policyholders, including an increase in fraudulent reporting of exposures and/or losses, reduced maintenance of insured properties or increased frequency of small claims. Changes in the level of inflation also result in an increased level of uncertainty in our estimation of loss reserves. As a result, actual losses and loss adjustment expenses paid will deviate, perhaps substantially, from the reserve estimates reflected in our financial statements.

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

As of December 31, 2012, our reserves for unpaid losses and loss adjustment expenses, net of unpaid losses and loss adjustment expenses recoverable, were approximately \$7.10 billion. Such reserves were established in accordance with applicable insurance laws and GAAP. 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. Any estimates and assumptions made as part of the reserving process could prove to be inaccurate due to several factors, including the fact that relatively limited historical information has been reported to us through December 31, 2012.

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

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

We seek to limit our loss exposure by writing a number of our reinsurance contracts on an excess of loss basis, adhering to maximum limitations on reinsurance written in defined geographical zones, limiting program size for each client and prudent underwriting of each program written. In the case of proportional treaties, we may seek per occurrence limitations or loss ratio caps to limit the impact of losses from any one or series of events. In our insurance operations, we seek to limit our exposure through the purchase of reinsurance. We cannot be certain that any of these loss limitation methods will be effective. We also seek to limit our loss exposure by geographic diversification. Geographic zone limitations involve significant underwriting judgments, including the determination of the area of the zones and the inclusion of a particular policy within a particular zone's limits. There can be no assurance that various provisions of our policies, such as limitations or exclusions from coverage or choice of forum, will be enforceable in the manner we intend as it is possible that a court or regulatory authority could nullify or void an exclusion or limitation, or legislation could be enacted modifying or barring the use of these exclusions and limitations. Disputes relating to coverage and choice of legal forum may also arise. Underwriting is inherently a matter of judgment, involving important assumptions about matters that are inherently unpredictable and beyond our control, and for which historical experience and probability analysis may not provide sufficient guidance. One or more catastrophic or



other events could result in claims that substantially exceed our expectations, or the protections set forth in our policies could be voided, which, in either case, could have a material adverse effect on our financial condition or our results of operations, possibly to the extent of eliminating our shareholders' equity.

For our natural 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 from a single event in any geographic zone. We monitor our exposure to catastrophic events, including earthquake and wind, 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. Our models employ both proprietary and vendor-based systems and include cross-line correlations for property, marine, offshore energy, aviation, workers compensation and personal accident. We seek to limit the probable maximum pre-tax loss to a specific level for severe catastrophic events. Currently, we seek to limit our 1-in-250 year return period net probable maximum loss from a severe catastrophic event in any geographic zone to approximately 25% of total shareholders' equity. We reserve the right to change this threshold at any time. Net probable maximum loss estimates are net of expected reinsurance recoveries, before income tax and before excess reinsurance reinstatement premiums. Loss estimates are reflective of the zone indicated and not the entire portfolio. Since hurricanes and windstorms can affect more than one zone and make multiple landfalls, our loss estimates include clash estimates from other zones. Our loss estimates do not represent our maximum exposures and it is highly likely that our actual incurred losses would vary materially from the modeled estimates. There can be no assurances that we will not suffer pre-tax losses greater than 25% of our total shareholders' equity from one or more catastrophic events due to several factors, including the inherent uncertainties in estimating the frequency and severity of such events and the margin of error in making such determinations resulting from potential inaccuracies and inadequacies in the data provided by clients and brokers, the modeling techniques and the application of such techniques or as a result of a decision to change the percentage of shareholders' equity exposed to a single catastrophic event. Catastrophe modeling is a relatively new discipline that utilizes a mix of historical data, scientific theory and mathematical methods. We believe that there is considerable uncertainty in the data and parameter inputs for insurance industry catastrophe models. In that regard, there is no universal standard in the preparation of insured data for use in the models and the running of modeling software. In our view, the accuracy of the models depends heavily on the availability of detailed insured loss data from actual recent large catastrophes. Due to the limited number of events, there is significant potential for substantial differences between the modeled loss estimate and actual company experience for a single large catastrophic event. This potential difference could be even greater for perils with less modeled annual frequency, such as U.S. earthquake, or less modeled annual severity, such as European windstorm. We are also reliant upon third-party estimates of industry insured exposures and there is significant variation possible around the relationship between our loss and that of the industry following a catastrophic event. In addition, actual losses may increase if our reinsurers fail to meet their obligations to us or the reinsurance protections purchased by us are exhausted or are otherwise unavailable. See "Risk Factors—Risk Relating to Our Industry" and "Management's Discussion and Analysis of Financial Condition and Results of Operations—Natural and Man-Made Catastrophic Events." Depending on business opportunities and the mix of business that may comprise our insurance and reinsurance portfolio, we may seek to adjust our self-imposed limitations on probable maximum pre-tax loss for catastrophe exposed business.

***The risk associated with underwriting treaty reinsurance business could adversely affect us.***

Like other reinsurers, our reinsurance group does 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 managing risk, we use reinsurance and also may use retrocessional arrangements. In the normal course of business, our insurance subsidiaries cede a portion of their premiums through pro rata, excess of loss and facultative reinsurance agreements. Our reinsurance subsidiaries purchase a limited amount of retrocessional coverage as part of their aggregate risk management program. In addition, our 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 our reinsurance subsidiaries, and the ceding company. The availability and cost of reinsurance and retrocessional protection is subject to market conditions, which are beyond our control. 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 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. We monitor the financial condition of our reinsurers and attempt to place coverages only with carriers we view as substantial and financially sound. Although we have not experienced any material credit losses to date, an inability of our reinsurers or retrocessionaires to meet their obligations to us could have a material adverse effect on our financial condition and results of operations. Our losses for a given event or occurrence may increase if our reinsurers or retrocessionaires dispute or fail to meet their obligations to us or the reinsurance or retrocessional protections purchased by us are exhausted or are otherwise unavailable for any reason. 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 the premiums 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.

***We cannot predict the effect that certain investigations and litigation currently being conducted by state insurance regulatory authorities and others will have on the industry or our business.***

Several years ago, a number of brokers and insurers entered into settlements with state and federal agencies arising out of the investigation by the New York Attorney General and others into contingent commission payments to brokers (and the disclosures relating to such payments), alleged “bid-rigging,” alleged “steering,” and other practices in the insurance industry. We cannot predict the effect of these settlements, the pending civil litigation that arose out of the investigations or any current or future

government investigations or prosecutions and/or resulting changes in insurance practices (including future legislation and/or regulations that may become applicable to our business) will have on the insurance industry, the regulatory framework or our business. The effects of emerging claims and coverage issues and certain proposed legislation are uncertain.

The effects of emerging claims and coverage issues are uncertain. 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 sometime 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.

***The insurance businesses in which we operate may be subject to periodic negative publicity which may negatively impact our financial results.***

Our products and services are ultimately distributed to individual and business customers. From time to time, consumer advocacy groups or the media may focus attention on insurance products and services, thereby subjecting the industry to periodic negative publicity. We also may be negatively impacted if competitors in one or more of our markets engage in practices resulting in increased public attention to our business. These factors may further increase our costs of doing business and adversely affect our profitability by impeding our ability to market our products and services, requiring us to change our products or services or by increasing the regulatory burdens under which we operate.

***Changes in current accounting practices and future pronouncements may materially impact our reported financial results.***

Developments in accounting practices, for example a convergence of U.S. GAAP with IFRS, may require considerable additional expense to comply with, particularly if we are required to prepare information relating to prior periods for comparable purposes or to apply the new requirements retroactively. The impact of changes in current accounting practices and future pronouncements cannot be predicted, but may affect the results of our operations, including among other things, the calculation of net income.

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

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

Operational risk and losses can result from, among other things, fraud, errors, failure to document transactions properly or to obtain proper internal authorization, failure to comply with regulatory requirements, information technology failures, failure to appropriately transition new hires or external events. We continue to enhance our operating procedures and internal controls (including information technology initiatives and controls over financial reporting) to effectively support our business and our regulatory and reporting requirements. Our management does not expect that our disclosure controls or our internal controls will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. As a result of the inherent limitations in all control systems, no evaluation of controls can provide absolute

assurance that all control issues and instances of fraud, if any, within the company have been detected. These inherent limitations include the realities that judgments in decision making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons or by collusion of two or more people. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. As a result of the inherent limitations in a cost-effective control system, misstatement due to error or fraud may occur and not be detected. Accordingly, our disclosure controls and procedures are designed to provide reasonable, not absolute, assurance that the disclosure controls and procedures are met. Any ineffectiveness in our controls or procedures could have a material adverse effect on our business.

The NAIC has increased its focus on risks within an insurer's holding company system that may pose enterprise risk to the insurer. The NAIC recently adopted amendments to its Model Insurance Holding Company System Regulatory Act and Regulation, which include, among other amendments, a requirement for the ultimate controlling person to file an enterprise risk report. In 2012, the NAIC adopted the ORSA Model Act, which requires domestic insurers to maintain a risk management framework and establishes a legal requirement for domestic insurers to conduct an ORSA in accordance with the NAIC's ORSA Guidance Manual. The ORSA Model Act also provides that, no more than once a year, an insurer's domiciliary regulator may request that an insurer submit an ORSA summary report, or any combination of reports that together contain the information described in the ORSA Guidance Manual, applicable to the insurer and/or the insurance group of which it is a member. We operate within an ERM framework designed to assess and monitor our risks. However, there can be no assurance that we can effectively review and monitor all risks or that all of our employees will operate within the ERM framework. There can be no assurance that our ERM framework will result in us accurately identifying all risks and accurately limiting our exposures based on our assessments.

***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.***

Our operating insurance and reinsurance subsidiaries are rated by ratings agencies. Brokers negotiate contracts of insurance between insured and insurer on behalf of the insured and intermediaries negotiate contracts of reinsurance between a primary insurer and reinsurer, on behalf of the primary insurer. Third-party rating agencies, such as A.M. Best, assess and rate the financial strength of insurers and reinsurers based upon criteria established by the rating agencies, which criteria are subject to change. Ratings are an important factor in establishing the competitive position of insurance and reinsurance companies. Insureds, insurers, ceding insurers and intermediaries use these ratings as one measure by which to assess the financial strength and quality of insurers and reinsurers. These ratings are often an important factor in the decision by an insured, ceding insurer, broker or intermediary of whether to place business with a particular insurance or reinsurance provider. Our financial strength ratings are subject to periodic review as rating agencies evaluate us to confirm that we continue to meet their criteria for ratings assigned to us by them. Such ratings may be revised downward or revoked at the sole discretion of such ratings agencies in response to a variety of factors, including a minimum capital adequacy ratio, management, earnings, capitalization and risk profile. We can offer no assurances that our ratings will remain at their current levels. A ratings downgrade or the potential for such a downgrade, or failure to obtain a necessary rating, could adversely affect our relationships with agents, brokers, wholesalers, intermediaries, clients and other distributors of our existing products and services, as well as new sales of our products and services. In addition, under certain of the reinsurance agreements assumed by our reinsurance operations, upon the occurrence of a ratings downgrade or other specified triggering event with respect to our reinsurance operations, such

as a reduction in surplus by specified amounts during specified periods, our ceding company clients may be provided with certain rights, including, among other things, the right to terminate the subject reinsurance agreement and/or to require that our reinsurance operations post additional collateral. Any ratings downgrade or failure to obtain a necessary rating could adversely affect our ability to compete in our markets, could cause our premiums and earnings to decrease and have a material adverse impact on our financial condition and results of operations. In addition, a downgrade in ratings of certain of our operating subsidiaries would in certain cases constitute an event of default under our credit facilities. See “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Contractual Obligations and Commercial Commitments—Letter of Credit and Revolving Credit Facilities” for a discussion of our credit facilities.

In light of the difficulties experienced recently by many financial institutions, including our competitors in the insurance industry, we believe it is possible that rating agencies may heighten the level of scrutiny they apply when analyzing companies in our industry, may increase the frequency and scope of their reviews, may request additional information from the companies that they rate (including additional information regarding the valuation of investment securities held), and may adjust upward the capital and other requirements employed in their models for maintenance of certain rating levels.

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

Our success has been, and will continue to be, dependent on our ability to retain the services of our existing key executive officers and to attract and retain additional qualified personnel in the future. The pool of talent from which we actively recruit is limited. Although, to date, we have not experienced difficulties in attracting and retaining key personnel, the inability to attract and retain qualified personnel could have a material adverse effect on our financial condition and results of operations. In addition, our underwriting staff is critical to our success in the production of business. While we do not consider any of our key executive officers or underwriters to be irreplaceable, the loss of the services of our key executive officers or underwriters or the inability to hire and retain other highly qualified personnel in the future could delay or prevent us from fully implementing our business strategy which could affect our financial performance.

***Technology breaches or failures, including, but not limited to, those resulting from a malicious cyber attack on us or our business partners and service providers, could disrupt or otherwise negatively impact our business.***

We rely on information technology systems to process, transmit, store and protect the electronic information, financial data and proprietary models that are critical to our business. Furthermore, a significant portion of the communications between our employees and our business partners and service providers depends on information technology and electronic information exchange. Like all companies, our information technology systems are vulnerable to data breaches, interruptions or failures due to events that may be beyond our control, including, but not limited to, natural disasters, theft, terrorist attacks, computer viruses, hackers and general technology failures.

We believe that we have established and implemented appropriate security measures, controls and procedures to safeguard our information technology systems and to prevent unauthorized access to such systems and any data processed and/or stored in such systems[, and we periodically employ third parties to evaluate and test the adequacy of such systems, controls and procedures. In addition, we have established a comprehensive business continuity plan which is designed to ensure that we are able to maintain all aspects of our key business processes functioning in the midst of certain disruptive events, including any disruptions to or breaches of our information technology systems. Our business continuity plan is routinely tested and evaluated for adequacy. Despite these safeguards, disruptions to and breaches of our information technology systems are possible and may negatively impact our business.

It is possible that insurance policies we have in place with third parties would not entirely protect us in the event that we experienced a breach, interruption or widespread failure of our information technology systems. Furthermore, we have not secured any insurance coverage designed to specifically protect us from the result of such events. Although we have experienced no known or threatened cases involving unauthorized access to our information technology systems and data or unauthorized appropriation of such data to date, we have no assurance that such technology breaches will not occur in the future.

***The preparation of our financial statements requires us to make many estimates and judgments, which are even more difficult than those made in a mature company since relatively limited historical information has been reported to us through December 31, 2012.***

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 relatively limited historical information has been reported to us through December 31, 2012. Instead, our current loss reserves are primarily based on estimates of exposures on reported claims and estimates involving actuarial and statistical projections of our expectations of the ultimate settlement and administration costs of claims incurred but not yet reported. We utilize actuarial models as well as historical insurance industry loss development patterns to establish our initial loss reserves. Over time, other common reserving methodologies have begun to be employed. Actual claims and claim expenses paid may deviate, perhaps substantially, from the reserve estimates reflected in our financial statements.

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

There has been significant volatility in the market for equity securities. During 2012 and 2011, the price of our common shares fluctuated from a low of \$35.49 to a high of \$45.16 and from a low of \$28.54 to a high of \$37.99, respectively. On February 22, 2013, our common shares closed at a price of \$48.40. The price of our common shares may not remain at or exceed current levels. The following factors, in addition to those described in other risk factors above, may have an adverse impact on the market price of our common stock:

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

Stock markets in the U.S. continue to experience volatile price and volume fluctuations. Such fluctuations, as well as general political conditions, the current poor economic conditions or interest rate or currency rate fluctuations, could adversely affect the market price of our stock.

***Adverse developments in the financial markets could have a material adverse effect on our results of operations, financial position and our businesses, and may also limit our access to capital; our policyholders, reinsurers and retrocessionaires may also be affected by such developments, which could adversely affect their ability to meet their obligations to us.***

Adverse developments in the financial markets, such as disruptions, uncertainty or volatility in the capital and credit markets, may result in realized and unrealized capital losses that could have a material adverse effect on our results of operations, financial position and our businesses, and may also limit our access to capital required to operate our business. Depending on market conditions, we could incur additional realized and unrealized losses on our investment portfolio in future periods, which could have a material adverse effect on our results of operations, financial condition and business. Current economic conditions could also have a material impact on the frequency and severity of claims and therefore could negatively impact our underwriting returns. In addition, our policyholders, reinsurers and retrocessionaires may be affected by such developments in the financial markets, which could adversely affect their ability to meet their obligations to us. The volatility in the financial markets could continue to significantly affect our investment returns, reported results and shareholders' equity.

***Our business is dependent upon insurance and reinsurance brokers and intermediaries, and 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 and intermediaries. We derive a significant portion of our business from a limited number of brokers. During 2012, approximately 20.3% and 14.1% of our gross premiums written were generated from or placed by Aon Corporation and its subsidiaries and Marsh & McLennan Companies and its subsidiaries, respectively. No other broker and no one insured or reinsured accounted for more than 10% of gross premiums written for 2012. Some of our competitors have higher financial strength ratings, offer a larger variety of products, set lower prices for insurance coverage, offer higher commissions and/or have had longer term relationships with the brokers we use than we have. This may adversely impact our ability to attract and retain brokers to sell our insurance products or brokers may increasingly promote products offered by other companies. The failure or inability of brokers to market our insurance products successfully, or loss of all or a substantial portion of the business provided by these brokers could have a material adverse impact on our business, financial condition and results of operations.

***We could be materially adversely affected to the extent that managing general agents, general agents and other producers exceed their underwriting authorities or if our agents, our insureds or other third parties commit fraud or otherwise breach obligations owed to us.***

For certain 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. We rely on the underwriting controls of these agents to write business within the underwriting authorities provided by us. Although we monitor such business 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. In addition, our agents, our insureds or other third parties may commit fraud or otherwise breach their obligations to us. To the extent that our agents, our insureds or other third parties exceed their underwriting authorities, commit fraud or otherwise breach

obligations owed to us in the future, our financial condition and results of operations could be materially adversely affected.

***We are exposed to credit risk in certain of our business operations.***

In addition to exposure to credit risk related to our investment portfolio, reinsurance recoverables and reliance on brokers (each discussed elsewhere in this section), we are exposed to credit risk in other areas of our business related to policyholders. We are exposed to credit risk in our insurance group's surety unit where we guarantee to a third party that our policyholder will satisfy certain performance or financial obligations. If our policyholder defaults, we may suffer losses and be unable to be reimbursed by our policyholder. We are exposed to credit risk in our insurance group's construction and national accounts units where we write large deductible insurance policies. Under these policies, we are typically obligated to pay the claimant the full amount of the claim (shown as "contractholder payables" on our consolidated balance sheets). We are subsequently reimbursed by the policyholder for the deductible amount (shown as "contractholder receivables" on our consolidated balance sheets), which can be a set amount per claim and/or an aggregate amount for all covered claims. As such, we are exposed to credit risk from the policyholder. Additionally, we write retrospectively rated policies (*i.e.*, policies in which premiums are adjusted after the policy period based on the actual loss experience of the policyholder during the policy period). In this instance, we are exposed to credit risk to the extent the adjusted premium is greater than the original premium. While we generally seek to mitigate this risk through collateral agreements that require the posting of collateral in such forms as cash and letters of credit from banks, our efforts to mitigate the credit risk that we have to our policyholders may not be successful. Although we have not experienced any material credit losses to date, an increased inability of our policyholders to meet their obligations to us could have a material adverse effect on our financial condition and results of operations.

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

Our operating results depend in part on the performance of our investment portfolio. A significant portion of our cash and invested assets consists of fixed maturities (78.5% as of December 31, 2012). Although our current investment guidelines and approach stress preservation of capital, market liquidity and diversification of risk, our investments are subject to market-wide risks and fluctuations. In addition, we are subject to risks inherent in particular securities or types of securities, as well as sector concentrations. We may not be able to realize our investment objectives, which could have a material adverse effect on our financial results. In the event that we are unsuccessful in correlating our investment portfolio with our expected insurance and reinsurance liabilities, we may be forced to liquidate our investments at times and prices that are not optimal, which could have a material adverse effect on our financial results and ability to conduct our business.

***We may be adversely affected by changes in economic conditions, including interest rate changes, as well as legislative changes.***

Our operating results are affected by, and we are exposed to, significant financial and capital markets risk, including changes in interest rates, real estate values, foreign currency exchange rates, market volatility, the performance of the economy in general, the performance of our investment portfolio and other factors outside our control.

In addition, our investment portfolio includes residential mortgage-backed securities ("MBS"). As of December 31, 2012, MBS constituted approximately 11.7% of our cash and invested assets. As with other fixed income investments, the fair value of these securities fluctuates depending on market and other general economic conditions and the interest rate environment. Changes in interest rates can expose us to changes in the prepayment rate on these investments. In periods of declining interest rates, mortgage prepayments generally increase and MBS are prepaid more quickly, requiring us to



reinvest the proceeds at the then current market rates. Conversely, in periods of rising rates, mortgage prepayments generally fall, preventing us from taking full advantage of the higher level of rates. However, current economic conditions may curtail prepayment activity as refinancing becomes more difficult, thus limiting prepayments on MBS.

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

The residential mortgage market in the U.S has experienced a variety of difficulties in certain underwriting periods. Delinquencies and losses with respect to residential mortgage loans generally increased for such periods and may continue to increase, particularly in the subprime sector. In addition, residential property values in many states have declined or remained stable after extended periods during which those values appreciated. A continued decline or an extended flattening in those values may result in additional increases in delinquencies and losses on residential mortgage loans generally, especially with respect to second homes and investment properties, and with respect to any residential mortgage loans where the aggregate loan amounts (including any subordinate loans) are close to or greater than the related property values. These developments may have a significant adverse effect on the prices of loans and securities, including those in our investment portfolio. The situation continues to have wide ranging consequences, including downward pressure on economic growth and the potential for increased insurance and reinsurance exposures, which could have an adverse impact on our results of operations, financial condition, business and operations. Our portfolio includes commercial mortgage backed securities (“CMBS”). At December 31, 2012, CMBS constituted approximately 6.3% of our cash and invested assets. The commercial real estate market may experience price deterioration, which could lead to delinquencies and losses on commercial real estate mortgages.

Significant, continued volatility, changes in interest rates, a lack of pricing transparency, market liquidity, declines in equity prices and the strengthening or weakening of foreign currencies against the U.S. Dollar, individually or in tandem, could have a material adverse effect on our results of operations, financial condition or cash flows through realized losses, impairments and changes in unrealized positions

***Market developments and government actions regarding the sovereign debt crisis in Europe, particularly in Portugal, Ireland, Italy, Greece and Spain, could have a material adverse effect on our business, financial condition, results of operations and liquidity.***

The global recession and disruption of the financial markets has led to concerns over access to capital markets and the solvency of EU Member States, including Portugal, Ireland, Italy, Greece and Spain, and of financial institutions that have significant direct or indirect exposure to debt issued by, or the economies of, these countries. As of December 31, 2012, our investment portfolio does not contain significant investments in government bonds issued by Portugal, Ireland, Italy, Greece and Spain and in financial institutions that have significant direct or indirect exposure to debt issued by, or the economies of, those countries (see “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Financial Condition, Liquidity and Capital Resources—Financial Condition—Investable Assets”). The continued uncertainty over the outcome of international financial support programs and the possibility that EU Member States may experience similar financial troubles could further disrupt global markets. Recent rating agency downgrades on certain European sovereign debt, as well as downgrades on certain European financial institutions, and growing concern of the potential default of government issuers or of a possible withdrawal by one or more EU Member States from the Eurozone and/or a break-up of the EU has further contributed to this uncertainty. The negative impact

of these events on economic conditions and global markets could have an adverse effect on our business, financial condition and liquidity. For example, this crisis may cause the value of the European currencies, including the Euro, to further depreciate against the U.S. Dollar, which in turn could materially adversely impact Euro-denominated assets held in our investment portfolio or our European book of business. In addition, the applicable legal framework and the terms of our Euro-denominated insurance policies and reinsurance agreements generally do not address withdrawal by a member state from the Eurozone or a break-up of the EU, which could create uncertainty in our payment obligations and rights under those policies and agreements in the event that such a withdrawal or break-up does occur. Additionally, a contagion effect of a possible default of one or more EU Member States and/or their withdrawal from the Eurozone, or the failure of financial institutions, on the global economy, including other EU Member States and our counterparties located in those countries, or a break-up of the EU could have a material adverse effect on our business, financial condition, results of operations and liquidity.

***Certain of our investments are illiquid and are difficult to sell, or to sell in significant amounts at acceptable prices, to generate cash to meet our needs.***

Our investments in certain securities, including certain fixed income and structured securities, investments in funds accounted for using the equity method, other investments and our investment in Gulf Re (joint venture) may be illiquid due to contractual provisions or investment market conditions. If we require significant amounts of cash on short notice in excess of anticipated cash requirements, then we may have difficulty selling these investments in a timely manner or may be forced to sell or terminate them at unfavorable values.

***The determination of the amount of allowances and impairments taken on our investments is highly subjective and could materially impact our results of operations or financial position.***

On a quarterly basis, we perform reviews of our investments to determine whether declines in fair value below the cost basis are considered other-than-temporary in accordance with applicable accounting guidance regarding the recognition and presentation of other-than-temporary impairments. The process of determining whether a security is other-than-temporarily impaired requires judgment and involves analyzing many factors. These factors include (i) an analysis of the liquidity, business prospects and overall financial condition of the issuer, (ii) the time period in which there was a significant decline in value, (iii) the significance of the decline, and (iv) the analysis of specific credit events. We evaluate the unrealized losses of our equity securities by issuer and determine if we can forecast a reasonable period of time by which the fair value of the securities would increase and we would recover our cost. If we are unable to forecast a reasonable period of time in which to recover the cost of our equity securities, we record a net impairment loss in earnings equivalent to the entire unrealized loss. There can be no assurance that our management has accurately assessed the level of impairments taken and allowances reflected in our financial statements. Furthermore, additional impairments may need to be taken or allowances provided for in the future. Historical trends may not be indicative of future impairments or allowances.

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

We monitor our capital adequacy on a regular basis. The capital requirements of our business depend on many factors, including regulatory requirements, our ability to write new business successfully and to establish premium rates and reserves at levels sufficient to cover losses. Our ability to underwrite is largely dependent upon the quality of our claims paying and financial strength ratings as evaluated by independent rating agencies. To the extent that our existing capital is insufficient to fund our future operating requirements and/or cover claim losses, we may need to raise additional

funds through financings or limit our growth. Any equity or debt financing, if available at all, may be on terms that are unfavorable to us. In the case of equity financings, dilution to our shareholders could result, and, in any case, such securities may have rights, preferences and privileges that are senior to those of our outstanding securities. Disruptions, uncertainty or volatility in the capital and credit markets may also limit our access to capital required to operate our business. Such market conditions may limit our ability to access the capital necessary to develop our business and replace, in a timely manner, our letters of credit facilities upon maturity. As such, we may be forced to delay raising capital or bear an unattractive cost of capital which could decrease our profitability and significantly reduce our financial flexibility. If we are not able to obtain adequate capital, our business, results of operations and financial condition could be adversely affected. See “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Financial Condition, Liquidity and Capital Resources—Liquidity and Capital Resources.”

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

On May 5, 2000, we sold our prior reinsurance operations to Sirius America Reinsurance Company (“Sirius America”), formerly known as White Mountains Reinsurance Company of America. The Sirius America transaction was structured as a transfer and assumption agreement (and not reinsurance), and, accordingly, the loss reserves (and any related reinsurance recoverables) relating to the transferred business are not included as assets or liabilities on our balance sheet. In addition, in connection with that asset sale, we made extensive representations and warranties about us and our reinsurance operations, some of which survived the closing of the asset sale. Breach of these representations and warranties could result in liability for us. In the event that Sirius America 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. A.M. Best has assigned an “A” (Excellent) financial strength rating to Sirius America. Sirius America reported policyholders’ surplus of \$533.7 million at December 31, 2011.

***Any future acquisitions, growth of our operations through the addition of new lines of insurance or reinsurance business through our existing subsidiaries or through the formation of new subsidiaries, expansion into new geographic regions and/or joint ventures or partnerships may expose us to risks.***

We may in the future make strategic acquisitions either of other companies or selected blocks of business, expand our business lines or enter into joint ventures. Any future acquisitions may expose us to challenges and risks, including:

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

- financial exposures in the event that the sellers of the entities we acquire are unable or unwilling to meet their indemnification, reinsurance and other obligations to us.

Our failure to manage successfully these operational challenges and risks may impact our results of operations. In addition, if the reserves established by us, as they relate to any acquired book of business, prove to be inadequate, then subject to whatever recourse we may have against the seller or reinsurers, we may be responsible for adverse development in such reserves.

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

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

Among other things, our bye-laws provide:

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

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

The bye-laws also contain a provision limiting the rights of any U.S. person (as defined in section 7701(a)(30) of the Internal Revenue Code of 1986, as amended (the "Code")) that owns shares of ACGL, directly, indirectly or constructively (within the meaning of section 958 of the Code), representing more than 9.9% of the voting power of all shares entitled to vote generally at an election of directors. The votes conferred by such shares of such U.S. person will be reduced by whatever amount is necessary so that after any such reduction the votes conferred by the shares of such person will constitute 9.9% of the total voting power of all shares entitled to vote generally at an election of directors. Notwithstanding this provision, the board may make such final adjustments to the aggregate number of votes conferred by the shares of any U.S. person that the board considers fair and reasonable in all circumstances to ensure that such votes represent 9.9% of the aggregate voting power of the votes conferred by all shares of ACGL entitled to vote generally at an election of directors. ACGL will assume that all shareholders (other than specified persons) are U.S. persons unless we receive assurance satisfactory to us that they are not U.S. persons.

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

The bye-laws also provide that the affirmative vote of at least 66 $\frac{2}{3}$ % of the outstanding voting power of our shares (excluding shares owned by any person (and such person's affiliates and associates) that is the owner of 15% or more (a "15% Holder") of our outstanding voting shares) shall be required for various corporate actions, including:

- merger or consolidation of the company into a 15% Holder;
- sale of any or all of our assets to a 15% Holder;
- the issuance of voting securities to a 15% Holder; or
- amendment of these provisions;

*provided, however*, the supermajority vote will not apply to any transaction approved by the board.

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

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

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

- establish solvency requirements, including minimum reserves and capital and surplus requirements;
- limit the amount of dividends, tax distributions, intercompany loans and other payments our insurance subsidiaries can make without prior regulatory approval;
- impose restrictions on the amount and type of investments we may hold;
- require assessments through guaranty funds to pay claims of insolvent insurance companies; and
- require participation in state-assigned risk plans which may take the form of reinsuring a portion of a pool of policies or the direct issuance of policies to insureds.

The NAIC continuously examines existing laws and regulations in the U.S. We cannot predict the effect that any NAIC recommendations or proposed or future legislation or rule making in the U.S. or elsewhere may have on our financial condition or operations.

Our Bermuda insurance and reinsurance subsidiary, Arch Re Bermuda, conducts its business from its offices in Bermuda and is not licensed or admitted to do business in any jurisdiction except Bermuda. We do not believe that Arch Re Bermuda is subject to the insurance laws of any state in the U.S.; however, recent scrutiny of the insurance and reinsurance industry in the U.S. and other countries could subject Arch Re Bermuda to additional regulation. Our U.S. reinsurance subsidiary, Arch Re U.S., and our U.S. insurance subsidiaries, Arch Insurance, Arch Specialty, Arch E&S and Arch Indemnity, write reinsurance and insurance in the U.S. 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. In addition, until December 31, 2012, the Canadian branch of Arch Insurance wrote insurance in Canada. The newly formed Canadian company, Arch Insurance Canada, writes insurance and reinsurance in Canada and is subject to federal, as well as provincial and territorial, regulation in Canada.

Arch Insurance Europe conducts its business from London and branch offices in certain EU countries and is subject to the insurance regulations of the U.K. Arch Risk Partners is also based in the U.K. and subject to U.K. regulations. Arch Re Europe and Arch Mortgage, our subsidiaries in Ireland, conduct their business from Ireland and are subject to the regulations in Ireland. Arch Re Europe also conducts business from branch offices in Switzerland and U.K., as well as in Denmark. Arch Insurance Europe, Arch Re Europe, Arch Risk Partners and Arch Mortgage are also subject to the EU regulations and regulations of the respective EU Member States where they have established branches or in which they conduct business with respect to the conduct of their business in such EU Member State, but each company remains subject only to the financial and operational supervision by the FSA, in the case of Arch Insurance Europe and Arch Risk Partners, and the CBOI, in the case of Arch Re Europe. Arch Insurance Europe, Arch Mortgage, Arch Risk Partners and Arch Re Europe have the freedom to provide their respective insurance and reinsurance services anywhere in the EEA subject to compliance with certain rules governing such provision, including notification to the FSA and the CBOI, respectively. Arch Insurance Company Europe is also approved as an excess and surplus lines insurer in 27 states and the District of Columbia in the U.S. In addition, AUAL, on behalf of Arch Syndicate 2012, is approved to underwrite excess and surplus lines insurance in most states in the U.S. through Lloyd's licenses.

Our U.S., Bermuda, Canada, U.K. and Ireland subsidiaries are required to maintain minimum capital and surplus as mandated by their respective jurisdictions of incorporation and, in some cases, by the jurisdictions in which those subsidiaries write business. Arch Insurance Company Europe is required to maintain minimum capital surplus as mandated by the NAIC and certain states where it is approved as an excess and surplus lines insurer. All of our subsidiaries are currently in compliance with these capital and surplus requirements.

In addition, virtually all U.S. states require insurers licensed to do business therein to bear a portion of the unfunded obligations of impaired or insolvent insurance companies. These obligations are funded by assessments, which are levied by guaranty associations within the state, up to prescribed limits, on all member insurers in the state on the basis of the proportionate share of the premiums written by member insurers in the lines of business in which the impaired, insolvent or failed insurer was engaged. Accordingly, the assessments levied on us by the states in which we are licensed to write insurance may increase as we increase our premiums written. In addition, as a condition to the ability to conduct business in certain states, insurance companies are required to participate in mandatory reinsurance funds. The effect of these assessments and mandatory reinsurance arrangements, or changes in them, could reduce our profitability in any given period or limit our ability to grow our business.

We periodically review our corporate structure 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 U.S.

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. In addition, we could, at any time and in any jurisdiction, face individual, group and class action lawsuits by our policyholders and others for alleged violations of applicable laws and regulations. Any such litigation or 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 suspensions, injunctions, monetary damages, fines or other sanctions, any or all of which could adversely affect our financial condition and results of operations.

***Our business is subject to risks related to litigation.***

We may from time to time be subject to a variety of legal actions relating to our current and past business operations, including, but not limited to, disputes over coverage or claims adjudication, including claims alleging that we have acted in bad faith in the administration of claims by our policyholders, disputes with our agents, producers or network providers over compensation and termination of contracts and related claims and disputes relating to certain businesses acquired or disposed of by us.

Multi-party or class action claims may present additional exposure to substantial economic, non-economic or punitive damage awards. The loss of even one of these claims, if it resulted in a significant damage award or a judicial ruling that was otherwise detrimental, could create a precedent in the industry that could have a material adverse effect on our results of operations and financial condition. This risk of potential liability may make reasonable settlements of claims more difficult to obtain. We cannot determine with any certainty what new theories of recovery may evolve or what their impact may be on our business.

***If our Bermuda principal operating subsidiary becomes subject to insurance statutes and regulations in jurisdictions other than Bermuda or if there is a change in Bermuda law or regulations or the application of Bermuda law or regulations, there could be a significant and negative impact on our business.***

Arch Re Bermuda, our Bermuda insurance and reinsurance subsidiary, is a registered Bermuda Class 4 general business insurer and as a Class C long-term business insurer and has been designated as the Designated Insurer for group supervision purposes. As such, it is subject to regulation and supervision in Bermuda. Bermuda insurance statutes and the regulations and policies of the BMA require Arch Re Bermuda to, among other things:

- maintain a minimum level of capital and surplus on both an individual and group basis;
- maintain an individual (for its general business) enhanced capital requirement, general and long-term business solvency margins on an individual and group basis and a minimum liquidity ratio (for its general business);
- restrict dividends and distributions;
- obtain prior approval regarding the ownership and transfer of shares;
- maintain a principal office and appoint and maintain a principal representative in Bermuda;
- file annual financial statements, an annual statutory financial return and an annual capital and solvency return; and

- allow for the performance of certain period examinations of Arch Re Bermuda and its financial condition and that of the group insurance companies.

These statutes and regulations may restrict our ability to write insurance and reinsurance policies, distribute funds and pursue our investment strategy. We do not presently intend for Arch Re Bermuda to be admitted to do business in the U.S., U.K. or any jurisdiction other than Bermuda. However, we cannot assure you that insurance regulators in the U.S., U.K. or elsewhere will not review the activities of Arch Re Bermuda or its subsidiaries or agents and assert that Arch Re Bermuda is subject to such jurisdiction's licensing requirements.

Generally, Bermuda insurance statutes and regulations applicable to Arch Re Bermuda are less restrictive than those that would be applicable if they were governed by the laws of any states in the U.S. If in the future we become subject to any insurance laws of the U.S. or any state thereof or of any other jurisdiction, we cannot assure you that we would be in compliance with such laws or that complying with such laws would not have a significant and negative effect on our business.

The process of obtaining licenses is very time consuming and costly, and Arch Re Bermuda may not be able to become licensed in jurisdictions other than Bermuda should we choose to do so. The modification of the conduct of our business that would result if we were required or chose to become licensed in certain jurisdictions could significantly and negatively affect our financial condition and results of operations. In addition, our inability to comply with insurance statutes and regulations could significantly and adversely affect our financial condition and results of operations by limiting our ability to conduct business as well as subject us to penalties and fines.

Because Arch Re Bermuda is a Bermuda company, it is subject to changes in Bermuda law and regulation that may have an adverse impact on our operations, including through the imposition of tax liability or increased regulatory supervision. In addition, Arch Re Bermuda will be exposed to any changes in the political environment in Bermuda. The Bermuda insurance and reinsurance regulatory framework recently has become subject to increased scrutiny in many jurisdictions, including the U.K. As a result of the delay in implementation of Solvency II, it is unclear when the European Commission will take a final decision on whether or not it will recognize the solvency regime in Bermuda to be equivalent to that laid down in Solvency II. While we cannot predict the future impact on our operations of changes in the laws and regulation to which we are or may become subject, any such changes could have a material adverse effect on our business, 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, to make payments, including the payment of debt service obligations and operating expenses we may incur and any payments of dividends, redemption amounts or liquidation amounts with respect to our preferred shares and common shares.***

ACGL is a holding company whose assets primarily consist of the shares in our subsidiaries. Generally, ACGL depends on its available cash resources, liquid investments and dividends or other distributions from subsidiaries to make payments, including the payment of debt service obligations and operating expenses it may incur and any payments of dividends, redemption amounts or liquidation amounts with respect to our preferred shares and common shares, and to fund the share repurchase program. 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. In addition, the ability of our insurance and reinsurance subsidiaries to pay dividends to ACGL and to intermediate parent companies owned by ACGL could be constrained by our dependence on financial strength ratings from independent rating agencies. Our ratings from these agencies depend to a large extent on the capitalization levels of our insurance and reinsurance subsidiaries. We believe that ACGL has sufficient cash resources and available dividend capacity to service its indebtedness and other current outstanding obligations. See "Management's Discussion and Analysis of Financial Condition and Results of Operations—Financial Condition, Liquidity and Capital Resources—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 U.S. Because insurance regulations in the U.S. do not uniformly 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. Although, to date, Arch Re Bermuda has not experienced any difficulties in providing collateral when required, if we are unable to post security in the form of letters of credit or trust funds when required, the operations of Arch Re Bermuda could be significantly and negatively affected.

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

We write business on a worldwide basis, and our results of operations may be affected by fluctuations in the value of currencies other than the U.S. Dollar. The primary foreign currencies in which we operate are the Euro, the British Pound Sterling and the Canadian Dollar. Changes in foreign currency exchange rates can reduce our revenues, increase our liabilities and costs and cause fluctuations in the valuation of our investment portfolio. We may therefore suffer losses solely as a result of exchange rate fluctuations. In order to mitigate our exposure to foreign currency fluctuations in our net insurance liabilities, we have invested and expect to continue to invest in securities denominated in currencies other than the U.S. Dollar. In addition, we may replicate investment positions in foreign currencies using derivative financial instruments. Net foreign exchange losses, recorded in the statement of income, were \$29.0 million for 2012, compared to net foreign exchange gains of \$17.4 million and \$28.1 million, respectively, for 2011 and 2010. Changes in the value of investments due to foreign currency rate movements are reflected as a direct increase or decrease to shareholders' equity and are not included in the statement of income. We have chosen not to hedge certain currency risks on capital contributed to certain subsidiaries, including to Arch Insurance Europe held in British Pounds Sterling, and may continue to choose not to hedge our currency risks. There can be no assurances that arrangements to match projected liabilities in foreign currencies with investments in the same currencies or derivative financial instruments will mitigate the negative impact of exchange rate fluctuations, and we may suffer losses solely as a result of exchange rate fluctuations.

***Certain 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, only persons who are Bermudians, spouses of Bermudians, holders of a permanent resident's certificate or holders of a working resident's certificate ("exempted persons") may engage in 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 exempted person is available who meets the minimum standards reasonably required by the employer. A work permit is issued with an expiry date (up to five years) and no assurances can be given that any work permit will be issued or, if issued, renewed upon the expiration of the relevant term. We consider our key officers in Bermuda who require work permits to be Constantine Iordanou, our Chairman, President and Chief Executive Officer (work permit expires November 2014), Mark D. Lyons, our Executive Vice President and Chief Financial Officer (work permit expires March 2018), Marc Grandisson, Chairman and Chief Executive Officer of Arch Worldwide Reinsurance Group (work permit expires May 2015), and Nicolas Papadopoulo, President and Chief Executive Officer of Arch Re Bermuda (work permit expires March 2015). We also have other key positions in Bermuda held by persons who hold work permits subject to renewal. If work permits are not obtained or renewed for our principal employees, we could lose their services, which could materially affect our business.

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

We are a Bermuda company and some of our officers and directors are residents of various jurisdictions outside the U.S. All or a substantial portion of our assets and the assets of those persons may be located outside the U.S. As a result, it may be difficult for you to effect service of process within the U.S. upon those persons or to enforce in U.S. 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 U.S. We have been advised by our special Bermuda legal counsel, Conyers Dill & Pearman Limited, that the U.S. 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 U.S. 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 Limited that a final and conclusive judgment obtained in a court in the U.S. 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.

***Our international business is subject to applicable laws and regulations relating to sanctions and foreign corrupt practices, the violation of which could adversely affect our operations.***

We must comply with all applicable economic sanctions and anti-bribery laws and regulations of the U.S. and other foreign jurisdictions where we operate, including the U.K. and the European Community. U.S. laws and regulations applicable to us include the economic trade sanctions laws and regulations administered by the United States Department of the Treasury's Office of Foreign Assets Control as well as certain laws administered by the United States Department of State. In addition, we are subject to the Foreign Corrupt Practices Act and other anti-bribery laws such as the U.K. Bribery Act that generally bar corrupt payments or unreasonable gifts to foreign governments or officials. Although we have policies and controls in place that are designed to ensure compliance with these laws and regulations, it is possible that an employee or intermediary could fail to comply with applicable laws and regulations. In such event, we could be exposed to civil penalties, criminal penalties and other sanctions, including fines or other punitive actions. In addition, such violations could damage our business and/or our reputation. Such criminal or civil sanctions, penalties, other sanctions, and damage

to our business and/or reputation could have a material adverse effect on our financial condition and results of operations.

### **Risk Relating to Our Preferred Shares**

***General market conditions and unpredictable factors could adversely affect market prices for our outstanding preferred shares.***

There can be no assurance about the market prices for any series of our preferred shares. Several factors, many of which are beyond our control, will influence the fair value of such series of preferred shares. Factors that might influence the fair value of any series of our preferred shares include, but are not limited to:

- whether dividends have been declared and are likely to be declared on any series of our preferred shares from time to time;
- our creditworthiness, financial condition, performance and prospects;
- whether the ratings on any series of our preferred shares provided by any ratings agency have changed;
- the market for similar securities; and
- economic, financial, geopolitical, regulatory or judicial events that affect us and/or the insurance or financial markets generally.

***Dividends on our preferred shares are non-cumulative.***

Dividends on our preferred shares are non-cumulative and payable only out of lawfully available funds of ACGL under Bermuda law. Consequently, if ACGL's board of directors (or a duly authorized committee of the board) does not authorize and declare a dividend for any dividend period with respect to any series of our preferred shares, holders of such preferred shares would not be entitled to receive any such dividend, and such unpaid dividend will not accrue and will never be payable. ACGL will have no obligation to pay dividends for a dividend period on or after the dividend payment date for such period if its board of directors (or a duly authorized committee of the board) has not declared such dividend before the related dividend payment date; if dividends on any series of our preferred shares are authorized and declared with respect to any subsequent dividend period, ACGL will be free to pay dividends on any other series of preferred shares and/or our common shares. In the past, we have not paid dividends on our common shares.

***Our preferred shares are equity and are subordinate to our existing and future indebtedness.***

Our preferred shares are equity interests and do not constitute indebtedness. As such, our preferred shares will rank junior to all of our indebtedness and other non-equity claims with respect to assets available to satisfy our claims, including in our liquidation. As of December 31, 2012, our total consolidated long-term debt was \$400.0 million. We may incur additional debt in the future. Our existing and future indebtedness may restrict payments of dividends on our preferred shares. Additionally, unlike indebtedness, where principal and interest would customarily be payable on specified due dates, in the case of preferred shares like our preferred shares, (1) dividends are payable only if declared by the board of directors of ACGL (or a duly authorized committee of the board) and (2) as described under "Risks Relating to Our Company—ACGL is a holding company and is dependent on dividends and other payments from its operating subsidiaries, which are subject to dividend restrictions, to make payments, including the payment of debt service obligations and operating expenses we may incur and any payments of dividends, redemption amounts or liquidation

amounts with respect to our preferred shares and common shares,” we are subject to certain regulatory and other constraints affecting our ability to pay dividends and make other payments.

***The voting rights of holders of our preferred shares are limited.***

Holders of our preferred shares have no voting rights with respect to matters that generally require the approval of voting shareholders. The limited voting rights of holders of our preferred shares include the right to vote as a class on certain fundamental matters that affect the preference or special rights of our preferred shares as set forth in the certificate of designations relating to each series of preferred shares. In addition, if dividends on any series of our preferred shares have not been declared or paid for the equivalent of six dividend payments, whether or not for consecutive dividend periods, holders of the outstanding preferred shares of any series will be entitled to vote for the election of two additional directors to our board of directors subject to the terms and to the limited extent as set forth in the certificate of designations relating to such series of preferred shares.

***There is no limitation on our issuance of securities that rank equally with or senior to our preferred shares.***

We may issue additional securities that rank equally with or senior to our preferred shares without limitation. The issuance of securities ranking equally with or senior to our preferred shares may reduce the amount available for dividends and the amount recoverable by holders of such series in the event of a liquidation, dissolution or winding-up of ACGL.

***We may be impacted by regulatory initiatives affecting our preferred shares.***

Our preferred shares are intended to constitute Tier 2 capital in accordance with the group requirements of the BMA which came into force on January 1, 2013. In order for the preferred shares to qualify as Tier 2 capital, the terms of the preferred shares reflect the criteria contained in the Insurance (Group Supervision) Rules 2011 published by the BMA in January 2012. No assurance can be made that the BMA will deem that the preferred shares constitute Tier 2 capital under the group supervision rules. In the event that the BMA does not make such a determination, subject to the limitations of the preferred shares, which may require the consent of the preferred shareholders, we may be able to vary the terms of the preferred shares or exchange the preferred shares for new securities to achieve the desired regulatory capital treatment. We cannot predict how new regulatory changes in other jurisdictions may affect these rules, if at all, or whether we will be able to make any changes to the terms of the preferred shares to enable it to qualify as Tier 2 capital.

**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 U.S. and, thus, will not be required to pay U.S. federal income taxes (other than U.S. excise taxes on insurance and reinsurance premium and 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 U.S., there can be no assurances that the U.S. Internal Revenue Service (“IRS”) will not contend successfully that ACGL or its non-U.S. subsidiaries are engaged in a trade or business in the U.S. 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.

Congress has been considering legislation intended to eliminate certain perceived tax advantages of Bermuda and other non-U.S. insurance companies and U.S. insurance companies having Bermuda and other non-U.S. affiliates, including perceived tax benefits resulting principally from reinsurance between or among U.S. insurance companies and their Bermuda affiliates. Some U.S. insurance companies have

also been lobbying Congress recently to pass such legislation. In this regard, the American Jobs Creation Act of 2004 (the “Jobs Act”) permits the IRS to re-allocate, re-characterize or adjust items of income, deduction or certain other items related to a reinsurance agreement between related parties to reflect the proper source, character and amount for each item (in contrast to prior law, which only covered source and character). The Jobs Act also eliminated the tax benefits available to a U.S. company that, after March 4, 2003, changed its legal domicile to a non-U.S. jurisdiction, a transaction commonly known as an inversion. We changed our legal domicile from the U.S. to Bermuda, but were not affected by the anti-inversion rule because our change in domicile occurred in November 2000. The American Infrastructure Investment and Improvement Act of 2008 as passed by the Senate Finance Committee would have made the Jobs Act anti-inversion rule applicable retroactively to inversions that occurred after March 20, 2002. Although this modification would not affect ACGL, no assurance can be given that if reintroduced in the current Congress the final bill will not make the Jobs Act anti-inversion rule applicable retroactively to inversions that occurred on an earlier date, in which case ACGL could be adversely affected. A recently reintroduced legislative proposal would treat certain foreign corporations as U.S. corporations if such corporation is primarily managed and controlled within the U.S. While we believe ACGL is not primarily managed and controlled within the U.S., there is no assurance that the proposal would not apply to ACGL. Another legislative proposal would treat a foreign corporation as a U.S. corporation if it is determined that the foreign corporation was formed or organized principally for the purpose of avoiding being treated as a U.S. corporation. It is uncertain whether this proposal would apply to ACGL, but it would adversely affect us if enacted and found to apply. Another legislative proposal has been introduced that would treat certain “tax haven CFCs” as U.S. corporations for federal income tax purposes. The term “tax haven CFC” would include a Bermuda corporation that is a controlled foreign corporation, but would exclude corporations that engage in the active conduct of a trade or business in Bermuda. It is not clear how this bill would apply to ACGL, which conducts its insurance and reinsurance businesses through its subsidiaries. Further, it is not clear whether this bill was intended to apply to a publicly traded company such as ACGL. There is no assurance that this legislative proposal, if enacted, would not apply to ACGL or any of its non-U.S. subsidiaries. In addition, Congress has conducted hearings relating to the tax treatment of reinsurance between affiliates and is reported to be considering legislation that would adversely affect reinsurance between U.S. and non-U.S. affiliates. One such proposal would increase the excise tax rate on reinsurance premiums paid to affiliated non-U.S. reinsurers. A legislative proposal in the House of Representatives as well as a prior Senate Finance Committee staff discussion draft and other prior proposals would limit deductions for premiums ceded to affiliated non-U.S. reinsurers above certain levels. The Administration’s Fiscal Year 2013 Revenue Proposals contain a similar but more restrictive provision that would deny deductions for all premiums ceded to affiliated non-U.S. reinsurers, offset by an exclusion for any ceding commissions received or reinsurance recovered from such affiliates. Two legislative proposals (i.e., H.R. 3157 and S. 1963) introduced during the 112th Congress appeared to adopt the provision contained in the Administration’s Fiscal Year 2013 Revenue Proposals. Enactment of such legislation or proposal as well as other changes in U.S. tax laws, regulations and interpretations thereof to address these issues could adversely affect us.

***Our non-U.S. companies may be subject to U.K. tax that may have a material adverse effect on our results of operations.***

We intend to operate in such a manner so that none of our companies, other than our U.K. subsidiaries and branch operations (the “U.K. Group”), should be resident in the U.K. for tax purposes or carry on a trade, whether or not through a permanent establishment, in the U.K. Accordingly, we do not expect that of our other subsidiaries, other than the U.K. Group, should be subject to U.K. tax. Case law has held that whether or not a trade is being carried on in the U.K. is a matter of fact and emphasis is placed on where the operations take place from which the profits in substance arise. HM Revenue and Customs might contend successfully that one or more of our subsidiaries, in addition to

the U.K. Group, is carrying on a trade in the U.K. For U.K. tax purposes, a non-U.K. tax resident company will be subject to U.K. corporation tax only if it carries on a trade through a permanent establishment in the U.K. However, that subsidiary may still be subject to U.K. income tax if it carries on a trade in the U.K., without a permanent establishment, unless it is entitled to the protection afforded by a double tax treaty between the U.K. and the jurisdiction in which that company is resident. If any of our subsidiaries is treated as resident, or carrying on a trade, in the U.K., whether or not through a permanent establishment, and, therefore, subject to U.K. tax, our results of operations could be materially adversely affected.

*We may become subject to taxes in Bermuda after March 31, 2035, which may have a material adverse effect on our results of operations.*

Under current Bermuda law, we are not subject to tax on income, profits, withholding, capital gains or capital transfers. Furthermore, we have obtained from the Minister of Finance of Bermuda under the Exempted Undertakings Tax Protection Act, 1966, an assurance that, in the event that Bermuda enacts legislation imposing tax computed on profits, income, any capital asset, gain or appreciation, or any tax in the nature of estate duty or inheritance tax, then the imposition of the tax will not be applicable to us or our operations until March 31, 2035. We could be subject to taxes in Bermuda after that date. This assurance does not, however, prevent the imposition of taxes on any person ordinarily resident in Bermuda or any company in respect of its ownership of real property or leasehold interests in Bermuda.

#### **ITEM 1B. UNRESOLVED STAFF COMMENTS**

None.

#### **ITEM 2. PROPERTIES**

We lease a total of approximately 7,000 square feet in Bermuda for the operations of ACGL and our internal investment management group. Our reinsurance group leases approximately 82,000 square feet for offices in the U.S., Bermuda, Europe and Canada. The principal U.S. office of our insurance group support operations (excluding underwriting units) is in Jersey City, New Jersey where we lease approximately 107,000 square feet. Such lease expires in 2024. We lease approximately 71,000 square feet in New York City for the headquarters of the U.S. insurance group's underwriting product lines and Northeast regional underwriting operations. Our insurance group also leases a total of approximately 228,000 square feet for its other primary U.S. offices and offices in Canada, Bermuda, Europe, South Africa and Australia.

For 2012, 2011 and 2010, our rental expense, net of income from subleases, was approximately \$21.1 million, \$16.4 million and \$15.0 million, 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 \$137.7 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 2013.

#### **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, 2012, we were not a party to any litigation or arbitration which is expected by management to have a material adverse effect on our results of operations and financial condition and liquidity.

#### **ITEM 4. MINE SAFETY DISCLOSURES**

Not applicable.

## PART II

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

#### MARKET INFORMATION

Our common shares are traded on the NASDAQ Stock 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 Stock Market were as follows:

	Three Months Ended			
	December 31, 2012	September 30, 2012	June 30, 2012	March 31, 2012
High .....	\$45.16	\$41.71	\$40.42	\$38.60
Low .....	\$41.71	\$38.07	\$36.80	\$35.49
Close .....	\$44.02	\$41.64	\$39.69	\$37.24

	Three Months Ended			
	December 31, 2011	September 30, 2011	June 30, 2011	March 31, 2011
High .....	\$37.99	\$34.79	\$35.20	\$33.18
Low .....	\$31.46	\$30.07	\$31.51	\$28.54
Close .....	\$37.23	\$32.68	\$31.92	\$33.06

On February 22, 2013, the high and low sales prices and the closing price for our common shares as reported on the NASDAQ Stock Market were \$48.40, \$47.94 and \$48.40, respectively.

#### HOLDERS

As of February 22, 2013, and based on information provided to us by our transfer agent and proxy solicitor, there were 651 holders of record of our common shares and approximately 21,000 beneficial holders of our common shares.

## DIVIDENDS

Any determination to pay dividends on ACGL's Series C non-cumulative preferred shares ("preferred shares") or common shares will be at the discretion of ACGL's board of directors (or a duly authorized committee of the board of directors) and will be dependent upon its results of operations, financial condition and other factors deemed relevant by ACGL's board of directors. As a holding company, ACGL will depend on future dividends and other permitted payments from its subsidiaries to pay dividends to its shareholders. ACGL's subsidiaries' ability to pay dividends, as well as its ability to pay dividends, is subject to regulatory, contractual, rating agency and other constraints. So long as any preferred shares remain outstanding for any dividend period, unless the full dividends for the latest completed dividend period on all outstanding preferred shares and parity shares have been declared and paid (or declared and a sum sufficient for the payment thereof has been set aside), (a) no dividend may be paid or declared on ACGL's common shares or any of its other securities ranking junior to the preferred shares (other than a dividend payable solely in common shares or in such other junior securities) and (b) no common shares or other junior shares may be purchased, redeemed or otherwise acquired for consideration by ACGL, directly or indirectly (other than (i) as a result of a reclassification of junior shares for or into other junior shares, or the exchange or conversion of one junior share for or into another junior share, (ii) through the use of the proceeds of a substantially contemporaneous sale of junior shares and (iii) as permitted by the bye-laws of ACGL in effect on the date of issuance of the preferred shares).

## ISSUER PURCHASES OF EQUITY SECURITIES

The following table summarizes our purchases of our common shares for the 2012 fourth quarter:

<u>Period</u>	<u>Issuer Purchases of Equity Securities</u>			<u>Approximate Dollar Value of Shares that May Yet be Purchased Under the Plan or Programs(2)</u>
	<u>Total Number of Shares Purchased(1)</u>	<u>Average Price Paid per Share</u>	<u>Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs</u>	
10/1/2012 - 10/31/2012 . . . . .	4,867	\$42.82	—	\$941,967
11/1/2012 - 11/30/2012 . . . . .	1,580,464	\$43.25	1,563,790	\$874,322
12/1/2012 - 12/31/2012 . . . . .	2,363,116	\$44.23	2,360,516	\$769,911
Total . . . . .	<u>3,948,447</u>	<u>\$43.84</u>	<u>3,924,306</u>	<u>\$769,911</u>

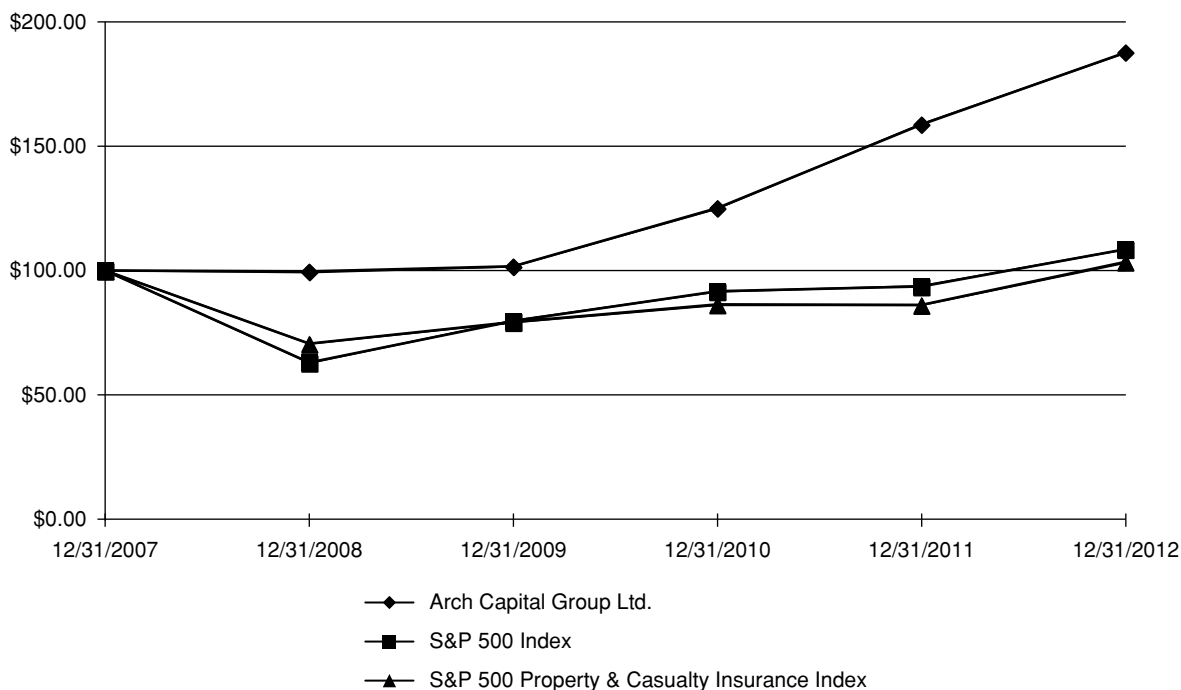
- (1) Includes repurchases by ACGL of shares, from time to time, from employees in order to facilitate the payment of withholding taxes on restricted shares granted and the exercise of stock appreciation rights. We purchased these shares at their fair market value, as determined by reference to the closing price of our common shares on the day the restricted shares vested or the stock appreciation rights were exercised.
- (2) Remaining amount available at December 31, 2012 under ACGL's share repurchase authorization, under which repurchases may be effected from time to time in open market or privately negotiated transactions through December 2014.



## PERFORMANCE GRAPH

The following graph compares the cumulative total shareholder return on our common shares for each of the last five years through December 31, 2012 to the cumulative total return, assuming reinvestment of dividends, of (1) S&P 500 Composite Stock Index (“S&P 500 Index”) and (2) the S&P 500 Property & Casualty Insurance Index. The share price performance presented below is not necessarily indicative of future results.

**CUMULATIVE TOTAL SHAREHOLDER RETURN(1)(2)(3)**



Company Name/Index	Base Period 12/31/07	12/31/08	12/31/09	12/31/10	12/31/11	12/31/12
◆ Arch Capital Group Ltd.	\$100.00	\$99.64	\$101.71	\$125.16	\$158.76	\$187.72
■ S&P 500 Index	\$100.00	\$63.00	\$79.67	\$91.68	\$93.61	\$108.59
▲ S&P 500 Property & Casualty Insurance Index	\$100.00	\$70.59	\$79.30	\$86.39	\$86.18	\$103.51

- (1) Stock price appreciation plus dividends.
- (2) The above graph assumes that the value of the investment was \$100 on December 31, 2007.
- (3) This graph is not “soliciting material,” is not deemed filed with the SEC and is not to be incorporated by reference in any filing by us under the Securities Act of 1933 or the Securities and Exchange Act of 1934, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

## ITEM 6. SELECTED FINANCIAL DATA

The following tables set forth summary historical consolidated financial and operating data and 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.

(U.S. dollars in thousands except share data)	Year Ended December 31,				
	2012	2011	2010	2009	2008
<b>Statement of Income Data:</b>					
Revenues:					
Net premiums written . . . . .	\$ 3,052,235	\$ 2,673,326	\$ 2,511,040	\$ 2,763,112	\$ 2,805,726
Net premiums earned . . . . .	2,935,140	2,631,815	2,552,483	2,842,745	2,845,454
Net investment income . . . . .	294,895	338,198	364,878	390,131	468,080
Equity in net income (loss) of investment funds accounted for using the equity method . . . . .	73,510	(9,605)	61,400	167,819	(178,608)
Net realized gains (losses) . . . . .	194,228	110,646	252,751	143,582	(3,939)
Total revenues . . . . .	3,482,381	3,063,307	3,244,067	3,501,622	2,966,813
Income before income taxes . . . . .	589,387	426,370	850,401	890,802	304,442
Net Income . . . . .	\$ 593,397	\$ 436,163	\$ 842,672	\$ 872,006	\$ 292,152
Preferred dividends . . . . .	(25,079)	(25,844)	(25,844)	(25,844)	(25,844)
Loss on repurchase of preferred shares . . . . .	(10,612)	—	—	—	—
Net income available to common shareholders . . . . .	\$ 557,706	\$ 410,319	\$ 816,828	\$ 846,162	\$ 266,308
Diluted net income per share . . . . .	\$ 4.03	\$ 2.97	\$ 5.18	\$ 4.55	\$ 1.37
Cash dividends per share . . . . .	—	—	—	—	—
After-tax operating income available to common shareholders(1) . . . . .	\$ 350,640	\$ 303,382	\$ 491,158	\$ 646,866	\$ 538,572
After-tax operating income available to common shareholders per share— diluted(1) . . . . .	\$ 2.54	\$ 2.19	\$ 3.12	\$ 3.48	\$ 2.77
After-tax operating return on average common equity(2) . . . . .	7.7%	7.2%	12.1%	18.4%	15.9%
Weighted average common shares and common share equivalents outstanding—diluted . . . . .	138,258,847	138,289,702	157,565,157	185,781,396	194,367,156

- (1) After-tax operating income available to common shareholders is defined as net income available to common shareholders, excluding net realized gains or losses, net impairment losses included in earnings, equity in net income or loss of investment funds accounted for using the equity method, net foreign exchange gains or losses and loss on repurchase of preferred shares, net of income taxes. The presentation of after-tax operating income available to common shareholders is a “non-GAAP financial measure” as defined in Regulation G. See “Management’s Discussion and Analysis—General—Comment on Non-GAAP Financial Measures” for further details.
- (2) Equals after-tax operating income available to common shareholders divided by the average of beginning and ending common shareholders’ equity for each period presented.

(U.S. dollars in thousands except share data)	December 31,				
	2012	2011	2010	2009	2008
<b>Balance Sheet Data:</b>					
Total investments and cash(1) . . . . .	\$ 13,063,674	\$ 12,333,544	\$ 11,986,560	\$ 11,325,112	\$ 9,992,239
Premiums receivable . . . . .	688,873	501,563	503,434	595,030	628,951
Reinsurance recoverables on unpaid and paid losses and loss adjustment expenses	1,870,037	1,851,584	1,763,985	1,720,270	1,792,429
Total assets . . . . .	17,816,762	17,105,357	16,243,011	15,761,123	14,877,693
Reserves for losses and loss adjustment expenses:					
Before unpaid losses and loss adjustment expenses recoverable . . . . .	8,933,292	8,456,210	8,098,454	7,873,412	7,666,957
Net of unpaid losses and loss adjustment expenses recoverable . . . . .	7,104,222	6,638,163	6,395,253	6,213,912	5,937,822
Unearned premiums:					
Before prepaid reinsurance premiums . .	1,647,978	1,411,872	1,370,075	1,433,331	1,526,682
Net of prepaid reinsurance premiums . .	1,349,494	1,146,176	1,106,627	1,155,346	1,222,975
Senior notes . . . . .	300,000	300,000	300,000	300,000	300,000
Revolving credit agreement borrowings . . .	100,000	100,000	100,000	100,000	100,000
Total liabilities . . . . .	12,647,884	12,513,283	11,766,225	11,474,075	11,476,090
Common shareholders' equity . . . . .	\$ 4,843,878	\$ 4,267,074	\$ 4,151,786	\$ 3,962,048	\$ 3,076,603
Preferred shareholders' equity . . . . .	325,000	325,000	325,000	325,000	325,000
Total shareholders' equity . . . . .	<u>\$ 5,168,878</u>	<u>\$ 4,592,074</u>	<u>\$ 4,476,786</u>	<u>\$ 4,287,048</u>	<u>\$ 3,401,603</u>
Book value per common share(2) . . . . .	\$ 36.19	\$ 31.76	\$ 29.73	\$ 24.12	\$ 16.95
Common shares outstanding, net of treasury shares(3) . . . . .	133,842,613	134,358,345	139,632,225	164,285,034	181,535,922

- (1) In our securities lending transactions, we receive collateral in excess of the fair value of the fixed maturities and short-term investments pledged under securities lending agreements. For purposes of this table, we have excluded collateral received and reinvested and included "fixed maturities and short-term investments pledged under securities lending agreements, at fair value."
- (2) Excludes the effects of stock options and restricted stock units.
- (3) Reflects the impact of our share repurchase program.

## **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 "Risk Factors."

This discussion and analysis should be read in conjunction with our audited consolidated financial statements and notes thereto presented under Item 8. Tabular amounts are in U.S. Dollars in thousands, except share amounts, unless otherwise noted.

### **GENERAL**

#### **Overview**

Arch Capital Group Ltd. ("ACGL" and, together with its subsidiaries, "we" or "us") is a Bermuda public limited liability company with approximately \$5.57 billion in capital at December 31, 2012 and, through operations in Bermuda, the United States, Europe and Canada, writes insurance and reinsurance on a worldwide basis. While we are positioned to provide a full range of property and casualty insurance and reinsurance lines, we focus on writing specialty lines of insurance and reinsurance. It is our belief that our underwriting platform, our experienced management team and our strong capital base that is unencumbered by significant pre-2002 risks have enabled us to establish a strong presence in the insurance and reinsurance markets.

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

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

#### **Current Outlook**

The broad market environment continues to be competitive with modest improvements across most lines of business. However, even with this continued improvement in rates, additional increases are needed in many lines in order for us to achieve our return requirements due to the current interest rate environment. In the property and property catastrophe areas, the environment improved with the best increases to date reflected in international, catastrophe-exposed businesses. Our underwriting teams continue to execute a disciplined strategy by emphasizing small and medium-sized accounts over large accounts and by focusing more on short-tail business. In addition, our reinsurance operations capitalized on opportunities in specialty lines such as mortgage and U.K. motor due to the attractive

market conditions and our insurance operations continue to diversify into various lines of business such as title, travel insurance and contract binding insurance.

Our objective is to achieve an average operating return on average equity of 15% or greater over the insurance cycle, which we believe to be an attractive return to our common shareholders given the risks we assume. We continue to look for opportunities to find acceptable books of business to underwrite without sacrificing underwriting discipline and continue to believe that the most attractive area from a pricing point of view remains catastrophe-exposed business. We expect that catastrophe-exposed business will continue to represent a significant proportion of our overall book, which could increase the volatility of our operating results.

In order to enter the U.S. mortgage insurance marketplace, our U.S.-based subsidiaries entered into a definitive agreement to acquire CMG Mortgage Insurance Company (“CMG MI”) from its current owners, PMI Mortgage Insurance Co. (“PMI”), which is in rehabilitation under the receivership of the Arizona Department of Insurance since 2011, and CMFG Life Insurance Company. We also agreed to acquire PMI’s mortgage insurance operating platform and related assets from PMI. This transaction will complement our existing mortgage insurance and reinsurance capabilities. It is anticipated that the transaction will close within 12 months, subject to approvals of the Arizona receivership court, applicable regulators and government-sponsored enterprises, and the satisfaction of customary closing conditions. At closing, it is currently estimated that our U.S.-based subsidiaries will pay aggregate consideration of approximately \$300 million. Additional amounts may be paid based on the actual results of CMG MI’s pre-closing portfolio over an agreed upon period.

The current economic conditions could continue to have a material impact on the frequency and severity of claims and, therefore, could negatively impact our underwriting returns. In addition, volatility in the financial markets could continue to significantly affect our investment returns, reported results and shareholders’ equity. We consider the potential impact of economic trends in the estimation process for establishing unpaid losses and loss adjustment expenses and in determining our investment strategies.

In addition, the impact of the continuing weakness of the U.S., European countries and other key economies, projected budget deficits for the U.S., European countries and other governments and the consequences associated with possible additional downgrades of securities of the U.S., European countries and other governments by credit rating agencies is inherently unpredictable and could have a material adverse effect on financial markets and economic conditions in the U.S. and throughout the world. In turn, this could have a material adverse effect on our business, financial condition and results of operations and, in particular, this could have a material adverse effect on the value and liquidity of securities in our investment portfolio.

### **Natural Catastrophe Risk**

We monitor our natural catastrophe risk globally for all perils and regions, in each case, where we believe there is significant exposure. Our models employ both proprietary and vendor-based systems and include cross-line correlations for property, marine, offshore energy, aviation, workers compensation and personal accident. Currently, we seek to limit our 1-in-250 year return period net probable maximum pre-tax loss from a severe catastrophic event in any geographic zone to approximately 25% of total shareholders’ equity. We reserve the right to change this threshold at any time. Based on in-force exposure estimated as of January 1, 2013, our modeled peak zone catastrophe exposure (using the updated vendor-based system version) is a windstorm affecting the Northeastern U.S., with a net probable maximum pre-tax loss of \$867 million, followed by windstorms affecting the Gulf of Mexico and Florida Tri-County with net probable maximum pre-tax losses of \$838 million and \$603 million, respectively. Our exposures to other perils, such as U.S. earthquake and international events, are less than the exposures arising from U.S. windstorms and hurricanes. As of January 1, 2013,

our modeled peak zone earthquake exposure (New Madrid area earthquake) represented less than 45% of our peak zone catastrophe exposure, and our modeled peak zone international exposure (Japan earthquake) is substantially less than both our peak zone windstorm and earthquake exposures. Net probable maximum pre-tax loss estimates are net of expected reinsurance recoveries, before income tax and before excess reinsurance reinstatement premiums. Loss estimates are reflective of the zone indicated and not the entire portfolio. Since hurricanes and windstorms can affect more than one zone and make multiple landfalls, our loss estimates include clash estimates from other zones.

The loss estimates shown above do not represent our maximum exposures and it is highly likely that our actual incurred losses would vary materially from the modeled estimates. There can be no assurances that we will not suffer a net loss greater than 25% of our total shareholders' equity from one or more catastrophic events due to several factors, including the inherent uncertainties in estimating the frequency and severity of such events and the margin of error in making such determinations resulting from potential inaccuracies and inadequacies in the data provided by clients and brokers, the modeling techniques and the application of such techniques or as a result of a decision to change the percentage of shareholders' equity exposed to a single catastrophic event. In addition, actual losses may increase if our reinsurers fail to meet their obligations to us or the reinsurance protections purchased by us are exhausted or are otherwise unavailable. See "Risk Factors—Risk Relating to Our Industry" and "Management's Discussion and Analysis of Financial Condition and Results of Operations—Natural and Man-Made Catastrophic Events."

## **Financial Measures**

Management uses the following three key financial indicators in evaluating our performance and measuring the overall growth in value generated for ACGL's common shareholders:

### ***Book Value per Common Share***

Book value per common share represents total common shareholders' equity divided by the number of common shares outstanding. Management uses growth in book value per common share as a key measure of the value generated for our common shareholders each period and believes that book value per common share is the key driver of ACGL's common share price over time. Book value per common share is impacted by, among other factors, our underwriting results, investment returns and share repurchase activity, which has an accretive or dilutive impact on book value per common share depending on the purchase price.

Book value per common share was \$36.19 at December 31, 2012, a 13.9% increase from \$31.76 at December 31, 2011. The growth in 2012 was generated through underwriting results and investment returns.

### ***After-Tax Operating Return on Average Common Equity***

After-tax operating return on average common equity ("Operating ROAE") represents after-tax operating income available to common shareholders divided by the average of beginning and ending common shareholders' equity during the period. After-tax operating income available to common shareholders, a "non-GAAP measure" as defined in the SEC rules, represents net income available to common shareholders, excluding net realized gains or losses, net impairment losses recognized in earnings, equity in net income or loss of investment funds accounted for using the equity method, net foreign exchange gains or losses and loss on repurchase of preferred shares, net of income taxes. Management uses Operating ROAE as a key measure of the return generated to common shareholders and has set an objective to achieve an average Operating ROAE of 15% or greater over the insurance cycle, which it believes to be an attractive return to common shareholders given the risks we assume. See "Comment on Non-GAAP Financial Measures."

Our Operating ROAE was 7.7% for 2012, compared to 7.2% for 2011 and 12.0% for 2010. The Operating ROAEs for 2012 and 2011 reflect a higher amount of losses from catastrophic events than the 2010 period and also reflect the impact of current insurance and reinsurance market conditions and the impact of lower interest yields on the investment portfolio.

***Total Return on Investments***

Total return on investments includes net investment income, equity in net income or loss of investment funds accounted for using the equity method, net realized gains and losses and the change in unrealized gains and losses generated by our investment portfolio. Total return is calculated on a pre-tax basis and before investment expenses and includes the effect of financial market conditions along with foreign currency fluctuations. Management uses total return on investments as a key measure of the return generated to common shareholders on the capital held in the business, and compares the return generated by our investment portfolio against a benchmark return index.

The benchmark return index is a customized combination of indices intended to approximate a target portfolio by asset mix and average credit quality while also matching the approximate estimated duration and currency mix of our insurance and reinsurance liabilities. Although the estimated duration and average credit quality of this index will move as the duration and rating of its constituent securities change, generally we do not adjust the composition of the benchmark return index. The benchmark return index should not be interpreted as expressing a preference for or aversion to any particular sector or sector weight. The index is intended solely to provide, unlike many master indices that change based on the size of their constituent indices, a relatively stable basket of investable indices.

At December 31, 2012, the benchmark return index had an average Moody's credit quality of "Aa2", an estimated duration of 3.29 years and included weightings to the following indices:

	<b><u>Weighting</u></b>
The Bank of America Merrill Lynch 1 - 10 Year U.S. Treasury & Agency Index . . . . .	30.875%
The Bank of America Merrill Lynch 1 - 10 Year AA U.S. Corporate & Yankees Index . . . . .	20.875%
The Bank of America Merrill Lynch U.S. Mortgage Backed Securities Index . . . . .	11.875%
Barclays Capital CMBS, AAA Index . . . . .	10.000%
The Bank of America Merrill Lynch 1 - 10 Year U.S. Municipal Securities Index . . . . .	7.125%
MSCI World Free Index . . . . .	5.000%
The Bank of America Merrill Lynch 0 - 3 Month U.S. Treasury Bill Index . . . . .	4.750%
The Bank of America Merrill Lynch U.S. High Yield Constrained Index . . . . .	2.375%
Barclays Capital U.S. High-Yield Corporate Loan Index . . . . .	2.375%
The Bank of America Merrill Lynch 1 - 10 Year U.K. Gilt Index . . . . .	2.375%
The Bank of America Merrill Lynch 1 - 10 Year Euro Government Index . . . . .	2.375%
Total . . . . .	<u>100.000%</u>

The following table summarizes the pre-tax total return (before investment expenses) of our investment portfolio compared to the benchmark return against which we measured our portfolio during the periods:

	<u>Arch Portfolio(1)</u>	<u>Benchmark Return</u>
Pre-tax total return (before investment expenses):		
Year ended December 31, 2012 . . . . .	5.88%	4.90%
Year ended December 31, 2011 . . . . .	3.81%	4.80%
Year ended December 31, 2010 . . . . .	7.00%	6.38%

(1) Our investment expenses were approximately 0.22%, 0.22% and 0.19%, respectively, of average invested assets in 2012, 2011 and 2010.

Total return for our investment portfolio outperformed that of the benchmark return index in 2012 and reflected strong returns on high-yield corporate bonds, Asian and emerging market investments and bank loans, which augmented the return on our investment grade fixed income portfolio. Excluding foreign exchange, total return was 5.59% for 2012, compared to 4.10% for 2011 and 7.26% for 2010.

### **Comment on Non-GAAP Financial Measures**

Throughout this filing, we present our operations in the way we believe will be the most meaningful and useful to investors, analysts, rating agencies and others who use our financial information in evaluating the performance of our company. This presentation includes the use of after-tax operating income available to common shareholders, which is defined as net income available to common shareholders, excluding net realized gains or losses, net impairment losses recognized in earnings, equity in net income or loss of investment funds accounted for using the equity method net foreign exchange gains or losses and loss on repurchase of preferred shares, net of income taxes. The presentation of after-tax operating income available to common shareholders is a “non-GAAP financial measure” as defined in Regulation G. The reconciliation of such measure to net income available to common shareholders (the most directly comparable GAAP financial measure) in accordance with Regulation G is included under “Results of Operations” below.

We believe that net realized gains or losses, net impairment losses recognized in earnings, equity in net income or loss of investment funds accounted for using the equity method, net foreign exchange gains or losses and loss on repurchase of preferred shares in any particular period are not indicative of the performance of, or trends in, our business. Although net realized gains or losses, net impairment losses recognized in earnings, equity in net income or loss of investment funds accounted for using the equity method and net foreign exchange gains or losses are an integral part of our operations, the decision to realize investment gains or losses, the recognition of net impairment losses, the recognition of equity in net income or loss of investment funds accounted for using the equity method and the recognition of foreign exchange gains or losses are independent of the insurance underwriting process and result, in large part, from general economic and financial market conditions. Furthermore, certain users of our financial information believe that, for many companies, the timing of the realization of investment gains or losses is largely opportunistic. In addition, net impairment losses recognized in earnings on our investments represent other-than-temporary declines in expected recovery values on securities without actual realization. The use of the equity method on certain of our investments in certain funds that invest in fixed maturity securities is driven by the ownership structure of such funds (either limited partnerships or limited liability companies). In applying the equity method, these investments are initially recorded at cost and are subsequently adjusted based on our proportionate share of the net income or loss of the funds (which include changes in the fair value of the underlying securities in the funds). This method of accounting is different from the way we account for our other fixed maturity securities and the timing of the recognition of equity in net income or loss of investment



funds accounted for using the equity method may differ from gains or losses in the future upon sale or maturity of such investments. The loss on repurchase of preferred shares related to the redemption of the Series A and B preferred shares in April 2012 and had no impact on total shareholders' equity or cash flows. Due to these reasons, we exclude net realized gains or losses, net impairment losses recognized in earnings, equity in net income or loss of investment funds accounted for using the equity method, net foreign exchange gains or losses and loss on repurchase of preferred shares from the calculation of after-tax operating income available to common shareholders.

We believe that showing net income available to common shareholders exclusive of the items referred to above reflects the underlying fundamentals of our business since we evaluate the performance of and manage our underwriting to produce a profit. In addition to presenting net income available to common shareholders, we believe that this presentation enables investors and other users of our financial information to analyze our performance in a manner similar to how management analyzes performance. We also believe that this measure follows industry practice and, therefore, allows the users of financial information to compare our performance with our industry peer group. We believe that the equity analysts and certain rating agencies which follow us and the insurance industry as a whole generally exclude these items from their analyses for the same reasons.

## RESULTS OF OPERATIONS

The following table summarizes, on an after-tax basis, our consolidated financial data, including a reconciliation of after-tax operating income available to common shareholders to net income available to common shareholders:

	<u>Year Ended December 31,</u>		
	<u>2012</u>	<u>2011</u>	<u>2010</u>
After-tax operating income available to common shareholders . . . . .	\$350,640	\$303,382	\$491,158
Net realized gains, net of tax . . . . .	184,083	108,306	247,054
Net impairment losses recognized in earnings, net of tax . . . . .	(11,388)	(9,062)	(11,321)
Equity in net income (loss) of investment funds accounted for using the equity method, net of tax . . . . .	73,510	(9,605)	61,400
Net foreign exchange (losses) gains, net of tax . . . . .	(28,527)	17,298	28,537
Loss on repurchase of preferred shares, net of tax . . . . .	(10,612)	—	—
Net income available to common shareholders . . . . .	<u>\$557,706</u>	<u>\$410,319</u>	<u>\$816,828</u>

The higher level of after-tax operating income in 2012 than in 2011 was primarily due to a lower amount of losses from catastrophic events and also reflected the impact of current insurance and reinsurance market conditions and the impact of lower interest yields on the investment portfolio.

### *Segment Information*

We classify our businesses into two underwriting segments—insurance and reinsurance—and corporate and other (non-underwriting). Accounting guidance regarding 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. Management measures segment performance based on underwriting income or loss.

*Insurance Segment*

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

	Year Ended December 31,			Year Ended December 31,		
	2012	2011	% Change	2011	2010	% Change
Gross premiums written . . .	\$ 2,593,959	\$ 2,444,485	6.1	\$ 2,444,485	\$ 2,402,202	1.8
Net premiums written . . . . .	1,825,334	1,721,279	6.0	1,721,279	1,658,963	3.8
Net premiums earned . . . . .	1,800,343	1,679,047	7.2	1,679,047	1,651,106	1.7
Fee income . . . . .	2,335	2,870		2,870	3,252	
Losses and loss adjustment expenses . . . . .	(1,283,841)	(1,172,742)		(1,172,742)	(1,117,564)	
Acquisition expenses, net . .	(298,983)	(278,696)		(278,696)	(263,201)	
Other operating expenses . .	(307,489)	(307,797)		(307,797)	(312,732)	
Underwriting income (loss) .	\$ (87,635)	\$ (77,318)	n/m	\$ (77,318)	\$ (39,139)	n/m
<b>Underwriting Ratios</b>			<b>% Point Change</b>			<b>% Point Change</b>
Loss ratio . . . . .	71.3%	69.8%	1.5	69.8%	67.7%	2.1
Acquisition expense ratio(1)	16.5%	16.4%	0.1	16.4%	15.7%	0.7
Other operating expense ratio . . . . .	17.1%	18.3%	(1.2)	18.3%	18.9%	(0.6)
Combined ratio . . . . .	104.9%	104.5%	0.4	104.5%	102.3%	2.2

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

The components of the insurance segment's underwriting results are discussed below.

*Premiums Written.*

The following table sets forth our insurance segment's net premiums written by major line of business:

	Year Ended December 31,					
	2012		2011		2010	
	Amount	%	Amount	%	Amount	%
Programs . . . . .	\$ 352,867	19	\$ 297,985	17	\$ 273,076	17
Property, energy, marine and aviation . . . . .	294,690	16	335,589	20	321,529	19
Professional liability . . . . .	260,705	14	237,860	14	268,176	16
Executive assurance . . . . .	250,904	14	231,405	13	219,458	13
Construction . . . . .	130,201	7	120,405	7	112,827	7
Casualty . . . . .	112,307	6	114,235	7	107,962	7
Lenders products . . . . .	86,987	5	86,694	5	92,921	6
National accounts . . . . .	80,929	5	80,973	5	67,925	4
Travel and accident . . . . .	80,489	4	71,940	4	71,237	4
Surety . . . . .	53,271	3	42,475	2	34,149	2
Healthcare . . . . .	36,814	2	35,652	2	37,508	2
Other(1) . . . . .	85,170	5	66,066	4	52,195	3
Total . . . . .	<u>\$1,825,334</u>	<u>100</u>	<u>\$1,721,279</u>	<u>100</u>	<u>\$1,658,963</u>	<u>100</u>

(1) Includes excess workers' compensation, employer's liability, alternative markets and accident and health business.

*2012 versus 2011:* Increases in programs, professional liability, executive assurance and accident and health business were partially offset by a reduction in onshore energy business. The increase in program business was primarily due to growth within existing programs and the impact of rate movements. Growth in professional liability primarily reflected new business written in small and medium sized accounts while the growth in executive assurance business primarily resulted from small and medium sized accounts in the U.K. and the U.S. The increase in accident and health business primarily resulted from new business. The reduction in onshore energy premiums reflected a strategic shift towards writing more on an excess basis and utilizing smaller capacity per account as well as an increased use of reinsurance.

*2011 versus 2010:* Increases in property and energy business as well as in program business, national accounts and executive assurance were partially offset by reductions in commercial aviation and professional liability lines of business. The increase in property premiums primarily resulted from new business and a higher retention rate on existing accounts in the insurance segment's U.S. operations and growth in the insurance segment's European operations in both global property and energy lines. The increase in national accounts resulted from new business while the increase in program business resulted from growth on existing programs. The reduction in commercial aviation business primarily resulted from a strategic decision to exit the business in early 2010 while the lower level of professional liability business was primarily due to market conditions.

*Net Premiums Earned.*

The following table sets forth our insurance segment's net premiums earned by major line of business:

	Year Ended December 31,					
	2012		2011		2010	
	Amount	%	Amount	%	Amount	%
Programs . . . . .	\$ 326,380	18	\$ 287,598	17	\$ 272,406	17
Property, energy, marine and aviation . . . . .	313,081	17	322,510	19	335,967	20
Professional liability . . . . .	258,401	14	252,037	15	264,603	16
Executive assurance . . . . .	241,791	14	228,623	14	218,135	13
Construction . . . . .	129,446	7	112,764	7	109,394	7
Casualty . . . . .	113,597	6	111,654	7	109,613	7
Lenders products . . . . .	95,838	5	75,291	4	71,170	4
National accounts . . . . .	79,771	5	79,542	5	74,538	5
Travel and accident . . . . .	78,050	4	69,945	4	66,791	4
Surety . . . . .	47,302	3	41,119	2	37,967	2
Healthcare . . . . .	36,779	2	35,906	2	39,722	2
Other(1) . . . . .	79,907	5	62,058	4	50,800	3
Total . . . . .	<u>\$1,800,343</u>	<u>100</u>	<u>\$1,679,047</u>	<u>100</u>	<u>\$1,651,106</u>	<u>100</u>

(1) Includes excess workers' compensation, employer's liability, alternative markets and accident and health business.

Net premiums earned by the insurance segment were 7.2% higher in 2012 than in 2011, reflecting changes in net premiums written over the previous five quarters. Net premiums earned by the insurance segment were 1.7% higher in 2011 than in 2010.

*Losses and Loss Adjustment Expenses.* The table below shows the components of the insurance segment's loss ratio:

	Year Ended December 31,		
	2012	2011	2010
Current year . . . . .	73.0%	72.9%	68.9%
Prior period reserve development . . . . .	(1.7)%	(3.1)%	(1.2)%
Loss ratio . . . . .	<u>71.3%</u>	<u>69.8%</u>	<u>67.7%</u>

*Current Year Loss Ratio.*

*2012 versus 2011:* The insurance segment's current year loss ratio was 0.1 points higher in 2012 than in 2011. The 2012 loss ratio included 5.9 points of current year catastrophic event activity, compared to 6.3 points in the 2011. Specific 2012 catastrophic events included Superstorm Sandy in the 2012 fourth quarter, Hurricane Isaac in the 2012 third quarter and various U.S. wind/rain events in the 2012 first quarter.

*2011 versus 2010:* The insurance segment's current year loss ratio was 4.0 points higher in 2011 than in 2010. The 2011 loss ratio included 6.3 points of current year catastrophic event activity, compared to 1.9 points in the 2010. Specific 2011 catastrophic events included the severe flooding in Thailand, the Japanese earthquake and Tsunami and various U.S. wind/rain events.

### Prior Period Reserve Development.

*2012 prior period reserve development:* The insurance segment's net favorable development of \$31.2 million, or 1.7 points of net earned premium, consisted of \$79.3 million of net favorable development from short-tailed lines, partially offset by \$48.1 million of net adverse development from medium-tailed and long-tailed lines. Favorable development in short-tailed lines predominantly consisted of \$69.0 million of net favorable development in property lines from the 2007 to 2011 accident years, primarily due to varying levels of reported claims activity, with the balance emanating from travel and accident and lender's products, both primarily from the 2009 to 2011 accident years. Contained within this short tail release was favorable development of \$19.1 million from 2005 to 2011 named catastrophic events. Net adverse development in medium-tailed and long-tailed lines of \$48.1 million included a net increase of \$38.9 million from the insurance segment's U.K. underwriting operations for the 2007 to 2010 accident years, primarily due to an increase in Australian executive assurance reserves. In addition, U.S. primary specialty casualty reserves reflected a net increase of \$23.0 million, primarily from the 2003 to 2005 accident years, and \$19.8 million from U.S. professional liability in the two most recent accident years. Such amounts were partially offset by net favorable development spread across various lines and accident years.

*2011 prior period reserve development:* The insurance segment's net favorable development of \$52.1 million, or 3.1 points of net earned premium, consisted of \$75.7 million of net favorable development from short-tailed lines, partially offset by \$23.6 million of net adverse development from medium-tailed and long-tailed lines. Favorable development in short-tailed lines predominantly consisted of \$68.5 million of net favorable development in property lines from the 2008 to 2010 accident years, primarily due to varying levels of reported claims activity, with the balance emanating from surety and lender's products, both primarily from the 2008 to 2010 accident years. Contained within this short tail release was favorable development of \$23.0 million from 2005 to 2011 named catastrophic events. Net adverse development in medium-tailed and long-tailed lines of \$23.6 million included a net increase of \$32.3 million in casualty reserves which consisted of \$14.3 million of adverse development, primarily from the 2005 and 2007 accident years, on New York residential contractors business, \$8.5 million of adverse development on a 2010 accident year energy casualty claim, and \$9.5 million from other commercial claims. In addition, there was a net increase of \$9.8 million in program business, primarily from the 2003 and 2004 accident years. Such amounts were partially offset by net favorable development spread across various lines and accident years.

*2010 prior period reserve development:* The insurance segment's net favorable development of \$19.1 million, or 1.2 points of net earned premium, consisted of \$56.7 million of net favorable development from short-tailed lines, partially offset by \$37.6 million of net adverse development from medium-tailed and long-tailed lines. Favorable development in short-tailed lines predominantly consisted of \$47.7 million of net favorable development in property lines from the 2005 to 2009 accident years, primarily due to varying levels of reported claims activity, with the balance emanating from alternative markets and lender's products, primarily from the 2005 to 2009 accident years. Net adverse development in medium-tailed and long-tailed lines of \$37.6 million included a net increase of \$37.4 million in casualty reserves from the 2003 to 2005 accident years, which was primarily due to a small number of high severity claims in excess casualty and a high frequency of small claims in specialty casualty. In addition, there was a net increase of \$19.8 million in executive assurance business, primarily from the 2008 and 2009 accident years. Such amounts were partially offset by net favorable development spread across various lines and accident years.

### Underwriting Expenses.

*2012 versus 2011:* The insurance segment's underwriting expense ratio was 33.6% in 2012, compared to 34.7% in 2011. The acquisition expense ratio was 16.5% for 2012, compared to 16.4% for 2011. The acquisition expense ratio is influenced by, among other things, (1) the amount of ceding

commissions received from reinsurers, (2) the amount of business written on a surplus lines (non-admitted) basis and (3) mix of business. In addition, the 2011 acquisition expense ratio included 0.5 points related to favorable reserve development in prior accident years on certain contracts with variable commission structures. The 2012 acquisition expense ratio also reflected changes in the form of reinsurance ceded and mix of business. The insurance segment's other operating expense ratio was 17.1% for 2012, compared to 18.3% for 2011, reflecting the benefits of continued expense management and a higher level of net premiums earned.

*2011 versus 2010:* The insurance segment's underwriting expense ratio was 34.7% in 2011, compared to 34.6% in 2010. The acquisition expense ratio was 16.4% for 2011, compared to 15.7% for 2010. The 2011 acquisition expense ratio included 0.5 points related to favorable reserve development in prior accident years on certain contracts with variable commission structures, compared to 0.4 points in 2010, and also reflected changes in the form of reinsurance ceded and mix of business. The insurance segment's other operating expense ratio was 18.3% for 2011, compared to 18.9% for 2010. The 2010 operating expense ratio reflected 0.4 points related to an accrual for certain employee benefit costs recorded in 2010 that did not recur in 2011.

### *Reinsurance Segment*

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

	Year Ended December 31,			Year Ended December 31,		
	2012	2011	% Change	2011	2010	% Change
Gross premiums written . . . . .	\$1,282,000	\$ 998,520	28.4	\$ 998,520	\$ 874,957	14.1
Net premiums written . . . . .	1,226,901	952,047	28.9	952,047	852,077	11.7
Net premiums earned . . . . .	1,134,797	952,768	19.1	952,768	901,377	5.7
Fee income . . . . .	5,755	559		559	2,113	
Losses and loss adjustment expenses . . . . .	(577,436)	(554,811)		(554,811)	(400,151)	
Acquisition expenses, net . . . . .	(209,901)	(184,241)		(184,241)	(178,001)	
Other operating expenses . . . . .	(122,546)	(92,945)		(92,945)	(91,250)	
Underwriting income . . . . .	<u>\$ 230,669</u>	<u>\$ 121,330</u>	90.1	<u>\$ 121,330</u>	<u>\$ 234,088</u>	(48.2)
<b>Underwriting Ratios</b>			<b>% Point Change</b>			<b>% Point Change</b>
Loss ratio . . . . .	50.9%	58.2%	(7.3)	58.2%	44.4%	13.8
Acquisition expense ratio . . . . .	18.5%	19.3%	(0.8)	19.3%	19.7%	(0.4)
Other operating expense ratio . . .	10.8%	9.8%	1.0	9.8%	10.1%	(0.3)
Combined ratio . . . . .	<u>80.2%</u>	<u>87.3%</u>	<u>(7.1)</u>	<u>87.3%</u>	<u>74.2%</u>	<u>13.1</u>

The components of the reinsurance segment's underwriting results are discussed below.

Premiums Written.

The following table sets forth our reinsurance segment's net premiums written by major line of business:

	Year Ended December 31,					
	2012		2011		2010	
	Amount	%	Amount	%	Amount	%
Other specialty(1) . . . . .	\$ 297,962	24	\$211,019	22	\$131,158	15
Property catastrophe . . . . .	283,677	23	246,793	26	202,989	24
Property excluding property catastrophe(2) . . . . .	265,783	22	226,013	24	249,791	29
Casualty(3) . . . . .	216,067	18	181,957	19	186,774	22
Marine and aviation . . . . .	84,649	7	77,309	8	77,063	9
Other(4) . . . . .	78,763	6	8,956	1	4,302	1
Total . . . . .	<u>\$1,226,901</u>	<u>100</u>	<u>\$952,047</u>	<u>100</u>	<u>\$852,077</u>	<u>100</u>
Pro rata . . . . .	\$ 598,874	49	\$416,321	44	\$411,962	48
Excess of loss . . . . .	628,027	51	535,726	56	440,115	52
Total . . . . .	<u>\$1,226,901</u>	<u>100</u>	<u>\$952,047</u>	<u>100</u>	<u>\$852,077</u>	<u>100</u>

(1) Includes U.K. motor, trade credit, surety, workers' compensation catastrophe, accident and health and other.

(2) Includes facultative business.

(3) Includes professional liability, executive assurance and healthcare business.

(4) Includes mortgage, life, casualty clash and other.

*2012 versus 2011:* The growth in net premiums written reflected increases in all lines of business, primarily in U.K. motor and mortgage business. The reinsurance segment's U.K. motor business was primarily due to new business written emanating from one significant client while the mortgage business primarily resulted from a reinsurance treaty written in the 2012 second quarter covering newly originated residential mortgages beginning in October 2011. Growth in property lines primarily resulted from new business written by the reinsurance segment's treaty and facultative operations and also reflected \$10.1 million of reinstatement premiums as a result of the 2012 fourth quarter catastrophic activity while the higher level of casualty business reflects a mix of new business and the impact of improving market conditions.

*2011 versus 2010:* Increases in property catastrophe and other specialty lines were partially offset by a decrease in property other than property catastrophe and casualty business. The growth in premiums written in the property catastrophe line in 2011 reflected share increases, new business following the 2011 catastrophic events and higher premiums on in force contracts due to market conditions. The higher level of other specialty business primarily resulted from U.K. motor business, as discussed above, and growth in accident and health and trade credit business. Premiums written in casualty and property other than property catastrophe lines were lower than in 2010, reflecting non-renewals and share reductions based on market conditions.

*Net Premiums Earned.*

The following table sets forth our reinsurance segment's net premiums earned by major line of business:

	Year Ended December 31,					
	2012		2011		2010	
	Amount	%	Amount	%	Amount	%
Other specialty(1) . . . . .	\$ 303,805	27	\$189,093	20	\$ 95,611	11
Property catastrophe . . . . .	280,185	25	238,748	25	215,148	24
Property excluding property catastrophe(2) . . . . .	254,338	22	243,702	25	282,163	31
Casualty(3) . . . . .	194,259	17	196,370	21	231,338	26
Marine and aviation . . . . .	76,145	7	77,819	8	72,886	8
Other(4) . . . . .	26,065	2	7,036	1	4,231	—
Total . . . . .	<u>\$1,134,797</u>	<u>100</u>	<u>\$952,768</u>	<u>100</u>	<u>\$901,377</u>	<u>100</u>
Pro rata . . . . .	\$ 515,764	45	\$435,311	46	\$449,532	50
Excess of loss . . . . .	619,033	55	517,457	54	451,845	50
Total . . . . .	<u>\$1,134,797</u>	<u>100</u>	<u>\$952,768</u>	<u>100</u>	<u>\$901,377</u>	<u>100</u>

(1) Includes U.K. motor, trade credit, surety, workers' compensation catastrophe, accident and health and other.

(2) Includes facultative business.

(3) Includes professional liability, executive assurance and healthcare business.

(4) Includes mortgage, life, casualty clash and other.

Net premiums earned in 2012 were 19.1% higher than in 2011, reflecting changes in net premiums written over the previous five quarters, including the mix and type of business written. We completed the acquisition of the credit and surety reinsurance operations of Ariel Reinsurance Company Ltd. based in Zurich, Switzerland in April 2012. In the transaction, which was accounted for as a business combination under GAAP, we acquired approximately \$84.1 million of net unearned premiums along with other insurance balances. Under applicable accounting rules for business combinations, the recording of such unearned premiums was not reflected as net premiums written but results in net premiums earned (primarily over a two year period). The reinsurance segment's net premiums earned in 2012 included \$49.7 million related to the acquired net unearned premiums with a remaining unearned premium balance of \$34.4 million at December 31, 2012. Such amount is expected to be substantially earned by the end of 2013. Net premiums earned in 2011 were 5.7% higher than in 2010.

*Losses and Loss Adjustment Expenses.* The table below shows the components of the reinsurance segment's loss ratio:

	Year Ended December 31,		
	2012	2011	2010
Current year . . . . .	67.7%	82.6%	58.6%
Prior period reserve development . . . . .	(16.8)%	(24.4)%	(14.2)%
Loss ratio . . . . .	<u>50.9%</u>	<u>58.2%</u>	<u>44.4%</u>



Current Year Loss Ratio.

*2012 versus 2011:* The reinsurance segment's current year loss ratio was 14.9 points lower in 2012 than in 2011. The 2012 loss ratio included 14.7 points for current year catastrophic event activity, compared to 32.5 points in 2011. Specific 2012 catastrophic events included Superstorm Sandy in the 2012 fourth quarter, Hurricane Isaac in the 2012 third quarter and various U.S. wind/rain events in the 2012 first quarter.

*2011 versus 2010:* The reinsurance segment's current year loss ratio was 24.0 points higher in 2011 than in 2010. The 2011 loss ratio included 32.5 points for current year catastrophic event activity, compared to 9.9 points in 2010. Specific 2011 catastrophic events included the severe flooding in Thailand, the Japanese earthquake and Tsunami, the New Zealand earthquake events and various U.S. wind/rain events.

Prior Period Reserve Development.

*2012 prior period reserve development:* The reinsurance segment's net favorable development of \$190.3 million, or 16.8 points of net earned premium, consisted of \$117.6 million from short-tailed lines and \$72.7 million of net favorable development from medium-tailed and long-tailed lines. Favorable development in short-tailed lines included \$92.1 million from property catastrophe and property other than property catastrophe reserves, primarily from the 2008 to 2011 underwriting years. Contained within this release was favorable development of \$16.8 million from the 2005 to 2011 named catastrophic events. The net reduction of loss estimates for the reinsurance segment's short-tailed lines primarily resulted from varying levels of reported and paid claims activity than previously anticipated which led to decreases or increases in certain loss ratio selections during 2012. Net favorable development of \$72.7 million in medium-tailed and long-tailed lines included reductions in casualty reserves of \$55.9 million, primarily from the 2003 to 2009 underwriting years, and marine and aviation reserves of \$16.8 million, primarily from the 2008 to 2010 underwriting years. The balance of net favorable development was spread across various lines and underwriting years.

*2011 prior period reserve development:* The reinsurance segment's net favorable development of \$232.9 million, or 24.4 points of net earned premium, consisted of \$118.5 million from short-tailed lines and \$114.4 million of net favorable development from medium-tailed and long-tailed lines. Favorable development in short-tailed lines included \$97.6 million from property catastrophe and property other than property catastrophe reserves, primarily from the 2007 to 2010 underwriting years. Contained within this release was favorable development of \$19.4 million from the 2005 to 2010 named catastrophic events. The net reduction of loss estimates for the reinsurance segment's short-tailed lines primarily resulted from varying levels of reported and paid claims activity than previously anticipated which led to decreases or increases in certain loss ratio selections during 2011. Net favorable development of \$114.4 million in medium-tailed and long-tailed lines included reductions in casualty reserves of \$99.0 million, primarily from the 2002 to 2007 underwriting years, and marine and aviation reserves of \$15.4 million, primarily from the 2006 to 2010 underwriting years. The balance of net favorable development was spread across various lines and underwriting years.

*2010 prior period reserve development:* The reinsurance segment's net favorable development of \$127.6 million, or 14.2 points of net earned premium, consisted of \$84.2 million from short-tailed lines and \$43.4 million of net favorable development from medium-tailed and long-tailed lines. Favorable development in short-tailed lines included \$61.0 million from property catastrophe and property other than property catastrophe reserves, primarily from the 2006 to 2009 underwriting years. The net reduction of loss estimates for the reinsurance segment's short-tailed lines primarily resulted from varying levels of reported and paid claims activity than previously anticipated which led to decreases or increases in certain loss ratio selections during 2010. Net favorable development of \$43.4 million in medium-tailed and long-tailed lines included reductions in casualty reserves of \$34.1 million, primarily

from the 2002 to 2006 underwriting years, and marine and aviation reserves of \$9.3 million, primarily from the 2003 to 2007 underwriting years. The balance of net favorable development was spread across various lines and underwriting years.

*Underwriting Expenses.*

*2012 versus 2011:* The underwriting expense ratio for the reinsurance segment was 29.3% in 2012, compared to 29.1% in 2011. The acquisition expense ratio for 2012 was 18.5%, compared to 19.3% for 2011. The comparison of the 2012 and 2011 acquisition expense ratios is influenced by, among other things, the mix and type of business written and earned and the level of ceding commission income. The operating expense ratio for 2012 of 10.8% was higher than the 2011 ratio primarily due to selected expansion of the reinsurance segment’s operating platform, partially offset by the benefits of a higher level of net premiums earned.

*2011 versus 2010:* The underwriting expense ratio for the reinsurance segment was 29.1% in 2011, compared to 29.8% in 2010. The acquisition expense ratio for 2011 was 19.3%, compared to 19.7% for 2010. The comparison of the 2011 and 2010 acquisition expense ratios is influenced by, among other things, the mix and type of business written and earned and the level of ceding commission income. The operating expense ratio for 2011 of 9.8% was lower than the 2010 ratio of 10.1% primarily due to the higher level of net premiums earned.

*Net Investment Income*

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

	<b>Year Ended December 31,</b>		
	<b>2012</b>	<b>2011</b>	<b>2010</b>
Fixed maturities . . . . .	\$281,140	\$331,469	\$378,682
Term loan investments . . . . .	15,283	2,854	—
Equity securities . . . . .	7,963	7,332	1,363
Short-term investments . . . . .	1,980	2,174	1,337
Other(1) . . . . .	14,196	19,152	3,882
Gross investment income . . . . .	320,562	362,981	385,264
Investment expenses . . . . .	(25,667)	(24,783)	(20,386)
Net investment income . . . . .	<u>\$294,895</u>	<u>\$338,198</u>	<u>\$364,878</u>

(1) Includes dividends on investment funds and other items.

The pre-tax investment income yield was 2.51% for 2012, compared to 2.89% for 2011 and 3.34% for 2010. The comparability of net investment income between the periods was influenced by our share repurchase program, as well as the decrease in the pre-tax investment income yield, due in part to the prevailing interest rate environment. The pre-tax investment income yields were calculated based on amortized cost. Yields on future investment income may vary based on financial market conditions, investment allocation decisions and other factors.

*Equity in Net Income (Loss) of Investment Funds Accounted for Using the Equity Method*

We recorded \$73.5 million of equity in net income for 2012, compared to \$9.6 million of equity in net losses for 2011 and equity in net income of \$61.4 million for 2010. Such amounts resulted, in part, from investments in U.S. and Euro-denominated bank loan funds which use leverage to achieve a higher rate of return. While leverage presents opportunities for increasing the total return of such investments, it may increase losses as well. Accordingly, any event that adversely affects the value of the

underlying securities held by such investments would be magnified to the extent leverage is used and our potential losses from such investments would be magnified. Income and losses in 2012 and 2011 were primarily related to investments in two funds that employ leverage in their investment strategy, one of which invests in a portfolio of loans and another public-private investment fund (“PPIF”) that invests in high quality U.S. residential and commercial mortgages.

#### ***Net Realized Gains (Losses)***

We recorded net realized gains of \$194.2 million, \$110.6 million and \$252.8 million, respectively, for 2012, 2011 and 2010. Currently, our portfolio is managed to maximize total return within certain guidelines. In assessing returns under this approach, we include net investment income, net realized gains and losses and the change in unrealized gains and losses generated by our investment portfolio. 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. See note 7, “Investment Information—Net Realized Gains (Losses),” of the notes accompanying our consolidated financial statements for additional information.

Total return on our portfolio under management for 2012 was 5.88%, compared to 3.81% for 2011 and 7.00% for 2010. Excluding foreign exchange, total return was 5.59% for 2012, compared to 4.10% for 2011 and 7.26% for 2010. Total return is calculated on a pre-tax basis and before investment expenses.

#### ***Net Impairment Losses Recognized in Earnings***

On a quarterly basis, we perform reviews of our available for sale investments to determine whether declines in fair value below the cost basis are considered other-than-temporary in accordance with applicable accounting guidance regarding the recognition and presentation of other-than-temporary impairments. The process of determining whether a security is other-than-temporarily impaired requires judgment and involves analyzing many factors. These factors include (i) an analysis of the liquidity, business prospects and overall financial condition of the issuer, (ii) the time period in which there was a significant decline in value, (iii) the significance of the decline, and (iv) the analysis of specific credit events. We evaluate the unrealized losses of our equity securities by issuer and determine if we can forecast a reasonable period of time by which the fair value of the securities would increase and we would recover our cost. If we are unable to forecast a reasonable period of time in which to recover the cost of our equity securities, we record a net impairment loss in earnings equivalent to the entire unrealized loss. For 2012, we recorded \$11.4 million of credit related impairments in earnings, compared to \$9.1 million in 2011 and \$11.3 million in 2010. The other-than-temporary impairments (“OTTI”) recorded in 2012, 2011 and 2010 primarily resulted from reductions in estimated recovery values on certain mortgage-backed and asset-backed securities following the review of such securities and on equity securities following a review of available positive and negative evidence. See note 7, “Investment Information—Other-Than-Temporary Impairments,” of the notes accompanying our consolidated financial statements for additional information.

#### ***Other Expenses***

Other expenses, which are included in our other operating expenses and part of corporate and other (non-underwriting), were \$35.3 million for 2012, compared to \$31.4 million for 2011 and \$28.9 million for 2010. Such amounts primarily represent certain holding company costs necessary to support our worldwide insurance and reinsurance operations, share based compensation expense and costs associated with operating as a publicly traded company.

### *Net Foreign Exchange Gains or Losses*

Net foreign exchange losses for 2012 of \$29.0 million consisted of net unrealized losses of \$27.4 million and net realized losses of \$1.6 million, compared to net foreign exchange gains for 2011 of \$17.4 million which consisted of net unrealized gains of \$23.5 million and net realized losses of \$6.1 million. Net foreign exchange gains for 2010 of \$28.1 million consisted of net unrealized gains of \$29.5 million and net realized losses of \$1.4 million. Net unrealized foreign exchange gains or losses result from the effects of revaluing our net insurance liabilities required to be settled in foreign currencies at each balance sheet date. Historically, we have held investments in foreign currencies which are intended to mitigate our exposure to foreign currency fluctuations in our net insurance liabilities. However, changes in the value of such investments due to foreign currency rate movements are reflected as a direct increase or decrease to shareholders' equity and are not included in the consolidated statements of income. As a result of the current financial and economic environment as well as the potential for additional investment returns, we may not match a portion of our projected liabilities in foreign currencies with investments in the same currencies, which could increase our exposure to foreign currency fluctuations and increase the volatility in our shareholders' equity.

### *Loss on Repurchase of Preferred Shares*

Following the issuance of \$325.0 million of 6.75% Series C preferred shares in April 2012, we redeemed all of our \$200.0 million of 8.0% Series A preferred shares and \$125.0 million of 7.875% Series B preferred shares at a redemption price equal to \$25.00 per share in May 2012. In accordance with GAAP, upon issuance of the Series A and B preferred shares in 2006, costs of \$10.6 million were recognized as a reduction of additional paid-in capital in shareholders' equity. Following the redemption of such shares, such issue costs have been recorded as a "loss on repurchase of preferred shares" to remove the costs from additional paid-in capital. Such adjustment had no impact on total shareholders' equity or cash flows.

### *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 31, 2035.

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 has subsidiaries and branches that operate in various jurisdictions around the world that are subject to tax in the jurisdictions in which they operate. The significant jurisdictions in which ACGL's subsidiaries and branches are subject to tax include the United States, United Kingdom, Canada, Ireland, Switzerland and Denmark. See "Risk Factors—Risks Relating to Taxation" and "Business—Tax Matters."

The income tax provision on income before income taxes resulted in a benefit of 0.7% for 2012, compared to a benefit of 2.3% for 2011 and an expense of 0.9% for 2010. Our effective tax rate fluctuates from year to year consistent with the relative mix of income or loss reported by jurisdiction and the varying tax rates in each jurisdiction. See note 12, "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 2012, 2011 and 2010.

## **CRITICAL ACCOUNTING POLICIES, ESTIMATES AND RECENT ACCOUNTING PRONOUNCEMENTS**

The preparation of consolidated financial statements in accordance with GAAP 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, allowance for doubtful accounts, 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 relatively limited historical information has been reported to us through December 31, 2012. Actual results will differ from these estimates and such differences may be material. We believe that the following critical accounting policies affect significant 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 ("Loss Reserves") that arise from the business we underwrite. Loss Reserves for our insurance and reinsurance operations are balance sheet liabilities representing estimates of future amounts required to pay losses and loss adjustment expenses for insured or reinsured events which have occurred at or before the balance sheet date. Loss Reserves do not reflect contingency reserve allowances to account for future loss occurrences. Losses arising from future events will be estimated and recognized at the time the losses are incurred and could be substantial.

At December 31, 2012 and 2011, our Loss Reserves, net of unpaid losses and loss adjustment expenses recoverable, by type and by operating segment were as follows:

	<b>December 31,</b>	
	<u>2012</u>	<u>2011</u>
<b>Insurance:</b>		
Case reserves . . . . .	\$1,438,575	\$1,311,740
IBNR reserves . . . . .	2,979,344	2,783,091
Total net reserves . . . . .	<u>\$4,417,919</u>	<u>\$4,094,831</u>
<b>Reinsurance:</b>		
Case reserves . . . . .	\$ 781,894	\$ 721,032
Additional case reserves . . . . .	195,033	178,640
IBNR reserves . . . . .	1,709,376	1,643,660
Total net reserves . . . . .	<u>\$2,686,303</u>	<u>\$2,543,332</u>
<b>Total:</b>		
Case reserves . . . . .	\$2,220,469	\$2,032,772
Additional case reserves . . . . .	195,033	178,640
IBNR reserves . . . . .	4,688,720	4,426,751
Total net reserves . . . . .	<u>\$7,104,222</u>	<u>\$6,638,163</u>

#### *Insurance Operations*

Loss Reserves for our insurance operations are comprised of (1) estimated amounts for claims reported (“case reserves”) and (2) incurred but not reported (“IBNR”) losses. 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, 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. Loss Reserves are also established to provide for loss adjustment expenses and represent 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. IBNR reserves are established to provide for incurred claims which have not yet been reported at the balance sheet date as well as to adjust for any projected variance in case reserving. Actuaries estimate ultimate losses and loss adjustment expenses using various generally accepted actuarial methods applied to known losses and other relevant information. Like case reserves, IBNR reserves are adjusted as additional information becomes known or payments are made. The process of estimating reserves involves a considerable degree of judgment by management and, as of any given date, is inherently uncertain.

Ultimate losses and loss adjustment expenses are generally determined by extrapolation of claim emergence and settlement patterns observed in the past that can reasonably be expected to persist into the future. In forecasting ultimate losses and loss adjustment expenses with respect to any line of business, past experience with respect to that line of business is the primary resource, developed through both industry and company experience, but cannot be relied upon in isolation. Uncertainties in estimating ultimate losses and loss adjustment expenses are magnified by the time lag between when a claim actually occurs and when it is reported and settled. This time lag is sometimes referred to as the

“claim-tail”. The claim-tail for most property coverages is typically short (usually several months up to a few years). The claim-tail for certain professional liability, executive assurance and healthcare coverages, which are generally written on a claims-made basis, is typically longer than property coverages but shorter than casualty lines. The claim-tail for liability/casualty coverages, such as general liability, products liability, multiple peril coverage, and workers’ compensation, may be especially long as claims are often reported and ultimately paid or settled years, or even decades, after the related loss events occur. During the long claims reporting and settlement period, additional facts regarding coverages written in prior accident years, as well as about actual claims and trends, may become known and, as a result, our insurance operations may adjust their reserves. If management determines that an adjustment is appropriate, the adjustment is recorded in the accounting period in which such determination is made in accordance with GAAP. Accordingly, should Loss Reserves need to be increased or decreased in the future from amounts currently established, future results of operations would be negatively or positively impacted, respectively.

In determining ultimate losses and loss adjustment expenses, the cost to indemnify claimants, provide needed legal defense and other services for insureds and administer the investigation and adjustment of claims are considered. These claim costs are influenced by many factors that change over time, such as expanded coverage definitions as a result of new court decisions, inflation in costs to repair or replace damaged property, inflation in the cost of medical services and legislated changes in statutory benefits, as well as by the particular, unique facts that pertain to each claim. As a result, the rate at which claims arose in the past and the costs to settle them may not always be representative of what will occur in the future. The factors influencing changes in claim costs are often difficult to isolate or quantify and developments in paid and incurred losses from historical trends are frequently subject to multiple and conflicting interpretations. Changes in coverage terms or claims handling practices may also cause future experience and/or development patterns to vary from the past. A key objective of actuaries in developing estimates of ultimate losses and loss adjustment expenses, and resulting IBNR reserves, is to identify aberrations and systemic changes occurring within historical experience and accurately adjust for them so that the future can be projected reliably. Because of the factors previously discussed, this process requires the substantial use of informed judgment and is inherently uncertain.

At December 31, 2012 and 2011, the insurance segment’s Loss Reserves by major line of business, net of unpaid losses and loss adjustment expenses recoverable, were as follows:

	<b>December 31,</b>	
	<b>2012</b>	<b>2011</b>
Executive assurance . . . . .	\$ 772,768	\$ 636,692
Casualty . . . . .	663,703	655,017
Property, energy, marine and aviation . . . . .	613,176	590,098
Professional liability . . . . .	598,638	631,991
Programs . . . . .	592,235	541,113
Construction . . . . .	430,170	403,109
National accounts . . . . .	207,551	169,906
Healthcare . . . . .	135,227	139,825
Surety . . . . .	95,139	70,680
Travel and accident . . . . .	36,568	37,645
Lenders products . . . . .	28,606	12,332
Other . . . . .	244,138	206,423
Total net reserves . . . . .	<u>\$4,417,919</u>	<u>\$4,094,831</u>

The initial reserving method for our insurance operations to date has been, to a large extent, the expected loss method, which is commonly applied when limited loss experience exists. Our insurance

operations employ a number of different reserving methods depending on the line of business, the availability of historical loss experience and the stability of that loss experience. Over time, such techniques have been given more weight in the reserving process due to the continuing maturation of their Loss Reserves and the increased availability and credibility of the historical experience. Any estimates and assumptions made as part of the reserving process could prove to be inaccurate due to several factors, including the fact that relatively limited historical information has been reported to our insurance operations through December 31, 2012 in some lines of business. See below for a discussion of the key assumptions in our insurance operations' reserving process.

Although Loss Reserves are initially determined based on underwriting and pricing analyses, our insurance operations apply several generally accepted actuarial methods, as discussed below, on a quarterly basis to evaluate their Loss Reserves, in addition to the expected loss method, in particular for Loss Reserves from more mature accident years (the year in which a loss occurred). As noted below, beginning in 2005, our insurance operations began to give a relatively small amount of weight to their own experience following reviews of open claims on lines of business written on a claims-made basis for which they developed a reasonable level of credible data. Each quarter, as part of the reserving process, actuaries at our insurance operations reaffirm that the assumptions used in the reserving process continue to form a sound basis for the projection of liabilities. If actual loss activity differs substantially from expectations based on historical information, an adjustment to loss reserves may be supported. Loss Reserves for more mature accident years are now based more on historical loss activity and patterns than on the initial assumptions based on pricing indications. More recent accident years rely more heavily on internal pricing assumptions. Our insurance operations place more or less reliance on a particular actuarial method based on the facts and circumstances at the time the estimates of Loss Reserves are made. These methods generally fall into one of the following categories or are hybrids of one or more of the following categories:

- *Expected loss methods*—these methods are based on the assumption that ultimate losses vary proportionately with premiums. Expected loss and loss adjustment expense ratios are typically developed based upon the information derived by underwriters and actuaries during the initial pricing of the business, supplemented by industry data available from organizations, such as statistical bureaus and consulting firms, where appropriate. These ratios consider, among other things, rate increases and changes in terms and conditions that have been observed in the market. Expected loss methods are useful for estimating ultimate losses and loss adjustment expenses in the early years of long-tailed lines of business, when little or no paid or incurred loss information is available, and is commonly applied when limited loss experience exists for a company.
- *Historical incurred loss development methods*—these methods assume that the ratio of losses in one period to losses in an earlier period will remain constant in the future. These methods use incurred losses (*i.e.*, the sum of cumulative historical loss payments plus outstanding case reserves) over discrete periods of time to estimate future losses. Historical incurred loss development methods may be preferable to historical paid loss development methods because they explicitly take into account open cases and the claims adjusters' evaluations of the cost to settle all known claims. However, historical incurred loss development methods necessarily assume that case reserving practices are consistently applied over time. Therefore, when there have been significant changes in how case reserves are established, using incurred loss data to project ultimate losses may be less reliable than other methods.
- *Historical paid loss development methods*—these methods, like historical incurred loss development methods, assume that the ratio of losses in one period to losses in an earlier period will remain constant. These methods use historical loss payments over discrete periods of time to estimate future losses and necessarily assume that factors that have affected paid losses in the past, such as inflation or the effects of litigation, will remain constant in the future. Because



historical paid loss development methods do not use incurred losses to estimate ultimate losses, they may be more reliable than the other methods that use incurred losses in situations where there are significant changes in how incurred losses are established by a company's claims adjusters. However, historical paid loss development methods are more leveraged (meaning that small changes in payments have a larger impact on estimates of ultimate losses) than actuarial methods that use incurred losses because cumulative loss payments take much longer to equal the expected ultimate losses than cumulative incurred amounts. In addition, and for similar reasons, historical paid loss development methods are often slow to react to situations when new or different factors arise than those that have affected paid losses in the past.

- *Adjusted historical paid and incurred loss development methods*—these methods take traditional historical paid and incurred loss development methods and adjust them for the estimated impact of changes from the past in factors such as inflation, the speed of claim payments or the adequacy of case reserves. Adjusted historical paid and incurred loss development methods are often more reliable methods of predicting ultimate losses in periods of significant change, provided the actuaries can develop methods to reasonably quantify the impact of changes. As such, these methods utilize more judgment than historical paid and incurred loss development methods.
- *Bornhuetter-Ferguson (“B-F”) paid and incurred loss methods*—these methods utilize actual paid and incurred losses and expected patterns of paid and incurred losses, taking the initial expected ultimate losses into account to determine an estimate of expected ultimate losses. The B-F paid and incurred loss methods are useful when there are few reported claims and a relatively less stable pattern of reported losses.
- *Additional analyses*—other methodologies are often used in the reserving process for specific types of claims or events, such as catastrophic or other specific major events. These include vendor catastrophe models, which are typically used in the estimation of Loss Reserves at the early stage of known catastrophic events before information has been reported to an insurer or reinsurer, and analyses of specific industry events, such as large lawsuits or claims.

In the initial reserving process for casualty business, primarily consisting of primary and excess exposures written on an occurrence basis, our insurance operations primarily rely on the expected loss method. The development of our insurance operations' casualty business may be unstable due to its long-tail nature and the occurrence of high severity events, as a portion of our insurance operations' casualty business is in high excess layers. As time passes, for a given accident year, additional weight is given to the paid and incurred B-F loss development methods and historical paid and incurred loss development methods in the reserving process. Our insurance operations make a number of key assumptions in reserving for casualty business, including that the pricing loss ratio is the best estimate of the ultimate loss ratio at the time the policy is entered into, that our insurance operations' loss development patterns, which are based on a combination of company and industry loss development patterns and adjusted to reflect differences in our insurance operations' mix of business, are reasonable and that our insurance operations' claims personnel and underwriters analyses of our exposure to major events are assumed to be our best estimate of our exposure to the known claims on those events. As noted earlier, due to the long claims reporting and settlement period for casualty business, additional facts regarding coverages written in prior accident years, as well as about actual claims and trends may become known and, as a result, our insurance operations may be required to adjust their casualty reserves. The expected loss ratios used in the initial reserving process for our insurance operations' casualty business for recent accident years have varied, in some cases significantly, from earlier accident years. As the credibility of historical experience for earlier accident years increases, the experience from these accident years will be given a greater weighting in the actuarial analysis to determine future accident year expected loss ratios, adjusted for changes in pricing, loss trends, terms and conditions and reinsurance structure.

In the initial reserving process for property, energy, marine and aviation business, which are primarily short-tail exposures, our insurance operations rely on a combination of the reserving methods discussed above. For catastrophe-exposed business, our insurance operations' reserving process also includes the usage of catastrophe models for known events and a heavy reliance on analysis of individual catastrophic events and management judgment. The development of property losses can be unstable, especially for policies characterized by high severity, low frequency losses. As time passes, for a given accident year, additional weight is given to the paid and incurred B-F loss development methods and historical paid and incurred loss development methods in the reserving process. Our insurance operations make a number of key assumptions in their reserving process, including that historical paid and reported development patterns are stable, catastrophe models provide useful information about our exposure to catastrophic events that have occurred and our underwriters' judgment as to potential loss exposures can be relied on. The expected loss ratios used in the initial reserving process for our insurance operations' property business have varied over time due to changes in pricing, reinsurance structure, estimates of catastrophe losses, policy changes (such as attachment points, class and limits) and geographical distribution. As losses in property lines are reported relatively quickly, expected loss ratios are selected for the current accident year based upon actual attritional loss ratios for earlier accident years, adjusted for rate changes, inflation, changes in reinsurance programs and expected attritional losses based on modeling. Due to the short-tail nature of property business, reported loss experience emerges quickly and ultimate losses are known in a reasonably short period of time.

In addition to the assumptions and development characteristics noted above for casualty and property business, our insurance operations authorize managing general agents, general agents and other producers to write program business on their behalf within prescribed underwriting authorities. This adds additional complexity to the reserving process. To monitor adherence to the underwriting guidelines given to such parties, our insurance operations periodically perform claims due diligence reviews. In the initial reserving process for program business, consisting of property and liability exposures which are primarily written on an occurrence basis, our insurance operations primarily rely on the expected loss method. As time passes, for a given accident year, additional weight is given to the paid and incurred B-F loss development methods and historical paid and incurred loss development methods in the reserving process. The expected loss ratios used in the initial reserving process for our insurance operations' program business have varied over time depending on the type of exposures written (casualty or property) and changes in pricing, loss trends, reinsurance structure and changes in the underlying business.

In the initial reserving process for executive assurance, professional liability and healthcare business, primarily consisting of medium-tail exposures written on a claims-made basis, our insurance operations primarily rely on the expected loss method. As time passes, for a given accident year, additional weight is given to the paid and incurred B-F loss development methods and historical paid and incurred loss development methods in the reserving process. Beginning in 2005, our insurance operations began to give a relatively small amount of weight to their own experience following reviews of open claims, in particular for lines of business written on a claims-made basis for which they developed a reasonable level of credible data. Over the last few years, our insurance operations have increased their reliance on reviews of open claims. In general, the expected loss ratios established for executive assurance, professional liability and healthcare business for recent accident years vary, in some cases materially, from earlier accident years based on analysis of pricing, loss cost trends and changes in policy coverage. Since this business is primarily written on a claims-made basis and is subject to high severity, low frequency losses, a great deal of uncertainty exists in setting these initial reserves. In addition, only a limited number of years of historical experience is available for use in projecting loss experience using standard actuarial methods. As the credibility of historical experience for earlier accident years increases, the experience from these accident years will be given a greater weighting in

the actuarial analysis to determine future accident year expected loss ratios, adjusted for the occurrence or lack of large losses, changes in pricing, loss trends, terms and conditions and reinsurance structure.

In the initial reserving process for construction and surety business, consisting of primary and excess casualty and contract surety coverages written on an occurrence and claims-made basis, our insurance operations primarily rely on a combination of the reserving methods discussed above. Such business is subject to the assumptions and development characteristics noted above for casualty business. As time passes, for a given accident year, additional weight has been given to the paid and incurred B-F loss development methods and historical paid and incurred loss development methods in the reserving process. In general, the expected loss ratios used in the initial reserving process for our insurance operations' construction and surety business for recent accident years vary, in some cases materially, from earlier accident years. As the credibility of historical experience for earlier accident years has increased, the experience from these accident years has been given a greater weighting in the actuarial analysis to determine future accident year expected loss ratios, adjusted for anticipated changes in the regulatory environment, pricing, loss trends, terms and conditions and reinsurance structure.

### *Reinsurance Operations*

Loss Reserves for our reinsurance operations are comprised of (1) case reserves for claims reported, (2) additional case reserves ("ACRs") and (3) IBNR reserves. Our reinsurance operations receive reports of claims notices from ceding companies and record case reserves based upon the amount of reserves recommended by the ceding company. Case reserves on known events may be supplemented by ACRs, which are often estimated by our reinsurance operations' claims personnel ahead of official notification from the ceding company, or when our reinsurance operations' judgment regarding the size or severity of the known event differs from the ceding company. In certain instances, our reinsurance operations establish ACRs even when the ceding company does not report any liability on a known event. In addition, specific claim information reported by ceding companies or obtained through claim audits can alert our reinsurance operations to emerging trends such as changing legal interpretations of coverage and liability, claims from unexpected sources or classes of business, and significant changes in the frequency or severity of individual claims. Such information is often used in the process of estimating IBNR reserves.

The estimation of Loss Reserves for our reinsurance operations is subject to the same risk factors as the estimation of Loss Reserves for our insurance operations. In addition, the inherent uncertainties of estimating such reserves are even greater for reinsurers, due primarily to the following factors: (1) the claim-tail for reinsurers is generally longer because claims are first reported to the ceding company and then to the reinsurer through one or more intermediaries, (2) the reliance on premium estimates, where reports have not been received from the ceding company, in the reserving process, (3) the potential for writing a number of reinsurance contracts with different ceding companies with the same exposure to a single loss event, (4) the diversity of loss development patterns among different types of reinsurance contracts, (5) the necessary reliance on the ceding companies for information regarding reported claims and (6) the differing reserving practices among ceding companies.

As with our insurance operations, the process of estimating Loss Reserves for our reinsurance operations involves a considerable degree of judgment by management and, as of any given date, is inherently uncertain. As discussed above, such uncertainty is greater for reinsurers compared to insurers. As a result, our reinsurance operations obtain information from numerous sources to assist in the process. Pricing actuaries from our reinsurance operations devote considerable effort to understanding and analyzing a ceding company's operations and loss history during the underwriting of the business, using a combination of ceding company and industry statistics. Such statistics normally include historical premium and loss data by class of business, individual claim information for larger claims, distributions of insurance limits provided, loss reporting and payment patterns, and rate change

history. This analysis is used to project expected loss ratios for each treaty during the upcoming contract period.

As mentioned above, there can be a considerable time lag from the time a claim is reported to a ceding company to the time it is reported to the reinsurer. The lag can be several years in some cases and may be attributed to a number of reasons, including the time it takes to investigate a claim, delays associated with the litigation process, the deterioration in a claimant's physical condition many years after an accident occurs, the case reserving approach of the ceding company, etc. In the reserving process, our reinsurance operations assume that such lags are predictable, on average, over time and therefore the lags are contemplated in the loss reporting patterns used in their actuarial methods. This means that our reinsurance operations must rely on estimates for a longer period of time than does an insurance company. Backlogs in the recording of assumed reinsurance can also complicate the accuracy of loss reserve estimation. As of December 31, 2012, there were no significant backlogs related to the processing of assumed reinsurance information at our reinsurance operations.

Our reinsurance operations rely heavily on information reported by ceding companies, as discussed above. In order to determine the accuracy and completeness of such information, underwriters, actuaries, and claims personnel at our reinsurance operations often perform audits of ceding companies and regularly review information received from ceding companies for unusual or unexpected results. Material findings are usually discussed with the ceding companies. Our reinsurance operations sometimes encounter situations where they determine that a claim presentation from a ceding company is not in accordance with contract terms. In these situations, our reinsurance operations attempt to resolve the dispute with the ceding company. Most situations are resolved amicably and without the need for litigation or arbitration. However, in the infrequent situations where a resolution is not possible, our reinsurance operations will vigorously defend their position in such disputes.

At December 31, 2012 and 2011, the reinsurance segment's Loss Reserves by major line of business, net of unpaid losses and loss adjustment expenses recoverable, were as follows:

	December 31,	
	2012	2011
Casualty . . . . .	\$1,570,165	\$1,600,887
Property excluding property catastrophe . . . . .	323,727	336,425
Other specialty . . . . .	288,797	153,455
Property catastrophe . . . . .	277,817	237,804
Marine and aviation . . . . .	169,190	166,294
Other . . . . .	56,607	48,467
Total net reserves . . . . .	<u>\$2,686,303</u>	<u>\$2,543,332</u>

Any estimates and assumptions made as part of the reserving process could prove to be inaccurate due to several factors, including the fact that relatively limited historical information has been reported to our reinsurance operations through December 31, 2012 in some lines of business. See below for a discussion of the key assumptions in our reinsurance operations' reserving process.

Although Loss Reserves are initially determined based on underwriting and pricing analysis, our reinsurance operations apply several generally accepted actuarial methods, as discussed above, on a quarterly basis to evaluate their Loss Reserves in addition to the expected loss method, in particular for Loss Reserves from more mature underwriting years (the year in which business is underwritten). Each quarter, as part of the reserving process, actuaries at our reinsurance operations reaffirm that the assumptions used in the reserving process continue to form a sound basis for projection of liabilities. If actual loss activity differs substantially from expectations based on historical information, an adjustment to loss reserves may be supported. Estimated Loss Reserves for more mature underwriting years are

now based more on actual loss activity and historical patterns than on the initial assumptions based on pricing indications. More recent underwriting years rely more heavily on internal pricing assumptions. Our reinsurance operations place more or less reliance on a particular actuarial method based on the facts and circumstances at the time the estimates of Loss Reserves are made.

In the initial reserving process for medium-tail and long-tail lines, consisting of casualty, other specialty, marine and aviation and other exposures, our reinsurance operations primarily rely on the expected loss method. The development of medium-tail and long-tail business may be unstable, especially if there are high severity major events, with business written on an excess of loss basis typically having a longer tail than business written on a pro rata basis. As time passes, for a given underwriting year, additional weight is given to the paid and incurred B-F loss development methods and historical paid and incurred loss development methods in the reserving process. Our reinsurance operations make a number of key assumptions in reserving for medium-tail and long-tail lines, including that the pricing loss ratio is the best estimate of the ultimate loss ratio at the time the contract is entered into, historical paid and reported development patterns are stable and our reinsurance operations' claims personnel and underwriters analyses of our exposure to major events are assumed to be our best estimate of our exposure to the known claims on those events. The expected loss ratios used in our reinsurance operations' initial reserving process for medium-tail and long-tail contracts have varied over time due to changes in pricing, terms and conditions and reinsurance structure. As the credibility of historical experience for earlier underwriting years increases, the experience from these underwriting years will be used in the actuarial analysis to determine future underwriting year expected loss ratios, adjusted for changes in pricing, loss trends, terms and conditions and reinsurance structure.

In the initial reserving process for short-tail lines, consisting of property excluding property catastrophe and property catastrophe exposures, our reinsurance operations rely on a combination of the reserving methods discussed above. For known catastrophic events, our reinsurance operations' reserving process also includes the usage of catastrophe models and a heavy reliance on analysis which includes ceding company inquiries and management judgment. The development of property losses may be unstable, especially where there is high catastrophic exposure, may be characterized by high severity, low frequency losses for excess and catastrophe-exposed business and may be highly correlated across contracts. As time passes, for a given underwriting year, additional weight is given to the paid and incurred B-F loss development methods and historical paid and incurred loss development methods in the reserving process. Our reinsurance operations make a number of key assumptions in reserving for short-tail lines, including that historical paid and reported development patterns are stable, catastrophe models provide useful information about our exposure to catastrophic events that have occurred and our underwriters' judgment and guidance received from ceding companies as to potential loss exposures may be relied on. The expected loss ratios used in the initial reserving process for our reinsurance operations' property exposures have varied over time due to changes in pricing, reinsurance structure, estimates of catastrophe losses, terms and conditions and geographical distribution. As losses in property lines are reported relatively quickly, expected loss ratios are selected for the current underwriting year incorporating the experience for earlier underwriting years, adjusted for rate changes, inflation, changes in reinsurance programs, expectations about present and future market conditions and expected attritional losses based on modeling. Due to the short-tail nature of property business, reported loss experience emerges quickly and ultimate losses are known in a reasonably short period of time.

*Potential Variability in Loss Reserves*

The tables below summarize the effect of reasonably likely scenarios on the key actuarial assumptions used to estimate our Loss Reserves, net of unpaid losses and loss adjustment expenses recoverable, at December 31, 2012 by operating segment. The scenarios shown in the tables summarize the effect of (i) changes to the expected loss ratio selections used at December 31, 2012, which represent loss ratio point increases or decreases to the expected loss ratios used, and (ii) changes to the loss development patterns used in our reserving process at December 31, 2012, which represent claims reporting that is either slower or faster than the reporting patterns used. We believe that the illustrated sensitivities are indicative of the potential variability inherent in the estimation process of those parameters. The results show the impact of varying each key actuarial assumption using the chosen sensitivity on our IBNR reserves, on a net basis and across all accident years.

<u>INSURANCE SEGMENT</u>	<u>Higher Expected Loss Ratios</u>	<u>Slower Loss Development Patterns</u>	<u>Lower Expected Loss Ratios</u>	<u>Faster Loss Development Patterns</u>
<b>Reserving lines selected assumptions:</b>				
Property, energy, marine and aviation . . . . .	5 points	3 months	(5) points	(3) months
Third party occurrence business(1) . . . . .	10	6	(10)	(6)
Third party claims-made business(2) . . . . .	10	6	(10)	(6)
All other(3) . . . . .	10	6	(10)	(6)
<b>Increase (decrease) in Loss Reserves, net:</b>				
Property, energy, marine and aviation . . . . .	\$ 44,521	\$ 55,860	\$ (44,521)	\$ (49,077)
Third party occurrence business(1) . . . . .	145,676	97,237	(145,676)	(85,037)
Third party claims-made business(2) . . . . .	130,774	147,881	(130,774)	(109,884)
All other(3) . . . . .	94,529	108,488	(94,529)	(81,687)

- (1) Third party occurrence business includes casualty, construction, national accounts and excess workers' compensation business.
- (2) Third party claims-made business includes executive assurance, healthcare and professional liability business.
- (3) All other includes programs, surety, travel and accident and other business.

<u>REINSURANCE SEGMENT</u>	<u>Higher Expected Loss Ratios</u>	<u>Slower Loss Development Patterns</u>	<u>Lower Expected Loss Ratios</u>	<u>Faster Loss Development Patterns</u>
<b>Reserving lines selected assumptions:</b>				
Casualty . . . . .	10 points	6 months	(10) points	(6) months
Other specialty . . . . .	5	3	(5)	(3)
Property catastrophe . . . . .	5	3	(5)	(3)
Property excluding property catastrophe . . . . .	5	3	(5)	(3)
Marine and aviation . . . . .	5	3	(5)	(3)
Other . . . . .	5	3	(5)	(3)
<b>Increase (decrease) in Loss Reserves, net:</b>				
Casualty . . . . .	\$ 128,957	\$ 142,163	\$ (128,957)	\$ (117,074)
Other specialty . . . . .	28,938	15,541	(28,938)	(24,870)
Property catastrophe . . . . .	16,096	26,125	(16,096)	(17,698)
Property excluding property catastrophe . . . . .	13,220	31,571	(13,220)	(29,553)
Marine and aviation . . . . .	6,317	9,782	(6,317)	(9,718)
Other . . . . .	3,227	1,512	(3,227)	(1,457)

It is not necessarily appropriate to sum the total impact for a specific factor or the total impact for a specific business category as the business categories are not perfectly correlated. In addition, the potential variability shown in the tables above are reasonably likely scenarios of changes in our key assumptions at December 31, 2012 and are not meant to be a “best case” or “worst case” series of outcomes and, therefore, it is possible that future variations may be more or less than the amounts set forth above.

*Simulation Results*

In order to illustrate the potential volatility in our Loss Reserves, we used a Monte Carlo simulation approach to simulate a range of results based on various probabilities. Both the probabilities and related modeling are subject to inherent uncertainties. The simulation relies on a significant number of assumptions, such as the potential for multiple entities to react similarly to external events, and includes other statistical assumptions. At December 31, 2012, our recorded Loss Reserves by operating segment, net of unpaid losses and loss adjustment expenses recoverable, and the results of the simulation were as follows:

	December 31, 2012		
	<u>Insurance</u>	<u>Reinsurance</u>	<u>Total</u>
Total net reserves . . . . .	\$4,417,919	\$2,686,303	\$7,104,222
Simulation results:			
90th percentile(1) . . . . .	\$5,285,933	\$3,398,336	\$8,377,473
10th percentile(2) . . . . .	\$3,615,913	\$2,066,083	\$5,935,514

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

The simulation results shown for each segment do not add to the total simulation results, as the individual segment simulation results do not reflect the diversification effects across our segments. For informational purposes, based on the total simulation results, a change in our Loss Reserves to the amount indicated at the 90<sup>th</sup> percentile would result in a decrease in income before income taxes of approximately \$1.27 billion, or \$9.21 per diluted share, while a change in our Loss Reserves to the amount indicated at the 10<sup>th</sup> percentile would result in an increase in income before income taxes of approximately \$1.17 billion, or \$8.45 per diluted share. The simulation results noted above are informational only, and no assurance can be given that our ultimate losses will not be significantly different than the simulation results shown above, and such differences could directly and significantly impact earnings favorably or unfavorably in the period they are determined. We do not have significant exposure to pre-2002 liabilities, such as asbestos-related illnesses and other long-tail liabilities. It is difficult to provide meaningful trend information for certain liability/casualty coverages for which the claim-tail may be especially long, as claims are often reported and ultimately paid or settled years, or even decades, after the related loss events occur. Any estimates and assumptions made as part of the reserving process could prove to be inaccurate due to several factors, including the fact that relatively limited historical information has been reported to us through December 31, 2012.

**Ceded Reinsurance**

In the normal course of business, our insurance operations cede a portion of their premium on a quota share or excess of loss basis through treaty or facultative reinsurance agreements. Our reinsurance operations also obtain reinsurance whereby another reinsurer contractually agrees to

indemnify it for all or a portion of the reinsurance risks underwritten by our reinsurance operations. Such arrangements, where one reinsurer provides reinsurance to another reinsurer, are usually referred to as “retrocessional reinsurance” arrangements. In addition, our 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 our reinsurance operations, 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, our insurance or reinsurance operations would be liable for such defaulted amounts.

The availability and cost of reinsurance and retrocessional protection is subject to market conditions, which are beyond our control. Although we believe that our insurance and reinsurance operations have been successful in obtaining reinsurance and retrocessional protection, it is not certain that they will be able to continue to obtain adequate protection at cost effective levels. As a result of such market conditions and other factors, our insurance and reinsurance operations may not be able to successfully mitigate risk through reinsurance and retrocessional arrangements and may lead to increased volatility in our results of operations in future periods. See “Risk Factors—Risks Relating to Our Industry—The failure of any of the loss limitation methods we employ could have a material adverse effect on our financial condition or results of operations.”

Our insurance operations had in effect during 2012 a reinsurance program which provided coverage for certain property-catastrophe related losses equal to 27% of the first layer of \$50 million in excess of a \$100 million retention per occurrence and 100% of the next three layers which total \$200 million in excess of \$150 million. Such amounts compare to a maximum of 84% of the first \$250 million in excess of a \$100 million retention per occurrence for certain property catastrophe-related losses occurring during 2011 and a maximum of 77% of the first \$275 million in excess of a \$75 million retention per occurrence during 2010. In the 2013 first quarter, our insurance operations renewed its reinsurance program which provides coverage for certain property-catastrophe related losses occurring during 2013 equal to \$200 million in excess of a \$150 million retention per occurrence.

For purposes of managing risk, 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. Ceded premiums written represented approximately 21% of gross premiums written for 2012, compared to 22% for 2011 and 23% for 2010. We monitor the financial condition of our reinsurers and attempt to place coverages only with substantial, financially sound carriers. 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 evaluate the credit worthiness of all the reinsurers to which we cede business. If our analysis indicates that there is significant uncertainty regarding the collectability of amounts due from reinsurers, managing general agents, brokers and other clients, we will record a provision for doubtful accounts. See “Risk Factors—Risks Relating to Our Company—We are exposed to credit risk in certain of our business operations” and “Financial Condition, Liquidity and Capital Resources—Financial Condition—Premiums Receivable and Reinsurance Recoverables” for further details.

### **Premium Revenues and Related Expenses**

Insurance premiums written are generally recorded at the policy inception and are primarily earned on a pro rata basis over the terms of the policies for all products, usually 12 months. Premiums written include estimates in our insurance operations’ programs, specialty lines, collateral protection business and for participation in involuntary pools. The amount of such insurance premium estimates, included in premiums receivable and other assets, was \$77.8 million at December 31, 2012, compared to \$71.4 million at 2011. Such premium estimates are derived from multiple sources which include the



historical experience of the underlying business, similar business and available industry information. Unearned premium reserves represent the portion of premiums written that relates to the unexpired terms of in-force insurance policies.

Reinsurance premiums written include amounts reported by brokers and ceding companies, supplemented by our own estimates of premiums where reports have not been received. The determination of premium estimates requires a review of our experience with the ceding companies, familiarity with each market, the timing of the reported information, an analysis and understanding of the characteristics of each line of business, and management's judgment of the impact of various factors, including premium or loss trends, on the volume of business written and ceded to us. On an ongoing basis, our underwriters review the amounts reported by these third parties for reasonableness based on their experience and knowledge of the subject class of business, taking into account our historical experience with the brokers or ceding companies. In addition, reinsurance contracts under which we assume business generally contain specific provisions which allow us to perform audits of the ceding company to ensure compliance with the terms and conditions of the contract, including accurate and timely reporting of information. Based on a review of all available information, management establishes premium estimates where reports have not been received. Premium estimates are updated when new information is received and differences between such estimates and actual amounts are recorded in the period in which estimates are changed or the actual amounts are determined. Premiums written are recorded based on the type of contracts we write. Premiums on our excess of loss and pro rata reinsurance contracts are estimated when the business is underwritten. For excess of loss contracts, premiums are recorded as written based on the terms of the contract. Estimates of premiums written under pro rata contracts are recorded in the period in which the underlying risks 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, generally, 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.

Reinstatement premiums for our insurance and reinsurance operations are recognized at the time a loss event occurs, where coverage limits for the remaining life of the contract are reinstated under pre-defined contract terms. Reinstatement premiums, if obligatory, are fully earned when recognized. The accrual of reinstatement premiums is based on an estimate of losses and loss adjustment expenses, which reflects management's judgment, as described above in "—Reserves for Losses and Loss Adjustment Expenses."

The amount of reinsurance premium estimates included in premiums receivable and the amount of related acquisition expenses by type of business were as follows at December 31, 2012 and 2011:

	December 31, 2012			December 31, 2011		
	Gross Amount	Acquisition Expenses	Net Amount	Gross Amount	Acquisition Expenses	Net Amount
Other specialty(1) . . . . .	\$ 95,946	\$(29,635)	\$ 66,311	\$ 35,860	\$(11,293)	\$ 24,567
Casualty. . . . .	65,212	(12,389)	52,823	44,344	(6,522)	37,822
Marine and aviation . . . . .	46,522	(14,851)	31,671	26,785	(6,049)	20,736
Property excluding property catastrophe . . . . .	35,027	(8,157)	26,870	23,826	(6,217)	17,609
Property catastrophe . . . . .	3,264	(173)	3,091	914	(46)	868
Other(2) . . . . .	17,495	(5,061)	12,434	456	(25)	431
Total . . . . .	<u>\$263,466</u>	<u>\$(70,266)</u>	<u>\$193,200</u>	<u>\$132,185</u>	<u>\$(30,152)</u>	<u>\$102,033</u>

(1) Includes U.K. motor, trade credit, surety, workers' compensation catastrophe, accident and health and other.

(2) Includes mortgage, life, casualty clash and other.

Premium estimates are reviewed by management at least quarterly. Such review includes a comparison of actual reported premiums to expected ultimate premiums along with a review of the aging and collection of premium estimates. Based on management's review, the appropriateness of the premium estimates is evaluated, and any adjustment to these estimates is recorded in the period in which it becomes known. Adjustments to premium estimates could be material and such adjustments could directly and significantly impact earnings favorably or unfavorably in the period they are determined because the estimated premium may be fully or substantially earned.

A significant portion of amounts included as premiums receivable, which represent estimated premiums written, net of commissions, are not currently due based on the terms of the underlying contracts. Based on currently available information, management believes that the premium estimates included in premiums receivable will be collectible and, therefore, no provision for doubtful accounts has been recorded on the premium estimates at December 31, 2012.

Reinsurance premiums assumed, irrespective of the class of business, are generally earned on a pro rata basis over the terms of the underlying policies or reinsurance contracts. Contracts and policies written on a "losses occurring" basis cover claims that may occur during the term of the contract or policy, which is typically 12 months. Accordingly, the premium is earned evenly over the term. Contracts which are written on a "risks attaching" basis cover claims which attach to the underlying insurance policies written during the terms of such contracts. Premiums earned on such contracts usually extend beyond the original term of the reinsurance contract, typically resulting in recognition of premiums earned over a 24-month period.

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

Retroactive reinsurance reimburses a ceding company for liabilities incurred as a result of past insurable events covered by the underlying policies reinsured. In certain instances, reinsurance contracts cover losses both on a prospective basis and on a retroactive basis and, accordingly, we bifurcate the prospective and retrospective elements of these reinsurance contracts and account for each element separately. Underwriting income generated in connection with retroactive reinsurance contracts is deferred and amortized into income over the settlement period while losses are charged to income

immediately. Subsequent changes in estimated or actual cash flows under such retroactive reinsurance contracts are accounted for by adjusting the previously deferred amount to the balance that would have existed had the revised estimate been available at the inception of the reinsurance transaction, with a corresponding charge or credit to income.

Acquisition expenses and other expenses that vary with, and are directly related to, the acquisition of business in our underwriting operations are deferred and amortized over the period in which the related premiums are earned. Acquisition expenses, net of ceding commissions received from reinsurers, consist primarily of commissions and premium taxes paid to obtain our business. Other operating expenses also include expenses that vary with, and are directly related to, the acquisition of business. Deferred acquisition costs, which are based on the related unearned premiums, are carried at their estimated realizable value and take into account anticipated losses and loss adjustment expenses, based on historical and current experience, and anticipated investment income. A premium deficiency occurs if the sum of anticipated losses and loss adjustment expenses, unamortized acquisition costs and maintenance costs and anticipated investment income exceed unearned premiums. A premium deficiency is recorded by charging any unamortized acquisition costs to expense to the extent required in order to eliminate the deficiency. If the premium deficiency exceeds unamortized acquisition costs then a liability is accrued for the excess deficiency. No significant premium deficiency charges were recorded by us during 2012, 2011 or 2010.

### **Fair Value Measurements**

Accounting guidance regarding fair value measurements addresses how companies should measure fair value when they are required to use a fair value measure for recognition or disclosure purposes under GAAP and provides a common definition of fair value to be used throughout GAAP. It defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly fashion between market participants at the measurement date. In addition, it establishes a three-level valuation hierarchy for the disclosure of fair value measurements. The valuation hierarchy is based upon the transparency of inputs to the valuation of an asset or liability as of the measurement date. The level in the hierarchy within which a given fair value measurement falls is determined based on the lowest level input that is significant to the measurement (Level 1 being the highest priority and Level 3 being the lowest priority).

We determine the existence of an active market based on our judgment as to whether transactions for the financial instrument occur in such market with sufficient frequency and volume to provide reliable pricing information. The independent pricing sources obtain market quotations and actual transaction prices for securities that have quoted prices in active markets. We use quoted values and other data provided by nationally recognized independent pricing sources as inputs into our process for determining fair values of our fixed maturity investments. To validate the techniques or models used by pricing sources, our review process includes, but is not limited to: (i) quantitative analysis (*e.g.*, comparing the quarterly return for each managed portfolio to their target benchmark, with significant differences identified and investigated); (ii) a review of the average number of prices obtained in the pricing process and the range of resulting fair values; (iii) initial and ongoing evaluation of methodologies used by outside parties to calculate fair value including a review of deep dive reports on selected securities which indicated the use of observable inputs in the pricing process; (iv) comparing the fair value estimates to our knowledge of the current market; (v) a comparison of the pricing services' fair values to other pricing services' fair values for the same investments; and (vi) back-testing, which includes randomly selecting purchased or sold securities and comparing the executed prices to the fair value estimates from the pricing service. At December 31, 2012, we obtained an average of 2.7 quotes or prices per investment, compared to 2.8 quotes or prices at December 31, 2011. Where multiple quotes or prices were obtained, a price source hierarchy was maintained in order to determine which price source would be used (*i.e.*, a price obtained from a pricing service with more seniority in

the hierarchy will be used from a less senior one in all cases). The hierarchy prioritizes pricing services based on availability and reliability and assigns the highest priority to index providers. Based on the above review, we will challenge any prices for a security or portfolio which are considered not to be representative of fair value.

The independent pricing sources obtain market quotations and actual transaction prices for securities that have quoted prices in active markets. Each source has its own proprietary method for determining the fair value of securities that are not actively traded. In general, these methods involve the use of “matrix pricing” in which the independent pricing source uses observable market inputs including, but not limited to, investment yields, credit risks and spreads, benchmarking of like securities, broker-dealer quotes, reported trades and sector groupings to determine a reasonable fair value. In addition, pricing vendors use model processes, such as an Option Adjusted Spread model, to develop prepayment and interest rate scenarios. The Option Adjusted Spread model is commonly used to estimate fair value for securities such as mortgage backed and asset backed securities. In certain circumstances, when fair values are unavailable from these independent pricing sources, quotes are obtained directly from broker-dealers who are active in the corresponding markets. Such quotes are subject to the validation procedures noted above. Of the \$12.4 billion of financial assets and liabilities measured at fair value at December 31, 2012, approximately \$927.9 million, or 7.5%, were priced using non-binding broker-dealer quotes. Of the \$11.97 billion of financial assets and liabilities measured at fair value at December 31, 2011, approximately \$1.19 billion, or 9.9%, were priced using non-binding broker-dealer quotes.

We review our securities measured at fair value and discuss the proper classification of such investments with investment advisors and others. See note 8, “Fair Value,” of the notes accompanying our consolidated financial statements for a summary of our financial assets and liabilities measured at fair value at December 31, 2012 by valuation hierarchy.

#### **Other-Than-Temporary Impairments**

On a quarterly basis, we perform reviews of our investments to determine whether declines in fair value below the cost basis are considered other-than-temporary in accordance with applicable accounting guidance regarding the recognition and presentation of OTTI. The process of determining whether a security is other-than-temporarily impaired requires judgment and involves analyzing many factors. These factors include (i) an analysis of the liquidity, business prospects and overall financial condition of the issuer, (ii) the time period in which there was a significant decline in value, (iii) the significance of the decline, and (iv) the analysis of specific credit events.

We evaluate the unrealized losses of our equity securities by issuer and determine if we can forecast a reasonable period of time by which the fair value of the securities would increase and we would recover our cost. If we are unable to forecast a reasonable period of time in which to recover the cost of our equity securities, we record an OTTI equivalent to the entire unrealized loss. For debt securities, we separate an OTTI into two components when there are credit related losses associated with the impaired debt security for which we assert that we do not have the intent to sell the security, and it is more likely than not that we will not be required to sell the security before recovery of its cost basis. The amount of the OTTI related to a credit loss is recognized in earnings, and the amount of the OTTI related to other factors (*e.g.*, interest rates, market conditions, etc.) is recorded as a component of other comprehensive income or loss. The amount of the credit loss of an impaired debt security is the difference between the amortized cost and the greater of (i) the present value of expected future cash flows and (ii) the fair value of the security. In instances where no credit loss exists but it is more likely than not that we will have to sell the debt security prior to the anticipated recovery, the decline in fair value below amortized cost is recognized as an OTTI in earnings. In periods after the recognition of an OTTI on debt securities, we account for such securities as if they had been purchased on the measurement date of the OTTI at an amortized cost basis equal to the previous amortized cost basis less the OTTI recognized in earnings. For debt securities for which OTTI were recognized in earnings, the difference between the new amortized cost basis and the cash flows expected to be collected will be accreted or amortized into net investment income.

During 2012, we recorded \$11.4 million of net impairment losses recognized in earnings, compared to \$9.1 million in 2011 and \$11.3 million in 2010. See note 7, “Investment Information—Other-Than-Temporary Impairments,” of the notes accompanying our consolidated financial statements for additional information.

### **Reclassifications**

We have reclassified the presentation of certain prior year information to conform to the current presentation. Such reclassifications had no effect on our net income, shareholders’ equity or cash flows.

### **Recent Accounting Pronouncements**

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

## **FINANCIAL CONDITION, LIQUIDITY AND CAPITAL RESOURCES**

### **Financial Condition**

#### *Investable Assets*

The finance and investment committee of our board of directors establishes our investment policies and sets the parameters for creating guidelines for our investment managers. The finance and investment committee reviews the implementation of the investment strategy on a regular basis. Our current approach stresses preservation of capital, market liquidity and diversification of risk. While maintaining our emphasis on preservation of capital and liquidity, we expect our portfolio to become more diversified and, as a result, we may expand into areas which are not currently part of our investment strategy. Our Chief Investment Officer administers the investment portfolio, oversees our investment managers, formulates investment strategy in conjunction with our finance and investment committee and directly manages certain portions of our fixed income and equity portfolios.

The following table summarizes our investable assets:

	December 31,	
	2012	2011
Fixed maturities available for sale, at fair value . . . . .	\$ 9,839,988	\$ 9,375,604
Fixed maturities, at fair value(1) . . . . .	363,541	147,779
Fixed maturities pledged under securities lending agreements, at fair value(2)	42,600	56,393
Total fixed maturities . . . . .	10,246,129	9,579,776
Short-term investments available for sale, at fair value . . . . .	722,121	904,219
Short-term investments pledged under securities lending agreements, at fair value(2) . . . . .	8,248	—
Cash . . . . .	371,041	351,699
Equity securities available for sale, at fair value . . . . .	312,749	299,584
Equity securities, at fair value(1) . . . . .	25,954	87,403
Other investments available for sale, at fair value . . . . .	549,280	238,111
Other investments, at fair value(1) . . . . .	527,971	131,721
TALF investments, at fair value(3) . . . . .	—	387,702
Investments accounted for using the equity method(4) . . . . .	307,105	380,507
Total cash and investments . . . . .	13,070,598	12,360,722
Securities sold but not yet purchased(5) . . . . .	(6,924)	(27,178)
Securities transactions entered into but not settled at the balance sheet date .	(18,540)	(17,339)
Total investable assets . . . . .	<u>\$13,045,134</u>	<u>\$12,316,205</u>

- (1) Represents securities which are carried at fair value under the fair value option and reflected as “investments accounted for using the fair value option” on our balance sheet. Changes in the carrying value of such securities are recorded in net realized gains or losses.
- (2) This table excludes the collateral received and reinvested and includes the fixed maturities and short-term investments pledged under securities lending agreements, at fair value.
- (3) During the 2012 fourth quarter, we sold all investments held under the Federal Reserve’s Term Asset-Backed Securities Loan Facility (“TALF”) and the related secured financing was extinguished accordingly.
- (4) Changes in the carrying value of investment funds accounted for using the equity method are recorded as “equity in net income (loss) of investments funds accounted for using the equity method” rather than as an unrealized gain or loss component of accumulated other comprehensive income.
- (5) Represents our obligation to deliver equity securities that we did not own at the time of sale. Such amounts are included in “other liabilities” on our balance sheet.

At December 31, 2012, our fixed income portfolio, which includes fixed maturity securities and short-term investments, had average credit quality ratings from S&P/Moody’s of “AA–/Aa2” and an average yield to maturity (imbedded book yield), before investment expenses, of 2.60%. At December 31, 2011, our fixed income portfolio had average credit quality ratings from S&P/Moody’s of “AA/Aa1” and an average yield to maturity (imbedded book yield), before investment expenses, of 2.98%. Our investment portfolio had an average effective duration of 3.06 years at December 31, 2012, compared to 2.99 years at December 31, 2011. At December 31, 2012, approximately \$8.35 billion, or 64%, of our total investments and cash was internally managed, compared to \$7.9 billion, or 66%, at December 31, 2011.

The following table summarizes our fixed maturities by type:

	<u>Estimated Fair Value</u>	<u>Gross Unrealized Gains</u>	<u>Gross Unrealized Losses</u>	<u>Cost or Amortized Cost</u>	<u>OTTI Unrealized Losses(2)</u>
<b><i>At December 31, 2012</i></b>					
Fixed maturities and fixed maturities pledged under securities lending agreements(1):					
Corporate bonds . . . . .	\$ 3,132,645	\$105,798	\$ (6,710)	\$3,033,557	\$ (62)
Mortgage backed securities . . . . .	1,532,736	24,809	(7,484)	1,515,411	(9,329)
Municipal bonds . . . . .	1,463,586	62,322	(1,421)	1,402,685	(17)
Commercial mortgage backed securities . . . . .	824,165	37,514	(4,468)	791,119	(270)
U.S. government and government agencies . . . . .	1,131,688	20,178	(1,095)	1,112,605	(19)
Non-U.S. government securities . . . . .	1,087,310	33,701	(8,860)	1,062,469	—
Asset backed securities . . . . .	1,073,999	25,528	(5,838)	1,054,309	(3,346)
Total . . . . .	<u>\$10,246,129</u>	<u>\$309,850</u>	<u>\$(35,876)</u>	<u>\$9,972,155</u>	<u>\$(13,043)</u>
<b><i>At December 31, 2011</i></b>					
Fixed maturities and fixed maturities pledged under securities lending agreements(1):					
Corporate bonds . . . . .	\$ 2,719,052	\$ 79,407	\$(29,922)	\$2,669,567	\$ (1,138)
Mortgage backed securities . . . . .	1,592,762	27,633	(23,226)	1,588,355	(20,466)
Municipal bonds . . . . .	1,430,565	77,977	(886)	1,353,474	(105)
Commercial mortgage backed securities . . . . .	1,046,326	28,780	(2,904)	1,020,450	(3,259)
U.S. government and government agencies . . . . .	1,451,993	34,811	(3)	1,417,185	(207)
Non-U.S. government securities . . . . .	762,321	33,486	(17,684)	746,519	—
Asset backed securities . . . . .	576,757	14,649	(10,078)	572,186	(3,876)
Total . . . . .	<u>\$ 9,579,776</u>	<u>\$296,743</u>	<u>\$(84,703)</u>	<u>\$9,367,736</u>	<u>\$(29,051)</u>

- (1) In our securities lending transactions, we receive collateral in excess of the fair value of the fixed maturities and short-term investments pledged. For purposes of this table, we have excluded the investment of collateral received and reinvested and included the fixed maturities and short-term investments pledged.
- (2) Represents the total other-than-temporary impairments (“OTTI”) recognized in accumulated other comprehensive income (“AOCI”). It does not include the change in fair value subsequent to the impairment measurement date. At December 31, 2012, the net unrealized gain related to securities for which a non-credit OTTI was recognized in AOCI was \$2.0 million, compared to a net unrealized loss of \$18.0 million at December 31, 2011.

The following table provides the credit quality distribution of our fixed maturities and fixed maturities pledged under securities lending agreements:

Rating(1)	December 31, 2012		December 31, 2011	
	Estimated Fair Value	Total	Estimated Fair Value	Total
U.S. government and government agencies(2)	\$ 2,523,212	24.6	\$3,154,480	32.9
AAA	3,413,431	33.3	3,229,161	33.7
AA	1,563,846	15.3	1,425,249	14.9
A	1,501,156	14.7	884,957	9.2
BBB	538,140	5.3	412,566	4.3
BB	174,527	1.7	140,029	1.5
B	220,772	2.2	165,003	1.7
Lower than B	175,866	1.7	114,672	1.2
Not rated	135,179	1.2	53,659	0.6
Total	<u>\$10,246,129</u>	<u>100.0</u>	<u>9,579,776</u>	<u>100.0</u>

(1) For individual fixed maturities, S&P ratings are used. In the absence of an S&P rating, ratings from Moody's are used, followed by ratings from Fitch Ratings.

(2) Includes U.S. government-sponsored agency mortgage backed securities and agency commercial mortgage backed securities.

The following table provides information on the severity of the unrealized loss position as a percentage of amortized cost for all fixed maturities and fixed maturities pledged under securities lending agreements which were in an unrealized loss position:

Severity of Unrealized Loss	December 31, 2012			December 31, 2011		
	Estimated Fair Value	Gross Unrealized Losses	% of Total Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses	% of Total Gross Unrealized Losses
0 - 10%	\$2,113,835	\$(28,439)	79.3	\$1,692,722	\$(44,803)	52.9
10 - 20%	43,871	(6,363)	17.7	144,523	(20,222)	23.9
20 - 30%	3,086	(1,074)	3.0	38,749	(11,709)	13.8
30 - 80%	—	—	—	15,244	(7,969)	9.4
Total	<u>\$2,160,792</u>	<u>\$(35,876)</u>	<u>100.0</u>	<u>\$1,891,238</u>	<u>\$(84,703)</u>	<u>100.0</u>

The following table provides information on the severity of the unrealized loss position as a percentage of amortized cost for non-investment grade fixed maturities and fixed maturities pledged under securities lending agreements which were in an unrealized loss position:

Severity of Unrealized Loss	December 31, 2012			December 31, 2011		
	Estimated Fair Value	Gross Unrealized Losses	% of Total Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses	% of Total Gross Unrealized Losses
0 - 10%	\$87,223	\$(2,513)	7.0	\$143,782	\$(6,418)	7.6
10 - 20%	9,107	(1,529)	4.3	33,926	(5,484)	6.5
20 - 30%	—	—	—	26,733	(8,042)	9.5
30 - 80%	—	—	—	14,206	(7,460)	8.8
Total	<u>\$96,330</u>	<u>\$(4,042)</u>	<u>11.3</u>	<u>\$218,647</u>	<u>\$(27,404)</u>	<u>32.4</u>



At December 31, 2012, below-investment grade securities comprised approximately 5% of our fixed maturities and fixed maturities pledged under securities lending agreements, compared to approximately 5% at December 31, 2011. In accordance with our investment strategy, we invest in high yield fixed income securities which are included in “Corporate bonds.” Upon issuance, these securities are typically rated below investment grade (*i.e.*, rating assigned by the major rating agencies of “BB” or less). In the table above, corporate bonds represented 32% of the total below investment grade securities at fair value, mortgage backed securities represented 49% of the total and 19% were in other classes at December 31, 2012. At December 31, 2011, corporate bonds represented 46% of the total below investment grade securities at fair value, mortgage backed securities represented 46% of the total and 8% were in other classes. Unrealized losses include the impact of foreign exchange movements on certain securities denominated in foreign currencies and, as such, the amount of securities in an unrealized loss position fluctuates due to foreign currency movements.

We determine estimated recovery values for our fixed maturities and fixed maturities pledged under securities lending agreements following a review of the business prospects, credit ratings, estimated loss given default factors and information received from asset managers and rating agencies for each security. For structured securities, we utilize underlying data, where available, for each security provided by asset managers and additional information from credit agencies in order to determine an expected recovery value for each security. The analysis provided by the asset managers includes expected cash flow projections under base case and stress case scenarios which modify expected default expectations and loss severities and slow down prepayment assumptions. In the tables above, securities at December 31, 2012 which were in greater unrealized loss positions were primarily in asset backed and mortgage backed securities where the estimated fair value for the securities was lower than our expected recovery value.

The following table summarizes our top ten exposures to fixed income corporate issuers by fair value at December 31, 2012, excluding guaranteed amounts:

	<b>Estimated Fair Value</b>	<b>Credit Rating(1)</b>
General Electric Co. . . . .	\$ 79,947	AA+/A1
SBA Communications Corp. . . . .	48,460	NR/A2
Caterpillar Inc. . . . .	46,205	A/A2
AT&T Inc. . . . .	44,103	A-/A2
Crown Castle Int’l Corp. . . . .	38,960	NR/A3
Abbey National Treasury Svcs . . . . .	37,351	A/A2
National Bank of Canada . . . . .	29,666	A-/Aa2
Desjardins Group . . . . .	29,329	A+/Aa1
Verizon Communications Inc. . . . .	28,781	A-/A2
Royal Dutch Shell PLC . . . . .	28,725	AA/Aa1
Total . . . . .	<u>\$411,527</u>	

(1) Ratings as assigned by S&P/Moody’s.

Our portfolio includes investments, such as mortgage-backed securities, which are subject to prepayment risk. At December 31, 2012, our investments in mortgage-backed securities (“MBS”), excluding commercial mortgage-backed securities, amounted to approximately \$1.53 billion, or 11.7% of total investable assets, compared to \$1.59 billion, or 12.9%, at December 31, 2011. As with other fixed income investments, the fair value of these securities fluctuates depending on market and other general economic conditions and the interest rate environment. Changes in interest rates can expose us to changes in the prepayment rate on these investments. In periods of declining interest rates, mortgage prepayments generally increase and MBS are prepaid more quickly, requiring us to reinvest the

proceeds at the then current market rates. Conversely, in periods of rising rates, mortgage prepayments generally fall, preventing us from taking full advantage of the higher level of rates. However, current economic conditions may curtail prepayment activity as refinancing becomes more difficult, thus limiting prepayments on MBS.

The residential mortgage market in the U.S has experienced a variety of difficulties in certain underwriting periods. Delinquencies and losses with respect to residential mortgage loans generally increased for such periods and may continue to increase, particularly in the subprime sector. In addition, residential property values in many states have declined or remained stable after extended periods during which those values appreciated. A continued decline or an extended flattening in those values may result in additional increases in delinquencies and losses on residential mortgage loans generally, especially with respect to second homes and investment properties, and with respect to any residential mortgage loans where the aggregate loan amounts (including any subordinate loans) are close to or greater than the related property values. These developments may have a significant adverse effect on the prices of loans and securities, including those in our investment portfolio. The situation continues to have wide ranging consequences, including downward pressure on economic growth and the potential for increased insurance and reinsurance exposures, which could have an adverse impact on our results of operations, financial condition, business and operations. Our portfolio includes commercial mortgage backed securities (“CMBS”). At December 31, 2012, CMBS constituted approximately \$824.2 million, or 6.3% of total investable assets, compared to \$1.05 billion, or 8.5%, at December 31, 2011. The commercial real estate market has experienced price deterioration, which could lead to increased delinquencies and defaults on commercial real estate mortgages.

The following table provides information on our mortgage backed securities (“MBS”) and CMBS at December 31, 2012, excluding amounts guaranteed by the U.S. government:

	Issuance Year	Amortized Cost	Average Credit Quality	Fair Value		
				Total	% of Amortized Cost	% of Investable Assets
<b>Non-agency MBS:</b> . . . . .	2003	\$ 2,134	AA –	\$ 2,271	106.4%	0.0%
	2004	10,006	BB+	9,920	99.1%	0.1%
	2005	46,969	CCC+	48,716	103.7%	0.4%
	2006	63,120	B	64,249	101.8%	0.5%
	2007	46,698	C	50,799	108.8%	0.4%
	2008	6,121	CC+	6,206	101.4%	0.0%
	2009(6)	25,502	AA –	27,795	109.0%	0.2%
	2010(6)	24,705	AAA	24,330	98.5%	0.2%
	2012(6)	101,633	AAA	102,657	101.0%	0.8%
Total non-agency MBS . . . . .		<u>\$326,888</u>	BBB –	<u>\$336,943</u>	103.1%	<u>2.6%</u>
<b>Non-agency CMBS:</b> . . . . .	2004	986	AAA	901	91.4%	0.0%
	2005	1,522	A+	1,538	101.1%	0.0%
	2006	3,338	A+	3,592	107.6%	0.0%
	2007	27,041	A	29,174	107.9%	0.2%
	2008	649	AA+	631	97.2%	0.0%
	2010	117,200	AAA	126,831	108.2%	1.0%
	2011	144,593	AAA	155,586	107.6%	1.2%
	2012	302,661	AAA	310,181	102.5%	2.4%
Total non-agency CMBS . . . . .		<u>\$597,990</u>	AAA	<u>\$628,434</u>	105.1%	<u>4.8%</u>

**Additional Statistics:**

	Non-Agency MBS		Non-Agency CMBS(1)
	Re-REMICs	All Other	
Weighted average loan age (months) . . . . .	80	77	22
Weighted average life (months)(2) . . . . .	17	48	62
Weighted average loan-to-value % (3) . . . . .	70.4%	68.9%	59.7%
Total delinquencies(4) . . . . .	22.0%	19.9%	1.2%
Current credit support % (5) . . . . .	53.3%	12.6%	28.6%

- (1) Loans defeased with government/agency obligations were not material to the collateral underlying our CMBS holdings.
- (2) The weighted average life for MBS is based on the interest rates in effect at December 31, 2012. The weighted average life for CMBS reflects the average life of the collateral underlying our CMBS holdings.
- (3) The range of loan-to-values is 28% to 86% on MBS and 12% to 114% on CMBS.
- (4) Total delinquencies includes 60 days and over.
- (5) Current credit support % represents the % for a collateralized mortgage obligation (“CMO”) or CMBS class/tranche from other subordinate classes in the same CMO or CMBS deal.
- (6) Primarily represents Re-REMICs with an average credit quality of “AAA” from Fitch Ratings.

The following table provides information on our asset backed securities (“ABS”) at December 31, 2012:

	Amortized Cost	Average Credit Quality	Fair Value		
			Total	% of Amortized Cost	% of Investable Assets
<b>Sector:</b>					
Credit cards(1) . . . . .	\$ 331,009	AAA	\$ 336,609	101.7%	2.6%
Equipment(2) . . . . .	240,867	A	243,350	101.0%	1.9%
Loans(3) . . . . .	129,708	AA+	130,289	100.4%	1.0%
Autos(4) . . . . .	145,020	AAA	145,148	100.1%	1.1%
Rate reduction bonds(5) . . . . .	78,115	AAA	81,747	104.6%	0.6%
U.K. securitized(6) . . . . .	50,571	AAA	52,676	104.2%	0.4%
Commodities(7) . . . . .	35,000	AAA	35,635	101.8%	0.3%
Home equity(8) . . . . .	13,548	B	17,474	129.0%	0.1%
Other . . . . .	30,471	AA-	31,071	102.0%	0.2%
Total ABS . . . . .	<u>\$1,054,309</u>	AA	<u>\$1,073,999</u>	101.9%	<u>8.2%</u>

The effective duration of the total ABS was 2.2 years at December 31, 2012.

- (1) The weighted average credit support % on credit cards is 13%.
- (2) The weighted average credit support % on equipment is 7%.
- (3) The weighted average credit support % on loans is 36%.

- (4) The weighted average credit support % on autos is 27%.
- (5) The weighted average credit support % on rate reduction bonds is 6%.
- (6) The weighted average credit support % on U.K. securitized is 20%.
- (7) The weighted average credit support % on commodities is 6%.
- (8) The weighted average credit support % on home equity is 21%.

At December 31, 2012, our fixed income portfolio included \$66.9 million par value in sub-prime securities with an estimated fair value of \$42.1 million and an average credit quality of “A–/B2” from S&P/ Moody’s. At December 31, 2011, our fixed income portfolio included \$40.1 million par value in sub-prime securities with an estimated fair value of \$15.4 million and an average credit quality of “BB+/Ba2” from S&P/Moody’s. Such amounts were primarily in the home equity sector of our asset backed securities, with the balance in other ABS, MBS and CMBS sectors. We define sub-prime mortgage-backed securities as investments in which the underlying loans primarily exhibit one or more of the following characteristics: low FICO scores, above-prime interest rates, high loan-to-value ratios or high debt-to-income ratios. In addition, the portfolio of collateral backing our securities lending program contains approximately \$5.4 million estimated fair value of sub-prime securities with an average credit quality of “CCC–/Caa3” from S&P/Moody’s at December 31, 2012, compared to approximately \$7.3 million estimated fair value with an average credit quality of “CCC/Caa2” from S&P/Moody’s at December 31, 2011.

At December 31, 2012, we held insurance enhanced municipal bonds, net of prerefunded bonds that are escrowed in U.S. government obligations, the estimated fair value of which was \$215.6 million, or approximately 1.7% of our total investable assets. These securities had an average rating of “AA+/Aa2” by S&P/Moody’s with and without the insurance enhancement. This is due to the fact that, in cases where the claims paying ratings of the guarantors are below investment grade, those ratings have been withdrawn from the bonds by the relevant rating agencies, and the insured ratings have been equated to the underlying ratings. The ratings were obtained from the individual rating agencies and were assigned a numerical amount with 1 being the highest rating. The average ratings were calculated using the weighted average fair values of the individual bonds. Guarantors of our insurance enhanced municipal bonds, net of prerefunded bonds that are escrowed in U.S. government obligations, included National Public Finance Guarantee (f.k.a. MBIA Insurance Corporation) (\$109.7 million), Assured Guaranty Ltd. (\$71.8 million) and the Texas Permanent School Fund (\$34.1 million). We do not have a significant exposure to insurance enhanced asset-backed or mortgage-backed securities. We do not have any significant investments in companies which guarantee securities at December 31, 2012.

The following table provides information on the fair value of our Eurozone investments at December 31, 2012:

<b>Country(1)</b>	<b>Sovereign(2)</b>	<b>Financial Corporates</b>	<b>Other Corporates</b>	<b>Covered Bonds(3)</b>	<b>Bank Loans(4)</b>	<b>Equities and Other</b>	<b>Total</b>
Germany . . . . .	\$199,527	\$ 843	\$ 10,094	\$10,044	\$12,712	\$ 7,055	\$240,275
Finland . . . . .	118,434	254	—	—	—	—	118,688
Netherlands . . .	—	15,439	46,040	—	6,240	15,673	83,392
France . . . . .	—	6,766	28,828	16,148	4,736	13,882	70,360
Supranational(5)	29,969	—	—	—	—	—	29,969
Spain . . . . .	—	—	941	15,101	3,201	328	19,571
Luxembourg . . .	—	—	8,049	—	4,343	482	12,874
Belgium . . . . .	2,014	—	7,402	—	—	—	9,416
Italy . . . . .	4,092	—	—	—	828	927	5,847
Ireland . . . . .	—	—	2,156	—	—	1,506	3,662
Austria . . . . .	—	3,432	—	—	—	—	3,432
<b>Total . . . . .</b>	<b>\$354,036</b>	<b>\$26,734</b>	<b>\$103,510</b>	<b>\$41,293</b>	<b>\$32,060</b>	<b>\$39,853</b>	<b>\$597,486</b>

- (1) The country allocations set forth in the table are based on various assumptions made by us in assessing the country in which the underlying credit risk resides, including a review of the jurisdiction of organization, business operations and other factors. Based on such analysis, we do not believe that we have any Eurozone fixed maturities from Cyprus, Estonia, Greece, Malta, Portugal, Slovakia or Slovenia at December 31, 2012.
- (2) Sovereign includes securities issued and/or guaranteed by Eurozone governments.
- (3) Securities issued by Eurozone banks where the security is backed by a separate group of loans.
- (4) Included in corporate bonds.
- (5) Includes World Bank, European Investment Bank, International Finance Corp. and European Bank for Reconstruction and Development.

At December 31, 2012, our equity portfolio consisted of \$331.8 million of equity securities, compared to \$359.8 million at December 31, 2011. Such amounts are shown net of securities sold but not purchased. Our equity portfolio primarily consists of publicly traded common stocks in the natural resources, energy and consumer staples sectors. Certain of our equity managers use leverage to achieve a higher rate of return on their assets under management. While leverage presents opportunities for increasing the total return of such investments, it may increase losses as well. Accordingly, any event that adversely affects the value of the underlying holdings would be magnified to the extent leverage is used and our potential losses would be magnified.

The following table provides information on the severity of the unrealized loss position as a percentage of cost for all equity securities classified as available for sale which were in an unrealized loss position:

Severity of Unrealized Loss	December 31, 2012			December 31, 2011		
	Estimated Fair Value	Gross Unrealized Losses	% of Total Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses	% of Total Gross Unrealized Losses
0 - 10% . . . . .	\$114,670	\$ (4,704)	38.3	\$ 74,813	\$ (3,651)	16.3
10 - 20% . . . . .	22,851	(3,612)	29.4	26,791	(4,457)	19.9
20 - 30% . . . . .	6,205	(1,973)	16.0	21,457	(7,827)	35.0
30 - 40% . . . . .	1,953	(981)	8.0	5,070	(2,645)	11.9
40 - 50% . . . . .	1,027	(829)	6.7	2,345	(1,984)	8.9
50 - 70% . . . . .	148	(191)	1.6	1,492	(1,780)	8.0
Total . . . . .	<u>\$146,854</u>	<u>\$(12,290)</u>	<u>100.0</u>	<u>\$131,968</u>	<u>\$(22,344)</u>	<u>100.0</u>

On a quarterly basis, we evaluate the unrealized losses of our equity securities by issuer and forecast a reasonable period of time by which the fair value of the securities would increase and we would recover its cost basis. A substantial portion of the equity securities with unrealized losses were less than 20% under their cost basis and less than 12 months in a continual unrealized loss position at December 31, 2012. We believe that a reasonable period of time exists to allow for recovery of the cost basis of our equity securities.

The following table summarizes our other investments:

	December 31,	
	2012	2011
Available for sale securities:		
Asian and emerging markets . . . . .	\$ 316,860	\$ 65,284
Investment grade fixed income . . . . .	220,410	153,407
Non-investment grade fixed income . . . . .	—	—
Other . . . . .	12,010	19,420
Total available for sale . . . . .	<u>549,280</u>	<u>238,111</u>
Fair value option:		
Term loan investments (par value: \$242,403 and \$118,504) . . . . .	241,304	113,911
Asian and emerging markets . . . . .	24,035	—
Investment grade fixed income . . . . .	69,852	2,381
Non-investment grade fixed income . . . . .	11,093	—
Other . . . . .	181,687	15,429
Total fair value option . . . . .	<u>527,971</u>	<u>131,721</u>
Total . . . . .	<u>\$1,077,251</u>	<u>\$369,832</u>

Certain of our other investments are in investment funds for which we have the option to redeem at agreed upon values as described in each investment fund's subscription agreement. Depending on the terms of the various subscription agreements, investments in investment funds may be redeemed daily, monthly, quarterly or on other terms. Two common redemption restrictions which may impact our ability to redeem these investment funds are gates and lockups. A gate is a suspension of redemptions which may be implemented by the general partner or investment manager of the fund in order to defer, in whole or in part, the redemption request in the event the aggregate amount of redemption requests exceeds a predetermined percentage of the investment fund's net assets which may

otherwise hinder the general partner or investment manager's ability to liquidate holdings in an orderly fashion in order to generate the cash necessary to fund extraordinarily large redemption payouts. A lockup period is the initial amount of time an investor is contractually required to hold the security before having the ability to redeem. If the investment funds are eligible to be redeemed, the time to redeem such fund can take weeks or months following the notification.

Investment funds accounted for using the equity method (excluding our investment in Aeolus LP) totaled \$302.5 million at December 31, 2012, compared to \$345.3 million at December 31, 2011. Certain of our investments, primarily those included in "other investments" and "investments accounted for using the equity method" on our balance sheet, may use leverage to achieve a higher rate of return. While leverage presents opportunities for increasing the total return of such investments, it may increase losses as well. Accordingly, any event that adversely affects the value of the underlying securities held by such investments would be magnified to the extent leverage is used and our potential losses from such investments would be magnified. In addition, the structures used to generate leverage may lead to such investment funds being required to meet covenants based on market valuations and asset coverage. Market valuation declines in the funds could force the sale of investments into a depressed market, which may result in significant additional losses. Alternatively, the funds may attempt to deleverage by raising additional equity or potentially changing the terms of the established financing arrangements. We may choose to participate in the additional funding of such investments.

Our investment strategy allows for the use of derivative instruments. We utilize various derivative instruments such as futures contracts to enhance investment performance, replicate investment positions or manage market exposures and duration risk that would be allowed under our investment guidelines if implemented in other ways. See note 9, "Derivative Instruments," of the notes accompanying our consolidated financial statements for additional disclosures concerning derivatives.

Accounting guidance regarding fair value measurements addresses how companies should measure fair value when they are required to use a fair value measure for recognition or disclosure purposes under GAAP and provides a common definition of fair value to be used throughout GAAP. See note 8, "Fair Value" of the notes accompanying our consolidated financial statements for a summary of our financial assets and liabilities measured at fair value at December 31, 2012 and 2011 by level.

#### ***Premiums Receivable and Reinsurance Recoverables***

At December 31, 2012, 69.6% of premiums receivable of \$688.9 million represented amounts not yet due, while amounts in excess of 90 days overdue were 5.7% of the total. At December 31, 2011, 72.6% of premiums receivable of \$501.6 million represented amounts not yet due, while amounts in excess of 90 days overdue were 4.8% of the total. Approximately 18.9% of the \$41.0 million of paid losses and loss adjustment expenses recoverable were in excess of 90 days overdue at December 31, 2012, compared to 2.3% of the \$33.5 million of paid losses and loss adjustment expenses recoverable at December 31, 2011. The amount in excess of 90 days overdue was substantially collected in the 2013 first quarter. At December 31, 2012 and 2011, our reserves for doubtful accounts were approximately \$12.0 million and \$14.2 million, respectively.

At December 31, 2012, approximately 87.5% of reinsurance recoverables on paid and unpaid losses (not including prepaid reinsurance premiums) of \$1.87 billion were due from carriers which had an A.M. Best rating of "A-" or better and the largest reinsurance recoverables from any one carrier was approximately 4.7% of our total shareholders' equity. At December 31, 2011, approximately 90.1% of reinsurance recoverables on paid and unpaid losses (not including prepaid reinsurance premiums) of \$1.85 billion were due from carriers which had an A.M. Best rating of "A-" or better and the largest reinsurance recoverables from any one carrier was approximately 5.4% of our total shareholders' equity.

The following table details our reinsurance recoverables at December 31, 2012:

	<u>% of Total</u>	<u>A.M. Best Rating(1)</u>
Everest Reinsurance Company . . . . .	12.9%	A+
Munich Reinsurance America, Inc. . . . .	9.9%	A+
Lloyd’s syndicates(2) . . . . .	8.3%	A
Odyssey America Reinsurance Corporation(3) . . . . .	5.7%	A
Transatlantic Reinsurance Company . . . . .	4.9%	A
Allied World Assurance Company Ltd. . . . .	4.8%	A
Partner Reinsurance Company of the U.S. . . . .	4.8%	A+
Hannover Rückversicherung AG . . . . .	3.6%	A+
Swiss Reinsurance America Corporation . . . . .	3.4%	A+
Platinum Underwriters Reinsurance Inc. . . . .	2.8%	A
Berkley Insurance Company . . . . .	2.8%	A+
ACE Property & Casualty Insurance Company . . . . .	2.8%	A+
Alterra Reinsurance Ltd. . . . .	2.4%	A
XL Reinsurance America . . . . .	2.3%	A
Endurance Reinsurance Corporation of America . . . . .	2.0%	A
AXIS Reinsurance Company . . . . .	1.7%	A
All other(4) . . . . .	<u>24.9%</u>	
Total . . . . .	<u>100.0%</u>	

- (1) The financial strength ratings are as of February 13, 2013 and were assigned by A.M. Best based on its opinion of the insurer’s financial strength as of such date. An explanation of the ratings listed in the table follows: the rating of “A+” is designated “Superior”; and the “A” rating is designated “Excellent.” Additionally, A.M. Best has five classifications within the “Not Rated” or “NR” category. Reasons for an “NR” rating being assigned by A.M. Best include insufficient data, size or operating experience, companies which are in run-off with no active business writings or are dormant, companies which disagree with their rating and request that a rating not be published or insurers that request not to be formally evaluated for the purposes of assigning a rating opinion.
- (2) The A.M. Best group rating of “A” (Excellent) has been applied to all Lloyd’s syndicates.
- (3) A significant portion of amounts due from Odyssey America Reinsurance Corporation is collateralized through reinsurance trusts.
- (4) Such amount included 12.4% due from companies rated “A –” or better and 12.5% from companies not rated. For items not rated, a substantial portion of such amount is collateralized through reinsurance trusts or letters of credit.

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

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



“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” and “Business—Reserves” for further details.

**Shareholders’ Equity**

Our shareholders’ equity was \$5.17 billion at December 31, 2012, compared to \$4.59 billion at December 31, 2011. The increase in the 2012 of \$576.8 million was primarily attributable to net income and a higher level of unrealized gains on our investment portfolio, partially offset by share repurchase activity.

**Book Value per Common Share**

The following table presents the calculation of book value per common share at December 31, 2012 and 2011:

(U.S. dollars in thousands, except share data)	December 31,	
	2012	2011
Calculation of book value per common share:		
Total shareholders’ equity . . . . .	\$ 5,168,878	\$ 4,592,074
Less preferred shareholders’ equity . . . . .	(325,000)	(325,000)
Common shareholders’ equity . . . . .	\$ 4,843,878	\$ 4,267,074
Common shares outstanding(1) . . . . .	133,842,613	134,358,345
Book value per common share . . . . .	<u>\$ 36.19</u>	<u>\$ 31.76</u>

(1) Excludes the effects of 8,221,444 and 8,706,441 stock options and 480,406 and 298,425 restricted stock units outstanding at December 31, 2012 and 2011, respectively.

**Liquidity and Capital Resources**

ACGL is a holding company whose assets primarily consist of the shares in its subsidiaries. Generally, ACGL depends on its available cash resources, liquid investments and dividends or other distributions from its subsidiaries to make payments, including the payment of debt service obligations and operating expenses it may incur and any dividends or liquidation amounts with respect to the Series C non-cumulative preferred shares and common shares. ACGL’s readily available cash, short-term investments and marketable securities, excluding amounts held by our regulated insurance and reinsurance subsidiaries, totaled \$14.7 million at December 31, 2012, compared to \$8.0 million at December 31, 2011. During 2012, ACGL received dividends of \$258.5 million from Arch Re Bermuda which were primarily used to fund the share repurchase program described below.

The ability of our regulated insurance and reinsurance subsidiaries to pay dividends or make distributions or other payments to us is dependent on their ability to meet applicable regulatory standards. Under Bermuda law, Arch Re Bermuda is required to maintain an enhanced capital requirement which must equal or exceed its 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) \$100.0 million, (2) 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 (3) 15% of net discounted aggregated losses and loss expense provisions 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 enhanced capital requirement, minimum solvency margin or minimum liquidity ratio. 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 ("BMA") an affidavit stating that it will continue to meet the required margins. In addition, Arch Re Bermuda is prohibited, without prior approval of the BMA, from reducing by 15% or more its total statutory capital, as set out in its previous year's statutory financial statements. As a Class 4 insurer, Arch Re Bermuda is required to maintain available statutory capital and surplus pertaining to its general business at a level equal to or in excess of its enhanced capital requirement ("ECR") which is established by reference to either the BSCR model ("BSCR") or an approved internal capital model. At December 31, 2012, as determined under Bermuda law, Arch Re Bermuda had statutory capital of \$2.32 billion (\$2.28 billion at December 31, 2011) and statutory capital and surplus of \$5.01 billion (\$4.56 billion at December 31, 2011), which amounts were in compliance with Arch Re Bermuda's ECR at such date. Such amounts include ownership interests in U.S. insurance and reinsurance subsidiaries. Accordingly, Arch Re Bermuda can pay approximately \$1.25 billion to ACGL during 2013 without providing an affidavit to the BMA, as discussed above. In addition, under BMA guidelines that became effective on January 1, 2013, the value of the assets of our insurance group (*i.e.*, the group of companies that conducts exclusively, or mainly, insurance business) must exceed the amount of the group's liabilities by the aggregate minimum margin of solvency of each qualifying member of the group (the "Group MSM"). A member is a qualifying member of the insurance group if it is subject to solvency requirements in the jurisdiction in which it is registered. We were in compliance with the Group MSM at December 31, 2012.

In addition to meeting applicable regulatory standards, the ability of our insurance and reinsurance subsidiaries to pay dividends to intermediate parent companies owned by Arch Re Bermuda is also constrained by our dependence on the financial strength ratings of our insurance and reinsurance subsidiaries from independent rating agencies. The ratings from these agencies depend to a large extent on the capitalization levels of our insurance and reinsurance subsidiaries. We believe that ACGL has sufficient cash resources and available dividend capacity to service its indebtedness and other current outstanding obligations.

Our insurance and reinsurance subsidiaries are required to maintain assets on deposit, which primarily consist of fixed maturities, with various regulatory authorities to support their operations. The assets on deposit are available to settle insurance and reinsurance liabilities to third parties. Our insurance and reinsurance subsidiaries maintain assets in trust accounts as collateral for insurance and reinsurance transactions with affiliated companies and also have investments in segregated portfolios primarily to provide collateral or guarantees for letters of credit to third parties. At December 31, 2012 and 2011, such amounts approximated \$5.47 billion and \$5.60 billion, respectively.

Our non-U.S. operations account for a significant percentage of our net premiums written. In general, the business written by our non-U.S. operations, which is heavily weighted towards reinsurance business, has been more profitable than the business written in our U.S. operations, which is weighted more towards insurance business. In general, our reinsurance segment has operated at a higher margin than our insurance segment, which is due to prevailing market conditions and the mix and type of business written. The most profitable line of business in the current environment continues to be catastrophe-exposed property reinsurance, which is written primarily in our non-U.S. operations. Additionally, a significant component of our pre-tax income is generated through our investment performance. We hold a substantial amount of our investable assets in our non-U.S. operations and, accordingly, a large portion of our investment income is produced in our non-U.S. operations. In addition, ACGL, through its subsidiaries, provides financial support to certain of its insurance subsidiaries and affiliates, through certain reinsurance arrangements beneficial to the ratings of such subsidiaries. Our U.S.-based insurance and reinsurance groups enter into separate reinsurance arrangements with Arch Re Bermuda covering individual lines of business. For the 2012 calendar year, the U.S. groups ceded business to Arch Re Bermuda at an aggregate net cession rate (*i.e.*, net of third

party reinsurance) of approximately 46% (compared to 51% for 2011). All of the above factors have resulted in the non-U.S. group providing a higher contribution to our overall pre-tax income in the current period than the percentage of net premiums written would indicate.

Except as described in the above paragraph, 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.

The following table summarizes our consolidated cash flows from operating, investing and financing activities:

	Year Ended December 31,		
	2012	2011	2010
<b>Total cash provided by (used for):</b>			
Operating activities . . . . .	\$ 921,603	\$ 866,112	\$ 802,074
Investing activities . . . . .	(395,968)	(538,420)	16,097
Financing activities . . . . .	(513,035)	(337,135)	(785,637)
Effects of exchange rate changes on foreign currency cash . . . . .	6,742	(1,598)	(4,365)
Increase (decrease) in cash . . . . .	<u>\$ 19,342</u>	<u>\$ (11,041)</u>	<u>\$ 28,169</u>

- Cash provided by operating activities for 2012 was higher than in 2011, primarily due to a higher level of premium receipts. Such amounts more than offset a higher level of paid losses in 2012, including outflows on catastrophic events from 2010 and 2011 and the maturation of our reserves. Receipts from interest and dividend income were lower for 2012 due, in part, to changes in investment mix, timing and portfolio yields and also reflected a higher level of cash outflows for operating expenses.
- Cash used for investing activities for 2012 was lower than in 2011. Investing activities in 2012 reflected increases in both purchases and sales of fixed maturity investments compared to 2011, a higher level of funding for other investments (funding of existing and new investments) and the sale of all remaining TALF investments. In addition, we acquired the trade credit and surety reinsurance operations of Ariel Reinsurance Company Ltd. which resulted in a net cash inflow during 2012 of \$28.9 million.
- Cash used for financing activities for 2012 was higher than in 2011. The 2012 period reflected \$172.1 million of share repurchases under our share repurchase program, compared to \$287.6 million in 2011. In the 2012 second quarter, we issued \$325 million liquidation value of Series C non-cumulative preferred shares and repurchased all existing Series A and B non-cumulative preferred shares. In addition, as noted above, we sold all remaining TALF investments during 2012 and the related TALF borrowings were extinguished accordingly, resulting in an increase in cash used for financing activities.

Our insurance and reinsurance operations provide liquidity in that premiums are received in advance, sometimes substantially in advance, of the time losses are paid. The period of time from the occurrence of a claim through the settlement of the liability may extend many years into the future. Sources of liquidity include cash flows from operations, financing arrangements or routine sales of investments.

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. However, due to the nature of our operations, cash flows are affected by claim payments that may comprise large payments on a limited number of claims and which can fluctuate from year to year. We believe that our liquid investments and cash flow will provide us with sufficient liquidity in order to meet our claim payment obligations. However, the timing and amounts of actual claim payments related to recorded Loss Reserves vary based on many factors, including large individual losses, changes in the legal environment, as well as general market conditions. The ultimate amount of the claim payments could differ materially from our estimated amounts. Certain lines of business written by us, such as excess casualty, have loss experience characterized as low frequency and high severity. The foregoing may result in significant variability in loss payment patterns. The impact of this variability can be exacerbated by the fact that the timing of the receipt of reinsurance recoverables owed to us may be slower than anticipated by us. Therefore, the irregular timing of claim payments can create significant variations in cash flows from operations between periods and may require us to utilize other sources of liquidity to make these payments, which may include the sale of investments or utilization of existing or new credit facilities or capital market transactions. If the source of liquidity is the sale of investments, we may be forced to sell such investments at a loss, which may be material.

Our investments in certain securities, including certain fixed income and structured securities, investments in funds accounted for using the equity method, other investments and our investment in Gulf Re (joint venture) may be illiquid due to contractual provisions or investment market conditions. If we require significant amounts of cash on short notice in excess of anticipated cash requirements, then we may have difficulty selling these investments in a timely manner or may be forced to sell or terminate them at unfavorable values.

On a consolidated basis, our aggregate investable assets totaled \$13.05 billion at December 31, 2012, compared to \$12.32 billion at December 31, 2011. The primary goals of our asset liability management process are to satisfy the insurance liabilities, manage the interest rate risk embedded in those insurance liabilities and maintain sufficient liquidity to cover fluctuations in projected liability cash flows, including debt service obligations. Generally, the expected principal and interest payments produced by our fixed income portfolio adequately fund the estimated runoff of our insurance reserves. Although this is not an exact cash flow match in each period, the substantial degree by which the fair value of the fixed income portfolio exceeds the expected present value of the net insurance liabilities, as well as the positive cash flow from newly sold policies and the large amount of high quality liquid bonds, provide assurance of our ability to fund the payment of claims and to service our outstanding debt without having to sell securities at distressed prices or access credit facilities. Our unfunded investment commitments totaled approximately \$778.8 million at December 31, 2012.

In August 2011, S&P downgraded the U.S. credit rating from “AAA” to “AA+” with a negative outlook and warned it could lower the credit rating to “AA” within the next two years if it sees less reduction in spending than agreed to, higher interest rates, or new fiscal pressures during the period result in a higher general government debt trajectory. In addition, both Moody’s and Fitch have announced the possibility of a downgrade to the U.S. credit rating. The impact of the continuing weakness of the U.S., European countries and other key economies, projected budget deficits for the U.S., European countries and other governments and the consequences associated with possible additional downgrades of securities of the U.S., European countries and other governments by credit rating agencies is inherently unpredictable and could have a material adverse effect on financial markets and economic conditions in the U.S. and throughout the world. In turn, this could have a material adverse effect on our business, financial condition and results of operations and, in particular, this could have a material adverse effect on the value and liquidity of securities in our investment portfolio. Our investment portfolio as of December 31, 2012 included \$1.13 billion of obligations of the U.S. government and government agencies at fair value and \$1.46 billion of municipal bonds at fair value. Please refer to Item 1A “Risk Factors” for a discussion of other risks relating to our business and investment portfolio.

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

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

In February 2013, our U.S.-based subsidiaries entered into a definitive agreement to acquire CMG Mortgage Insurance Company (“CMG MI”) from its current owners, PMI Mortgage Insurance Co. (“PMI”), which is in rehabilitation under the receivership of the Arizona Department of Insurance since 2011, and CMFG Life Insurance Company. We also agreed to acquire PMI’s mortgage insurance operating platform and related assets from PMI. It is anticipated that the transaction will close within 12 months, subject to approvals of the Arizona receivership court, applicable regulators and government-sponsored enterprises (“GSE”), and the satisfaction of customary closing conditions. At closing, it is currently estimated that our U.S.-based subsidiaries will pay aggregate consideration of approximately \$300 million. Additional amounts may be paid based on the actual results of CMG MI’s pre-closing portfolio over an agreed upon period. In connection with the closing of the transactions, PMI and an affiliate of our U.S.-based subsidiaries will enter into a quota share reinsurance agreement pursuant to which such affiliate, as the reinsurer, will agree to provide 100% quota share indemnity reinsurance to PMI for all certificates of insurance that were issued by PMI between and including January 1, 2009 and December 31, 2011 that are not in default as of an agreed upon effective date. Subject to applicable regulatory and GSE approvals, such affiliate also will provide quota share reinsurance to CMG MI through a reinsurance agreement that will become effective prior to the closing. In addition, we will enter into a services agreement with PMI to provide for necessary services to administer the run-off of PMI’s legacy business at the direction of PMI.

As part of our capital management program, we may seek to raise additional capital or may seek to return capital to our shareholders through share repurchases, cash dividends or other methods (or a combination of such methods). Any such determination will be at the discretion of our board of directors and will be dependent upon our profits, financial requirements and other factors, including legal restrictions, rating agency requirements and such other factors as our board of directors deems relevant.

The board of directors of ACGL has authorized the investment in ACGL’s common shares through a share repurchase program. Authorizations have consisted of a \$1.0 billion authorization in February 2007, a \$500.0 million authorization in May 2008, a \$1.0 billion authorization in November 2009 and a \$1.0 billion authorization in February 2011. Since the inception of the share repurchase program through December 31, 2012, ACGL has repurchased approximately 108.7 million common shares for an aggregate purchase price of \$2.73 billion. At December 31, 2012, approximately \$769.9 million of share repurchases were available under the program. Repurchases under the program may be effected from time to time in open market or privately negotiated transactions through December 2014. The timing and amount of the repurchase transactions under this program will depend on a variety of factors, including market conditions and corporate and regulatory considerations. We

will continue to monitor our share price and, depending upon results of operations, market conditions and the development of the economy, as well as other factors, we will consider share repurchases on an opportunistic basis.

To the extent that our existing capital is insufficient to fund our future operating requirements or maintain such ratings, we may need to raise additional funds through financings or limit our growth. Given the recent severe disruptions in the public debt and equity markets, including among other things, widening of credit spreads, lack of liquidity and bankruptcies, we can provide no assurance that, if needed, we would be able to obtain additional funds through financing on satisfactory terms or at all. Continued adverse developments in the financial markets, such as disruptions, uncertainty or volatility in the capital and credit markets, may result in realized and unrealized capital losses that could have a material adverse effect on our results of operations, financial position and our businesses, and may also limit our access to capital required to operate our business.

If we are not able to obtain adequate capital, our business, results of operations and financial condition could be adversely affected, which could include, among other things, the following possible outcomes: (1) potential downgrades in the financial strength ratings assigned by ratings agencies to our operating subsidiaries, which could place those operating subsidiaries at a competitive disadvantage compared to higher-rated competitors; (2) reductions in the amount of business that our operating subsidiaries are able to write in order to meet capital adequacy-based tests enforced by statutory agencies; and (3) any resultant ratings downgrades could, among other things, affect our ability to write business and increase the cost of bank credit and letters of credit. In addition, under certain of the reinsurance agreements assumed by our reinsurance operations, upon the occurrence of a ratings downgrade or other specified triggering event with respect to our reinsurance operations, such as a reduction in surplus by specified amounts during specified periods, our ceding company clients may be provided with certain rights, including, among other things, the right to terminate the subject reinsurance agreement and/or to require that our reinsurance operations post additional collateral.

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

In August 2011, we entered into a three-year agreement for a \$300.0 million unsecured revolving loan and letter of credit facility and a \$500.0 million secured letter of credit facility. Under the terms of the agreement, Arch Re U.S. and Arch Re Bermuda are limited to issuing an aggregate of \$100.0 million of unsecured letters of credit as part of the unsecured revolving loan. In addition, we have access to letter of credit facilities for up to a total of \$98.5 million, which are available on a limited basis and for limited purposes. Refer to note 14, “Commitments and Contingencies—Letter of Credit and Revolving Credit Facilities,” of the notes accompanying our consolidated financial statements for a discussion of our available facilities, applicable covenants on such facilities and available capacity.

In March 2012, ACGL and Arch Capital Group (U.S.) Inc. filed a universal shelf registration statement with the SEC. This registration statement allows for the possible future offer and sale by us of various types of securities, including unsecured debt securities, preference shares, common shares, warrants, share purchase contracts and units and depositary shares. The shelf registration statement enables us to efficiently access the public debt and/or equity capital markets in order to meet our future capital needs. The shelf registration statement also allows selling shareholders to resell common shares that they own in one or more offerings from time to time. We will not receive any proceeds from any shares offered by the selling shareholders. This report is not an offer to sell or the solicitation

of an offer to buy nor shall there be any sale of these securities in any state in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state.

In April 2012, ACGL completed the underwritten public offering of \$325 million of its 6.75% Series C non-cumulative preferred shares. The net proceeds from the offering of approximately \$316 million and other available funds were used to redeem all of ACGL's \$200 million of 8.0% Series A preferred shares and \$125 million of 7.875% Series B preferred shares. The preferred shares were redeemed at a price equal to \$25.00 per share, plus all declared and unpaid dividends to (but excluding) the redemption date. Except in specified circumstances relating to certain tax or corporate events, the Series C non-cumulative preferred shares are not redeemable prior to April 2, 2017. Dividends on the Series C preferred shares are non-cumulative. Consequently, in the event dividends are not declared on the Series C preferred shares for any dividend period, holders of preferred shares will not be entitled to receive a dividend for such period, and such undeclared dividend will not accrue and will not be payable. Holders of Series C preferred shares will be entitled to receive dividend payments only when, as and if declared by ACGL's board of directors or a duly authorized committee of ACGL's board of directors. Any such dividends will be payable from the date of original issue on a non-cumulative basis, quarterly in arrears on the last day of each period. To the extent declared, these dividends will accumulate, with respect to each dividend period, in an amount per share equal to 6.75% of the \$25.00 liquidation preference per annum.

At December 31, 2012, ACGL's capital of \$5.57 billion consisted of \$300.0 million of senior notes, representing 5.4% of the total, \$100.0 million of revolving credit agreement borrowings due in August 2014, representing 1.8% of the total, \$325.0 million of preferred shares, representing 5.8% of the total, and common shareholders' equity of \$4.84 billion, representing the balance. At December 31, 2011, ACGL's capital of \$4.99 billion consisted of \$300.0 million of senior notes, representing 6.0% of the total, \$100.0 million of revolving credit agreement borrowings, representing 2.0% of the total, \$325.0 million of preferred shares, representing 6.5% of the total, and common shareholders' equity of \$4.27 billion, representing the balance. The increase in capital during 2012 was primarily attributable to net income, partially offset by share repurchase activity.

## **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 hurricanes, floods, windstorms, earthquakes, hailstorms, tornados, explosions, severe winter weather, fires, droughts and other natural disasters. Catastrophes can also cause losses in non-property business such as workers' compensation or general liability. In addition to the nature of property business, we believe that economic and geographic trends affecting insured property, including inflation, property value appreciation and geographic concentration, tend to generally increase the size of losses from catastrophic events over time.

We have substantial exposure to unexpected, large losses resulting from future man-made catastrophic events, such as acts of war, acts of terrorism and political instability. These risks are inherently unpredictable. 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 completely eliminate our exposure to unforecasted or unpredictable events and, to the extent that losses from such risks occur, our financial condition and results of operations could be materially adversely affected. Therefore, claims for natural and man-made catastrophic events could expose us to large losses and cause substantial volatility in our results of operations, which could cause the value of our common shares to fluctuate widely. In certain instances, we specifically insure and reinsure risks resulting from terrorism. Even in cases where we attempt to exclude losses from terrorism and certain other similar risks from some coverages written by us, we may not be successful in doing so. Moreover, irrespective

of the clarity and inclusiveness of policy language, there can be no assurance that a court or arbitration panel will limit enforceability of policy language or otherwise issue a ruling adverse to us.

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

For our natural 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 from a single event in any geographic zone. We monitor our exposure to catastrophic events, including earthquake and wind 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. Our models employ both proprietary and vendor-based systems and include cross-line correlations for property, marine, offshore energy, aviation, workers compensation and personal accident. We seek to limit the probable maximum pre-tax loss to a specific level for severe catastrophic events. Currently, we seek to limit our 1-in-250 year return period net probable maximum loss from a severe catastrophic event in any geographic zone to approximately 25% of total shareholders' equity. We reserve the right to change this threshold at any time. Net probable maximum loss estimates are net of expected reinsurance recoveries, before income tax and before excess reinsurance reinstatement premiums. Loss estimates are reflective of the zone indicated and not the entire portfolio. Since hurricanes and windstorms can affect more than one zone and make multiple landfalls, our loss estimates include clash estimates from other zones. Our loss estimates do not represent our maximum exposures and it is highly likely that our actual incurred losses would vary materially from the modeled estimates. There can be no assurances that we will not suffer pre-tax losses greater than 25% of our total shareholders' equity from one or more catastrophic events due to several factors, including the inherent uncertainties in estimating the frequency and severity of such events and the margin of error in making such determinations resulting from potential inaccuracies and inadequacies in the data provided by clients and brokers, the modeling techniques and the application of such techniques or as a result of a decision to change the percentage of shareholders' equity exposed to a single catastrophic event. In addition, actual losses may increase if our reinsurers fail to meet their obligations to us or the reinsurance protections purchased by us are exhausted or are otherwise unavailable. See "Risk Factors—Risk Relating to Our Industry." Depending on business opportunities and the mix of business that may comprise our insurance and reinsurance portfolio, we may seek to adjust our self-imposed limitations on probable maximum pre-tax loss for catastrophe exposed business. See "—Critical Accounting Policies, Estimates and Recent Accounting Pronouncements—Ceded Reinsurance" for a discussion of our catastrophe reinsurance programs.



## **CONTRACTUAL OBLIGATIONS AND COMMERCIAL COMMITMENTS**

### **Letter of Credit and Revolving Credit Facilities**

As of December 31, 2012, we had a \$300.0 million unsecured revolving loan and letter of credit facility and a \$500.0 million secured letter of credit facility (the "Credit Agreement"). Under the terms of the agreement, Arch Re U.S. and Arch Re Bermuda are limited to issuing an aggregate of \$100.0 million of unsecured letters of credit as part of the \$300.0 million unsecured revolving loan. Borrowings of revolving loans may be made by ACGL at a variable rate based on LIBOR or an alternative base rate at our option. Secured letters of credit are available for issuance on behalf of our insurance and reinsurance subsidiaries. The Credit Agreement and related documents are structured such that each party that requests a letter of credit or borrowing does so only for itself and for only its own obligations. Issuance of letters of credit and borrowings under the Credit Agreement are subject to our compliance with certain covenants and conditions, including absence of a material adverse change. These covenants require, among other things, that we maintain a debt to total capital ratio of not greater than 0.35 to 1 and consolidated tangible net worth in excess of \$3.09 billion plus 25% of future aggregate net income for each quarterly period (not including any future net losses) beginning after June 30, 2011 and 25% of future aggregate proceeds from the issuance of common or preferred equity and that our principal insurance and reinsurance subsidiaries maintain at least a "B++" rating from A.M. Best. In addition, certain of our subsidiaries which are party to the Credit Agreement are required to maintain minimum shareholders' equity levels. We were in compliance with all covenants contained in the Credit Agreement at December 31, 2012. The Credit Agreement expires on August 18, 2014.

We have access to other letter of credit facilities for up to a total of \$81.3 million, which are available on a limited basis and for limited purposes (together with the secured portion of the Credit Agreement and these letter of credit facilities, the "LOC Facilities"). The principal purpose of the LOC Facilities is to issue, as required, evergreen standby letters of credit in favor of primary insurance or reinsurance counterparties with which we have entered into reinsurance arrangements to ensure that such counterparties are permitted to take credit for reinsurance obtained from our reinsurance subsidiaries in United States jurisdictions where such subsidiaries are not licensed or otherwise admitted as an insurer, as required under insurance regulations in the United States, and to comply with requirements of Lloyd's of London in connection with qualifying quota share and other arrangements. The amount of letters of credit issued is driven by, among other things, the timing and payment of catastrophe losses, loss development of existing reserves, the payment pattern of such reserves, the further expansion of our business and the loss experience of such business. When issued, certain letters of credit are secured by a portion of our investment portfolio. In addition, the LOC Facilities also require the maintenance of certain covenants, which we were in compliance with at December 31, 2012. At such date, we had approximately \$439.4 million in outstanding letters of credit under the LOC Facilities, which were secured by investments with a fair value of \$514.3 million, and had \$100.0 million of borrowings outstanding under the Credit Agreement.

### **Senior Notes**

In May 2004, ACGL completed a public offering of \$300.0 million principal amount of 7.35% senior notes ("Senior Notes") due May 1, 2034. The Senior Notes are ACGL's senior unsecured obligations and rank equally with all of its existing and future senior unsecured indebtedness. Interest payments on the Senior Notes are due on May 1st and November 1st of each year. ACGL may redeem the Senior Notes at any time and from time to time, in whole or in part, at a "make-whole" redemption price. For 2012, 2011 and 2010, interest expense on the Senior Notes was \$22.1 million. The fair value of the Senior Notes at December 31, 2012 and 2011 was \$379.1 and \$353.8, respectively.

## Investment in Joint Venture

In May 2008, we provided \$100.0 million of funding to Gulf Reinsurance Limited (“Gulf Re”), a newly formed reinsurer based in the Dubai International Financial Centre, pursuant to the joint venture agreement with Gulf Investment Corporation GSC (“GIC”). Under the agreement, Arch Re Bermuda and GIC each own 50% of Gulf Re, which commenced underwriting activities in June 2008. Gulf Re targets the six member states of the Gulf Cooperation Council (“GCC”), which include Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates. Gulf Re provides property and casualty reinsurance primarily in the member states of the GCC. The initial capital of the joint venture consisted of \$200.0 million with an additional \$200.0 million commitment to be funded equally by us and GIC depending on the joint venture’s business needs. We account for our investment in Gulf Re, shown as “Investment in joint venture,” using the equity method and record our equity in the operating results of Gulf Re in “Other income (loss)” on a quarter lag basis.

## Contractual Obligations

The following table provides an analysis of our contractual commitments at December 31, 2012:

	Payment due by period				
	Total	Less than 1 year	1 - 3 years	4 - 5 years	More than 5 years
Debt obligations . . . . .	\$ 400,000	\$ —	\$ 100,000	\$ —	\$ 300,000
Interest expense on long-term debt obligations . . . . .	476,475	23,490	45,060	44,100	363,825
Operating lease obligations . . . . .	137,674	17,685	32,770	27,924	59,295
Purchase obligations . . . . .	21,506	11,387	8,212	1,907	—
Reserve for losses and loss adjustment expenses, gross(1) . . . .	8,933,292	2,571,066	2,905,311	1,369,992	2,086,923
Deposit accounting liabilities(2) . . . .	27,594	1,031	2,989	1,192	22,382
Contractholder payables(3) . . . . .	865,728	249,277	290,346	136,531	189,574
Securities lending collateral(4) . . . . .	52,356	52,356	—	—	—
Investment in Joint Venture(5) . . . . .	100,000	—	—	—	100,000
Unfunded investment commitments(6) . . . . .	778,836	778,836	—	—	—
<b>Total . . . . .</b>	<b>\$11,793,461</b>	<b>\$3,705,128</b>	<b>\$3,384,688</b>	<b>\$1,581,646</b>	<b>\$3,121,999</b>

- (1) The estimated expected contractual commitments related to the reserves for losses and loss adjustment expenses are presented on a gross basis. It should be noted that until a claim has been presented to us, determined to be valid, quantified and settled, there is no known obligation on an individual transaction basis, and while estimable in the aggregate, the timing and amount contain significant uncertainty. Approximately 66% of our reserves for losses and loss adjustment expenses were incurred but not reported at December 31, 2012.
- (2) The estimated expected contractual commitments related to deposit accounting liabilities have been estimated using projected cash flows from the underlying contracts. It should be noted that, due to the nature of such liabilities, the timing and amount contain significant uncertainty.
- (3) Certain insurance policies written by our insurance operations feature large deductibles, primarily in construction and national accounts lines. Under such contracts, we are obligated to pay the claimant for the full amount of the claim and are subsequently reimbursed by the policyholder for the deductible amount. In the event we are unable to collect from the policyholder, we would record an increase to losses and loss adjustment expenses related to such policy.

- (4) As part of our securities lending program, we loan certain fixed income securities to third parties and receive collateral, primarily in the form of cash. The collateral received is reinvested and is reflected as “Investment of funds received under securities lending agreements, at fair value” or “Securities purchased under agreements to resell using funds received under securities lending agreements.” Such collateral is due back to the third parties at the close of the securities lending transaction.
- (5) We have committed an additional \$100.0 million to our investment in Gulf Re depending on the joint venture’s business needs. We do not anticipate that additional funding will be required in the next five years.
- (6) Unfunded investment commitments are callable by our investment managers. We have assumed that such investments will be funded in the next year but the funding may occur over a longer period of time, due to market conditions and other factors.

#### **OFF-BALANCE SHEET ARRANGEMENTS**

We are not party to any transaction, agreement or other contractual arrangement to which an entity unconsolidated with us is a party that management believes is reasonably likely to have a current or future effect on our financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors.

#### **MARKET SENSITIVE INSTRUMENTS AND RISK MANAGEMENT**

Our investment results are subject to a variety of risks, including risks related to changes in the business, financial condition or results of operations of the entities in which we invest, as well as changes in general economic conditions and overall market conditions. We are also 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, 2012. 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, 2012 presents hypothetical losses in cash flows, earnings and fair values of market sensitive instruments which were held by us on December 31, 2012 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 investments and cash.

##### **Investment Market Risk**

*Fixed Income Securities.* We invest in interest rate sensitive securities, primarily debt securities. We consider the effect of interest rate movements on the market value of our fixed maturities, fixed maturities pledged under securities lending agreements, short-term investments and certain of our other

investments which invest in fixed income securities and the corresponding change in unrealized appreciation. As interest rates rise, the market value of our interest rate sensitive securities falls, and the converse is also true. Based on historical observations, there is a low probability that all interest rate yield curves would shift in the same direction at the same time. Furthermore, in recent months interest rate movements in many credit sectors have exhibited a much lower correlation to changes in U.S. Treasury yields. Accordingly, the actual effect of interest rate movements may differ materially from the amounts set forth in the following tables.

The following table summarizes the effect that an immediate, parallel shift in the interest rate yield curve would have had on the portfolio at December 31, 2012 and 2011:

(U.S. dollars in millions)	Interest Rate Shift in Basis Points				
	-100	-50	—	50	100
<b>At December 31, 2012</b>					
Total fair value . . . . .	\$12,463.4	\$12,303.5	\$12,121.9	\$11,937.4	\$11,751.6
Change from base . . . . .	2.82%	1.50%	—	(1.52)%	(3.05)%
Change in unrealized value . . . . .	\$ 341.5	\$ 181.6	\$ —	\$ (184.5)	\$ (370.3)
<b>At December 31, 2011</b>					
Total fair value . . . . .	\$11,320.9	\$11,215.5	\$11,067.5	\$10,905.6	\$10,743.4
Change from base . . . . .	2.29%	1.34%	—	(1.46)%	(2.93)%
Change in unrealized value . . . . .	\$ 253.4	\$ 148.0	\$ —	\$ (161.9)	\$ (324.1)

In addition, we consider the effect of credit spread movements on the market value of our fixed maturities, fixed maturities pledged under securities lending agreements, short-term investments and certain of our other investments and investment funds accounted for using the equity method which invest in fixed income securities and the corresponding change in unrealized appreciation. As credit spreads widen, the fair value of our fixed income securities falls, and the converse is also true.

The following table summarizes the effect that an immediate, parallel shift in credit spreads in a static interest rate environment would have had on the portfolio at December 31, 2012 and 2011:

(U.S. dollars in millions)	Credit Spread Shift in Basis Points				
	-100	-50	—	50	100
<b>At December 31, 2012</b>					
Total fair value . . . . .	\$12,337.5	\$12,242.7	\$12,121.9	\$12,008.8	\$11,894.8
Change from base . . . . .	1.78%	1.00%	—	(0.93)%	(1.87)%
Change in unrealized value . . . . .	\$ 215.6	\$ 120.8	\$ —	\$ (113.1)	\$ (227.1)
<b>At December 31, 2011</b>					
Total fair value . . . . .	\$11,297.6	\$11,189.3	\$11,067.5	\$10,952.5	\$10,836.4
Change from base . . . . .	2.08%	1.10%	—	(1.04)%	(2.09)%
Change in unrealized value . . . . .	\$ 230.1	\$ 121.8	\$ —	\$ (115.0)	\$ (231.1)

Another method that attempts to measure portfolio risk is Value-at-Risk (“VaR”). VaR attempts to take into account a broad cross-section of risks facing a portfolio by utilizing relevant securities volatility data skewed towards the most recent months and quarters. VaR measures the amount of a portfolio at risk for outcomes 1.65 standard deviations from the mean based on normal market conditions over a one year time horizon and is expressed as a percentage of the portfolio’s initial value. In other words, 95% of the time, should the risks taken into account in the VaR model perform per their historical tendencies, the portfolio’s loss in any one year period is expected to be less than or equal to the calculated VaR, stated as a percentage of the measured portfolio’s initial value. As of December 31, 2012, our portfolio’s VaR was estimated to be 2.75%, compared to an estimated 3.23% at December 31, 2011.

*Equity Securities, Privately Held Securities and Other Investments.* Our investment portfolio includes an allocation to equity securities, privately held securities and certain other investments. At December 31, 2012 and 2011, the fair value of our investments in equity securities, privately held securities (excluding our investment in Aeolus LP which is accounted for using the equity method) and certain other investments totaled \$563.7 million and \$508.5 million, respectively. These securities are exposed to price risk, which is the potential loss arising from decreases in fair value. An immediate hypothetical 10% depreciation in the value of each position would reduce the fair value of such investments by approximately \$56.4 million and \$50.8 million at December 31, 2012 and 2011, respectively, and would have decreased book value per common share by approximately \$0.42 and \$0.38, respectively.

*Investment-Related Derivatives.* Derivative instruments may be used to enhance investment performance, replicate investment positions or manage market exposures and duration risk that would be allowed under our investment guidelines if implemented in other ways. The fair values of those derivatives are based on quoted market prices. See note 9, “Derivative Instruments,” of the notes accompanying our consolidated financial Statements for additional disclosures concerning derivatives. At December 31, 2012, the notional value of the net long position of derivative instruments (excluding to-be-announced mortgage backed securities which are included in the fixed income securities analysis above and foreign currency forward contracts which are included in the foreign currency exchange risk analysis below) was \$390.7 million, compared to \$877.9 million at December 31, 2011. A 100 basis point depreciation of the underlying exposure to these derivative instruments at December 31, 2012 and 2011 would have resulted in a reduction in net income of approximately \$3.9 million and \$8.8 million, respectively, and would have decreased book value per common share by \$0.03 and \$0.07, respectively.

For further discussion on investment activity, please refer to “—Financial Condition, Liquidity and Capital Resources—Financial Condition—Investable Assets.”

### **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. Through our subsidiaries and branches located in various foreign countries, we conduct our insurance and reinsurance operations in a variety of local currencies other than the U.S. Dollar. We generally hold investments in foreign currencies which are intended to mitigate our exposure to foreign currency fluctuations in our net insurance liabilities. We may also utilize foreign currency forward contracts and currency options as part of our investment strategy. See Note 9, “Derivative Instruments,” of the notes accompanying our consolidated financial statements for additional information.

The following table provides a summary of our net foreign currency exchange exposures, as well as foreign currency derivatives in place to manage these exposures, at December 31, 2012 and 2011:

(U.S. dollars in thousands, except per share data)	December 31,	
	2012	2011
Assets, net of insurance liabilities, denominated in foreign currencies, excluding shareholders' equity and derivatives . . . . .	\$146,227	\$143,761
Shareholders' equity denominated in foreign currencies(1) . . . . .	290,310	247,135
Net foreign currency forward contracts outstanding(2) . . . . .	(76,517)	(16,569)
Net assets denominated in foreign currencies . . . . .	\$360,020	\$374,327
Pre-tax impact of a hypothetical 10% appreciation of the U.S. Dollar against foreign currencies:		
Shareholders' equity . . . . .	\$ (36,002)	\$ (37,433)
Book value per common share . . . . .	\$ (0.27)	\$ (0.28)
Pre-tax impact of a hypothetical 10% decline of the U.S. Dollar against foreign currencies:		
Shareholders' equity . . . . .	\$ 36,002	\$ 37,433
Book value per common share . . . . .	\$ 0.27	\$ 0.28

(1) Represents capital contributions held in the foreign currencies of our operating units.

(2) Notional value of the outstanding foreign currency forward contracts in U.S. Dollars.

As a result of the current financial and economic environment as well as the potential for additional investment returns, we may not match a portion of our projected liabilities in foreign currencies with investments in the same currencies, which would increase our exposure to foreign currency fluctuations and increase the volatility in our results of operations. Historical observations indicate a low probability that all foreign currency exchange rates would shift against the U.S. Dollar in the same direction and at the same time and, accordingly, the actual effect of foreign currency rate movements may differ materially from the amounts set forth above. For further discussion on foreign exchange activity, please refer to “—Results of Operations.”

### Effects of Inflation

We do not believe that inflation has had a material effect on our consolidated results of operations, except insofar as inflation may affect our reserves for losses and loss adjustment expenses and interest rates. The potential exists, after a catastrophe loss, for the development of inflationary pressures in a local economy. The anticipated effects of inflation on us are considered in our catastrophe loss models. The actual effects of inflation on our results cannot be accurately known until claims are ultimately settled.

### 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 Operation,” which information is hereby incorporated by reference.

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

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## Report of Independent Registered Public Accounting Firm

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

In our opinion, the consolidated financial statements listed in the accompanying index, present fairly, in all material respects, the financial position of Arch Capital Group Ltd. and its subsidiaries (the “Company”) at December 31, 2012 and December 31, 2011, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2012 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedules appearing in Item 15(a)(2) present fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2012, based on criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company’s management is responsible for these financial statements and financial statement schedules, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management’s Annual Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on these financial statements, on the financial statement schedules, and on the Company’s internal control over financial reporting based on our integrated audit. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included 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. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

As discussed in Note 2 to the accompanying consolidated financial statements, the Company changed its method of accounting for costs associated with acquiring or renewing insurance contracts.

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.



New York, New York  
March 1, 2013



**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**CONSOLIDATED BALANCE SHEETS**  
(U.S. dollars in thousands, except share data)

	<b>December 31,</b>	
	<b>2012</b>	<b>2011</b>
<b>Assets</b>		
Investments:		
Fixed maturities available for sale, at fair value (amortized cost: \$9,567,290 and \$9,165,438) . . . . .	\$ 9,839,988	\$ 9,375,604
Short-term investments available for sale, at fair value (amortized cost: \$719,848 and \$909,121) . . . . .	722,121	904,219
Investment of funds received under securities lending, at fair value (amortized cost: \$42,302 and \$48,577) . . . . .	42,531	48,419
Equity securities available for sale, at fair value (cost: \$298,414 and \$299,058) . . . . .	312,749	299,584
Other investments available for sale, at fair value (cost: \$519,955 and \$235,381) . . . . .	549,280	238,111
Investments accounted for using the fair value option . . . . .	917,466	366,903
TALF investments, at fair value (2011 amortized cost: \$373,040) . . . . .	—	387,702
Investments accounted for using the equity method . . . . .	307,105	380,507
Total investments . . . . .	12,691,240	12,001,049
Cash . . . . .	371,041	351,699
Accrued investment income . . . . .	71,748	70,739
Investment in joint venture (cost: \$100,000) . . . . .	107,284	107,576
Fixed maturities and short-term investments pledged under securities lending, at fair value . . . . .	50,848	56,393
Premiums receivable . . . . .	688,873	501,563
Reinsurance recoverable on unpaid and paid losses and loss adjustment expenses . . . . .	1,870,037	1,851,584
Contractholder receivables . . . . .	865,728	748,231
Prepaid reinsurance premiums . . . . .	298,484	265,696
Deferred acquisition costs, net . . . . .	262,822	227,884
Receivable for securities sold . . . . .	19,248	462,891
Other assets . . . . .	519,409	460,052
Total Assets . . . . .	\$17,816,762	\$17,105,357
<b>Liabilities</b>		
Reserve for losses and loss adjustment expenses . . . . .	\$ 8,933,292	\$ 8,456,210
Unearned premiums . . . . .	1,647,978	1,411,872
Reinsurance balances payable . . . . .	188,546	133,866
Contractholder payables . . . . .	865,728	748,231
Senior notes . . . . .	300,000	300,000
Revolving credit agreement borrowings . . . . .	100,000	100,000
TALF borrowings, at fair value (2011 par: \$310,868) . . . . .	—	310,486
Securities lending payable . . . . .	52,356	58,546
Payable for securities purchased . . . . .	37,788	480,230
Other liabilities . . . . .	522,196	513,842
Total Liabilities . . . . .	12,647,884	12,513,283
<b>Commitments and Contingencies</b>		
<b>Shareholders' Equity</b>		
Non-cumulative preferred shares . . . . .	325,000	325,000
Common shares (\$0.0033 par, shares issued: 168,255,572 and 164,636,338) . . . . .	561	549
Additional paid-in capital . . . . .	227,778	161,419
Retained earnings . . . . .	5,354,361	4,796,655
Accumulated other comprehensive income, net of deferred income tax . . . . .	287,017	153,923
Common shares held in treasury, at cost (shares: 34,412,959 and 30,277,993) . . . . .	(1,025,839)	(845,472)
Total Shareholders' Equity . . . . .	5,168,878	4,592,074
Total Liabilities and Shareholders' Equity . . . . .	\$17,816,762	\$17,105,357

See Notes to Consolidated Financial Statements

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF INCOME**  
(U.S. dollars in thousands, except share data)

	Year Ended December 31,		
	2012	2011	2010
<b>Revenues</b>			
Net premiums written . . . . .	\$ 3,052,235	\$ 2,673,326	\$ 2,511,040
Change in unearned premiums . . . . .	(117,095)	(41,511)	41,443
Net premiums earned . . . . .	2,935,140	2,631,815	2,552,483
Net investment income . . . . .	294,895	338,198	364,878
Net realized gains . . . . .	194,228	110,646	252,751
Other-than-temporary impairment losses . . . . .	(12,175)	(13,850)	(13,073)
Less investment impairments recognized in other comprehensive income, before taxes . . . . .	787	4,788	1,752
Net impairment losses recognized in earnings . . . . .	(11,388)	(9,062)	(11,321)
Fee income . . . . .	8,090	3,429	5,365
Equity in net income (loss) of investment funds accounted for using the equity method . . . . .	73,510	(9,605)	61,400
Other income (loss) . . . . .	(12,094)	(2,114)	18,511
Total revenues . . . . .	<u>3,482,381</u>	<u>3,063,307</u>	<u>3,244,067</u>
<b>Expenses</b>			
Losses and loss adjustment expenses . . . . .	1,861,277	1,727,553	1,517,715
Acquisition expenses . . . . .	508,884	462,937	441,202
Other operating expenses . . . . .	465,353	432,122	432,850
Interest expense . . . . .	28,525	31,691	30,007
Net foreign exchange (gains) losses . . . . .	28,955	(17,366)	(28,108)
Total expenses . . . . .	<u>2,892,994</u>	<u>2,636,937</u>	<u>2,393,666</u>
Income before income taxes . . . . .	589,387	426,370	850,401
Income taxes:			
Current tax expense . . . . .	9,004	7,831	19,334
Deferred tax benefit . . . . .	(13,014)	(17,624)	(11,605)
Income tax (benefit) expense . . . . .	(4,010)	(9,793)	7,729
Net income . . . . .	593,397	436,163	842,672
Preferred dividends . . . . .	25,079	25,844	25,844
Loss on repurchase of preferred shares . . . . .	10,612	—	—
Net income available to common shareholders . . . . .	<u>\$ 557,706</u>	<u>\$ 410,319</u>	<u>\$ 816,828</u>
<b>Net income per common share</b>			
Basic . . . . .	\$ 4.15	\$ 3.10	\$ 5.43
Diluted . . . . .	\$ 4.03	\$ 2.97	\$ 5.18
<b>Weighted average common shares and common share equivalents outstanding</b>			
Basic . . . . .	134,446,158	132,221,970	150,545,148
Diluted . . . . .	138,258,847	138,289,702	157,565,157

See Notes to Consolidated Financial Statements

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**  
(U.S. dollars in thousands)

	Year Ended December 31,		
	2012	2011	2010
<b>Comprehensive Income</b>			
Net income . . . . .	\$ 593,397	\$ 436,163	\$ 842,672
Other comprehensive income (loss), net of deferred income tax			
Unrealized appreciation (decline) in value of investments:			
Unrealized holding gains arising during period . . . . .	274,718	93,847	236,736
Portion of other-than-temporary impairment losses recognized in other comprehensive income, net of deferred income tax .	(787)	(4,788)	(1,752)
Reclassification of net realized gains, net of income taxes, included in net income . . . . .	(158,611)	(128,350)	(169,931)
Foreign currency translation adjustments . . . . .	17,774	(11,289)	924
Other comprehensive income (loss) . . . . .	133,094	(50,580)	65,977
Comprehensive Income . . . . .	<u>\$ 726,491</u>	<u>\$ 385,583</u>	<u>\$ 908,649</u>

See Notes to Consolidated Financial Statements

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY**  
(U.S. dollars in thousands)

	Year Ended December 31,		
	2012	2011	2010
<b>Non-Cumulative Preferred Shares</b>			
Balance at beginning of year . . . . .	\$ 325,000	\$ 325,000	\$ 325,000
Shares issued—Series C . . . . .	325,000	—	—
Shares repurchased—Series A and B . . . . .	(325,000)	—	—
Balance at end of period . . . . .	<u>325,000</u>	<u>325,000</u>	<u>325,000</u>
<b>Common Shares</b>			
Balance at beginning of year . . . . .	549	534	548
Common shares issued, net . . . . .	12	15	16
Purchases of common shares under share repurchase program . . . . .	—	—	(30)
Balance at end of year . . . . .	<u>561</u>	<u>549</u>	<u>534</u>
<b>Additional Paid-in Capital</b>			
Balance at beginning of year . . . . .	161,419	110,325	253,466
Common shares issued, net . . . . .	6,823	5,767	4,906
Issue costs on Series C preferred shares . . . . .	(9,398)	—	—
Reversal of issue costs on repurchase of preferred shares . . . . .	10,612	—	—
Exercise of stock options . . . . .	14,218	12,305	37,866
Common shares retired . . . . .	—	—	(217,562)
Amortization of share-based compensation . . . . .	42,303	30,986	31,065
Other . . . . .	1,801	2,036	584
Balance at end of year . . . . .	<u>227,778</u>	<u>161,419</u>	<u>110,325</u>
<b>Retained Earnings</b>			
Balance at beginning of year . . . . .	4,796,655	4,386,336	3,605,809
Cumulative effect of change in accounting principle(1) . . . . .	—	—	(36,301)
Balance at beginning of year, as adjusted . . . . .	4,796,655	4,386,336	3,569,508
Net income . . . . .	593,397	436,163	842,672
Preferred share dividends . . . . .	(25,079)	(25,844)	(25,844)
Loss on repurchase of preferred shares . . . . .	(10,612)	—	—
Balance at end of year . . . . .	<u>5,354,361</u>	<u>4,796,655</u>	<u>4,386,336</u>
<b>Accumulated Other Comprehensive Income</b>			
Balance at beginning of year . . . . .	153,923	204,503	138,526
Change in unrealized appreciation in value of investments, net of deferred income tax . . . . .	116,107	(34,503)	66,805
Portion of other-than-temporary impairment losses recognized in other comprehensive income, net of deferred income tax . . . . .	(787)	(4,788)	(1,752)
Foreign currency translation adjustments, net of deferred income tax . . . . .	17,774	(11,289)	924
Balance at end of year . . . . .	<u>287,017</u>	<u>153,923</u>	<u>204,503</u>
<b>Common Shares Held in Treasury, at Cost</b>			
Balance at beginning of year . . . . .	(845,472)	(549,912)	—
Shares repurchased for treasury . . . . .	(180,367)	(295,560)	(549,912)
Balance at end of year . . . . .	<u>(1,025,839)</u>	<u>(845,472)</u>	<u>(549,912)</u>
Total Shareholders' Equity . . . . .	<u>\$ 5,168,878</u>	<u>\$4,592,074</u>	<u>\$4,476,786</u>

(1) Adoption of accounting guidance regarding costs incurred that can be capitalized by insurance entities.

See Notes to Consolidated Financial Statements

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(U.S. dollars in thousands)

	Year Ended December 31,		
	2012	2011	2010
<b>Operating Activities</b>			
Net income	\$ 593,397	\$ 436,163	\$ 842,672
Adjustments to reconcile net income to net cash provided by operating activities:			
Net realized gains	(199,547)	(113,922)	(262,684)
Net impairment losses recognized in earnings	11,388	9,062	11,321
Equity in net income or loss of investment funds accounted for using the equity method and other income or loss	(43,633)	71,100	(56,035)
Share-based compensation	42,303	30,986	31,065
Changes in:			
Reserve for losses and loss adjustment expenses, net of unpaid losses and loss adjustment expenses recoverable	395,901	274,622	215,570
Unearned premiums, net of prepaid reinsurance premiums	117,095	41,552	(43,337)
Premiums receivable	(120,380)	(7,226)	83,380
Deferred acquisition costs, net	(34,371)	(1,259)	1,395
Reinsurance balances payable	42,740	5,515	(18,978)
Other liabilities	41,049	43,298	(39,196)
Other items, net	75,661	76,221	36,901
Net Cash Provided By Operating Activities	<u>921,603</u>	<u>866,112</u>	<u>802,074</u>
<b>Investing Activities</b>			
Purchases of fixed maturity investments	(17,568,592)	(13,875,635)	(16,936,257)
Purchases of equity securities	(268,999)	(413,024)	(365,842)
Purchases of other investments	(1,000,049)	(593,862)	(523,532)
Proceeds from the sales of fixed maturity investments	16,366,306	12,398,253	16,654,774
Proceeds from the sales of equity securities	313,617	369,503	70,441
Proceeds from the sales of other investments	443,630	543,757	379,100
Proceeds from redemptions and maturities of fixed maturity investments	1,115,594	1,034,489	949,870
Net (purchases) sales of short-term investments	185,919	(2,389)	(341,887)
Change in investment of securities lending collateral	6,190	19,475	141,094
Purchase of business, net of cash acquired	28,948	—	—
Purchases of furniture, equipment and other assets	(18,532)	(18,987)	(11,664)
Net Cash Provided By (Used For) Investing Activities	<u>(395,968)</u>	<u>(538,420)</u>	<u>16,097</u>
<b>Financing Activities</b>			
Proceeds from issuance of Series C preferred shares, net	315,763	—	—
Repurchase of Series A and B preferred shares	(325,000)	—	—
Purchases of common shares under share repurchase program	(172,056)	(287,561)	(761,874)
Proceeds from common shares issued, net	7,033	6,332	27,649
Proceeds from borrowings	—	—	264,526
Repayments of borrowings	(310,868)	(15,352)	(157,057)
Change in securities lending collateral	(6,190)	(19,475)	(141,094)
Other	6,664	4,765	8,057
Preferred dividends paid	(28,381)	(25,844)	(25,844)
Net Cash Used For Financing Activities	<u>(513,035)</u>	<u>(337,135)</u>	<u>(785,637)</u>
Effects of exchange rate changes on foreign currency cash	6,742	(1,598)	(4,365)
Increase (decrease) in cash	19,342	(11,041)	28,169
Cash beginning of year	351,699	362,740	334,571
Cash end of year	<u>\$ 371,041</u>	<u>351,699</u>	<u>362,740</u>

See Notes to Consolidated Financial Statements

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

**1. General**

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 Sirius America Insurance Company, formerly known as White Mountains Reinsurance Company of America, in an asset sale, but retained its surplus and U.S.-licensed reinsurance platform. 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.

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.

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 \$0.0033, 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 accounting principles generally accepted in the United States of America (“GAAP”) and include the accounts of ACGL and its subsidiaries, including Arch Reinsurance Ltd. (“Arch Re Bermuda”), Arch Re U.S., Arch-U.S., Arch Insurance Company, Arch Specialty Insurance Company, Arch Excess & Surplus Insurance Company, Arch Indemnity Insurance Company, Arch Risk Transfer Services Ltd., Arch Reinsurance Europe Underwriting Limited (“Arch Re Europe”), Arch Mortgage Insurance Limited (“Arch Mortgage”), Arch Insurance Company (Europe) Limited (“Arch Insurance Company Europe”) and Lloyd’s of London syndicate 2012 and related companies (“Arch Syndicate 2012”). All significant intercompany transactions and balances have been eliminated in consolidation. The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates and assumptions.

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. Tabular amounts are in U.S. Dollars in thousands, except share amounts, unless otherwise noted.

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

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

*(b) Premium Revenues and Related Expenses*

Insurance premiums written are generally recorded at the policy inception and are primarily earned on a pro rata basis over the terms of the policies for all products, usually 12 months. Premiums written include estimates in the Company's programs, specialty lines, lenders products business and for participation in involuntary pools. Such premium estimates are derived from multiple sources which include the historical experience of the underlying business, similar business and available industry information. Unearned premium reserves represent the portion of premiums written that relates to the unexpired terms of in-force insurance policies.

Reinsurance premiums written include amounts reported by brokers and ceding companies, supplemented by the Company's own estimates of premiums where reports have not been received. The determination of premium estimates requires a review of the Company's experience with the ceding companies, familiarity with each market, the timing of the reported information, an analysis and understanding of the characteristics of each line of business, and management's judgment of the impact of various factors, including premium or loss trends, on the volume of business written and ceded to the Company. On an ongoing basis, the Company's underwriters review the amounts reported by these third parties for reasonableness based on their experience and knowledge of the subject class of business, taking into account the Company's historical experience with the brokers or ceding companies. In addition, reinsurance contracts under which the Company assumes business generally contain specific provisions which allow the Company to perform audits of the ceding company to ensure compliance with the terms and conditions of the contract, including accurate and timely reporting of information. Based on a review of all available information, management establishes premium estimates where reports have not been received. Premium estimates are updated when new information is received and differences between such estimates and actual amounts are recorded in the period in which estimates are changed or the actual amounts are determined.

Reinsurance premiums written are recorded based on the type of contracts the Company writes. 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, premiums are recorded as written based on the terms of the contract. 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, generally, 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.

Reinstatement premiums for the Company's insurance and reinsurance operations are recognized at the time a loss event occurs, where coverage limits for the remaining life of the contract are reinstated under pre-defined contract terms. Reinstatement premiums, if obligatory, are fully earned when recognized. The accrual of reinstatement premiums is based on an estimate of losses and loss adjustment expenses, which reflects management's judgment. Premium estimates are reviewed by management at least quarterly. Such review includes a comparison of actual reported premiums to expected ultimate premiums along with a review of the aging and collection of premium estimates. Based on management's review, the appropriateness of the premium estimates is evaluated, and any adjustment to these estimates is recorded in the period in which it becomes known. Adjustments to

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

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

premium estimates could be material and such adjustments could directly and significantly impact earnings favorably or unfavorably in the period they are determined because the estimated premium may be fully or substantially earned. A significant portion of amounts included as premiums receivable, which represent estimated premiums written, net of commissions, are not currently due based on the terms of the underlying contracts.

Reinsurance premiums written, irrespective of the class of business, are generally earned on a pro rata basis over the terms of the underlying policies or reinsurance contracts. Contracts and policies written on a “losses occurring” basis cover claims that may occur during the term of the contract or policy, which is typically 12 months. Accordingly, the premium is earned evenly over the term. Contracts which are written on a “risks attaching” basis cover claims which attach to the underlying insurance policies written during the terms of such contracts. Premiums earned on such contracts usually extend beyond the original term of the reinsurance contract, typically resulting in recognition of premiums earned over a 24-month period. Certain of the Company’s reinsurance contracts include provisions that adjust premiums or acquisition expenses based upon the experience under the contracts. Premiums written and earned, as well as related acquisition expenses, are recorded based upon the projected experience under such contracts.

The Company also writes certain reinsurance 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 an anticipated margin, which is typically lower than on traditional reinsurance contracts. 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, financial quota share coverages and multi-year retrospectively rated excess of loss coverages. If these contracts are deemed to transfer risk, they are accounted for as reinsurance.

Acquisition expenses and other expenses related to the Company’s underwriting operations that vary with, and are directly related to, the successful acquisition or renewal of business are deferred and amortized over the period in which the related premiums are earned. Acquisition expenses, net of ceding commissions received from reinsurers, consist principally of commissions and premium taxes paid to obtain the Company’s business. Other operating expenses also include expenses that vary with, and are directly related to, the acquisition of business. Deferred acquisition costs, which are based on the related unearned premiums, are carried at their estimated realizable value and take into account anticipated losses and loss adjustment expenses, based on historical and current experience, and anticipated investment income. A premium deficiency occurs if the sum of anticipated losses and loss adjustment expenses, unamortized acquisition costs and maintenance costs and anticipated investment income exceed unearned premiums. A premium deficiency is recorded by charging any unamortized acquisition costs to expense to the extent required in order to eliminate the deficiency. If the premium deficiency exceeds unamortized acquisition costs then a liability is accrued for the excess deficiency. No significant premium deficiency charges were recorded by the Company during 2012, 2011 or 2010.

*(c) Deposit Accounting*

Certain assumed reinsurance contracts, which pursuant to Financial Accounting Standards Board (“FASB”) guidance regarding the accounting and reporting for reinsurance and short-duration and long-duration contracts, are deemed not to transfer insurance risk, are accounted for using the deposit



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

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

method of accounting as prescribed in the FASB guidance regarding the accounting for insurance and reinsurance contracts that do not transfer insurance risk. However, it is possible that the Company could incur financial losses on such contracts. Management exercises significant judgment in the assumptions used in determining whether assumed contracts should be accounted for as reinsurance contracts or deposit insurance contracts. Under the FASB guidance, for those contracts that contain an element of underwriting risk, the estimated profit margin is deferred and amortized over the contract period and such amount is included in the Company's underwriting results. When the estimated profit margin is explicit, the margin is reflected as fee income and any adverse financial results on such contracts are reflected as incurred losses. When the estimated profit margin is implicit, the margin is reflected as an offset to paid losses and any adverse financial results on such contracts are reflected as incurred losses. For those contracts that do not transfer an element of underwriting risk, the projected profit is reflected in earnings over the estimated settlement period using the interest method and such profit is included in investment income. Additional judgments are required when applying the accounting guidance with respect to the revenue recognition criteria for contracts deemed not to transfer insurance risk. Deposit accounting liabilities, which totaled \$27.6 million and \$29.1 million, respectively, at December 31, 2012 and 2011, are included in "Other liabilities" on the Company's balance sheet.

*(d) Retroactive Accounting*

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

*(e) Reinsurance Ceded*

In the normal course of business, the Company purchases reinsurance to increase capacity and to limit the impact of individual losses and events on its underwriting results by reinsuring certain levels of risk with other insurance enterprises or reinsurers. The Company uses pro rata, excess of loss and facultative reinsurance contracts. Reinsurance ceding commissions are recognized as income on a pro rata basis over the period of risk. The portion of such commissions that will be earned in the future is deferred and reported as a reduction to acquisition costs. The accompanying consolidated statement of income reflects premiums and losses and loss adjustment expenses and acquisition costs, net of reinsurance ceded (see Note 4). Ceded unearned premiums are reported as prepaid reinsurance premiums and estimated amounts of reinsurance recoverable on unpaid losses are reported as unpaid losses and loss adjustment expenses recoverable. Reinsurance premiums ceded and unpaid losses and loss adjustment expenses recoverable are estimated in a manner consistent with that of the original policies issued and the terms of the reinsurance contracts. If the reinsurers are unable to satisfy their

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

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

obligations under the agreements, the Company's insurance or reinsurance subsidiaries would be liable for such defaulted amounts.

*(f) Cash*

Cash includes cash equivalents, which are investments with original maturities of three months or less that are not managed by external or internal investment advisors.

*(g) Investments*

The Company currently classifies substantially all of its fixed maturity investments, equity securities and short-term investments as "available for sale" and, accordingly, they are carried at estimated fair value (also known as fair value). The fair value of fixed maturity securities and equity securities is generally determined from quotations received from nationally recognized pricing services, or when such prices are not available, by reference to broker or underwriter bid indications. 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 investment portfolios under the management of external and internal investment managers.

The Company participates in a securities lending program as a mechanism for generating additional interest income on its fixed income portfolio. Under the security lending agreements, certain of its fixed income portfolio securities are loaned to third parties, primarily major brokerage firms, for short periods of time through a lending agent. Such securities have been reclassified as "Fixed maturities and short-term investments pledged under securities lending agreements, at fair value." The Company maintains legal control over the securities it lends, retains the earnings and cash flows associated with the loaned securities and receives a fee from the borrower for the temporary use of the securities. Collateral received, primarily in the form of cash, is required at a rate of 102% of the fair value of the loaned securities including accrued investment income and is monitored and maintained by the lending agent. Such collateral is reinvested and is reflected as "Investment of funds received under securities lending agreements, at fair value."

The Company's investment portfolio includes certain funds that invest in fixed maturity securities which, due to their ownership structure, are accounted for by the Company using the equity method. In applying the equity method, these investments are initially recorded at cost and are subsequently adjusted based on the Company's proportionate share of the net income or loss of the funds (which include changes in the fair value of the underlying securities in the funds). Such investments are generally recorded on a one month lag with some investments reported for on a three month lag based on the availability of reports from the investment funds. Changes in the carrying value of such investments are recorded in net income as "Equity in net income (loss) of investment funds accounted for using the equity method" while changes in the carrying value of the Company's other fixed income investments are recorded as an unrealized gain or loss component of accumulated other comprehensive income in shareholders' equity. As such, fluctuations in the carrying value of the investment funds accounted for using the equity method may increase the volatility of the Company's reported results of operations.

Other investments include funds and separately managed accounts with holdings in Asian and emerging markets, fixed maturities, term loans and other investment strategies. The fair value for certain of the Company's other investments are determined using net asset values ("NAVs") as advised

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

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

by external fund managers. The NAV is based on the fund manager's valuation of the underlying holdings in accordance with the fund's governing documents. Investments in equity securities are carried at fair value in accordance with FASB guidance regarding the accounting for certain investments in debt and equity securities. The Company elected to carry certain other investments and equity securities at fair value under the fair value option afforded by accounting guidance regarding the fair value option for financial assets and liabilities.

The Company invests in limited partner equity interests issued by third party variable interest entities ("VIE"). Such amounts are included in investments accounted for using the equity method, other investments available for sale and investments accounted for using the fair value option. A VIE refers to entities that have characteristics such as (i) insufficient equity at risk to allow the entity to finance its activities without additional financial support or (ii) instances where the equity investors, as a group, do not have the characteristic of a controlling financial interest. If the Company is determined to be the primary beneficiary, it is required to consolidate the VIE. The primary beneficiary is defined as the variable interest holder that is determined to have the controlling financial interest as a result of having both (i) the power to direct the activities of a VIE that most significantly impact the economic performance of the VIE and (ii) the obligation to absorb losses or right to receive benefits from the VIE that could potentially be significant to the VIE. At inception of the VIE as well as on an ongoing basis, the Company determines whether it is the primary beneficiary based on an analysis of the Company's level of involvement in the VIE, the contractual terms, and the overall structure of the VIE. The Company's maximum exposure to loss with respect to these investments is limited to the investment carrying amounts reported in the Company's consolidated balance sheet and any unfunded commitment.

The Company performs quarterly reviews of its investments to determine whether declines in fair value below the cost basis are considered other-than-temporary in accordance with applicable accounting guidance regarding the recognition and presentation of other-than-temporary impairments ("OTTI"). The process of determining whether a security is other-than-temporarily impaired requires judgment and involves analyzing many factors. These factors include (i) an analysis of the liquidity, business prospects and overall financial condition of the issuer, (ii) the time period in which there was a significant decline in value, (iii) the significance of the decline and (iv) the analysis of specific credit events. The Company evaluates the unrealized losses of its equity securities by issuer and forecasts a reasonable period of time by which the fair value of the securities would increase and the Company would recover its cost. If the Company is unable to forecast a reasonable period of time in which to recover the cost of its equity securities, a net impairment loss in earnings equivalent to the entire unrealized loss is recognized.

When there are credit-related losses associated with debt securities for which the Company does not have an intent to sell and it is more likely than not that it will not be required to sell the security before recovery of its cost basis, the amount of the OTTI related to a credit loss is recognized in earnings and the amount of the OTTI related to other factors (e.g., interest rates, market conditions, etc.) is recorded as a component of other comprehensive income (loss). The amount of the credit loss of an impaired debt security is the difference between the amortized cost and the greater of (i) the present value of expected future cash flows and (ii) the fair value of the security. In instances where no credit loss exists but it is more likely than not that the Company will have to sell the debt security prior to the anticipated recovery, the decline in fair value below amortized cost is recognized as an OTTI in earnings. In periods after the recognition of an OTTI on debt securities, the Company accounts for

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

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

such securities as if they had been purchased on the measurement date of the OTTI at an amortized cost basis equal to the previous amortized cost basis less the OTTI recognized in earnings. For debt securities for which OTTI were recognized in earnings, the difference between the new amortized cost basis and the cash flows expected to be collected will be accreted or amortized into net investment income. See Note 7, “Investment Information—Other-Than-Temporary Impairments” for additional information.

Under FASB guidance regarding the accounting for derivative instruments and hedging activities, all derivative financial instruments, including embedded derivative instruments, are required to be recognized as either assets or liabilities in the consolidated balance sheets and measured at fair value. The accounting for gains and losses associated with changes in the fair value of a derivative and the effect on the consolidated financial statements depends on whether it has been designated and qualifies as part of a hedging relationship and whether the hedge is highly effective in achieving offsetting changes in the fair value of the asset or liability hedged. The Company’s investment strategy allows for the use of derivative instruments. Derivative instruments may be used to enhance investment performance, replicate investment positions or manage market exposures and duration risk that would be allowed under the Company’s investment guidelines if implemented in other ways. Pursuant to FASB guidance, these instruments, which have no hedging designation, are recognized as assets and liabilities in the Company’s balance sheet at fair value, based on quoted market prices, and all realized and unrealized contract gains and losses are included in net realized gains and losses in its results of operations.

Net investment income includes interest and dividend income together with amortization of market premiums and discounts and is net of investment management and custody fees. Anticipated prepayments and expected maturities are used in applying the interest method for certain investments such as mortgage and other asset-backed securities. When actual prepayments differ significantly from anticipated prepayments, the effective yield is recalculated to reflect actual payments to date and anticipated future payments. The net investment in such securities is adjusted to the amount that would have existed had the new effective yield been applied since the acquisition of the security. Such adjustments, if any, are included in net investment income when determined. Equity in net income (loss) of investment funds accounted for using the equity method includes changes in the fair value of certain alternative investments accounted for under the equity method.

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

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

The reserve for losses and loss adjustment expenses consists of estimates of unpaid reported losses and loss adjustment expenses and estimates for losses incurred but not reported. The reserve for unpaid reported losses and loss adjustment expenses, established by management based on reports from ceding companies and claims from insureds, excludes estimates of amounts due from insureds related to losses under high deductible policies, 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

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

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

have not been received. The Company's reserves are based on a combination of reserving methods, incorporating both Company and industry loss development patterns. 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, supplemented by industry data where appropriate. Such ratios consider, among other things, rate changes 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. As actual loss information has been reported, the Company has developed its own loss experience and its reserving methods include other actuarial techniques. Over time, such techniques have been given further weight in its reserving process based on the continuing maturation of the Company's reserves. Inherent in the estimates of ultimate losses and loss adjustment 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 adjustment expenses may differ materially from the amounts recorded in the accompanying consolidated financial statements. Losses and loss adjustment expenses are recorded on an undiscounted basis, except for excess workers' compensation and employers' liability business written by the Company's insurance operations.

*(i) Contractholder Receivables and Payables*

Certain insurance policies written by the Company's insurance operations feature large deductibles, primarily in its construction and national accounts lines of business. Under such contracts, the Company is obligated to pay the claimant for the full amount of the claim. The Company is subsequently reimbursed by the policyholder for the deductible amount. These amounts are included on a gross basis in the consolidated balance sheet in contractholder payables and contractholder receivables, respectively. In the event that the Company is unable to collect from the policyholder, the Company would record an increase to losses and loss adjustment expenses related to such policy.

*(j) Foreign Exchange*

Assets and liabilities of foreign operations whose functional currency is not the U.S. Dollar are translated at the prevailing exchange rates at each balance sheet date. Revenues and expenses of such foreign operations are translated at average exchange rates during the year. The net effect of the translation adjustments for foreign operations, net of applicable deferred income taxes, is included in accumulated other comprehensive income. Monetary assets and liabilities, such as premiums receivable and the reserve for losses and loss adjustment expenses, 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. Accounts that are classified as non-monetary, such as deferred acquisition costs and the unearned premium reserves, are not revalued. In the case of foreign currency denominated fixed maturity securities which are classified as "available for sale," the change in exchange rates between the local currency and the Company's functional currency at each balance sheet date is included in unrealized appreciation or decline in value of securities, a component of accumulated other comprehensive income.

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

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

*(k) Income Taxes*

Deferred income taxes reflect the expected future tax consequences 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. The Company considers future taxable income and feasible tax planning strategies in assessing the need for a valuation allowance. In the event the Company determines that it will not be able to realize all or part of its deferred income tax assets in the future, an adjustment to the deferred income tax assets would be charged to income in the period in which such determination is made. In addition, if the Company subsequently assesses that the valuation allowance is no longer needed, a benefit would be recorded to income in the period in which such determination is made. During 2012, the Company established a valuation allowance against certain deferred tax assets. See Note 12 for more information.

The Company recognizes a tax benefit where it concludes that it is more likely than not that the tax benefit will be sustained on audit by the taxing authority based solely on the technical merits of the associated tax position. If the recognition threshold is met, the Company recognizes a tax benefit measured at the largest amount of the tax benefit that, in the Company's judgment, is greater than 50% likely to be realized. The Company records interest and penalties related to unrecognized tax benefits in the provision for income taxes.

*(l) Share-Based Payment Arrangements*

The Company applies a fair value based measurement method in accounting for its share-based payment arrangements with eligible employees and directors. Compensation expense is estimated based on the fair value of the award at the grant date and is recognized in net income over the requisite service period with a corresponding increase in shareholders' equity. No value is attributed to awards that employees forfeit because they fail to satisfy vesting conditions. As such, the number of shares granted is reduced by assumed forfeitures and adjusted based on actual forfeitures until vesting. The Company's share-based payment arrangements generally vest over a three year period with one-third vesting on the first, second and third anniversaries of the grant date. The share-based compensation expense associated with such awards that have graded vesting features and vest based on service conditions only is calculated on a straight-line basis over the requisite service period for the entire award. For awards granted to retirement-eligible employees where no service is required for the employee to retain the award, the grant date fair value is immediately recognized as compensation expense at the grant date because the employee is able to retain the award without continuing to provide service. For employees near retirement eligibility, attribution of compensation cost is over the period from the grant date to the retirement eligibility date. In November 2012, the Company issued off-cycle share-based awards, which will cliff vest on the fifth anniversary of the grant date. The expense for such grant will be amortized on a straight-line basis over the five-year requisite service period. The off-cycle awards have similar terms as the annual award agreements, however with respect to retirement eligible employees service is required for the employee to retain the award. Retirement-eligible employees retiring prior to the fifth anniversary of the grant date will vest in a pro-rated portion of the award commensurate with the service performed. Such employees will receive the vested portion at the end of the five-year cliff period. These charges had no impact on the Company's cash flows or total shareholders' equity. See Note 17 for information relating to the Company's share-based payment awards.

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

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

*(m) Guaranty Fund and Other Related Assessments*

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

*(n) Treasury Shares*

Treasury shares are common shares purchased by the Company and not subsequently cancelled. These shares are recorded at cost and result in a reduction of the Company's shareholders' equity in its Consolidated Balance Sheets.

*(o) Recent Accounting Pronouncements*

Effective January 1, 2012, the Company adopted an Accounting Standards Update ("ASU") issued by the Financial Accounting Standards Board ("FASB") concerning the accounting for costs associated with acquiring or renewing insurance contracts. This guidance was adopted retrospectively and has been applied to all prior period financial information contained in these consolidated financial statements. The impact of the adoption of the new guidance on the consolidated financial statements was as follows:

	<u>As Previously Reported</u>	<u>Effect of Change</u>	<u>As Currently Reported</u>
<b>December 31, 2009</b>			
Deferred acquisition costs, net . . . . .	\$ 280,372	\$(50,528)	\$ 229,844
Other assets(1) . . . . .	469,844	14,227	484,071
Retained earnings . . . . .	3,605,809	(36,301)	3,569,508
<b>Year Ended December 31, 2011</b>			
Other operating expenses . . . . .	\$ 431,480	\$ 642	\$ 432,122
Income tax benefit . . . . .	(9,346)	(447)	(9,793)
Net income . . . . .	436,358	(195)	436,163
Net income per common share—basic . . . . .	\$ 3.10	\$ —	\$ 3.10
Net income per common share—diluted . . . . .	\$ 2.97	\$ —	\$ 2.97
<b>Year Ended December 31, 2010</b>			
Other operating expenses . . . . .	\$ 432,795	\$ 55	\$ 432,850
Income tax expense . . . . .	7,868	(139)	7,729
Net income . . . . .	842,588	84	842,672
Net income per common share—basic . . . . .	\$ 5.43	\$ —	\$ 5.43
Net income per common share—diluted . . . . .	\$ 5.18	\$ —	\$ 5.18

(1) Effect of change equals tax benefit included in "other assets" on the Company's balance sheet.

Effective January 1, 2012, the Company prospectively adopted an ASU that provides clarification or changes to existing fair value measurement and disclosure requirements, including, for example, additional disclosure for fair value measurements categorized within Level 3 of the fair value hierarchy. See Note 8, "Fair Value," for the Company's disclosures on fair value.

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

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

Effective January 1, 2012, the Company adopted an ASU that is intended to increase the prominence of other comprehensive income in the financial statements by allowing only two options for reporting comprehensive income: (1) A single statement that presents the components of net income and total net income, the components of other comprehensive income and total other comprehensive income, and a total for comprehensive income or (2) in a two-statement approach that presents the components of net income and total net income in the first statement. That statement must be immediately followed by a financial statement that presents the components of other comprehensive income, a total for other comprehensive income, and a total for comprehensive income. The adoption of this ASU did not impact the presentation of the Company's consolidated financial statements.

In December 2011, the FASB issued an ASU that expands the required disclosures about financial instruments and derivative instruments that are either offset for balance sheet presentation purposes or subject to an enforceable master netting arrangement or similar arrangement, regardless of whether they are offset for balance sheet presentation purposes. In January 2013, the FASB issued an ASU to clarify that the scope of the ASU on financial instruments applies to derivatives, including bifurcated embedded derivatives, repurchase agreements and reverse repurchase agreements, and securities borrowing and securities lending transactions that are either or subject to an enforceable master netting arrangement or similar agreement. Entities with other types of financial assets and financial liabilities subject to a master netting arrangement or similar agreement also are affected because these amendments make them no longer subject to the disclosure requirements the ASU. These ASUs are effective for interim and annual periods beginning on or after January 1, 2013. These ASUs are disclosure-related only and do not amend existing guidance on offsetting on the balance sheet. As such, the Company does not believe that the adoption of these ASUs will impact the presentation of its consolidated financial statements.

In February 2013, the FASB issued new guidance requiring additional disclosures about reclassification adjustments from AOCI. This guidance will be effective for the 2013 first quarter. As this new guidance is disclosure-related only and does not amend existing guidance on the reporting of net income available to common shareholders or other comprehensive income, adoption will not impact the Company's results of operations, financial condition or liquidity.

**3. Segment Information**

The Company classifies its businesses into two underwriting segments—insurance and reinsurance—and corporate and other (non-underwriting). The Company's insurance and reinsurance operating segments each have segment managers who are responsible for the overall profitability of their respective segments and who are directly accountable to the Company's chief operating decision makers, the Chairman, President and Chief Executive Officer of ACGL and the Chief Financial Officer of ACGL. The chief operating decision makers do not assess performance, measure return on equity or make resource allocation decisions on a line of business basis. The Company determined its reportable operating segments using the management approach described in accounting guidance regarding disclosures about segments of an enterprise and related information.

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



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

**3. Segment Information (Continued)**

consolidated financial statements. Intersegment business is allocated to the segment accountable for the underwriting results.

The insurance segment consists of the Company's insurance underwriting subsidiaries which primarily write on both an admitted and non-admitted basis. Specialty product lines include: casualty; construction; executive assurance; healthcare; lenders products; national accounts; professional liability; programs; property, energy, marine and aviation; surety; travel and accident; and other (consisting of excess workers' compensation, employer's liability, alternative markets and accident and health business).

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

Corporate and other (non-underwriting) includes net investment income, other income (loss), other expenses incurred by the Company, interest expense, net realized gains or losses, net impairment losses recognized in earnings, equity in net income (loss) of investment funds accounted for using the equity method, net foreign exchange gains or losses, income taxes and items related to the Company's non-cumulative preferred shares.

The following tables set forth an analysis of the Company's underwriting income by segment, together with a reconciliation of underwriting income to net income available to common shareholders,

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

**3. Segment Information (Continued)**

summary information regarding net premiums written and earned by major line of business and net premiums written by location:

	<b>Year Ended December 31, 2012</b>		
	<u>Insurance</u>	<u>Reinsurance</u>	<u>Total</u>
Gross premiums written(1) . . . . .	\$ 2,593,959	\$1,282,000	\$ 3,869,161
Net premiums written(1) . . . . .	1,825,334	1,226,901	3,052,235
Net premiums earned(1) . . . . .	\$ 1,800,343	\$1,134,797	\$ 2,935,140
Fee income . . . . .	2,335	5,755	8,090
Losses and loss adjustment expenses . . . . .	(1,283,841)	(577,436)	(1,861,277)
Acquisition expenses, net . . . . .	(298,983)	(209,901)	(508,884)
Other operating expenses . . . . .	(307,489)	(122,546)	(430,035)
Underwriting income (loss) . . . . .	<u>\$ (87,635)</u>	<u>\$ 230,669</u>	143,034
Net investment income . . . . .			294,895
Net realized gains . . . . .			194,228
Net impairment losses recognized in earnings . . . . .			(11,388)
Equity in net income (loss) of investment funds accounted for using the equity method . . . . .			73,510
Other income (loss) . . . . .			(12,094)
Other expenses . . . . .			(35,318)
Interest expense . . . . .			(28,525)
Net foreign exchange losses . . . . .			(28,955)
Income before income taxes . . . . .			589,387
Income tax benefit . . . . .			4,010
Net income . . . . .			593,397
Preferred dividends . . . . .			(25,079)
Loss on repurchase of preferred shares . . . . .			(10,612)
Net income available to common shareholders . . . . .			<u>\$ 557,706</u>
<b>Underwriting Ratios</b>			
Loss ratio . . . . .	71.3%	50.9%	63.4%
Acquisition expense ratio(2) . . . . .	16.5%	18.5%	17.3%
Other operating expense ratio . . . . .	17.1%	10.8%	14.7%
Combined ratio . . . . .	<u>104.9%</u>	<u>80.2%</u>	<u>95.4%</u>

(1) Certain amounts included in the gross premiums written of each segment are related to intersegment transactions. Accordingly, the sum of gross premiums written for each segment does not agree to the total gross premiums written as shown in the table above due to the elimination of intersegment transactions in the total.

(2) The acquisition expense ratio is adjusted to include certain fee income.

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

**3. Segment Information (Continued)**

	<b>Year Ended December 31, 2011</b>		
	<u><b>Insurance</b></u>	<u><b>Reinsurance</b></u>	<u><b>Total</b></u>
Gross premiums written(1) . . . . .	\$ 2,444,485	\$ 998,520	\$ 3,436,456
Net premiums written(1) . . . . .	1,721,279	952,047	2,673,326
Net premiums earned(1) . . . . .	\$ 1,679,047	\$ 952,768	\$ 2,631,815
Fee income . . . . .	2,870	559	3,429
Losses and loss adjustment expenses . . . . .	(1,172,742)	(554,811)	(1,727,553)
Acquisition expenses, net . . . . .	(278,696)	(184,241)	(462,937)
Other operating expenses . . . . .	(307,797)	(92,945)	(400,742)
Underwriting income (loss) . . . . .	<u>\$ (77,318)</u>	<u>\$ 121,330</u>	44,012
Net investment income . . . . .			338,198
Net realized gains . . . . .			110,646
Net impairment losses recognized in earnings . . . . .			(9,062)
Equity in net income (loss) of investment funds accounted for using the equity method . . . . .			(9,605)
Other income (loss) . . . . .			(2,114)
Other expenses . . . . .			(31,380)
Interest expense . . . . .			(31,691)
Net foreign exchange gains . . . . .			17,366
Income before income taxes . . . . .			426,370
Income tax benefit . . . . .			9,793
Net income . . . . .			436,163
Preferred dividends . . . . .			(25,844)
Net income available to common shareholders . . . . .			<u>\$ 410,319</u>
<b>Underwriting Ratios</b> . . . . .			
Loss ratio . . . . .	69.8%	58.2%	65.6%
Acquisition expense ratio(2) . . . . .	16.4%	19.3%	17.5%
Other operating expense ratio . . . . .	18.3%	9.8%	15.2%
Combined ratio . . . . .	<u>104.5%</u>	<u>87.3%</u>	<u>98.3%</u>

(1) Certain amounts included in the gross premiums written of each segment are related to intersegment transactions. Accordingly, the sum of gross premiums written for each segment does not agree to the total gross premiums written as shown in the table above due to the elimination of intersegment transactions in the total.

(2) The acquisition expense ratio is adjusted to include certain fee income.

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

**3. Segment Information (Continued)**

	<b>Year Ended December 31, 2010</b>		
	<u>Insurance</u>	<u>Reinsurance</u>	<u>Total</u>
Gross premiums written(1) . . . . .	\$ 2,402,202	\$ 874,957	\$ 3,266,787
Net premiums written(1) . . . . .	1,658,963	852,077	2,511,040
Net premiums earned(1) . . . . .	\$ 1,651,106	\$ 901,377	\$ 2,552,483
Fee income . . . . .	3,252	2,113	5,365
Losses and loss adjustment expenses . . . . .	(1,117,564)	(400,151)	(1,517,715)
Acquisition expenses, net . . . . .	(263,201)	(178,001)	(441,202)
Other operating expenses . . . . .	(312,732)	(91,250)	(403,982)
Underwriting income . . . . .	<u>\$ (39,139)</u>	<u>\$ 234,088</u>	194,949
Net investment income . . . . .			364,878
Net realized gains . . . . .			252,751
Net impairment losses recognized in earnings . . . . .			(11,321)
Equity in net income of investment funds accounted for using the equity method . . . . .			61,400
Other income . . . . .			18,511
Other expenses . . . . .			(28,868)
Interest expense . . . . .			(30,007)
Net foreign exchange losses . . . . .			28,108
Income before income taxes . . . . .			850,401
Income tax expense . . . . .			(7,729)
Net income . . . . .			842,672
Preferred dividends . . . . .			(25,844)
Net income available to common shareholders . . . . .			<u>\$ 816,828</u>
<b>Underwriting Ratios</b>			
Loss ratio . . . . .	67.7%	44.4%	59.5%
Acquisition expense ratio(2) . . . . .	15.7%	19.7%	17.2%
Other operating expense ratio . . . . .	18.9%	10.1%	15.8%
Combined ratio . . . . .	<u>102.3%</u>	<u>74.2%</u>	<u>92.5%</u>

(1) Certain amounts included in the gross premiums written of each segment are related to intersegment transactions. Accordingly, the sum of gross premiums written for each segment does not agree to the total gross premiums written as shown in the table above due to the elimination of intersegment transactions in the total.

(2) The acquisition expense ratio is adjusted to include certain fee income.

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

**3. Segment Information (Continued)**

<b>INSURANCE SEGMENT</b>	<b>Year Ended December 31,</b>		
	<b>2012</b>	<b>2011</b>	<b>2010</b>
<b>Net premiums written(1)</b>			
Programs	\$ 352,867	\$ 297,985	\$ 273,076
Property, energy, marine and aviation	294,690	335,589	321,529
Professional liability	260,705	237,860	268,176
Executive assurance	250,904	231,405	219,458
Construction	130,201	120,405	112,827
Casualty	112,307	114,235	107,962
Lenders products	86,987	86,694	92,921
National accounts	80,929	80,973	67,925
Travel and accident	80,489	71,940	71,237
Surety	53,271	42,475	34,149
Healthcare	36,814	35,652	37,508
Other(2)	85,170	66,066	52,195
<b>Total</b>	<b>\$1,825,334</b>	<b>\$1,721,279</b>	<b>\$1,658,963</b>
<b>Net premiums earned(1)</b>			
Programs	\$ 326,380	\$ 287,598	\$ 272,406
Property, energy, marine and aviation	313,081	322,510	335,967
Professional liability	258,401	252,037	264,603
Executive assurance	241,791	228,623	218,135
Construction	129,446	112,764	109,394
Casualty	113,597	111,654	109,613
Lenders products	95,838	75,291	71,170
National accounts	79,771	79,542	74,538
Travel and accident	78,050	69,945	66,791
Surety	47,302	41,119	37,967
Healthcare	36,779	35,906	39,722
Other(2)	79,907	62,058	50,800
<b>Total</b>	<b>\$1,800,343</b>	<b>\$1,679,047</b>	<b>\$1,651,106</b>
<b>Net premiums written by client location(1)</b>			
United States	\$1,314,577	\$1,208,007	\$1,183,238
Europe	271,278	273,578	272,348
Asia and Pacific	120,492	119,523	99,776
Other	118,987	120,171	103,601
<b>Total</b>	<b>\$1,825,334</b>	<b>\$1,721,279</b>	<b>\$1,658,963</b>
<b>Net premiums written by underwriting location(1)</b>			
United States	\$1,254,623	\$1,153,835	\$1,133,173
Europe	472,132	463,855	436,483
Other	98,579	103,589	89,307
<b>Total</b>	<b>\$1,825,334</b>	<b>\$1,721,279</b>	<b>\$1,658,963</b>

- (1) Insurance segment results include premiums written and earned assumed through intersegment transactions and exclude premiums written and earned ceded through intersegment transactions.
- (2) Includes excess workers' compensation, employer's liability, alternative markets and accident and health business.

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

**3. Segment Information (Continued)**

<b>REINSURANCE SEGMENT</b>	<b>Year Ended December 31,</b>		
	<b>2012</b>	<b>2011</b>	<b>2010</b>
<b>Net premiums written(1)</b>			
Other specialty(2) . . . . .	\$ 297,962	\$211,019	\$131,158
Property catastrophe . . . . .	283,677	246,793	202,989
Property excluding property catastrophe(3) . . . . .	265,783	226,013	249,791
Casualty(4) . . . . .	216,067	181,957	186,774
Marine and aviation . . . . .	84,649	77,309	77,063
Other(5) . . . . .	78,763	8,956	4,302
Total . . . . .	<u>\$1,226,901</u>	<u>\$952,047</u>	<u>\$852,077</u>
<b>Net premiums earned(1)</b>			
Other specialty(2) . . . . .	\$ 303,805	\$189,093	\$ 95,611
Property catastrophe . . . . .	280,185	238,748	215,148
Property excluding property catastrophe(3) . . . . .	254,338	243,702	282,163
Casualty(4) . . . . .	194,259	196,370	231,338
Marine and aviation . . . . .	76,145	77,819	72,886
Other(5) . . . . .	26,065	7,036	4,231
Total . . . . .	<u>\$1,134,797</u>	<u>\$952,768</u>	<u>\$901,377</u>
<b>Net premiums written(1)</b>			
Pro rata . . . . .	\$ 598,874	\$416,321	\$411,962
Excess of loss . . . . .	628,027	535,726	440,115
Total . . . . .	<u>\$1,226,901</u>	<u>\$952,047</u>	<u>\$852,077</u>
<b>Net premiums earned(1)</b>			
Pro rata . . . . .	\$ 515,764	\$435,311	\$449,532
Excess of loss . . . . .	619,033	517,457	451,845
Total . . . . .	<u>\$1,134,797</u>	<u>\$952,768</u>	<u>\$901,377</u>
<b>Net premiums written by client location(1)</b>			
United States . . . . .	\$ 629,614	\$512,319	\$496,947
Europe . . . . .	341,674	250,809	195,006
Asia and Pacific . . . . .	104,398	75,590	28,116
Bermuda . . . . .	72,864	60,246	75,517
Other . . . . .	78,351	53,083	56,491
Total . . . . .	<u>\$1,226,901</u>	<u>\$952,047</u>	<u>\$852,077</u>
<b>Net premiums written by underwriting location(1)</b>			
Bermuda . . . . .	\$ 595,999	\$531,254	\$461,890
United States . . . . .	379,239	323,731	307,639
Europe . . . . .	223,861	83,892	74,513
Other . . . . .	27,802	13,170	8,035
Total . . . . .	<u>\$1,226,901</u>	<u>\$952,047</u>	<u>\$852,077</u>

- (1) Reinsurance segment results include premiums written and earned assumed through intersegment transactions and exclude premiums written and earned ceded through intersegment transactions.
- (2) Includes U.K. motor, trade credit, surety, workers' compensation catastrophe, accident and health and other.
- (3) Includes facultative business.
- (4) Includes professional liability, executive assurance and healthcare business.
- (5) Includes mortgage, life, casualty clash and other.

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

**4. Reinsurance**

In the normal course of business, the Company's insurance subsidiaries cede a portion of their premium through pro rata and excess of loss reinsurance agreements on a treaty or facultative basis. 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. In addition, the Company's reinsurance subsidiaries may purchase retrocessional coverage as part of their risk management program. 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 or reinsurance subsidiaries would be liable for such defaulted amounts.

The effects of reinsurance on the Company's written and earned premiums and losses and loss adjustment expenses with unaffiliated reinsurers were as follows:

	<u>Year Ended December 31,</u>		
	<u>2012</u>	<u>2011</u>	<u>2010</u>
<b>Premiums Written</b>			
Direct .....	\$2,673,864	\$2,402,153	\$2,338,428
Assumed .....	1,195,297	1,034,303	928,359
Ceded .....	(816,926)	(763,130)	(755,747)
Net .....	<u>\$3,052,235</u>	<u>\$2,673,326</u>	<u>\$2,511,040</u>
<b>Premiums Earned</b>			
Direct .....	\$2,572,078	\$2,357,656	\$2,345,774
Assumed .....	1,165,371	1,034,939	976,911
Ceded .....	(802,309)	(760,780)	(770,202)
Net .....	<u>\$2,935,140</u>	<u>\$2,631,815</u>	<u>\$2,552,483</u>
<b>Losses and Loss Adjustment Expenses</b>			
Direct .....	\$1,725,707	\$1,584,815	\$1,538,131
Assumed .....	578,081	630,466	429,551
Ceded .....	(442,511)	(487,728)	(449,967)
Net .....	<u>\$1,861,277</u>	<u>\$1,727,553</u>	<u>\$1,517,715</u>

The Company monitors the financial condition of its reinsurers and attempts to place coverages only with substantial, financially sound carriers. At December 31, 2012, approximately 87.5% of the Company's reinsurance recoverables on paid and unpaid losses (not including prepaid reinsurance premiums) of \$1.87 billion were due from carriers which had an A.M. Best rating of "A -" or better and the largest reinsurance recoverables from any one carrier was approximately 4.7% of the Company's total shareholders' equity. At December 31, 2011, approximately 90.1% of the Company's reinsurance recoverables on paid and unpaid losses (not including prepaid reinsurance premiums) of \$1.85 billion were due from carriers which had an A.M. Best rating of "A -" or better and the largest reinsurance recoverables from any one carrier was approximately 5.4% of the Company's total shareholders' equity. Although the Company has not experienced any material credit losses to date, an inability of its reinsurers or retrocessionaires to meet their obligations to it over the relevant exposure periods for any reason could have a material adverse effect on its financial condition and results of operations.

**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:

	Year Ended December 31,		
	2012	2011	2010
Reserve for losses and loss adjustment expenses at beginning of year . . . . .	\$ 8,456,210	\$ 8,098,454	\$ 7,873,412
Unpaid losses and loss adjustment expenses recoverable . . . . .	1,818,047	1,703,201	1,659,500
Net reserve for losses and loss adjustment expenses at beginning of year . . . . .	6,638,163	6,395,253	6,213,912
Net incurred losses and loss adjustment expenses relating to losses occurring in:			
Current year . . . . .	2,082,805	2,012,569	1,664,411
Prior years . . . . .	(221,528)	(285,016)	(146,696)
Total net incurred losses and loss adjustment expenses . .	1,861,277	1,727,553	1,517,715
Net losses and loss adjustment expense reserves of acquired business . . . . .	31,977	—	—
Foreign exchange losses (gains) . . . . .	38,184	(32,020)	(29,089)
Net paid losses and loss adjustment expenses relating to losses occurring in:			
Current year . . . . .	(295,984)	(325,273)	(200,789)
Prior years . . . . .	(1,169,395)	(1,127,350)	(1,106,496)
Total net paid losses and loss adjustment expenses . . . . .	(1,465,379)	(1,452,623)	(1,307,285)
Net reserve for losses and loss adjustment expenses at end of year . . . . .	7,104,222	6,638,163	6,395,253
Unpaid losses and loss adjustment expenses recoverable . . . . .	1,829,070	1,818,047	1,703,201
Reserve for losses and loss adjustment expenses at end of year . . . . .	<u>\$ 8,933,292</u>	<u>\$ 8,456,210</u>	<u>\$ 8,098,454</u>

***2012 Prior Year Reserve Development***

During 2012, the Company recorded estimated net favorable development on prior year loss reserves of \$221.5 million, which consisted of \$190.3 million from the reinsurance segment and \$31.2 million from the insurance segment.

The reinsurance segment's net favorable development of \$190.3 million, or 16.8 points of net earned premium, consisted of \$117.6 million from short-tailed lines and \$72.7 million of net favorable development from medium-tailed and long-tailed lines. Favorable development in short-tailed lines included \$92.1 million from property catastrophe and property other than property catastrophe reserves, primarily from the 2008 to 2011 underwriting years. Contained within this release was favorable development of \$16.8 million from the 2005 to 2011 named catastrophic events. The net reduction of loss estimates for the reinsurance segment's short-tailed lines primarily resulted from



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

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

varying levels of reported and paid claims activity than previously anticipated which led to decreases or increases in certain loss ratio selections during 2012. Net favorable development of \$72.7 million in medium-tailed and long-tailed lines included reductions in casualty reserves of \$55.9 million, primarily from the 2003 to 2009 underwriting years, and marine and aviation reserves of \$16.8 million, primarily from the 2008 to 2010 underwriting years. The balance of net favorable development was spread across various lines and underwriting years.

The insurance segment's net favorable development of \$31.2 million, or 1.7 points of net earned premium, consisted of \$79.3 million of net favorable development from short-tailed lines, partially offset by \$48.1 million of net adverse development from medium-tailed and long-tailed lines. Favorable development in short-tailed lines predominantly consisted of \$69.0 million of net favorable development in property lines from the 2007 to 2011 accident years, primarily due to varying levels of reported claims activity, with the balance emanating from travel and accident and lender's products, both primarily from the 2009 to 2011 accident years. Contained within this short tail release was favorable development of \$19.1 million from 2005 to 2011 named catastrophic events. Net adverse development in medium-tailed and long-tailed lines of \$48.1 million included a net increase of \$38.9 million from the insurance segment's U.K. underwriting operations for the 2007 to 2010 accident years, primarily due to an increase in Australian executive assurance reserves. In addition, U.S. primary specialty casualty reserves reflected a net increase of \$23.0 million, primarily from the 2003 to 2005 accident years, and \$19.8 million from U.S. professional liability in the two most recent accident years. Such amounts were partially offset by net favorable development spread across various lines and accident years.

***2011 Prior Year Reserve Development***

During 2011, the Company recorded estimated net favorable development on prior year loss reserves of \$285.0 million, which consisted of \$232.9 million from the reinsurance segment and \$52.1 million from the insurance segment.

The reinsurance segment's net favorable development of \$232.9 million, or 24.4 points of net earned premium, consisted of \$118.5 million from short-tailed lines and \$114.4 million of net favorable development from medium-tailed and long-tailed lines. Favorable development in short-tailed lines included \$97.6 million from property catastrophe and property other than property catastrophe reserves, primarily from the 2007 to 2010 underwriting years. Contained within this release was favorable development of \$19.4 million from the 2005 to 2010 named catastrophic events. The net reduction of loss estimates for the reinsurance segment's short-tailed lines primarily resulted from varying levels of reported and paid claims activity than previously anticipated which led to decreases or increases in certain loss ratio selections during 2011. Net favorable development of \$114.4 million in medium-tailed and long-tailed lines included reductions in casualty reserves of \$99.0 million, primarily from the 2002 to 2007 underwriting years, and marine and aviation reserves of \$15.4 million, primarily from the 2006 to 2010 underwriting years. The balance of net favorable development was spread across various lines and underwriting years.

The insurance segment's net favorable development of \$52.1 million, or 3.1 points of net earned premium, consisted of \$75.7 million of net favorable development from short-tailed lines, partially offset by \$23.6 million of net adverse development from medium-tailed and long-tailed lines. Favorable development in short-tailed lines predominantly consisted of \$68.5 million of net favorable development in property lines from the 2008 to 2010 accident years, primarily due to varying levels of reported

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

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

claims activity, with the balance emanating from surety and lender's products, both primarily from the 2008 to 2010 accident years. Contained within this short tail release was favorable development of \$23.0 million from 2005 to 2011 named catastrophic events. Net adverse development in medium-tailed and long-tailed lines of \$23.6 million included a net increase of \$32.3 million in casualty reserves which consisted of \$14.3 million of adverse development, primarily from the 2005 and 2007 accident years, on New York residential contractors business, \$8.5 million of adverse development on a 2010 accident year energy casualty claim, and \$9.5 million from other commercial claims. In addition, there was a net increase of \$9.8 million in program business, primarily from the 2003 and 2004 accident years. Such amounts were partially offset by net favorable development spread across various lines and accident years.

***2010 Prior Year Reserve Development***

During 2010, the Company recorded estimated net favorable development on prior year loss reserves of \$146.7 million, which consisted of \$127.6 million from the reinsurance segment and \$19.1 million from the insurance segment.

The reinsurance segment's net favorable development of \$127.6 million, or 14.2 points of net earned premium, consisted of \$84.2 million from short-tailed lines and \$43.4 million of net favorable development from medium-tailed and long-tailed lines. Favorable development in short-tailed lines included \$61.0 million from property catastrophe and property other than property catastrophe reserves, primarily from the 2006 to 2009 underwriting years. The net reduction of loss estimates for the reinsurance segment's short-tailed lines primarily resulted from varying levels of reported and paid claims activity than previously anticipated which led to decreases or increases in certain loss ratio selections during 2010. Net favorable development of \$43.4 million in medium-tailed and long-tailed lines included reductions in casualty reserves of \$34.1 million, primarily from the 2002 to 2006 underwriting years, and marine and aviation reserves of \$9.3 million, primarily from the 2003 to 2007 underwriting years. The balance of net favorable development was spread across various lines and underwriting years.

The insurance segment's net favorable development of \$19.1 million, or 1.2 points of net earned premium, consisted of \$56.7 million of net favorable development from short-tailed lines, partially offset by \$37.6 million of net adverse development from medium-tailed and long-tailed lines. Favorable development in short-tailed lines predominantly consisted of \$47.7 million of net favorable development in property lines from the 2005 to 2009 accident years, primarily due to varying levels of reported claims activity, with the balance emanating from alternative markets and lender's products, primarily from the 2005 to 2009 accident years. Net adverse development in medium-tailed and long-tailed lines of \$37.6 million included a net increase of \$37.4 million in casualty reserves from the 2003 to 2005 accident years, which was primarily due to a small number of high severity claims in excess casualty and a high frequency of small claims in specialty casualty. In addition, there was a net increase of \$19.8 million in executive assurance business, primarily from the 2008 and 2009 accident years. Such amounts were partially offset by net favorable development spread across various lines and accident years.

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

**6. Investment in Joint Venture**

In May 2008, the Company provided \$100.0 million of funding to Gulf Reinsurance Limited (“Gulf Re”), a newly formed reinsurer based in the Dubai International Financial Centre, pursuant to the joint venture agreement with Gulf Investment Corporation GSC (“GIC”). Under the agreement, Arch Re Bermuda and GIC each own 50% of Gulf Re, which commenced underwriting activities in June 2008. Gulf Re provides property and casualty reinsurance primarily in the member states of the Gulf Cooperation Council, which include Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates. The initial capital of the joint venture consisted of \$200.0 million with an additional \$200.0 million commitment to be funded equally by the Company and GIC depending on the joint venture’s business needs. The Company accounts for its investment in Gulf Re, shown as “Investment in joint venture,” using the equity method and records its equity in the operating results of Gulf Re in “Other income” on a quarter lag basis.

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

**7. Investment Information**

*Available For Sale Securities*

The following table summarizes the fair value and cost or amortized cost of the Company's securities classified as available for sale:

	<u>Estimated Fair Value</u>	<u>Gross Unrealized Gains</u>	<u>Gross Unrealized Losses</u>	<u>Cost or Amortized Cost</u>	<u>OTTI Unrealized Losses(2)</u>
<i>At December 31, 2012</i>					
Fixed maturities and fixed maturities pledged under securities lending agreements(1):					
Corporate bonds . . . . .	\$ 2,857,513	\$105,798	\$ (6,710)	\$ 2,758,425	\$ (62)
Mortgage backed securities . . . . .	1,532,736	24,809	(7,484)	1,515,411	(9,329)
Municipal bonds . . . . .	1,463,586	62,322	(1,421)	1,402,685	(17)
Commercial mortgage backed securities . . . . .	824,165	37,514	(4,468)	791,119	(270)
U.S. government and government agencies . . . . .	1,131,688	20,178	(1,095)	1,112,605	(19)
Non-U.S. government securities . . . . .	998,901	33,701	(8,860)	974,060	—
Asset backed securities . . . . .	1,073,999	25,528	(5,838)	1,054,309	(3,346)
Total . . . . .	<u>9,882,588</u>	<u>309,850</u>	<u>(35,876)</u>	<u>9,608,614</u>	<u>(13,043)</u>
Equity securities . . . . .	312,749	26,625	(12,290)	298,414	—
Other investments . . . . .	549,281	32,583	(3,257)	519,955	—
Short-term investments . . . . .	730,370	3,522	(1,248)	728,096	—
Total . . . . .	<u>\$11,474,988</u>	<u>\$372,580</u>	<u>\$ (52,671)</u>	<u>\$11,155,079</u>	<u>\$(13,043)</u>
<i>At December 31, 2011</i>					
Fixed maturities and fixed maturities pledged under securities lending agreements(1):					
Corporate bonds . . . . .	\$ 2,596,118	\$ 79,407	\$ (29,922)	\$ 2,546,633	\$ (1,138)
Mortgage backed securities . . . . .	1,592,762	27,633	(23,226)	1,588,355	(20,466)
Municipal bonds . . . . .	1,430,565	77,977	(886)	1,353,474	(105)
Commercial mortgage backed securities . . . . .	1,046,326	28,780	(2,904)	1,020,450	(3,259)
U.S. government and government agencies . . . . .	1,451,993	34,811	(3)	1,417,185	(207)
Non-U.S. government securities . . . . .	737,477	33,486	(17,684)	721,675	—
Asset backed securities . . . . .	576,757	14,649	(10,078)	572,186	(3,876)
Total . . . . .	<u>9,431,998</u>	<u>296,743</u>	<u>(84,703)</u>	<u>9,219,958</u>	<u>(29,051)</u>
Equity securities . . . . .	299,584	22,870	(22,344)	299,058	—
Other investments . . . . .	238,111	8,340	(5,610)	235,381	—
Short-term investments . . . . .	904,219	390	(5,292)	909,121	—
Total . . . . .	<u>\$10,873,912</u>	<u>\$328,343</u>	<u>\$(117,949)</u>	<u>\$10,663,518</u>	<u>\$(29,051)</u>

(1) In securities lending transactions, the Company receives collateral in excess of the fair value of the fixed maturities and short-term investments pledged. For purposes of this table, the Company has excluded the collateral received and reinvested and included the fixed maturities and short-term investments pledged. See "—Securities Lending Agreements."

(2) Represents the total other-than-temporary impairments ("OTTI") recognized in accumulated other comprehensive income ("AOCI"). It does not include the change in fair value subsequent to the impairment measurement date. At December 31, 2012, the net unrealized gain related to securities for which a non-credit OTTI was recognized in AOCI was \$2.0 million, compared to a net unrealized loss of \$18.0 million at December 31, 2011.

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

**7. Investment Information (Continued)**

The following table summarizes, for all available for sale securities in an unrealized loss position, the fair value and gross unrealized loss by length of time the security has been in a continual unrealized loss position:

	Less than 12 Months		12 Months or More		Total	
	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses
<i>At December 31, 2012</i>						
Fixed maturities and fixed maturities pledged under securities lending agreements(1):						
Corporate bonds . . . . .	\$ 490,784	\$ (3,692)	\$ 52,334	\$ (3,018)	\$ 543,118	\$ (6,710)
Mortgage backed securities . . . . .	537,883	(4,290)	60,574	(3,194)	598,457	(7,484)
Municipal bonds . . . . .	147,766	(1,120)	7,052	(301)	154,818	(1,421)
Commercial mortgage backed securities . . . . .	36,649	(2,261)	8,878	(2,207)	45,527	(4,468)
U.S. government and government agencies . . . . .	146,526	(1,095)	—	—	146,526	(1,095)
Non-U.S. government securities . . .	244,827	(1,070)	135,564	(7,790)	380,391	(8,860)
Asset backed securities . . . . .	234,584	(1,508)	57,371	(4,330)	291,955	(5,838)
Total . . . . .	1,839,019	(15,036)	321,773	(20,840)	2,160,792	(35,876)
Equity securities . . . . .	130,385	(10,200)	16,469	(2,090)	146,854	(12,290)
Other investments . . . . .	23,849	(2,474)	35,083	(783)	58,932	(3,257)
Short-term investments . . . . .	57,415	(1,248)	—	—	57,415	(1,248)
Total . . . . .	\$2,050,668	\$(28,958)	\$373,325	\$(23,713)	\$2,423,993	\$ (52,671)
<i>At December 31, 2011</i>						
Fixed maturities and fixed maturities pledged under securities lending agreements(1):						
Corporate bonds . . . . .	\$ 781,635	\$(24,977)	\$ 47,687	\$ (4,945)	\$ 829,322	\$ (29,922)
Mortgage backed securities . . . . .	255,101	(11,988)	44,606	(11,238)	299,707	(23,226)
Municipal bonds . . . . .	39,156	(537)	14,988	(349)	54,144	(886)
Commercial mortgage backed securities . . . . .	87,796	(1,676)	14,582	(1,228)	102,378	(2,904)
U.S. government and government agencies . . . . .	7,059	(3)	—	—	7,059	(3)
Non-U.S. government securities . . .	310,182	(16,139)	20,482	(1,545)	330,664	(17,684)
Asset backed securities . . . . .	260,647	(8,197)	7,317	(1,881)	267,964	(10,078)
Total . . . . .	1,741,576	(63,517)	149,662	(21,186)	1,891,238	(84,703)
Equity securities . . . . .	130,045	(22,039)	1,923	(305)	131,968	(22,344)
Other investments . . . . .	98,605	(3,053)	22,443	(2,557)	121,048	(5,610)
Short-term investments . . . . .	189,100	(5,292)	—	—	189,100	(5,292)
Total . . . . .	\$2,159,326	\$(93,901)	\$174,028	\$(24,048)	\$2,333,354	\$(117,949)

(1) In securities lending transactions, the Company receives collateral in excess of the fair value of the fixed maturities and short-term investments pledged. For purposes of this table, the Company has excluded the collateral received and reinvested and included the fixed maturities and short-term investments pledged. See “—Securities Lending Agreements.”

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

**7. Investment Information (Continued)**

At December 31, 2012, on a lot level basis, approximately 910 security lots out of a total of approximately 4,580 security lots were in an unrealized loss position and the largest single unrealized loss from a single lot in the Company's fixed maturity portfolio was \$2.5 million. At December 31, 2011, on a lot level basis, approximately 1,150 security lots out of a total of approximately 4,520 security lots were in an unrealized loss position and the largest single unrealized loss from a single lot in the Company's fixed maturity portfolio was \$3.0 million.

The contractual maturities of the Company's fixed maturities and fixed maturities pledged under securities lending agreements are shown in the following table. 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.

<b>Maturity</b>	<b>December 31, 2012</b>		<b>December 31, 2011</b>	
	<b>Estimated Fair Value</b>	<b>Amortized Cost</b>	<b>Estimated Fair Value</b>	<b>Amortized Cost</b>
Due in one year or less . . . . .	\$ 446,402	\$ 436,376	\$ 486,986	\$ 476,734
Due after one year through five years . . . . .	3,876,062	3,769,426	2,850,578	2,793,982
Due after five years through 10 years . . . . .	1,949,297	1,869,698	2,532,834	2,441,800
Due after 10 years . . . . .	179,927	172,275	345,755	326,451
	<u>6,451,688</u>	<u>6,247,775</u>	<u>6,216,153</u>	<u>6,038,967</u>
Mortgage backed securities . . . . .	1,532,736	1,515,411	1,592,762	1,588,355
Commercial mortgage backed securities . . . . .	824,165	791,119	1,046,326	1,020,450
Asset backed securities . . . . .	1,073,999	1,054,309	576,757	572,186
Total . . . . .	<u>\$9,882,588</u>	<u>\$9,608,614</u>	<u>\$9,431,998</u>	<u>\$9,219,958</u>

***Securities Lending Agreements***

The Company operates a securities lending program under which certain of its fixed income portfolio securities are loaned to third parties, primarily major brokerage firms, for short periods of time through a lending agent. The Company maintains legal control over the securities it lends, retains the earnings and cash flows associated with the loaned securities and receives a fee from the borrower for the temporary use of the securities. At December 31, 2012, the fair value and amortized cost of fixed maturities and short-term investments pledged under securities lending agreements were \$50.8 million and \$49.6 million, respectively, compared to \$56.4 million and \$54.5 million at December 31, 2011, respectively. At December 31, 2012, the portfolio of collateral backing the Company's securities lending program included approximately \$5.4 million fair value of sub-prime securities with an average credit quality of "CCC/Caa2" from Standard & Poor's Rating Services ("S&P")/ Moody's Investors Service ("Moody's"), compared to \$7.3 million with an average credit quality of "B-/Caa2" from S&P/Moody's at December 31, 2011.

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

**7. Investment Information (Continued)**

*Other Investments*

The following table summarizes the Company's other investments, including available for sale and fair value option components:

	December 31,	
	2012	2011
Available for sale securities:		
Asian and emerging markets . . . . .	\$ 316,860	\$ 65,284
Investment grade fixed income . . . . .	220,410	153,407
Non-investment grade fixed income . . . . .	—	—
Other . . . . .	12,010	19,420
Total available for sale . . . . .	<u>549,280</u>	<u>238,111</u>
Fair value option:		
Term loan investments (par value: \$242,403 and \$118,504) . . . . .	241,304	113,911
Asian and emerging markets . . . . .	24,035	—
Investment grade fixed income . . . . .	69,852	2,381
Non-investment grade fixed income . . . . .	11,093	—
Other . . . . .	181,687	15,429
Total fair value option . . . . .	<u>527,971</u>	<u>131,721</u>
Total . . . . .	<u>\$1,077,251</u>	<u>\$369,832</u>

Certain of the Company's other investments are in investment funds for which the Company has the option to redeem at agreed upon values as described in each investment fund's subscription agreement. Depending on the terms of the various subscription agreements, investments in investment funds may be redeemed daily, monthly, quarterly or on other terms. Two common redemption restrictions which may impact the Company's ability to redeem these investment funds are gates and lockups. A gate is a suspension of redemptions which may be implemented by the general partner or investment manager of the fund in order to defer, in whole or in part, the redemption request in the event the aggregate amount of redemption requests exceeds a predetermined percentage of the investment fund's net assets which may otherwise hinder the general partner or investment manager's ability to liquidate holdings in an orderly fashion in order to generate the cash necessary to fund extraordinarily large redemption payouts. A lockup period is the initial amount of time an investor is contractually required to hold the security before having the ability to redeem. If the investment funds are eligible to be redeemed, the time to redeem such fund can take weeks or months following the notification.

*Fair Value Option*

The Company elected to carry certain fixed maturity securities, equity securities and other investments at fair value under the fair value option afforded by accounting guidance regarding the fair value option for financial assets and liabilities. Changes in fair value of investments accounted for using the fair value option are included in "Net realized gains (losses)." The primary reasons for electing the fair value option were to reflect economic events in earnings on a timely basis and address simplification and cost-benefit considerations.

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

**7. Investment Information (Continued)**

The Company also elected to carry the securities and related borrowings under the Federal Reserve Bank of New York's ("FRBNY") Term Asset-Backed Securities Loan Facility ("TALF") at fair value under the fair value option. The securities purchased under TALF were reflected as "TALF investments, at fair value" and the secured financing from the FRBNY was reflected as "TALF borrowings, at fair value." Changes in fair value for both the securities and borrowings was included in "Net realized gains (losses)," while interest income on the TALF investments was reflected in net investment income and interest expense on the TALF borrowings was reflected in interest expense. The primary reason for electing the fair value option on the TALF investments and TALF borrowings was to mitigate volatility in equity from using different measurement attributes (*i.e.*, TALF investments carried at fair value whereas the related TALF borrowings would be recorded on an accrual basis absent electing the fair value option). During 2012, the Company sold all remaining TALF investments and the related TALF borrowings were extinguished accordingly.

The following table summarizes the Company's assets and liabilities which are accounted for using the fair value option:

	December 31,	
	2012	2011
Fixed maturities . . . . .	\$363,541	\$ 147,779
Other investments . . . . .	527,971	131,721
Equity securities . . . . .	25,954	87,403
Investments accounted for using the fair value option . . . . .	917,466	366,903
Securities sold but not yet purchased(1) . . . . .	(6,924)	(27,178)
TALF investments . . . . .	—	387,702
TALF borrowings . . . . .	—	(310,486)
Net assets accounted for using the fair value option . . . . .	\$910,542	\$ 416,941

(1) Represents the Company's obligations to deliver securities that it did not own at the time of sale. Such amounts are included in "other liabilities" on the Company's consolidated balance sheets.



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

**7. Investment Information (Continued)**

*Net Investment Income*

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

	<b>Year Ended December 31,</b>		
	<b>2012</b>	<b>2011</b>	<b>2010</b>
Fixed maturities . . . . .	\$281,140	\$331,469	\$378,682
Term loan investments . . . . .	15,283	2,854	—
Equity securities . . . . .	7,963	7,332	1,363
Short-term investments . . . . .	1,980	2,174	1,337
Other(1) . . . . .	14,196	19,152	3,882
Gross investment income . . . . .	320,562	362,981	385,264
Investment expenses . . . . .	(25,667)	(24,783)	(20,386)
Net investment income . . . . .	<u>\$294,895</u>	<u>\$338,198</u>	<u>\$364,878</u>

(1) Includes interest on term loan investments (included in “investments accounted for using the fair value option”), dividends on investment funds and other items.

*Net Realized Gains (Losses)*

Net realized gains (losses) were as follows, excluding the other-than-temporary impairment provisions discussed above:

	<b>Year Ended December 31,</b>		
	<b>2012</b>	<b>2011</b>	<b>2010</b>
Available for sale securities:			
Gross gains on investment sales . . . . .	\$247,291	\$ 271,818	\$ 288,898
Gross losses on investment sales . . . . .	(71,722)	(132,166)	(103,327)
Change in fair value of assets and liabilities accounted for using the fair value option:			
Fixed maturities . . . . .	13,195	(12,164)	(489)
Equity securities . . . . .	(73)	(31,519)	14,217
Other investments . . . . .	7,383	(3,272)	—
TALF investments . . . . .	629	1,412	10,176
TALF borrowings . . . . .	(382)	(58)	(735)
Derivative instruments(1) . . . . .	(1,326)	19,851	42,023
Other . . . . .	(767)	(3,256)	1,988
Net realized gains . . . . .	<u>\$194,228</u>	<u>\$ 110,646</u>	<u>\$ 252,751</u>

(1) See Note 9 for information on the Company’s derivative instruments.

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

**7. Investment Information (Continued)**

*Other-Than-Temporary Impairments*

The Company performs quarterly reviews of its available for sale investments in order to determine whether declines in fair value below the amortized cost basis were considered other-than-temporary in accordance with applicable guidance. The following table details the OTTI recognized in earnings by asset class:

	<b>Year Ended December 31,</b>		
	<b>2012</b>	<b>2011</b>	<b>2010</b>
Fixed maturities:			
Mortgage backed securities . . . . .	\$ 2,491	\$5,023	\$ 6,096
Corporate bonds . . . . .	1,512	931	1,406
Non-U.S. government securities . . . . .	261	—	—
Commercial mortgage backed securities . . . . .	211	—	—
Asset backed securities . . . . .	127	10	2,166
U.S. government and government agencies . . . . .	10	—	—
Total . . . . .	<u>4,612</u>	<u>5,964</u>	<u>9,668</u>
Investment of funds received under securities lending agreements . . . . .	87	1,623	1,653
Equity securities . . . . .	<u>6,689</u>	<u>1,475</u>	<u>—</u>
Total OTTI recognized in earnings . . . . .	<u>\$11,388</u>	<u>\$9,062</u>	<u>\$11,321</u>

A description of the methodology and significant inputs used to measure the amount of OTTI in 2012 is as follows:

- Equity securities—the Company utilized information received from asset managers on common stocks, including the business prospects, recent events, industry and market data and other factors and the Company considered the time period over which the equities had been in a continual unrealized loss position. Available positive and negative evidence was reviewed and, following such review, an OTTI was recorded on certain equity securities and the cost basis of such securities was adjusted down accordingly;
- Mortgage backed securities—the Company utilized underlying data provided by asset managers, cash flow projections and additional information from credit agencies in order to determine an expected recovery value for each security. The analysis includes expected cash flow projections under base case and stress case scenarios which modify the expected default expectations and loss severities and slow down prepayment assumptions. The significant inputs in the models include the expected default rates, delinquency rates and foreclosure costs. The expected recovery values were reduced on a number of mortgage backed securities, primarily as a result of increases in expected default expectations and foreclosure costs. The amortized cost basis of the mortgage backed securities were adjusted down, if required, to the expected recovery value calculated in the OTTI review process;
- Corporate bonds—the Company reviewed the business prospects, credit ratings, estimated loss given default factors, foreign currency impacts and information received from asset managers and rating agencies for certain corporate bonds. The amortized cost basis of the corporate bonds

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

**7. Investment Information (Continued)**

was adjusted down, if required, to the expected recovery value calculated in the OTTI review process. In addition, the Company recorded OTTI on a portfolio of global corporate bonds, non-U.S. government securities and U.S. Treasuries in the 2012 second quarter due to its intent to liquidate such portfolio;

- Investment of funds received under securities lending agreements—the Company utilized analysis from its securities lending program manager in order to determine an expected recovery value for certain collateral backing the Company’s securities lending program which was invested in sub-prime securities. The analysis provided expected cash flow projections for the securities using similar criteria as described in the mortgage backed securities section above. The amortized cost basis of the investment of funds received under securities lending agreements was adjusted down, if required, to the expected recovery value calculated in the OTTI review process.

The Company believes that the \$13 million of OTTI included in accumulated other comprehensive income at December 31, 2012 on the securities which were considered by the Company to be impaired was due to market and sector-related factors (*i.e.*, not credit losses). At December 31, 2012, the Company did not intend to sell these securities, or any other securities which were in an unrealized loss position, and determined that it is more likely than not that the Company will not be required to sell such securities before recovery of their cost basis.

The following table provides a roll forward of the amount related to credit losses recognized in earnings for which a portion of an OTTI was recognized in accumulated other comprehensive income:

	<b>Year Ended December 31,</b>		
	<u>2012</u>	<u>2011</u>	<u>2010</u>
Balance at start of year . . . . .	\$66,545	\$ 86,040	\$84,147
Credit loss impairments recognized on securities not previously impaired . . . . .	1,962	3,736	2,501
Credit loss impairments recognized on securities previously impaired . . . . .	2,735	3,850	8,820
Reductions for increases in cash flows expected to be collected that are recognized over the remaining life of the security . . . . .	—	—	—
Reductions for securities sold during the period . . .	<u>(9,241)</u>	<u>(27,081)</u>	<u>(9,428)</u>
Balance at end of year . . . . .	<u>\$62,001</u>	<u>\$ 66,545</u>	<u>\$86,040</u>

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

**7. Investment Information (Continued)**

*Restricted Assets*

The Company is required to maintain assets on deposit, which primarily consist of fixed maturities, with various regulatory authorities to support its insurance and reinsurance operations. The Company's insurance and reinsurance subsidiaries maintain assets in trust accounts as collateral for insurance and reinsurance transactions with affiliated companies and also have investments in segregated portfolios primarily to provide collateral or guarantees for letters of credit to third parties. See Note 14, "Commitments and Contingencies—Letter of Credit and Revolving Credit Facilities," for further details. The following table details the value of the Company's restricted assets:

	<u>December 31, 2012</u>	<u>December 31, 2011</u>
Assets used for collateral or guarantees:		
Affiliated transactions . . . . .	\$4,062,097	\$4,321,535
Third party agreements . . . . .	771,631	757,669
Deposits with U.S. regulatory authorities . . . . .	290,441	288,458
Deposits with non-U.S. regulatory authorities . . . . .	247,321	169,733
Trust funds . . . . .	96,342	60,558
Total restricted assets . . . . .	<u>\$5,467,832</u>	<u>\$5,597,953</u>

*Investment Funds Accounted For Using the Equity Method*

The Company recorded equity in net income related to investment funds accounted for using the equity method of \$73.5 million for 2012, compared to equity in net loss of \$9.6 million for 2011 and equity in net income of \$61.4 million for 2010, respectively. Due to the ownership structure of these investment funds (e.g., limited partnership), which invest in fixed maturity securities, the Company uses the equity method where it does not have a controlling interest and is not the primary beneficiary. In applying the equity method, these investments are initially recorded at cost and are subsequently adjusted based on the Company's proportionate share of the net income or loss of the funds (which include changes in the fair value of the underlying securities in the funds). Such investments are generally recorded on a one month lag with some investments reported for on a three month lag based on the availability of reports from the investment funds. Changes in the carrying value of such investments are recorded in net income as "Equity in net income (loss) of investment funds accounted for using the equity method" while changes in the carrying value of the Company's other fixed income investments are recorded as an unrealized gain or loss component of accumulated other comprehensive income in shareholders' equity. As such, fluctuations in the carrying value of the investment funds accounted for using the equity method may increase the volatility of the Company's reported results of operations. Investment funds accounted for using the equity method (excluding the Company's investment in Aeolus LP) totaled \$302.5 million at December 31, 2012, compared to \$345.3 million at December 31, 2011.

**8. Fair Value**

Accounting guidance regarding fair value measurements addresses how companies should measure fair value when they are required to use a fair value measure for recognition or disclosure purposes under GAAP and provides a common definition of fair value to be used throughout GAAP. It defines

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

**8. Fair Value (Continued)**

fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly fashion between market participants at the measurement date. In addition, it establishes a three-level valuation hierarchy for the disclosure of fair value measurements. The valuation hierarchy is based upon the transparency of inputs to the valuation of an asset or liability as of the measurement date. The level in the hierarchy within which a given fair value measurement falls is determined based on the lowest level input that is significant to the measurement (Level 1 being the highest priority and Level 3 being the lowest priority).

The levels in the hierarchy are defined as follows:

- Level 1: Inputs to the valuation methodology are observable inputs that reflect quoted prices (unadjusted) for *identical* assets or liabilities in *active markets*
- Level 2: Inputs to the valuation methodology include quoted prices for similar assets and liabilities in active markets, and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instrument
- Level 3: Inputs to the valuation methodology are unobservable and significant to the fair value measurement

***Fair Value Measurements on a Recurring Basis***

Following is a description of the valuation methodologies used for securities measured at fair value, as well as the general classification of such securities pursuant to the valuation hierarchy.

The Company determines the existence of an active market based on its judgment as to whether transactions for the financial instrument occur in such market with sufficient frequency and volume to provide reliable pricing information. The independent pricing sources obtain market quotations and actual transaction prices for securities that have quoted prices in active markets. The Company uses quoted values and other data provided by nationally recognized independent pricing sources as inputs into its process for determining fair values of its fixed maturity investments. To validate the techniques or models used by pricing sources, the Company's review process includes, but is not limited to: (i) quantitative analysis (*e.g.*, comparing the quarterly return for each managed portfolio to its target benchmark, with significant differences identified and investigated); (ii) a review of the average number of prices obtained in the pricing process and the range of resulting fair values; (iii) initial and ongoing evaluation of methodologies used by outside parties to calculate fair value including a review of deep dive reports on selected securities which indicated the use of observable inputs in the pricing process; (iv) comparing the fair value estimates to its knowledge of the current market; (v) a comparison of the pricing services' fair values to other pricing services' fair values for the same investments; and (vi) back-testing, which includes randomly selecting purchased or sold securities and comparing the executed prices to the fair value estimates from the pricing service. At December 31, 2012, the Company obtained an average of 2.7 quotes or prices per investment, compared to 2.8 quotes or prices at December 31, 2011. Where multiple quotes or prices were obtained, a price source hierarchy was maintained in order to determine which price source would be used (*i.e.*, a price obtained from a pricing service with more seniority in the hierarchy will be used over a less senior one in all cases). The hierarchy prioritizes pricing services based on availability and reliability and assigns the highest priority

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

**8. Fair Value (Continued)**

to index providers. Based on the above review, the Company will challenge any prices for a security or portfolio which are considered not to be representative of fair value. At December 31, 2012, the Company adjusted certain prices (primarily on structured securities) obtained from the pricing services and substituted alternate prices (primarily broker-dealer quotes) for such securities. Such adjustments did not have a material impact on the overall fair value of the Company's investment portfolio at December 31, 2012.

The independent pricing sources obtain market quotations and actual transaction prices for securities that have quoted prices in active markets. Each source has its own proprietary method for determining the fair value of securities that are not actively traded. In general, these methods involve the use of "matrix pricing" in which the independent pricing source uses observable market inputs including, but not limited to, investment yields, credit risks and spreads, benchmarking of like securities, broker-dealer quotes, reported trades and sector groupings to determine a reasonable fair value. In addition, pricing vendors use model processes, such as an Option Adjusted Spread model, to develop prepayment and interest rate scenarios. The Option Adjusted Spread model is commonly used to estimate fair value for securities such as mortgage backed and asset backed securities. In certain circumstances, when fair values are unavailable from these independent pricing sources, quotes are obtained directly from broker-dealers who are active in the corresponding markets. Such quotes are subject to the validation procedures noted above. Of the \$12.4 billion of financial assets and liabilities measured at fair value at December 31, 2012, approximately \$927.9 million, or 7.5%, were priced using non-binding broker-dealer quotes. Of the \$11.97 billion of financial assets and liabilities measured at fair value at December 31, 2011, approximately \$1.19 billion, or 9.9%, were priced using non-binding broker-dealer quotes.

The Company reviews its securities measured at fair value and discusses the proper classification of such investments with investment advisors and others. A discussion of the general classification of the Company's financial instruments follows:

*Fixed maturities.* The Company determined that all U.S. Treasuries would be classified as Level 1 securities due to observed levels of trading activity, the high number of strongly correlated pricing quotes received on U.S. Treasuries and other factors. Where the Company believes that quoted market prices are not available or that the market is not active, fair values are estimated by using quoted prices of securities with similar characteristics, pricing models or matrix pricing and are generally classified as Level 2 securities. The Company determined that Level 2 securities included corporate bonds, mortgage backed securities, municipal bonds, asset backed securities and non-U.S. government securities. The Company determined that certain Euro-denominated corporate bonds which invest in underlying portfolios of fixed income securities for which there is a low level of transparency around inputs to the valuation process should be classified within Level 3 of the valuation hierarchy and certain other corporate bonds.

*Equity securities.* The Company determined that exchange-traded equity securities would be included in Level 1 as their fair values are based on quoted market prices in active markets. Other equity securities are included in Level 2 of the valuation hierarchy.

*Other investments.* The fair values for certain of the Company's other investments are determined using net asset values ("NAV") as advised by external fund managers. The NAV is based on the fund manager's valuation of the underlying holdings in accordance with the fund's governing documents.

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

**8. Fair Value (Continued)**

Periodically, the Company performs a number of monitoring procedures in order to assess the quality of the NAVs, including regular review and discussion of each fund's performance, regular evaluation of fund performance against applicable benchmarks and the backtesting of the NAVs against audited and interim financial statements. Other investments with liquidity terms allowing the Company to substantially redeem its holdings in a short time frame at the applicable NAV are reflected in Level 2. Other investments with redemption restrictions that prevent the Company from redeeming in the near term are classified in Level 3 of the valuation hierarchy.

*Short-term investments.* The Company determined that certain of its short-term investments held in highly liquid money market-type funds would be included in Level 1 as their fair values are based on quoted market prices in active markets. Other short-term investments are classified in Level 2 of the valuation hierarchy.

*TALF investments and TALF borrowings.* The Company's TALF investments consisted of commercial mortgage backed securities and asset backed securities which were estimated using the procedures noted above for fixed maturities. Prices for the TALF borrowings were based on information received from an independent pricing source which utilized quoted prices of securities with similar characteristics and pricing models to determine fair value. As such, the Company included TALF investments and TALF borrowings in Level 2. During 2012, all remaining TALF investments were sold and the related TALF borrowings were extinguished accordingly.

The Company reviews the classification of its investments each quarter. In the 2010 first quarter, the Company determined that all U.S. Treasuries would be classified as Level 1 securities. Such determination resulted in \$1.09 billion of previously classified as Level 2 being moved into Level 1. No other transfers were made between Level 1 and Level 2 in 2010, 2011 or 2012. In the 2012 fourth quarter, the Company determined that certain other investments priced using a NAV would be included in Level 3 due to a review of the redemption restrictions discussed above. This resulted in a transfer of \$257.8 million from Level 2 into Level 3 in the 2012 fourth quarter. In securities lending transactions, the Company receives collateral in excess of the fair value of the fixed maturities and short-term investments pledged under securities lending agreements. For purposes of the following tables, the Company has excluded the collateral received and reinvested and included the fixed maturities and short-term investments pledged under securities lending agreements, at fair value.

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

**8. Fair Value (Continued)**

The following table presents the Company's financial assets and liabilities measured at fair value by level at December 31, 2012:

	Fair Value Measurement Using:			
	Estimated Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<i>Assets measured at fair value:</i>				
Available for sale securities:				
Fixed maturities and fixed maturities pledged under securities lending agreements(1):				
Corporate bonds . . . . .	\$ 2,857,513	\$ —	\$2,759,109	\$ 98,404
Mortgage backed securities . . . . .	1,532,736	—	1,532,736	—
Municipal bonds . . . . .	1,463,586	—	1,463,586	—
Commercial mortgage backed securities . . . . .	824,165	—	824,165	—
U.S. government and government agencies . . . . .	1,131,688	1,131,688	—	—
Non-U.S. government securities . . . . .	998,901	—	998,901	—
Asset backed securities . . . . .	1,073,999	—	1,073,999	—
Total . . . . .	9,882,588	1,131,688	8,652,496	98,404
Equity securities . . . . .	312,749	312,666	83	—
Other investments . . . . .	549,281	—	365,078	184,203
Short-term investments . . . . .	730,370	678,442	51,928	—
Fair value option:				
Investments accounted for using the fair value option:				
Corporate bonds . . . . .	275,132	—	275,132	—
Non-U.S. government bonds . . . . .	88,409	—	88,409	—
Equity securities . . . . .	25,954	25,954	—	—
Other investments . . . . .	527,971	—	332,621	195,350
Total . . . . .	917,466	25,954	696,162	195,350
Total assets measured at fair value . . . . .	\$12,392,454	\$2,148,750	\$9,765,747	\$477,957
<i>Liabilities measured at fair value:</i>				
Fair value option:				
Securities sold but not yet purchased(2) . . . . .	\$ 6,924	\$ 6,924	\$ —	\$ —
Total liabilities measured at fair value . . . . .	\$ 6,924	\$ 6,924	\$ —	\$ —

(1) In securities lending transactions, the Company receives collateral in excess of the fair value of the fixed maturities and short-term investments pledged. For purposes of this table, the Company has excluded the collateral received and reinvested and included the fixed maturities and short-term investments pledged.

(2) Represents the Company's obligation to deliver securities that it did not own at the time of sale. Such amounts are included in "other liabilities" on the Company's consolidated balance sheets.



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

**8. Fair Value (Continued)**

The following table presents the Company's financial assets and liabilities measured at fair value by level at December 31, 2011:

	Estimated Fair Value	Fair Value Measurement Using:		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<i>Assets measured at fair value:</i>				
Available for sale securities:				
Fixed maturities and fixed maturities pledged under securities lending agreements(1):				
Corporate bonds . . . . .	\$ 2,596,118	\$ —	\$2,504,027	\$92,091
Mortgage backed securities . . . . .	1,592,762	—	1,592,762	—
Municipal bonds . . . . .	1,430,565	—	1,430,565	—
Commercial mortgage backed securities . . . . .	1,046,326	—	1,046,326	—
U.S. government and government agencies . . . . .	1,451,993	1,451,993	—	—
Non-U.S. government securities . . . . .	737,477	—	737,477	—
Asset backed securities . . . . .	576,757	—	576,757	—
Total . . . . .	9,431,998	1,451,993	7,887,914	92,091
Equity securities . . . . .	299,584	299,528	56	—
Other investments . . . . .	238,111	—	232,987	5,124
Short-term investments . . . . .	904,219	837,371	66,848	—
Fair value option:				
Investments accounted for using the fair value option:				
Corporate bonds . . . . .	122,935	—	122,935	—
Non-U.S. government bonds . . . . .	24,844	—	24,844	—
Equity securities . . . . .	87,403	87,403	—	—
Other investments . . . . .	131,721	—	131,721	—
Total . . . . .	366,903	87,403	279,500	—
TALF investments . . . . .	387,702	—	387,702	—
Total assets measured at fair value . . . . .	<u>\$11,628,517</u>	<u>\$2,676,295</u>	<u>\$8,855,007</u>	<u>\$97,215</u>
<i>Liabilities measured at fair value:</i>				
Fair value option:				
TALF borrowings . . . . .	\$ 310,486	\$ —	\$ 310,486	\$ —
Securities sold but not yet purchased(2) . . . . .	27,178	27,178	—	—
Total liabilities measured at fair value . . . . .	<u>\$ 337,664</u>	<u>\$ 27,178</u>	<u>\$ 310,486</u>	<u>\$ —</u>

(1) In securities lending transactions, the Company receives collateral in excess of the fair value of the fixed maturities and short-term investments pledged. For purposes of this table, the Company has excluded the collateral received and reinvested and included the fixed maturities and short-term investments pledged.

(2) Represents the Company's obligation to deliver securities that it did not own at the time of sale. Such amounts are included in "other liabilities" on the Company's consolidated balance sheets.

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

**8. Fair Value (Continued)**

The following table presents a reconciliation of the beginning and ending balances for all investments measured at fair value on a recurring basis using Level 3 inputs for 2012, 2011 and 2010:

	Fair Value Measurements Using: Significant Unobservable Inputs (Level 3)			
	Available for sale		Fair value option	
	Corporate Bonds	Other Investments	Other Investments	Total
<b>Year Ended December 31, 2012</b>				
Balance at beginning of year . . . . .	\$ 92,091	\$ 5,124	\$ —	\$ 97,215
Total gains or (losses) (realized/unrealized)				
Included in earnings(1) . . . . .	4,419	1,829	(611)	5,637
Included in other comprehensive income . . . . .	2,049	1,026	—	3,075
Purchases, issuances and settlements				
Purchases . . . . .	—	25,000	91,232	116,232
Issuances . . . . .	—	—	—	—
Sales . . . . .	—	—	—	—
Settlements . . . . .	(155)	(1,829)	—	(1,984)
Transfers in and/or out of Level 3 . . . . .	—	153,053	104,729	257,782
Balance at end of year . . . . .	<u>\$ 98,404</u>	<u>\$184,203</u>	<u>\$195,350</u>	<u>\$477,957</u>
<b>Year Ended December 31, 2011</b>				
Balance at beginning of year . . . . .	\$153,509	\$ 7,858	\$ —	\$161,367
Total gains or (losses) (realized/unrealized)				
Included in earnings(1) . . . . .	2,276	1,709	—	3,985
Included in other comprehensive income . . . . .	(4,515)	(3,777)	—	(8,292)
Purchases, issuances and settlements				
Purchases . . . . .	—	—	—	—
Issuances . . . . .	—	—	—	—
Sales . . . . .	(49,947)	(666)	—	(50,613)
Settlements . . . . .	(9,232)	—	—	(9,232)
Transfers in and/or out of Level 3 . . . . .	—	—	—	—
Balance at end of year . . . . .	<u>\$ 92,091</u>	<u>\$ 5,124</u>	<u>\$ —</u>	<u>\$ 97,215</u>
<b>Year Ended December 31, 2010</b>				
Balance at beginning of year . . . . .	\$178,385	\$ 49,668	\$ —	\$228,053
Total gains or (losses) (realized/unrealized)				
Included in earnings(1) . . . . .	11,687	3,250	—	14,937
Included in other comprehensive income . . . . .	(8,744)	(694)	—	(9,438)
Purchases, issuances and settlements				
Purchases . . . . .	—	—	—	—
Issuances . . . . .	—	—	—	—
Sales . . . . .	—	(42,157)	—	(42,157)
Settlements . . . . .	(27,819)	(2,209)	—	(30,028)
Transfers in and/or out of Level 3 . . . . .	—	—	—	—
Balance at end of year . . . . .	<u>\$153,509</u>	<u>\$ 7,858</u>	<u>\$ —</u>	<u>\$161,367</u>

(1) Gains or losses on corporate bonds and other investments were recorded in net realized gains (losses).

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

**8. Fair Value (Continued)**

The amount of total gains for 2012 included in earnings attributable to the change in unrealized gains or losses relating to assets still held at December 31, 2012 was \$5.6 million. The amount of total gains for 2011 included in earnings attributable to the change in unrealized gains or losses relating to assets still held at December 31, 2011 was \$0.6 million. The amount of total losses for 2010 included in earnings attributable to the change in unrealized gains or losses relating to assets still held at December 31, 2010 was \$14.9 million.

*Fair Value Measurements on a Non-Recurring Basis*

The Company measures the fair value of certain assets on a non-recurring basis, generally quarterly, annually, or when events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. These assets include investment funds accounted for using the equity method, investment in joint venture, certain other investments, goodwill and intangible assets, and long-lived assets. The Company uses a variety of techniques to measure the fair value of these assets when appropriate, as described below:

*Investments accounted for using the equity method and Investment in joint venture.* When the Company determines that the carrying value of these assets may not be recoverable, the Company records the assets at fair value with the loss recognized in income. In such cases, the Company measures the fair value of these assets using the techniques discussed above in “—Fair Value Measurements on a Recurring Basis.”

*Goodwill and Intangible Assets.* The goodwill and intangible assets of acquired businesses, which totaled \$38.3 million and \$22.3 million, respectively, at December 31, 2012 and 2011, is included in “Other assets” in the Company’s balance sheet and represents the difference between the purchase price and the fair value of the net tangible assets of the acquired businesses. The Company tests goodwill and intangible assets for impairment whenever events or changes in circumstances indicate the carrying amount may not be recoverable, but at least annually for goodwill. When the Company determines goodwill and intangible assets may be impaired, the Company uses techniques including discounted expected future cash flows, to measure fair value.

*Long-Lived Assets.* The Company tests its long-lived assets for impairment whenever events or changes in circumstances indicate the carrying amount of a long-lived asset may not be recoverable.

**9. Derivative Instruments**

The Company’s investment strategy allows for the use of derivative securities. The Company’s derivative instruments are recorded on its consolidated balance sheets at fair value. The fair values of those derivatives are based on quoted market prices. All realized and unrealized contract gains and losses are reflected in the Company’s results of operations. The Company utilizes exchange traded U.S. Treasury note, Eurodollar and other futures contracts and commodity futures to manage portfolio duration or replicate investment positions in its portfolios. Certain of the Company’s investments are managed in portfolios which incorporate the use of foreign currency forward contracts which are intended to provide an economic hedge against foreign currency movements. In addition, the Company utilizes other foreign currency forward contracts and currency options as part of its investment strategy.

The Company purchases to-be-announced mortgage backed securities (“TBAs”) as part of its investment strategy. TBAs represent commitments to purchase a future issuance of agency mortgage

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

**9. Derivative Instruments (Continued)**

backed securities. For the period between purchase of a TBA and issuance of the underlying security, the Company's position is accounted for as a derivative. The Company purchases TBAs in both long and short positions to enhance investment performance and as part of its overall investment strategy. The Company did not hold any derivatives which were designated as hedging instruments at December 31, 2012 or December 31, 2011.

The following table summarizes information on the fair values and notional values of the Company's derivative instruments. The fair values of TBAs is included in fixed maturities while the fair value of all other derivatives is included in other investments in the consolidated balance sheets.

	<u>Asset Derivatives</u>		<u>Liability Derivatives</u>	
	<u>Estimated Fair Value</u>	<u>Notional Value</u>	<u>Estimated Fair Value</u>	<u>Notional Value</u>
<i>At December 31, 2012</i>				
Futures contracts . . . . .	\$ 52	\$300,500	\$ (52)	\$ 39,900
Foreign currency forward contracts . . . . .	2,809	186,059	(2,678)	210,409
TBAs . . . . .	23,599	22,000	(4,346)	4,000
Other . . . . .	448	21,850	(676)	28,491
Total . . . . .	<u>\$26,908</u>		<u>\$ (7,752)</u>	
<i>At December 31, 2011</i>				
Futures contracts . . . . .	\$ 771	\$364,035	\$ (145)	\$ 16,275
Foreign currency forward contracts . . . . .	11,937	352,992	(6,558)	253,733
TBAs . . . . .	23,661	23,000	(2,178)	2,000
Other . . . . .	4,005	187,613	(2,048)	309,931
Total . . . . .	<u>\$40,374</u>		<u>\$ (10,929)</u>	

The following table summarizes derivative instrument activity, which is reflected as net realized gains or losses in the consolidated statements of operations:

<u>Derivatives not designated as hedging instruments</u>	<u>Year Ended December 31,</u>		
	<u>2012</u>	<u>2011</u>	<u>2010</u>
Futures contracts . . . . .	\$(3,307)	\$ 2,293	\$36,675
Foreign currency forward contracts . . . . .	(214)	895	(5,266)
TBAs . . . . .	4,413	12,329	6,311
Other . . . . .	(2,218)	4,334	4,303
Total . . . . .	<u>\$(1,326)</u>	<u>\$19,851</u>	<u>\$42,023</u>

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

**10. Other Comprehensive Income (Loss)**

Following are the related tax effects allocated to each component of other comprehensive income (loss):

	<u>Before Tax Amount</u>	<u>Tax Expense (Benefit)</u>	<u>Net of Tax Amount</u>
<b>Year Ended December 31, 2012</b>			
Unrealized appreciation (decline) in value of investments:			
Unrealized holding gains arising during period . . . . .	\$279,704	\$ 4,986	\$274,718
Portion of other-than-temporary impairment losses recognized in other comprehensive income (loss) . . . . .	(787)	—	(787)
Less reclassification of net realized gains included in net income . . .	168,756	10,145	158,611
Foreign currency translation adjustments . . . . .	18,748	974	17,774
Other comprehensive income (loss) . . . . .	<u>\$128,909</u>	<u>\$ (4,185)</u>	<u>\$133,094</u>
<b>Year Ended December 31, 2011</b>			
Unrealized appreciation (decline) in value of investments:			
Unrealized holding gains arising during period . . . . .	\$112,834	\$18,987	\$ 93,847
Portion of other-than-temporary impairment losses recognized in other comprehensive income (loss) . . . . .	(4,788)	—	(4,788)
Less reclassification of net realized gains included in net income . . .	130,690	2,340	128,350
Foreign currency translation adjustments . . . . .	(12,461)	(1,172)	(11,289)
Other comprehensive income (loss) . . . . .	<u>\$(35,105)</u>	<u>\$15,475</u>	<u>\$(50,580)</u>
<b>Year Ended December 31, 2010</b>			
Unrealized appreciation (decline) in value of investments:			
Unrealized holding gains arising during period . . . . .	\$242,515	\$ 5,779	\$236,736
Portion of other-than-temporary impairment losses recognized in other comprehensive income . . . . .	(1,752)	—	(1,752)
Less reclassification of net realized gains included in net income . . .	175,628	5,697	169,931
Foreign currency translation adjustments . . . . .	2,312	1,388	924
Other comprehensive income . . . . .	<u>\$ 67,447</u>	<u>\$ 1,470</u>	<u>\$ 65,977</u>

**11. Earnings Per Common Share**

The calculation of basic earnings per common share excludes dilutive securities and is computed by dividing income available to common shareholders by the weighted average number of Common

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

**11. Earnings Per Common Share (Continued)**

Shares, including vested restricted shares, outstanding for the periods. The following table sets forth the computation of basic and diluted earnings per common share:

	Year Ended December 31,		
	2012	2011	2010
<b>Numerator:</b>			
Net income . . . . .	\$ 593,397	\$ 436,163	\$ 842,672
Preferred dividends . . . . .	(25,079)	(25,844)	(25,844)
Loss on repurchase of preferred shares . . . . .	(10,612)	—	—
Net income available to common shareholders . . . . .	<u>\$ 557,706</u>	<u>\$ 410,319</u>	<u>\$ 816,828</u>
<b>Denominator:</b>			
Weighted average common shares outstanding—basic . .	134,446,158	132,221,970	150,545,148
Effect of dilutive common share equivalents:			
Nonvested restricted shares . . . . .	857,174	940,612	1,044,444
Stock options(1) . . . . .	<u>2,955,515</u>	<u>5,127,120</u>	<u>5,975,565</u>
Weighted average common shares and common share equivalents outstanding—diluted . . . . .	<u>138,258,847</u>	<u>138,289,702</u>	<u>157,565,157</u>
Earnings per common share:			
Basic . . . . .	<u>\$ 4.15</u>	<u>\$ 3.10</u>	<u>\$ 5.43</u>
Diluted . . . . .	<u>\$ 4.03</u>	<u>\$ 2.97</u>	<u>\$ 5.18</u>

(1) Certain stock options were not included in the computation of diluted earnings per share where the exercise price of the stock options exceeded the average market price and would have been anti-dilutive or where, when applying the treasury stock method to in-the-money options, the sum of the proceeds, including unrecognized compensation, exceeded the average market price and would have been anti-dilutive. For 2012, 2011 and 2010, the number of stock options excluded were 839,414, 462,020 and 577,155, respectively.

**12. 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 31, 2035. 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.

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

**12. Income Taxes (Continued)**

ACGL and its non-U.S. subsidiaries will be subject to U.S. federal income tax only to the extent that they derive 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 and its non-U.S. subsidiaries will be subject to a withholding tax on dividends from U.S. investments and interest from certain U.S. payors (subject to reduction by any applicable income tax treaty). 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 U.S. excise taxes on insurance and reinsurance premium and withholding taxes on dividends and certain other U.S. source investment income). 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 has subsidiaries and branches that operate in various jurisdictions around the world that are subject to tax in the jurisdictions in which they operate. The significant jurisdictions in which ACGL's subsidiaries and branches are subject to tax include the United States, United Kingdom, Ireland, Canada, Switzerland and Denmark.

The components of income taxes attributable to operations were as follows:

	<u>Year Ended December 31,</u>		
	<u>2012</u>	<u>2011</u>	<u>2010</u>
<b>Current expense (benefit):</b>			
United States . . . . .	\$ 8,267	\$ (214)	\$ 11,300
Non-U.S. . . . .	737	8,045	8,034
	<u>9,004</u>	<u>7,831</u>	<u>19,334</u>
<b>Deferred (benefit) expense:</b>			
United States . . . . .	(9,779)	(11,563)	(12,976)
Non-U.S. . . . .	(3,235)	(6,061)	1,371
	<u>(13,014)</u>	<u>(17,624)</u>	<u>(11,605)</u>
Income tax (benefit) expense . . . . .	<u>\$ (4,010)</u>	<u>\$ (9,793)</u>	<u>\$ 7,729</u>

The Company's income or loss before income taxes was earned in the following jurisdictions:

	<u>Year Ended December 31,</u>		
	<u>2012</u>	<u>2011</u>	<u>2010</u>
<b>Income (Loss) Before Income Taxes:</b>			
Bermuda . . . . .	\$609,710	\$454,673	\$823,167
United States . . . . .	9,600	(18,662)	23,142
Other . . . . .	(29,923)	(9,641)	4,092
Total . . . . .	<u>\$589,387</u>	<u>\$426,370</u>	<u>\$850,401</u>

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

**12. Income Taxes (Continued)**

The expected tax provision computed on pre-tax income or loss at the weighted average tax rate has been calculated as the sum of the pre-tax income in each jurisdiction multiplied by that jurisdiction's applicable statutory tax rate. The statutory tax rates by jurisdiction were as follows: Bermuda (0.0%), United States (35.0%), United Kingdom (24.5%), Ireland (12.5%), Denmark (25.0%) and the Netherlands (23.3%).

A reconciliation of the difference between the provision for income taxes and the expected tax provision at the weighted average tax rate follows:

	<u>Year Ended December 31,</u>		
	<u>2012</u>	<u>2011</u>	<u>2010</u>
Expected income tax (benefit) expense computed on pre-tax income at weighted average income tax rate . . . . .	\$(3,426)	\$(5,388)	\$10,016
Addition (reduction) in income tax expense (benefit) resulting from:			
Tax-exempt investment income . . . . .	(9,257)	(8,885)	(8,281)
Meals and entertainment . . . . .	688	633	657
State taxes, net of U.S. federal tax benefit . . . . .	270	309	402
U.S. operations' foreign taxes, net of U.S. federal tax benefit . . . . .	544	(402)	(253)
Prior year adjustment . . . . .	(1,581)	(91)	677
Non deductible foreign exchange gains & losses . . . . .	(436)	978	1,067
Changes in applicable tax rate . . . . .	1,193	217	1,469
Dividend withholding taxes . . . . .	2,511	2,237	718
Change in valuation allowance . . . . .	4,281	—	—
Other . . . . .	1,203	599	1,257
Income tax (benefit) expense . . . . .	<u>\$(4,010)</u>	<u>\$(9,793)</u>	<u>\$ 7,729</u>

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 by the Company's U.S. operating subsidiaries of existing net operating losses. Utilization by such subsidiaries of the net operating losses is limited to approximately \$2.4 million per year in accordance with Section 382 of the Internal Revenue Code of 1986 as amended (the "Code").

The Company has net operating loss carryforwards in its U.S. operating subsidiaries totaling \$5.0 million at December 31, 2012. Such net operating losses are currently available to offset future taxable income of the subsidiaries. Under applicable law, the U.S. net operating loss carryforwards expire between 2018 and 2020.

The Company also has a foreign tax credit carryforward of \$8.2 million, of which \$4.2 million relates to the Company's U.S. operations and will expire between 2020 and 2021. The remaining \$4.0 million of foreign tax credits relate to the Company's Lloyd's operations and can be carried forward indefinitely. Additionally, the Company has an alternative minimum tax ("AMT") credit carryforward in the amount of \$14.4 million which can be carried forward indefinitely.

The Company also has net operating loss carryforwards in its U.K. and Irish operating subsidiaries of \$10.7 million and \$5.5 million, respectively. These losses can be carried forward without expiration.



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

**12. Income Taxes (Continued)**

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 were as follows:

	<u>December 31,</u>	
	<u>2012</u>	<u>2011</u>
Deferred income tax assets:		
Net operating loss . . . . .	\$ 4,925	\$ 1,831
AMT credit carryforward . . . . .	14,423	13,127
Discounting of net loss reserves . . . . .	54,860	45,329
Net unearned premium reserve . . . . .	30,614	26,048
Compensation liabilities . . . . .	22,713	21,357
Foreign tax credit carryforward . . . . .	8,229	10,374
Interest expense . . . . .	3,628	1,506
Other, net . . . . .	15,237	11,377
Deferred tax assets before valuation allowance . . . . .	154,629	130,949
Valuation allowance . . . . .	(4,309)	—
Deferred tax assets net of valuation allowance . . . . .	<u>150,320</u>	<u>130,949</u>
Deferred income tax liabilities:		
Depreciation and amortization . . . . .	(4,896)	(5,674)
Deferred acquisition costs, net . . . . .	(5,988)	(232)
Deposit accounting liability . . . . .	(4,823)	(4,922)
Net unrealized foreign exchange gains . . . . .	(2,825)	(1,850)
Net unrealized appreciation of investments . . . . .	(30,662)	(35,117)
Other, net . . . . .	(2,544)	(2,482)
Total deferred tax liabilities . . . . .	<u>(51,738)</u>	<u>(50,277)</u>
Net deferred income tax assets . . . . .	<u>\$ 98,582</u>	<u>\$ 80,672</u>

FASB guidance regarding the accounting for uncertainty in income taxes prescribes a “more likely than not” threshold for the financial statement recognition of a tax position taken or expected to be taken in a tax return, assuming the relevant tax authority has full knowledge of all relevant information. The amount recognized represents the largest amount of tax benefit that is greater than 50% likely of being ultimately realized. A liability is recognized for any benefit claimed, or expected to be claimed, in a tax return in excess of the benefit recorded in the financial statements, along with any interest and penalty (if applicable) on the excess. The Company recognizes interest and penalties relating to unrecognized tax benefits in the provision for income taxes.

As of December 31, 2012 and 2011, the Company's total unrecognized tax benefits, including interest and penalties, were nil.

The Company or its subsidiaries or branches files income tax returns in the U.S. federal jurisdiction and various state, local and foreign jurisdictions. With few exceptions, the Company is no longer subject to U.S. federal, state, local, or non-U.S. income tax examination for years before 2009.

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

**12. Income Taxes (Continued)**

In addition to unrecognized tax benefits, the Company provides a valuation allowance to reduce certain deferred tax assets to an amount which management expects to more likely than not be realized. As of December 31, 2012, the Company's valuation allowance was \$4.3 million, compared to nil at December 31, 2011.

During 2012, the Company recovered \$1.8 million for income taxes, compared to income taxes paid, net of recoveries, of \$1.9 million in 2011 and \$7.2 million in 2010. As of December 31, 2012, the Company's current income tax recoverable (included in "Other assets") was \$7.9 million.

*Federal Excise Taxes*

The United States also imposes an excise tax on insurance and reinsurance premiums paid to non-U.S. insurers or reinsurers with respect to risks located in the United States. The rates of tax, unless reduced by an applicable U.S. tax treaty, are four percent for non-life insurance premiums and one percent for life insurance and all reinsurance premiums. The Company incurs federal excise taxes on certain of its reinsurance transactions, including amounts ceded through intercompany transactions. For 2012, 2011 and 2010, the Company incurred approximately \$8.6 million, \$9.3 million and \$11.5 million, respectively, of federal excise taxes. Such amounts are reflected as acquisition expenses in the Company's consolidated statements of income.

**13. Transactions with Related Parties**

The Company made an investment of \$50.0 million in Aeolus LP ("Aeolus") in 2006. Aeolus operates as an unrated reinsurance platform that provides property catastrophe protection to insurers and reinsurers on both an ultimate net loss and industry loss warranty basis. The Company's investment in Aeolus, included in "Investments accounted for using the equity method" on the balance sheet, represents an approximate 4% share in Aeolus and is accounted for using the equity method. The Company made its investment in Aeolus on the same economic terms as a fund affiliated with Warburg Pincus. During 2010, all remaining shares of the Company owned by Warburg Pincus were distributed. In addition, one of the founders of Aeolus is Peter Appel, former President and CEO and a former director of the Company. During 2012, 2011 and 2010, the Company received distributions of \$19.8 million, \$33.2 million and \$20.0 million, respectively, from Aeolus.

**14. 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, 2012 and 2011 amounted to \$1.98 billion and \$1.98 billion, respectively, and primarily

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

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

resulted from reinsurance arrangements entered into in the course of its operations. A credit exposure exists with respect to reinsurance recoverables as they may become uncollectible. The Company manages its credit risk in its reinsurance relationships by transacting with reinsurers that it considers financially sound and, if necessary, the Company may hold collateral in the form of funds, trust accounts and/or irrevocable letters of credit. This collateral can be drawn on for amounts that remain unpaid beyond specified time periods on an individual reinsurer basis.

In addition, the Company underwrites a significant amount of its business through brokers and a credit risk exists should any of these brokers be unable to fulfill their contractual obligations with respect to the payments of insurance and reinsurance balances owed to the Company. During 2012, approximately 20.3% and 14.1% of the Company's consolidated gross written premiums were generated from or placed by Aon Corporation and its subsidiaries and Marsh & McLennan Companies and its subsidiaries, respectively, compared to approximately 19.4% and 14.2% for 2011, respectively, and 18.8% and 15.1% for 2010, respectively. No other broker and no one insured or reinsured accounted for more than 10% of gross premiums written for 2012, 2011 and 2010.

The Company's available for sale investment portfolio is managed 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, 2012 other than investments issued or guaranteed by the United States government or its agencies.

*Investment Commitments*

The Company's investment commitments, which are primarily related to agreements entered into by the Company to invest in funds and separately managed accounts when called upon, were approximately \$778.8 million at December 31, 2012.

*Letter of Credit and Revolving Credit Facilities*

As of December 31, 2012, the Company had a \$300.0 million unsecured revolving loan and letter of credit facility and a \$500.0 million secured letter of credit facility (the "Credit Agreement"). Under the terms of the Credit Agreement, Arch Re U.S. and Arch Re Bermuda are limited to issuing an aggregate of \$100.0 million of unsecured letters of credit as part of the \$300.0 million unsecured revolving loan. Borrowings of revolving loans may be made by ACGL at a variable rate based on LIBOR or an alternative base rate at the option of the Company. Secured letters of credit are available for issuance on behalf of the Company's insurance and reinsurance subsidiaries. The Credit Agreement and related documents are structured such that each party that requests a letter of credit or borrowing does so only for itself and for only its own obligations. Issuance of letters of credit and borrowings under the Credit Agreement are subject to the Company's compliance with certain covenants and conditions, including absence of a material adverse change. These covenants require, among other things, that the Company maintain a debt to total capital ratio of not greater than 0.35 to 1 and consolidated tangible net worth in excess of \$3.09 billion plus 25% of future aggregate net income for each quarterly period (not including any future net losses) beginning after June 30, 2011 and 25% of future aggregate proceeds from the issuance of common or preferred equity and that the Company's principal insurance and reinsurance subsidiaries maintain at least a "B++" rating from A.M. Best. In addition, certain of the Company's subsidiaries which are party to the Credit Agreement are required

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

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

to maintain minimum shareholders' equity levels. The Company was in compliance with all covenants contained in the Credit Agreement at December 31, 2012. The Credit Agreement expires on August 18, 2014.

In addition, the Company has access to secured letter of credit facilities for up to a total of \$98.5 million, which are available on a limited basis and for limited purposes (together with the secured portion of the Credit Agreement and these letter of credit facilities, the "LOC Facilities"). The principal purpose of the LOC Facilities is to issue, as required, evergreen standby letters of credit in favor of primary insurance or reinsurance counterparties with which the Company has entered into reinsurance arrangements to ensure that such counterparties are permitted to take credit for reinsurance obtained from the Company's reinsurance subsidiaries in United States jurisdictions where such subsidiaries are not licensed or otherwise admitted as an insurer, as required under insurance regulations in the United States, and to comply with requirements of Lloyd's of London in connection with qualifying quota share and other arrangements. The amount of letters of credit issued is driven by, among other things, the timing and payment of catastrophe losses, loss development of existing reserves, the payment pattern of such reserves, the further expansion of the Company's business and the loss experience of such business. When issued, certain letters of credit are secured by a portion of the Company's investment portfolio. In addition, the LOC Facilities also require the maintenance of certain covenants, which the Company was in compliance with at December 31, 2012. At such date, the Company had approximately \$439.4 million in outstanding letters of credit under the LOC Facilities, which were secured by investments with a fair value of \$514.3 million, and had \$100.0 million of borrowings outstanding under the Credit Agreement.

*Leases and Purchase Obligations*

At December 31, 2012, 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 are as follows:

2013 .....	\$ 17,685
2014 .....	17,191
2015 .....	15,579
2016 .....	15,088
2017 .....	12,836
Thereafter .....	<u>59,295</u>
Total .....	<u>\$137,674</u>

All of these leases are for the rental of office space, with expiration terms that range from 2013 to 2024. Rental expense, net of income from subleases, was approximately \$17.1 million, \$16.4 million and \$15.0 million for 2012, 2011 and 2010, respectively.

The Company has also entered into certain agreements which commit the Company to purchase goods or services, primarily related to software and computerized systems. Such purchase obligations were approximately \$21.5 million and \$17.0 million at December 31, 2012 and 2011, respectively.

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

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

*Employment and Other Arrangements*

At December 31, 2012, the Company has entered into employment agreements with certain of its executive officers for periods extending up to March 2018. 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.

**15. Senior Notes**

On May 4, 2004, ACGL completed a public offering of \$300.0 million principal amount of 7.35% senior notes ("Senior Notes") due May 1, 2034. The Senior Notes are ACGL's senior unsecured obligations and rank equally with all of its existing and future senior unsecured indebtedness. Interest payments on the Senior Notes are due on May 1st and November 1st of each year. ACGL may redeem the Senior Notes at any time and from time to time, in whole or in part, at a "make-whole" redemption price. The fair value of the Senior Notes at December 31, 2012 and 2011 was \$379.1 million and \$353.8 million, respectively.

During 2012, 2011 and 2010, the Company made interest payments of \$29.1 million, \$30.5 million and \$29.9 million, respectively, related to its Senior Notes and other financing arrangements discussed in Note 14.

**16. Shareholders' Equity**

*Authorized and Issued*

The authorized share capital of the Company consists of 600 million Common Shares, par value of \$0.0033 per share, and 50 million Preferred Shares, par value of \$0.01 per share.

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

**16. Shareholders' Equity (Continued)**

*Common Shares*

The following table presents a roll-forward of changes in the Company's issued and outstanding Common Shares:

	Year Ended December 31,		
	2012	2011	2010
<b>Common Shares:</b>			
Shares issued and outstanding, beginning of year . . . . .	164,636,338	160,073,616	164,285,034
Shares issued(1) . . . . .	2,066,065	3,592,713	3,711,228
Restricted shares issued, net of cancellations . . . . .	1,553,169	970,009	1,107,183
Shares repurchased and retired(2) . . . . .	—	—	(9,029,829)
Shares issued, end of year . . . . .	168,255,572	164,636,338	160,073,616
Common shares in treasury, end of year . .	(34,412,959)	(30,277,993)	(20,441,391)
Shares issued and outstanding, end of year	<u>133,842,613</u>	<u>134,358,345</u>	<u>139,632,225</u>

(1) Includes shares issued from the exercise of stock options and stock appreciation rights, and shares issued from the employee share purchase plan.

(2) Includes shares repurchased and retired from the share repurchase plan.

*Share Repurchases*

The board of directors of ACGL has authorized the investment in ACGL's common shares through a share repurchase program. Authorizations have consisted of a \$1.0 billion authorization in February 2007, a \$500.0 million authorization in May 2008, a \$1.0 billion authorization in November 2009 and a \$1.0 billion authorization in February 2011. Since the inception of the share repurchase program through December 31, 2012, ACGL has repurchased approximately 108.7 million common shares for an aggregate purchase price of \$2.73 billion. During 2012, ACGL repurchased 3.9 million common shares for an aggregate purchase price of \$172.0 million, compared to 9.6 million common shares for an aggregate purchase price of \$288.0 million during 2011 and 29.2 million common shares for an aggregate purchase price of \$761.9 million during 2010. Weighted average shares outstanding for 2012 were reduced by 105.0 million shares, compared to 103.2 million shares for 2011 and 81.0 million shares for 2010. At December 31, 2012, approximately \$769.9 million of share repurchases were available under the program. Repurchases under the program may be effected from time to time in open market or privately negotiated transactions. The timing and amount of the repurchase transactions under this program will depend on a variety of factors, including market conditions and corporate and regulatory considerations.

*Treasury Shares*

In May 2010, ACGL's shareholders approved amendments to the bye-laws to permit ACGL to hold its own acquired shares as treasury shares in lieu of cancellation, as determined by ACGL's board of directors. From May 5, 2010 to December 31, 2012, all repurchases of ACGL's common shares in

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

**16. Shareholders' Equity (Continued)**

connection with the share repurchase plan noted above and other share-based transactions were held in the treasury under the cost method, and the cost of the common shares acquired is included in 'Common shares held in treasury, at cost.' Prior to May 5, 2010, such acquisitions were reflected as a reduction in additional paid-in capital. At December 31, 2012, the Company held 34.4 million shares for an aggregate cost of \$1.03 billion in treasury, at cost.

*Preferred Shares*

On April 2, 2012, the Company completed the underwritten public offering of \$325.0 million of its 6.75% Series C non-cumulative preferred shares ("Preferred Shares"). Except in specified circumstances relating to certain tax or corporate events, the Preferred Shares are not redeemable prior to April 2, 2017. The net proceeds from the offering of approximately \$316 million and other available funds were used to redeem all of the Company's \$200.0 million of 8.0% Series A preferred shares and \$125.0 million of 7.875% Series B preferred shares on May 2, 2012. The Series A preferred shares and Series B preferred shares were redeemed at a redemption price equal to \$25.00 per share, plus all declared and unpaid dividends to (but excluding) the redemption date.

Dividends on the Preferred Shares are non-cumulative. Consequently, in the event dividends are not declared on the Preferred Shares for any dividend period, holders of Preferred Shares will not be entitled to receive a dividend for such period, and such undeclared dividend will not accrue and will not be payable. Holders of Preferred Shares will be entitled to receive dividend payments only when, as and if declared by ACGL's board of directors or a duly authorized committee of the board of directors. Any such dividends will be payable from the date of original issue on a non-cumulative basis, quarterly in arrears. To the extent declared, these dividends will accumulate, with respect to each dividend period, in an amount per share equal to 6.75% of the \$25.00 liquidation preference per annum. The Company paid dividends of \$28.4 million in 2012, compared to \$25.8 million in 2011 and 2010 to holders of the Company's preferred shares.

During the preparation of the 2012 Form 10-K, the Company reviewed the accounting for the issuance costs on the Series A and B preferred shares and determined that, due to the redemption of such shares in the 2012 second quarter, it should have recorded a "loss on repurchase of preferred shares" to remove the issuance costs from additional paid-in capital. The Company has revised the 2012 second quarter data included in its condensed quarterly financial information footnote to reflect the revision. Such revision had no impact on total shareholders' equity or cash flows. Based on the Company's assessment of materiality in accordance with SEC guidance, the Company concluded that both the loss on repurchase of preferred shares and the revision of this item are not material. See Note 21, "Unaudited Condensed Quarterly Financial Information."

**17. Share-Based Compensation**

*Long Term Incentive and Share Award Plans*

The 2012 Long Term Incentive and Share Award Plan (the "2012 Plan") became effective as of May 9, 2012 (the "Effective Date") following approval by shareholders of the Company. The 2012 Plan is intended to provide for competitive compensation opportunities, to encourage long-term service, to recognize individual contributions and reward achievement of performance goals and to promote the creation of long-term value for shareholders by aligning the interests of such persons with those of shareholders. The 2012 Plan provides for the grant to eligible employees and directors stock options,

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

**17. Share-Based Compensation (Continued)**

stock appreciation rights (“SARs”), 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 2012 Plan also provides the Company’s non-employee directors with the opportunity to receive the annual retainer fee for Board service in common shares. The 2012 Plan will terminate as to future awards on February 28, 2022.

The 2007 Long Term Incentive and Share Award Plan (the “2007 Plan”) was merged with and into the 2012 Plan as of the Effective Date. As of the Effective Date, the 3,153,924 remaining shares available for issuance under the 2007 Plan were transferred into the 2012 Plan and as of such date no additional grants may be made under the 2007 Plan. Grants which were outstanding under the 2007 Plan as of the Effective Date will continue in accordance with their original terms (subject to such amendments as the compensation committee determines appropriate, consistent with the terms of the 2007 Plan) and will be issued or transferred under the 2012 Plan.

The number of common shares reserved for grants of awards under the 2012 Plan, subject to anti-dilution adjustments in the event of certain changes in the Company’s capital structure is 7,433,924 which is the sum of (i) 4,280,000 and (ii) 3,153,924 shares remaining available for grants under the 2007 Plan. In addition, no more than 50% of such common shares may be issued in connection with full value awards (*i.e.*, awards other than stock options or SARs) and no more than 2,000,000 common shares may be issued as incentive stock options under Section 422 of the Code. At December 31, 2012, 4,047,361 shares are available for grant under the 2012 Plan.

On May 11, 2007, following shareholder approval, the Company adopted the 2007 Employee Share Purchase Plan (the “ESPP”). The purpose of the ESPP is to give employees of ACG and its subsidiaries an opportunity to purchase common shares through payroll deductions, thereby encouraging employees to share in the economic growth and success of ACG and its subsidiaries. The ESPP is designed to qualify as an “employee share purchase plan” under Section 423 of the Code. A total of 2,250,000 common shares are reserved for issuance under the ESPP. At December 31, 2012, approximately 1,142,851 shares remain available for issuance. The ESPP provides for consecutive six-month offering periods (or other periods of not more than 27 months as determined by the compensation committee) under which participating employees can elect to have up to 20% of their total compensation withheld and applied to the purchase of common shares of the Company at the end of the period. Unless otherwise determined by the compensation committee before an offering period commences, (1) the purchase price will be 85% of the fair market value of the common shares at the beginning of the offering period; and (2) the maximum number of common shares that may be purchased by an employee in any offering period is 3,000 shares. In addition, applicable Code limitations specify, in general, that a participant’s right to purchase stock under the ESPP cannot accumulate at a rate in excess of \$25,000 (based on the value at the beginning of the applicable offering periods) per calendar year. The Company recorded \$0.9 million of share-based compensation expense, net of a tax benefit of \$0.3 million, related to the ESPP for 2012, compared to \$0.7 million, net of a tax benefit of \$0.3 million, for 2011 and \$0.6 million, net of a tax benefit of \$0.2 million, for 2010.

In June 2002, following shareholder approval, the Company adopted the 2002 Long Term Incentive and Share Award Plan (the “2002 Plan”). An aggregate of 9,497,490 Common Shares has been reserved for issuance under the 2002 Plan. The 2002 Plan expired in January 2012.



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

**17. Share-Based Compensation (Continued)**

With respect to certain subsidiaries, 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.

*Stock Option and Stock Appreciation Rights*

The Company generally issues stock options and SARs to eligible employees, with exercise prices equal to the fair market values of the Company's Common Shares on the grant dates. Such grants generally vest over a three year period with one-third vesting on the first, second and third anniversaries of the grant date. In addition, in November 2012 the Company issued off-cycle stock options and SARs to certain employees, which will cliff vest on the fifth anniversary of the grant date. Option awards have a 10 year contractual life. Refer to Note 2(l) for details related to the Company's accounting for stock options.

The Company recorded after-tax share-based compensation expense of \$8.5 million related to stock option awards for 2012, net of a tax benefit of \$1.8 million, compared to \$5.3 million related to stock option awards for 2011, net of a tax benefit of \$1.5 million, and \$6.6 million related to stock option awards for 2010, net of a tax benefit of \$1.4 million. As of December 31, 2012, there was approximately \$16.1 million of unrecognized compensation cost related to nonvested stock options. Such cost is expected to be recognized over a weighted average period of 3.22 years.

For purposes of determining estimated market value, the Company has computed the estimated market values of share-based compensation related to stock options using the Black-Scholes option valuation model and has applied the assumptions set forth in the following table. As described above, stock options generally vest over a three year period with one-third vesting on the first, second and third anniversaries of the grant date. The expected life assumption (*i.e.*, the estimated period of time between the date an option is granted and the date the option is exercised) was based on an expected term analysis which incorporated the Company's historical share option exercise experience. The Company based its estimate of expected volatility for options granted during 2012 on daily historical trading data of its common shares from September 20, 2002, the date marking the completion of the Company's transition as a worldwide insurance and reinsurance company. For options granted during 2011 and 2010, the Company based its volatility estimate under the same method used for 2012, using the period from September 20, 2002 through the last day of the applicable period.

	Year Ended December 31,		
	2012	2011	2010
Dividend yield . . . . .	0.0%	0.0%	0.0%
Expected volatility . . . . .	24.3%	24.6%	25.5%
Risk free interest rate . . . . .	1.0%	2.2%	2.7%
Expected option life . . . . .	6.25 years	6.0 years	5.9 years

The Black-Scholes option pricing model requires the input of highly subjective assumptions. Because 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, in management's opinion, the existing models may not provide a reliable single measure of the fair value of its employee stock options. In addition, management will continue to assess the

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

**17. Share-Based Compensation (Continued)**

assumptions and methodologies used to calculate estimated fair value of share-based compensation. Circumstances may change and additional data may become available over time, which could result in changes to these assumptions and methodologies, and which could materially impact the Company's fair value determination.

A summary of option activity under the Company's Long Term Incentive and Share Award Plans during 2012 is presented below:

	Year Ended December 31, 2012	
	Number of Options	Weighted Average Exercise Price
Outstanding, beginning of year . . . . .	8,706,441	\$18.90
Granted . . . . .	2,003,816	\$40.34
Exercised . . . . .	(2,386,217)	\$12.24
Forfeited or expired . . . . .	(102,596)	\$33.97
Outstanding, end of year . . . . .	8,221,444	\$25.87
Exercisable, end of year . . . . .	5,787,477	\$20.82

The weighted average grant-date fair value of options granted during 2012, 2011 and 2010 was \$10.61, \$9.73 and \$7.63, respectively. The aggregate intrinsic value of options exercised during 2012, 2011 and 2010 was approximately \$64.0 million, \$106.0 million, and \$61.7 million, respectively and represents the difference between the exercise price of the option and the closing market price of the Company's common shares on the exercise dates. Shares issued upon exercise of stock options were from the Company's authorized but unissued share capital pool.

The aggregate intrinsic value of the Company's outstanding and exercisable stock options at December 31, 2012 was \$149.2 million and \$134.3 million, respectively. The weighted average remaining contractual life of the Company's outstanding and exercisable stock options at December 31, 2012 was 5.9 years and 4.5 years, respectively. During 2012, the Company received proceeds of \$9.1 million from the exercise of stock options and recognized a tax benefit of \$6.0 million from the exercise of such options.

***Restricted Common Shares and Restricted Units***

The Company also issues restricted share and unit awards to eligible employees and directors, for which the fair value is equal to the fair market values of the Company's Common Shares on the grant dates. Restricted share and unit awards generally vest over a three year period with one-third vesting on the first, second and third anniversaries of the grant date. In addition, in November 2012 the Company issued off-cycle restricted share and unit awards to certain employees, which will cliff vest on the fifth anniversary of the grant date. Refer to Note 2(1) for details related to the Company's accounting for restricted share and unit awards.

The Company recorded \$24.6 million of share-based compensation expense, net of a tax benefit of \$6.3 million, related to restricted share and unit awards for 2012, compared to \$18.2 million, net of a tax benefit of \$5.0 million, for 2011 and \$17.3 million, net of a tax benefit of \$5.0 million, for 2010. As of December 31, 2012, there were \$51.1 million and \$10.1 million, respectively, of unrecognized

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

**17. Share-Based Compensation (Continued)**

compensation costs related to unvested restricted share and unit awards which are expected to be recognized over a weighted average period of 3.2 years and 3.0 years, respectively.

A summary of unvested restricted share and unit activity under the Company's Long Term Incentive and Share Award Plans for 2012 is presented below:

	<b>Year Ended December 31, 2012</b>	
	<b>Restricted Common Shares</b>	<b>Restricted Unit Awards</b>
<b>Unvested Shares:</b>		
Unvested balance, beginning of year . . . . .	1,410,692	298,425
Granted . . . . .	1,562,646	257,011
Vested . . . . .	(776,180)	(196,197)
Forfeited . . . . .	(82,518)	(1,989)
Unvested balance, end of year . . . . .	<u>2,114,640</u>	<u>357,250</u>
<b>Weighted Average Grant Date Fair Value:</b>		
Unvested balance, beginning of year . . . . .	\$ 27.85	28.79
Granted . . . . .	\$ 40.74	40.83
Vested . . . . .	\$ 25.87	26.58
Forfeited . . . . .	\$ 33.63	31.12
Unvested balance, end of year . . . . .	\$ 37.88	38.03

During 2012, 2011 and 2010, the Company granted an aggregate of 1,819,657, 779,541 and 918,207 restricted share and restricted unit awards, respectively, with weighted average grant date fair values of \$40.75, \$33.82 and \$25.05, respectively. During 2012, 2011 and 2010, the aggregate fair value of restricted shares and units that vested was \$33.2 million, \$31.7 million and \$25.1 million, respectively. The aggregate intrinsic value of restricted units outstanding and exercisable at December 31, 2012 was \$21.1 million and \$5.4 million, respectively.

The issuance of share-based awards and amortization thereon has no effect on the Company's consolidated shareholders' equity.

**18. Retirement Plans**

For purposes of providing employees with retirement benefits, the Company maintains defined contribution retirement plans. Contributions are based on the participants' eligible compensation. For 2012, 2011 and 2010, the Company expensed approximately \$19.3 million, \$18.2 million and \$18.1 million, respectively, related to these retirement plans.

**19. Legal Proceedings**

The Company, in common with the insurance industry in general, is subject to litigation and arbitration in the normal course of its business. As of December 31, 2012, the Company was not a party to any litigation or arbitration which is expected by management to have a material adverse effect on the Company's results of operations and financial condition and liquidity.

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

**20. Statutory Information**

The Company's insurance and reinsurance subsidiaries are subject to insurance and/or reinsurance laws and regulations in the jurisdictions in which they operate. These regulations include certain restrictions on the amount of dividends or other distributions available to shareholders without prior approval of the insurance regulatory authorities.

The statutory capital and surplus for the Company's principal operating subsidiaries at December 31, 2012 and 2011 was as follows:

	December 31,	
	2012	2011
<b>Statutory capital and surplus(1):</b>		
Bermuda . . . . .	\$5,010,386	\$4,559,291
Ireland . . . . .	\$ 539,326	\$ 532,342
United States . . . . .	\$ 842,841	\$ 822,939
United Kingdom . . . . .	\$ 231,387	\$ 223,389

(1) Such amounts include ownership interests in affiliated insurance and reinsurance subsidiaries.

The statutory net income (loss) for the Company's principal operating subsidiaries for 2012, 2011 and 2010 was as follows:

	Year Ended December 31,		
	2012	2011	2010
<b>Statutory net income (loss):</b>			
Bermuda . . . . .	\$631,483	\$447,447	\$895,252
Ireland . . . . .	\$ (1,940)	\$ 9,123	\$ 11,457
United States . . . . .	\$ (21,517)	\$ (37,252)	\$ 22,235
United Kingdom . . . . .	\$ (4,449)	\$ 1,637	\$ 2,791

Statutory accounting differs from U.S. GAAP in the reporting of certain items such as acquisition costs, deferred income taxes and investments.

***Bermuda***

Under The Insurance Act 1978, as amended, and related regulations of Bermuda (the "Insurance Act"), Arch Re Bermuda, the Company's Bermuda reinsurance and insurance subsidiary, is registered as a Class 4 insurer and long-term insurer and is required to annually prepare and file statutory financial statements and a statutory financial return with the Bermuda Monetary Authority ("BMA"). The Insurance Act also requires Arch Re Bermuda to maintain minimum share capital and must ensure that the value of its general business assets exceeds the amount of its general business liabilities by an amount greater than the prescribed minimum solvency margins and enhanced capital requirement pertaining to its general business. At December 31, 2012 and 2011, all such requirements were met.

Arch Re Bermuda is also required to file a regulatory risk based capital model that measures risks and determines enhanced capital requirements and a target capital level. In addition, all Class 4 Bermuda insurers must prepare and file with the BMA audited GAAP basis annual financial statements, which must be made publicly available. Declarations of dividends from retained earnings

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

**20. Statutory Information (Continued)**

and distributions from additional paid-in-capital are subject to these requirements being met. For all applicable periods presented herein, Arch Re Bermuda satisfied these requirements.

The Bermuda Companies Act 1981 (the “Companies Act”) limits Arch Re Bermuda’s ability to pay dividends and distributions to shareholders if there are reasonable grounds for believing that: (a) Arch Re Bermuda is, or would after the payment be, unable to pay its liabilities as they become due; or (b) the realizable value of Arch Re Bermuda’s assets would thereby be less than the aggregate of its liabilities and its issued share capital and share premium accounts. Under the Insurance Act, Arch Re Bermuda is restricted with respect to the payment of dividends. 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 statutory financial statements. Accordingly, Arch Re Bermuda can pay approximately \$1.25 billion to ACGL during 2013 without providing an affidavit to the BMA.

***Ireland***

Arch Re Europe was licensed and authorized by the Central Bank of Ireland (“CBOI”) as a non-life reinsurer in October 2008 and as a life reinsurer in November 2009 while Arch Mortgage was authorized as a non-life insurer in Ireland in December 2011. Irish authorized reinsurers, such as Arch Re Europe and Arch Mortgage, are also subject to the general body of Irish laws and regulations including the provisions of the Companies Acts 1963-2012. Arch Re Europe and Arch Mortgage must file and submit their annual audited financial statements in accordance with Irish generally accepted accounting principles and related reports to the Registrar of Companies (“Registrar”) under the Companies Acts 1963-2012 together with an annual return of certain core corporate information. Changes to core corporate information during the year must also be notified to the Registrar. These requirements are in addition to the regulatory returns required to be filed annually with the CBOI. Arch Re Europe and Arch Mortgage are required to maintain reserves, particularly in respect of underwriting liabilities and a solvency margin as provided for in the European Communities (Reinsurance) Regulations, 2006, related guidance and the European Communities Insurance Accounts Regulations, 1996. Assets constituting statutory reserves must comply with certain principles including obligations to secure sufficiency, liquidity, security, quality, profitability and currency matching of investments. Statutory reserves must be actuarially certified annually.

Under Irish company law, Arch Re Europe and Arch Mortgage are permitted to make distributions only out of profits available for distribution. A company’s profits available for distribution are its accumulated, realized profits, so far as not previously utilized by distribution or capitalization, less its accumulated, realized losses, so far as not previously written off in a reduction or reorganization of capital duly made. Further, the CBOI has powers to intervene if a dividend payment were to lead to a breach of regulatory capital requirements.

***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.

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

**20. Statutory Information (Continued)**

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.

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, which is owned by Arch Re Europe and a related holding company, which are subsidiaries of Arch Re Bermuda.

*United Kingdom*

The Company's European insurance operations are conducted on two platforms: Arch Insurance Company Europe and Arch Syndicate 2012 (collectively, the insurance operations are referred to as "Arch Insurance Europe"). Arch Insurance Company Europe was licensed and authorized by the Financial Services Authority ("FSA") to underwrite all classes of general insurance in the U.K. in May 2004. In April 2009, the Company received approval in principle from the Lloyd's Franchise Board and the FSA to establish a managing agent and syndicate at Lloyd's of London. Arch Underwriting at Lloyd's Ltd is the managing agent of Arch Syndicate 2012 and is responsible for the daily management of Arch Syndicate 2012. The operations of AUAL and related Arch Syndicate 2012 and its corporate member, Arch Syndicate Investments Ltd, are subject to the byelaws and regulations made by (or on behalf of) the Council of Lloyd's, and requirements made under those byelaws.

Arch Insurance Europe must file annual audited financial statements in accordance with International Financial Reporting Standards with Companies House under the Companies Act 2006 (as amended). In addition, Arch Insurance Europe is required to file regulatory returns with the FSA, which regulates insurance and reinsurance companies operating from the U.K. The financial statements required to be submitted to Companies House form the basis for the regulatory return required to be submitted to the FSA. The FSA's capital adequacy and solvency regulations require a margin of capital to be determined by Arch Insurance Europe's own individual capital assessment to value capital adequacy. The model Arch Insurance Europe uses to determine the capital requirement is reviewed and approved by the FSA who then issue an individual capital guidance.

Under U.K. law, all U.K. companies are restricted from declaring a dividend to their shareholders unless they have "profits available for distribution." The calculation as to whether a company has sufficient profits is based on its accumulated realized profits minus its accumulated realized losses. U.K. insurance regulatory laws do not prohibit the payment of dividends, but the FSA requires that insurance companies maintain certain solvency margins and may restrict the payment of a dividend by Arch Insurance Europe. Dividends or distributions, if any, made by Arch Insurance Europe would result in an increase in available capital at Arch Re Europe, a subsidiary of Arch Re Bermuda.

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

**21. Unaudited Condensed Quarterly Financial Information**

On May 2, 2012, the Company redeemed all of its \$200.0 million of 8.0% Series A preferred shares and \$125.0 million of 7.875% Series B preferred shares at a redemption price equal to \$25.00 per share. During the preparation of the 2012 Form 10-K, the Company reviewed the accounting for the issuance costs on the Series A and B preferred shares and determined that, due to the redemption of such shares in the 2012 second quarter, it should have recorded a “loss on repurchase of preferred shares” to remove the issuance costs from additional paid-in capital. The Company has revised the 2012 second quarter data included in its condensed quarterly financial information footnote to reflect the revision. Such revision had no impact on total shareholders’ equity or cash flows. Based on the Company’s assessment of materiality in accordance with SEC guidance, the Company concluded that both the loss on repurchase of preferred shares and the revision of this item are not material.

The following table summarizes the Company’s 2012 and 2011 unaudited condensed quarterly financial information:

	<u>Fourth Quarter</u>	<u>Third Quarter</u>	<u>Second Quarter</u>	<u>First Quarter</u>
<b>2012 Income Statement Data:</b>				
Net premiums written . . . . .	\$613,142	\$755,249	\$820,233	\$863,611
Net premiums earned . . . . .	779,481	748,691	726,656	680,312
Net investment income . . . . .	73,769	73,221	73,608	74,297
Net realized gains . . . . .	54,849	60,391	34,867	44,121
Net impairment losses recognized in earnings . . . . .	(6,035)	(2,379)	(1,951)	(1,023)
Underwriting income (loss) . . . . .	(91,334)	73,452	93,723	67,193
Net income . . . . .	19,217	189,656	220,268	164,256
Preferred dividends . . . . .	(5,485)	(5,484)	(7,649)	(6,461)
Loss on repurchase of preferred shares . . . . .	—	—	(10,612)	—
Net income available to common shareholders . . . . .	13,732	184,172	202,007	157,795
Net income per common share—basic . . . . .	\$ 0.10	\$ 1.36	\$ 1.50	\$ 1.18
Net income per common share—diluted . . . . .	\$ 0.10	\$ 1.33	\$ 1.46	\$ 1.14
<b>2011 Income Statement Data:</b>				
Net premiums written . . . . .	\$511,124	\$691,381	\$706,543	\$764,278
Net premiums earned . . . . .	673,192	682,049	642,879	633,695
Net investment income . . . . .	80,467	82,753	86,671	88,307
Net realized gains . . . . .	14,542	30,199	45,210	20,695
Net impairment losses recognized in earnings . . . . .	(1,959)	(2,739)	(1,684)	(2,680)
Underwriting income (loss) . . . . .	69,468	38,567	(43)	(63,980)
Net income . . . . .	145,332	168,755	96,603	25,473
Preferred dividends . . . . .	(6,461)	(6,461)	(6,461)	(6,461)
Net income available to common shareholders . . . . .	138,871	162,294	90,142	19,012
Net income per common share—basic . . . . .	\$ 1.05	\$ 1.23	\$ 0.69	\$ 0.14
Net income per common share—diluted . . . . .	\$ 1.01	\$ 1.18	\$ 0.65	\$ 0.14

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

**22. Subsequent Events**

In February 2013, the Company's U.S.-based subsidiaries entered into a definitive agreement to acquire CMG Mortgage Insurance Company ("CMG MI") from its current owners, PMI Mortgage Insurance Co. ("PMI"), which is in rehabilitation under the receivership of the Arizona Department of Insurance since 2011, and CMFG Life Insurance Company. The Company also agreed to acquire PMI's mortgage insurance operating platform and related assets from PMI. It is anticipated that the transaction will close within 12 months, subject to approvals of the Arizona receivership court, applicable regulators and government-sponsored enterprises, and the satisfaction of customary closing conditions. At closing, it is currently estimated that the Company's U.S.-based subsidiaries will pay aggregate consideration of approximately \$300 million. Additional amounts may be paid based on the actual results of CMG MI's pre-closing portfolio over an agreed upon period. In connection with the closing of the transactions, PMI and an affiliate of the Company's U.S.-based subsidiaries will enter into a quota share reinsurance agreement pursuant to which such affiliate, as the reinsurer, will agree to provide 100% quota share indemnity reinsurance to PMI for all certificates of insurance that were issued by PMI between and including January 1, 2009 and December 31, 2011 that are not in default as of an agreed upon effective date. Subject to applicable regulatory and GSE approvals, such affiliate also will provide quota share reinsurance to CMG MI through a reinsurance agreement that will become effective prior to the closing. In addition, the Company will enter into a services agreement with PMI to provide for necessary services to administer the run-off of PMI's legacy business at the direction of PMI.



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

None.

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

#### **Evaluation of Disclosure Controls and Procedures**

In connection with the filing of this Form 10-K, our management, including the Chief Executive Officer and Chief Financial Officer, conducted an evaluation, as of December 31, 2012, for the purposes set forth in the applicable rules under the Securities and Exchange Act of 1934, as amended (the “Exchange Act”). Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the disclosure controls and procedures are effective.

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

#### **Management’s Annual Report on Internal Control Over Financial Reporting**

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2012. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations (COSO) of the Treadway Commission in *Internal Control—Integrated Framework*.

Based on our assessment, management determined that, as of December 31, 2012, our internal control over financial reporting was effective. The effectiveness of our internal control over financial reporting as of December 31, 2012 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears on page 135.

#### **Changes in Internal Control Over Financial Reporting**

There have been no changes in internal control over financial reporting that occurred in connection with our evaluation required pursuant to Rules 13a-15 and 15d-15 under the Exchange Act

during the fiscal quarter ended December 31, 2012 that have materially affected, or are reasonably likely to materially affect, internal control over financial reporting.

**ITEM 9B. OTHER INFORMATION**

None.

**PART III**

**ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE**

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 2013, which we intend to file with the SEC pursuant to Regulation 14A. Copies of our code of ethics applicable to our chief executive officer, chief financial officer and principal accounting officer or controller are available free of charge to investors upon written request addressed to the attention of ACGL’s corporate secretary, Wessex House, 45 Reid Street, Hamilton HM 12, Bermuda. In addition, our code of ethics and certain other basic corporate documents, including the charters of our audit committee, compensation committee and nominating committee are posted on our website. If any substantive amendments are made to the code of ethics or if there is a grant of a waiver, including any implicit waiver, we will disclose the nature of such amendment or waiver on our website or in a report on Form 8-K, to the extent required by applicable law or the rules and regulations of any exchange applicable to us. Our website address is intended to be an inactive, textual reference only and none of the material on our website is incorporated by reference into this report.

**ITEM 11. EXECUTIVE COMPENSATION**

The information required by this item is incorporated by reference from the information to be included in the Proxy Statement to be filed pursuant to Regulation 14A with the SEC before April 30, 2013, which Proxy Statement is incorporated by reference.

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

Other than the information set forth below, the information required by this item is incorporated by reference from the information to be included in the Proxy Statement to be filed pursuant to Regulation 14A with the SEC before April 30, 2013, which Proxy Statement is incorporated by reference.

The following information is as of December 31, 2012:

<u>Plan category</u>	<u>Number of securities to be issued upon exercise of outstanding options(1), warrants and rights (a)</u>	<u>Weighted-average exercise price of outstanding options(1), warrants and rights (b)</u>	<u>Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))(2) (c)</u>
Equity compensation plans approved by security holders . . .	8,701,850	\$24.44	4,047,361
Equity compensation plans not approved by security holders . . .	—	—	—
Total . . . . .	<u>8,701,850</u>	<u>\$24.44</u>	<u>4,047,361</u>

(1) Includes all vested and unvested options outstanding of 8,221,444 and restricted stock units outstanding of 480,406.

(2) The remaining common shares available for future issuance under our equity compensation plans may be issued in the form 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, performance shares and performance units and other share based awards. In addition, no more than 49.2% of such common shares may be issued in connection with full value awards (i.e., awards other than stock options or stock appreciation rights).

**ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE**

The information required by this item is incorporated by reference from the information to be included in the Proxy Statement to be filed pursuant to Regulation 14A with the SEC before April 30, 2013, which Proxy Statement is incorporated by reference.

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

The information required by this item is incorporated by reference from the information to be included in our Proxy Statement to be filed pursuant to Regulation 14A with the SEC before April 30, 2013, which Proxy Statement is incorporated by reference.

**PART IV**

**ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES**

**(a) Financial Statements, Financial Statement Schedules and Exhibits.**

**1. Financial Statements**

Included in Part II—see Item 8 of this report.

**2. Financial Statement Schedules**

	<u>Page No.</u>
II. Condensed Financial Information of Registrant . . . . .	222
III. Supplementary Insurance Information For the years ended December 31, 2012 and 2011 and 2010 . . . . .	225
IV. Reinsurance For the years ended December 31, 2012 and 2011 and 2010 . . . . .	226
VI. Supplementary Information for Property and Casualty Insurance Underwriters For the years ended December 31, 2012 and 2011 and 2010 . . . . .	227

Schedules other than those listed above are omitted for the reason that they are not applicable or the information is provided in Item 8 of this report.

**3. Exhibits**

<u>Exhibit Number</u>	<u>Description</u>
3.1	Memorandum of Association of ACGL(d)
3.2	Bye-Laws of ACGL(l)
3.3	ACGL Certificate of Deposit(l)
4.1	Certificate of Designations of Series C Non-Cumulative Preferred Shares(qq)
4.2.1	Specimen Common Share Certificate(e)
4.2.2	Specimen Series C Non-Cumulative Preferred Share Certificate(qq)
4.3	Indenture and First Supplemental Indenture, dated as of May 4, 2004, between ACGL and JPMorgan Chase Bank, N.A. (formerly JPMorgan Chase Bank) (“JPMCB”)(l)
10.1	Lease Agreement, dated as of July 22, 2008, between M-C Plaza II & II L.L.C. and Arch Insurance(hh)
10.2.1	ACGL 2002 Long Term Incentive and Share Award Plan (“2002 Plan”)(h)†
10.2.2	First Amendment to the 2002 Plan(j)†
10.2.3	Second Amendment to the 2002 Plan(hh)†
10.3	Second Amended and Restated ACGL Incentive Compensation Plan(hh)†
10.4	ACGL 2007 Long Term Incentive and Share Award Plan(z)†
10.5.1	ACGL 2007 Employee Share Purchase Plan (“2007 ESPP”)(z)†
10.5.2	Amendment to ACGL 2007 ESPP, dated as of November 7, 2007(bb)†

Exhibit Number	Description
10.6.1	Restricted Share Agreements with ACGL—Marc Grandisson—February 26, 2004 grant(p) September 22, 2004 grant(m) and November 15, 2005 grant(v)†
10.6.2	Restricted Share Agreement with ACGL—W. Preston Hutchings—July 1, 2005 grant(v)†
10.6.3	Restricted Share Agreements with ACGL—Louis T. Petrillo—February 20, 2003 grant(k) and September 22, 2004 grant(m)†
10.6.4	Restricted Share Agreements with ACGL—Constantine Iordanou—February 26, 2004 grant(p) and September 22, 2004 grant(m)†
10.6.5	Restricted Share Agreements with ACGL—John D. Vollaro—February 20, 2003 grant(k) and September 22, 2004 grant(m)†
10.6.6	Restricted Share Agreement with ACGL substantially in the form signed by Constantine Iordanou, John D. Vollaro and Marc Grandisson—May 11, 2007 grants(bb)†
10.6.7	Restricted Share Agreement with ACGL substantially in the form signed by W. Preston Hutchings and Louis T. Petrillo—May 11, 2007 grants(bb)†
10.6.8	Restricted Share Unit Agreement—Constantine Iordanou—February 20, 2003 grant (“February RSU Agreement”)(k), First Amendment to February RSU Agreement—December 9, 2008 grant(hh) and Second Amendment to February RSU Agreement—July 9, 2009 grant(ii)†
10.6.9	Restricted Share Unit Agreement with ACGL substantially in the form signed by each of Constantine Iordanou, John D. Vollaro, Marc Grandisson, W. Preston Hutchings, Mark D. Lyons and Louis T. Petrillo—May 9, 2008 grants(ff)†
10.6.10	Restricted Share Unit Agreement with ACGL—Mark D. Lyons—May 9, 2008 grant(ff), May 6, 2009 grant, May 5, 2010 grant(kk), May 6, 2011 grant(pp) and May 9, 2012 grant(tt)†
10.6.11	Agreement, dated as of September 17, 2003, between ACGL and John D. Vollaro(k)†
10.6.12	Restricted Share Agreements with ACGL substantially in the form signed by the Non-Employee Directors of ACGL—2003 annual grants(o), 2004 annual grants(n), 2005 annual grants(bb), 2008 annual grants(hh), 2009 grants(kk), 2010 grants(kk), 2011 grants(nn) and 2012 grants(ss)†
10.6.13	Restricted Share Agreements with ACGL substantially in the form signed by Constantine Iordanou, John D. Vollaro and Marc Grandisson—February 23, 2006 grants(y)†
10.6.14	Restricted Share Agreements ACGL substantially in the form signed by W. Preston Hutchings and Louis T. Petrillo—February 23, 2006 grants(y)†
10.6.15	Restricted Share Agreements with ACGL substantially in the form signed by each of Constantine Iordanou, John D. Vollaro, Louis T. Petrillo, W. Preston Hutchings and Marc Grandisson—May 6, 2009 grants(jj)†
10.6.16	Restricted Share Agreements with ACGL substantially in the form signed by each of Constantine Iordanou, Louis T. Petrillo, W. Preston Hutchings, David H. McElroy and Marc Grandisson—May 5, 2010, grants(kk) May 6, 2011 grants(pp) and May 9, 2012 grants(tt)†
10.6.17	Restricted Share Agreements with ACGL substantially in the form signed by each of Brian S. Posner, Yiorgos Lillikas and Eric W. Doppstadt—May 6, 2011 grants(mm)†
10.6.18	Restricted Share Agreement with ACGL—David H. McElroy—June 8, 2009 grant (filed herewith)†

Exhibit Number	Description
10.7.1	Stock Option Agreements with ACGL—Louis T. Petrillo—September 22, 2004 grant(m)(s)†
10.7.2	Stock Option Agreements with ACGL—Marc Grandisson—September 22, 2004 grant(m)(s) and November 15, 2005 grant(v)†
10.7.3	Stock Option Agreement with ACGL—W. Preston Hutchings—July 1, 2005 grant(v)†
10.7.4	Stock Option Agreements with ACGL—Constantine Iordanou—September 22, 2004 grant(m)(t)†
10.7.5	Stock Option Agreements with ACGL—John D. Vollaro—September 22, 2004 grant(m)(t)†
10.7.6	Stock Option Agreements with Constantine Iordanou, John D. Vollaro and Marc Grandisson—February 23, 2006 grants(y)†
10.7.7	Stock Option Agreements with ACGL and each of W. Preston Hutchings and Louis T. Petrillo—February 23, 2006 grants(y)†
10.8.1	Share Appreciation Right Agreement with ACGL substantially in the form signed by Louis T. Petrillo and W. Preston Hutchings—May 11, 2007 grants(bb)†
10.8.2	Share Appreciation Right Agreement with ACGL substantially in the form signed by Constantine Iordanou, John D. Vollaro and Marc Grandisson—May 11, 2007 grants(g)†
10.8.3	Share Appreciation Right Agreement with ACGL substantially in the form signed by each of Constantine Iordanou, John D. Vollaro, Marc Grandisson, W. Preston Hutchings, Mark D. Lyons and Louis T. Petrillo—May 9, 2008 grants(hh)†
10.8.4	Share Appreciation Right Agreement with ACGL substantially in the form signed by each of Constantine Iordanou, Marc Grandisson, W. Preston Hutchings, Mark D. Lyons, John D. Vollaro and Louis T. Petrillo—May 6, 2009 grants(jj)†
10.8.5	Share Appreciation Right Agreement with ACGL substantially in the form signed by each of Constantine Iordanou, Marc Grandisson, W. Preston Hutchings, Mark D. Lyons, David H. McElroy and Louis T. Petrillo—May 5, 2010 grants(kk) May 6, 2011 grants(pp) and May 9, 2012 grants(tt)†
10.8.6	Share Appreciation Right Agreement with ACGL—Constantine Iordanou—February 25, 2010 grant(tt) and February 29, 2012 grant(tt)†
10.8.7	Share Appreciation Right Agreement with ACGL—David H. McElroy—June 8, 2009 grant (filed herewith)†
10.9	Employment and Change in Control Agreement, dated as of May 5, 2000, between ACGL and Louis T. Petrillo(c) and Amendment to Change in Control Agreement, dated as of December 31, 2008(hh)†
10.10	Employment Agreement, dated as of October 23, 2001, among ACGL, Arch Re Bermuda and Marc Grandisson(f), First Amendment to same, dated as of November 16, 2005(v) and Second Amendment to same, dated as of November 24, 2008(hh)†
10.11	Employment Letter Agreement, dated as of May 29, 2005, between ACGL and W. Preston Hutchings(u) and Amendment to same, dated as of May 21, 2008(dd)†
10.12	Employment Agreement, dated as of November 28, 2007, between ACGL and Constantine Iordanou(aa) and Amendment to same, dated as of December 31, 2008(hh)†

Exhibit Number	Description
10.13	Employment Agreement, dated as of October 27, 2008, between ACGL and John D. Vollaro(ee)†
10.14	Employment Agreement, dated as of July 25, 2012, between ACGL and Mark D. Lyons(rr)†
10.15	Employment Agreement, dated as of June 5, 2009, between Arch Insurance Group Inc. and David McElroy(ss) and Amendment to same, dated as of July 25, 2012(ss)†
10.16	Assumption of Change in Control Agreements(e)†
10.17	Arch Capital Group (U.S.) Inc. (“Arch U.S.”) Executive Supplemental Non-Qualified Savings and Retirement Plan(hh)†
10.18	Asset Purchase Agreement, dated as of January 10, 2000, by and among Arch U.S., Folksamerica Holding Company, Inc. (“FHC”) and Folksamerica(a)
10.19	Transfer and Assumption Agreement, dated May 5, 2000, between Arch Reinsurance Company (formerly Risk Capital Reinsurance Company) (“Arch Re U.S.”) and Folksamerica(b)
10.20	Escrow Agreement, dated December 28, 2000, by and among ACGL, FHC, Folksamerica and the Escrow Agent(e)
10.21	Agreement, dated May 5, 2000, by and among Arch U.S., Arch Re U.S., FHC and Folksamerica regarding Aviation Business(d)
10.22	Agreement and Plan of Merger, dated as of September 25, 2000, by and among Arch U.S., ACGL, The Arch Purpose Trust and Arch Merger Corp.(d)
10.23	Asset Purchase Agreement, dated as of February 7, 2013, by and among the Receiver of PMI Mortgage Insurance Co. in Rehabilitation on behalf of PMI Mortgage Insurance Co. (the “Receiver”), Arch U.S. MI Services Inc. and Arch U.S.(uu)
10.24	Stock Purchase Agreement, dated as of February 7, 2013, by and among the Receiver, CMFG Life Insurance Company, CMG Mortgage Insurance Company, Arch US MI Holdings Inc. and Arch U.S.(uu)
10.25	Master Reimbursement Agreement, dated as of November 6, 2009, between Citibank Europe PLC and Arch Re Bermuda(jj)
10.26.1	Stock Purchase Agreement, dated as of May 13, 2004, by and among Protective Underwriting Services, Inc. (“Protective”), Arch Capital Holdings Ltd. (“Arch Capital Holdings”) and ACGL, as amended by Amendment No. 1, dated as of July 9, 2004, Amendment No. 2, dated as of July 13, 2004, Amendment No. 3, dated as of July 16, 2004 and Amendment No. 4, dated as of July 28, 2004(p)
10.26.2	Waiver Letter Agreement related to the Stock Purchase Agreement, dated as of October 5, 2004, signed by Arch Capital Holdings, ACGL and Protective(q)
10.27.1	Joint Venture Agreement, dated as of January 22, 2008 (“Gulf Joint Venture Agreement”), between Gulf Investment Corporation GSC and Arch Re Bermuda relating to Gulf Holdings Limited(cc)(gg)
10.27.2	Amendment, dated as of May 18, 2011, to the Gulf Joint Venture Agreement(nn)

Exhibit Number	Description
10.28	Credit Agreement, dated as of August 18, 2011, by and among ACGL, Arch Re Bermuda, Arch Re U.S., Arch Reinsurance Europe Underwriting Limited, AIC, ASIC, AESIC and Arch Insurance Europe, Bank of America, N.A., as administrative agent, fronting bank and L/C administrator, JPMorgan Chase Bank, N.A., as fronting bank, L/C administrator and syndication agent, Citibank, N.A., U.S. Bank National Association and Wells Fargo Bank, National Association, as co-documentation agents, the other lenders party thereto, and Merrill Lynch, Pierce, Fenner & Smith Incorporated and J.P. Morgan Securities LLC, as joint lead arrangers and joint book managers(oo)
12	Statement regarding computation of ratios (filed herewith)
21	Subsidiaries of Registrant (filed herewith)
23	Consent of PricewaterhouseCoopers LLP (filed herewith)
24	Power of Attorney (filed herewith)
25	Form T-1 Statement of Eligibility of Trustee(r)
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith)
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith)
32.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (filed herewith)
32.2	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (filed herewith)
101	The following financial information from ACGL's Annual Report on Form 10-K for the year ended December 31, 2012 formatted in XBRL: (i) Consolidated Balance Sheets at December 31, 2012 and 2011; (ii) Consolidated Statements of Income for the years ended December 31, 2012, 2011 and 2010; (iii) Consolidated Statements of Comprehensive Income for the years ended December 31, 2012, 2011 and 2010; (iv) Consolidated Statements of Changes in Shareholders' Equity for the years ended December 31, 2012, 2011 and 2010; (v) Consolidated Statements of Cash Flows for the years ended December 31, 2012, 2011 and 2010; and (vi) Notes to Consolidated Financial Statements (filed herewith)
(a)	Filed as an exhibit to our Report on Form 8-K as filed with the SEC on January 18, 2000, and incorporated by reference.
(b)	Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on May 19, 2000, and incorporated by reference.
(c)	Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on September 8, 2000, and incorporated by reference.
(d)	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.
(e)	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.



- (f) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on January 4, 2002, and incorporated by reference.
- (g) 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.
- (h) 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.
- (i) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 2002, as filed with the SEC on March 31, 2003, and incorporated by reference.
- (j) Filed as an exhibit to our Report on Form 10-Q for the period ended September 30, 2003, as filed with the SEC on November 12, 2003, and incorporated by reference.
- (k) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 2003, as filed with the SEC on March 10, 2004, and incorporated by reference.
- (l) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on May 7, 2004, and incorporated by reference.
- (m) Form of agreement filed as an exhibit to our Report on Form 8-K, as filed with the SEC on September 28, 2004, and incorporated by reference.
- (n) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on October 6, 2004, and incorporated by reference.
- (o) Filed as an exhibit to our Report on Form 10-Q for the period ended March 31, 2004, as filed with the SEC on May 10, 2004, and incorporated by reference.
- (p) Filed as an exhibit to our Report on Form 10-Q for the period ended June 30, 2004, as filed with the SEC on August 9, 2004, and incorporated by reference.
- (q) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on October 8, 2004, and incorporated by reference.
- (r) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on May 3, 2004, and incorporated by reference.
- (s) Revised form of agreement originally filed as an exhibit to our Report on Form 8-K, as filed with the SEC on September 28, 2004, and incorporated by reference.
- (t) Revised form of agreement originally filed as an exhibit to our Report on Form 8-K, as filed with the SEC on September 28, 2004, and incorporated by reference.
- (u) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on June 9, 2005, and incorporated by reference.
- (v) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 2005, as filed with the SEC on March 13, 2006, and incorporated by reference.
- (w) Filed as an exhibit to our Report on Form 10-Q for the period ended March 31, 2006, as filed with the SEC on May 8, 2006, and incorporated by reference.
- (x) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on August 31, 2006, and incorporated by reference.
- (y) Filed as an exhibit to our Report on Form 10-Q for the period ending September 30, 2006, as filed with the SEC on November 9, 2006, and incorporated by reference.

- (z) Filed as an appendix to our Definitive Proxy Statement, as filed with the SEC on April 3, 2007, and incorporated by reference.
- (aa) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on December 3, 2007, and incorporated by reference.
- (bb) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 2007, as filed with the SEC on February 29, 2008, and incorporated by reference.
- (cc) Filed as an exhibit to our Report on Form 10-Q for the period ending March 31, 2008, as filed with the SEC on May 8, 2008, and incorporated by reference.
- (dd) Filed as an exhibit to our Report on Form 10-Q for the period ending June 30, 2008, as filed with the SEC on August 8, 2008, and incorporated by reference.
- (ee) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on October 28, 2008, and incorporated by reference.
- (ff) Filed as an exhibit to our Report on Form 10-Q for the period ending September 30, 2008, as filed with the SEC on November 10, 2008, and incorporated by reference.
- (gg) Pursuant to 17 CFR 240.24 b-2, confidential information has been omitted and filed separately with the SEC.
- (hh) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 2008, as filed with the SEC on March 2, 2009, and incorporated by reference.
- (ii) Filed as an exhibit to our Report on Form 10-Q for the period ending September 30, 2009, as filed with the SEC on November 9, 2009, and incorporated by reference.
- (jj) Filed as an exhibit to our Annual Report on Form 10-K for the year ended December 31, 2009, as filed with the SEC on February 26, 2010, and incorporated by reference.
- (kk) Filed as an exhibit to our Report on Form 10-Q for the period ending September 30, 2010, as filed with the SEC on November 8, 2010, and incorporated by reference.
- (ll) Filed as an exhibit to our Annual Report on Form 10-K for the period ending December 31, 2010, as filed with the SEC on February 28, 2011, and incorporated by reference.
- (mm) Filed as an exhibit to our Report on Form 10-Q for the period ending March 31, 2011, as filed with the SEC on May 9, 2011, and incorporated by reference.
- (nn) Filed as an exhibit to our Report on Form 10-Q for the period ending June 30, 2011, as filed with the SEC on August 5, 2011, and incorporated by reference.
- (oo) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on August 22, 2011, and incorporated by reference.
- (pp) Filed as an exhibit to our Report on Form 10-Q for the period ending September 30, 2011, as filed with the SEC on November 8, 2011, and incorporated by reference.
- (qq) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on April 2, 2012, and incorporated by reference.
- (rr) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on July 30, 2012, and incorporated by reference.
- (ss) Filed as an exhibit to our Report on Form 10-Q for the period ending June 30, 2012, as filed with the SEC on August 8, 2012, and incorporated by reference.

- (tt) Filed as an exhibit to our Report on Form 10-Q for the period ending September 30, 2012, as filed with the SEC on November 9, 2012, and incorporated by reference.
  - (uu) Filed as an exhibit to our Report on Form 8-K, as filed with the SEC on February 8, 2013, and incorporated by reference.
  - (vv) This exhibit will not be deemed “filed” for the purposes of Section 18 of the Securities Exchange Act of 1934 (15 U.S.C. 78r), or otherwise subject to the liability of that section. Such exhibit will not be deemed to be incorporated by reference into any filing under the Securities Act or Securities Exchange Act, except to the extent that we specifically incorporate it by reference.
- † Management contract or compensatory plan or arrangement.

## SIGNATURES

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

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

By: /s/ CONSTANTINE IORDANOU

Name: Constantine Iordanou

Title: *Chairman of the Board of Directors,  
President & Chief Executive Officer*

March 1, 2013

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

<u>Name</u>	<u>Title</u>	<u>Date</u>
<u>/s/ CONSTANTINE IORDANOU</u> Constantine Iordanou	Chairman of the Board of Directors, President and Chief Executive Officer (Principal Executive Officer)	March 1, 2013
<u>/s/ MARK D. LYONS</u> Mark D. Lyons	Executive Vice President, Chief Financial Officer and Treasurer (Principal Financial and Principal Accounting Officer)	March 1, 2013
<u>*</u> Wolfe "Bill" H. Bragin	Director	March 1, 2013
<u>*</u> John L. Bunce, Jr.	Director	March 1, 2013
<u>*</u> Eric W. Doppstadt	Director	March 1, 2013
<u>*</u> Kewsong Lee	Director	March 1, 2013

<u>Name</u>	<u>Title</u>	<u>Date</u>
* _____ Yiorgos Lillikas	Director	March 1, 2013
* _____ James J. Meenaghan	Director	March 1, 2013
* _____ John M. Pasquesi	Director	March 1, 2013
* _____ Brian S. Posner	Director	March 1, 2013
* _____ John D. Vollaro	Director	March 1, 2013
* _____ Robert F. Works	Director	March 1, 2013

\* By Mark D. Lyons, 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/ MARK D. LYONS

\_\_\_\_\_  
Name: Mark D. Lyons  
*Attorney-in-Fact*

SCHEDULE II

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

**Balance Sheet**  
**(Parent Company Only)**  
**(U.S. dollars in thousands, except share data)**

	December 31,	
	2012	2011
<b>Assets</b>		
Investments in wholly owned subsidiaries . . . . .	\$ 5,560,655	\$4,997,026
Short-term investments available for sale, at fair value . . . . .	8,328	3,235
Cash . . . . .	6,417	4,717
Other assets . . . . .	6,684	1,205
<b>Total Assets</b> . . . . .	<b>\$ 5,582,084</b>	<b>\$5,006,183</b>
<b>Liabilities</b>		
Senior notes . . . . .	\$ 300,000	\$ 300,000
Revolving credit agreement borrowings . . . . .	100,000	100,000
Accounts payable and other liabilities . . . . .	13,206	14,109
<b>Total Liabilities</b> . . . . .	<b>413,206</b>	<b>414,109</b>
<b>Shareholders' Equity</b>		
Non-cumulative preferred shares . . . . .	325,000	325,000
Common shares (\$0.0033 par, shares issued: 168,255,572 and 164,636,338) . .	561	549
Additional paid-in capital . . . . .	227,778	161,419
Retained earnings . . . . .	5,354,361	4,796,655
Accumulated other comprehensive income, net of deferred income tax . . . . .	287,017	153,923
Common shares held in treasury, at cost (shares: 34,412,959 and 30,277,993). .	(1,025,839)	(845,472)
<b>Total Shareholders' Equity</b> . . . . .	<b>5,168,878</b>	<b>4,592,074</b>
<b>Total Liabilities and Shareholders' Equity</b> . . . . .	<b>\$ 5,582,084</b>	<b>\$5,006,183</b>

SCHEDULE II

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

**Statement of Income**  
**(Parent Company Only)**  
**(U.S. dollars in thousands)**

	Years Ended December 31,		
	2012	2011	2010
<b>Revenues</b>			
Net investment income . . . . .	\$ 4	\$ 0	\$ 0
Net realized gains . . . . .	—	63	97
<b>Total revenues</b> . . . . .	4	63	97
<b>Expenses</b>			
Operating expenses . . . . .	35,570	31,509	29,367
Interest expense . . . . .	23,496	23,151	22,887
<b>Total expenses</b> . . . . .	59,066	54,660	52,254
<b>Loss before income taxes</b> . . . . .	(59,062)	(54,597)	(52,157)
Income tax benefit . . . . .	—	—	—
<b>Loss before equity in net income of wholly owned subsidiaries</b> . . . . .	(59,062)	(54,597)	(52,157)
Equity in net income of wholly owned subsidiaries . . . . .	652,459	490,760	894,829
<b>Net income</b> . . . . .	593,397	436,163	842,672
Preferred dividends . . . . .	(25,079)	(25,844)	(25,844)
Loss on repurchase of preferred shares . . . . .	(10,612)	—	—
<b>Net income available to common shareholders</b> . . . . .	\$557,706	\$410,319	\$816,828
<b>Comprehensive income</b> . . . . .	\$726,491	\$385,583	\$908,649

SCHEDULE II

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

**Statement of Cash Flows**  
**(Parent Company Only)**  
**(U.S. dollars in thousands)**

	Years Ended December 31,		
	2012	2011	2010
<b>Operating Activities</b>			
Net income . . . . .	\$ 593,397	\$ 436,163	\$ 842,672
Adjustments to reconcile net income to net cash provided by operating activities:			
Equity in net income of wholly owned subsidiaries . . . . .	(652,459)	(490,760)	(894,829)
Net realized gains . . . . .	—	(63)	(97)
Share-based compensation . . . . .	12,654	7,197	8,194
Dividends received from subsidiary . . . . .	258,490	341,510	795,000
Net change in other assets and liabilities . . . . .	(2,582)	6,717	(2,070)
<b>Net Cash Provided By Operating Activities . . . . .</b>	<b>209,500</b>	<b>300,764</b>	<b>748,870</b>
<b>Investing Activities:</b>			
Net (purchases) sales of short-term investments . . . . .	(5,094)	4,441	13,504
Purchase of furniture, equipment and other . . . . .	(65)	(196)	(194)
<b>Net Cash Provided By (Used For) Investing Activities . . . . .</b>	<b>(5,159)</b>	<b>4,245</b>	<b>13,310</b>
<b>Financing Activities:</b>			
Purchases of common shares under share repurchase program . .	(172,056)	(287,561)	(761,874)
Proceeds from common shares issued, net . . . . .	7,033	6,332	27,649
Proceeds from preferred shares issued . . . . .	315,763	—	—
Repurchases of preferred shares . . . . .	(325,000)	—	—
Proceeds from borrowings . . . . .	—	—	135,000
Repayments of borrowings . . . . .	—	—	(135,000)
Preferred dividends paid . . . . .	(28,381)	(25,844)	(25,844)
<b>Net Cash Used For Financing Activities . . . . .</b>	<b>(202,641)</b>	<b>(307,073)</b>	<b>(760,069)</b>
Increase (decrease) in cash . . . . .	1,700	(2,064)	2,111
Cash beginning of year . . . . .	4,717	6,781	4,670
Cash end of year . . . . .	<b>\$ 6,417</b>	<b>\$ 4,717</b>	<b>\$ 6,781</b>



**SCHEDULE III**

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**SUPPLEMENTARY INSURANCE INFORMATION**  
(U.S. dollars in thousands)

	Deferred Acquisition Costs, Net	Reserves for Losses and Loss Adjustment Expenses	Unearned Premiums	Net Premiums Earned	Net Investment Income(1)	Net Losses and Loss Adjustment Expenses Incurred	Amortization of Deferred Acquisition Costs	Other Operating Expenses(2)	Net Premiums Written
<b>December 31, 2012</b>									
Insurance . . . . .	\$141,962	\$6,149,247	\$1,077,211	\$1,800,343	NM	\$1,283,841	\$298,983	\$307,489	\$1,825,334
Reinsurance . . . . .	120,860	2,784,045	570,767	1,134,797	NM	577,436	209,901	122,546	1,226,901
Total . . . . .	<u>\$262,822</u>	<u>\$8,933,292</u>	<u>\$1,647,978</u>	<u>\$2,935,140</u>	NM	<u>\$1,861,277</u>	<u>\$508,884</u>	<u>\$430,035</u>	<u>\$3,052,235</u>
<b>December 31, 2011</b>									
Insurance . . . . .	\$161,907	\$5,762,533	\$1,039,081	\$1,679,047	NM	\$1,172,742	\$278,696	\$307,797	\$1,721,279
Reinsurance . . . . .	65,977	2,693,677	372,791	952,768	NM	554,811	184,241	92,945	952,047
Total . . . . .	<u>\$227,884</u>	<u>\$8,456,210</u>	<u>\$1,411,872</u>	<u>\$2,631,815</u>	NM	<u>\$1,727,553</u>	<u>\$462,937</u>	<u>\$400,742</u>	<u>\$2,673,326</u>
<b>December 31, 2010</b>									
Insurance . . . . .	\$180,216	\$5,422,297	\$1,088,014	\$1,651,106	NM	\$1,117,564	\$263,201	\$312,732	\$1,658,963
Reinsurance . . . . .	47,062	2,676,157	282,061	901,377	NM	400,151	178,001	91,250	852,077
Total . . . . .	<u>\$227,278</u>	<u>\$8,098,454</u>	<u>\$1,370,075</u>	<u>\$2,552,483</u>	NM	<u>\$1,517,715</u>	<u>\$441,202</u>	<u>\$403,982</u>	<u>\$2,511,040</u>

- (1) The Company does not manage its assets by segment and, accordingly, net investment income is not allocated to each underwriting segment. See Note 3.
- (2) Certain other operating expenses relate to the Company's corporate and other segment (non-underwriting). Such amounts are not reflected in the table above. See Note 3.

SCHEDULE IV

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**REINSURANCE**  
(U.S. dollars in thousands)

	<u>Gross Amount</u>	<u>Ceded to Other Companies(1)</u>	<u>Assumed From Other Companies(1)</u>	<u>Net Amount</u>	<u>Percentage of Amount Assumed to Net</u>
<b>Year Ended December 31, 2012</b>					
Premiums Written:					
Insurance . . . . .	\$2,562,788	\$(768,625)	\$ 31,171	\$1,825,334	1.7%
Reinsurance . . . . .	111,076	(55,099)	1,170,924	1,226,901	95.4%
Total . . . . .	<u>\$2,673,864</u>	<u>\$(816,926)</u>	<u>\$1,195,297</u>	<u>\$3,052,235</u>	<u>39.2%</u>
<b>Year Ended December 31, 2011</b>					
Premiums Written:					
Insurance . . . . .	\$2,402,153	\$(723,206)	\$ 42,332	\$1,721,279	2.5%
Reinsurance . . . . .	—	(46,473)	998,520	952,047	104.9%
Total . . . . .	<u>\$2,402,153</u>	<u>\$(763,130)</u>	<u>\$1,034,303</u>	<u>\$2,673,326</u>	<u>38.7%</u>
<b>Year Ended December 31, 2010</b>					
Premiums Written:					
Insurance . . . . .	\$2,338,428	\$(743,239)	\$ 63,774	\$1,658,963	3.8%
Reinsurance . . . . .	—	(22,880)	874,957	852,077	102.7%
Total . . . . .	<u>\$2,338,428</u>	<u>\$(755,747)</u>	<u>\$ 928,359</u>	<u>\$2,511,040</u>	<u>37.0%</u>

(1) Certain amounts included in the gross premiums written of each segment are related to intersegment transactions and are included in the gross premiums written of each segment. Accordingly, the sum of gross premiums written for each segment does not agree to the total gross premiums written as shown in the table above due to the elimination of intersegment transactions in the total.

SCHEDULE VI

**ARCH CAPITAL GROUP LTD. AND SUBSIDIARIES**  
**SUPPLEMENTARY INFORMATION FOR PROPERTY AND CASUALTY INSURANCE**  
**UNDERWRITERS**  
**(U.S. dollars in thousands)**

Column A	Column B	Column C	Column D	Column E	Column F	Column G	Column H		Column I	Column J	Column K
Affiliation with Registrant	Deferred Acquisition Costs, Net	Reserves for Losses and Loss Adjustment Expenses	Discount, if any, deducted in Column C	Unearned Premiums	Net Premiums Earned	Net Investment Income(1)	Net Losses and Loss Adjustment Expenses Incurred Related to		Amortization of Deferred Acquisition Costs	Net Paid Losses and Loss Adjustment Expenses	Net Premiums Written
							(a) Current Year	(b) Prior Years			
<b>Insurance</b>											
2012 . . . . .	\$141,962	\$6,191,705	\$10,485	\$1,077,211	\$1,800,343	NM	\$1,315,088	\$ (31,247)	\$298,983	\$981,790	\$1,825,334
2011 . . . . .	161,907	5,762,533	9,834	1,039,081	1,679,047	NM	1,224,861	(52,119)	278,696	900,398	1,721,279
2010 . . . . .	180,216	5,422,297	8,009	1,088,014	1,651,106	NM	1,136,665	(19,101)	263,201	865,510	1,658,963
<b>Reinsurance</b>											
2012 . . . . .	\$120,860	\$2,741,587	—	\$ 570,767	\$1,134,797	NM	\$ 767,717	\$(190,281)	\$209,901	\$483,589	\$1,226,901
2011 . . . . .	65,977	2,693,677	—	372,791	952,768	NM	787,707	(232,896)	184,241	552,225	952,047
2010 . . . . .	47,062	2,676,157	—	282,061	901,377	NM	527,746	(127,595)	178,001	441,775	852,077

(1) The Company does not manage its assets by segment and, accordingly, net investment income is not allocated to each underwriting segment. See Note 3.

# Corporate Information

## ARCH CAPITAL GROUP LTD.

### Directors and Officers

Constantine Iordanou<sup>3,4,7</sup>

*Chairman, President and Chief Executive Officer*

Mark D. Lyons<sup>7</sup>

*Executive Vice President, Chief Financial Officer,  
Chief Risk Officer and Treasurer*

Marc Grandisson<sup>7</sup>

*Chairman and Chief Executive Officer of  
Arch Worldwide Reinsurance Group*

David H. McElroy<sup>7</sup>

*Chairman and Chief Executive Officer of  
Arch Worldwide Insurance Group*

W. Preston Hutchings

*Senior Vice President and Chief Investment Officer*

Michael R. Murphy<sup>7</sup>

*President of Arch Insurance Group (U.S.) and  
Chief Underwriting Officer of Arch Worldwide Insurance Group*

Nicolas Papadopoulou<sup>7</sup>

*President and Chief Executive Officer of  
Arch Reinsurance Ltd.*

Louis T. Petrillo

*General Counsel  
President of Arch Capital Services Inc.*

Wolfe "Bill" H. Bragin

*Director  
Former Vice President and  
Managing Director of GE Asset Management*

John L. Bunce, Jr.<sup>2,3,4</sup>

*Director  
Managing Director of Greyhawk Capital Management, LLC  
and Senior Advisor to Hellman & Friedman LLC*

Eric W. Doppstadt<sup>4,5</sup>

*Director  
Vice President and Chief Investment Officer of the  
Ford Foundation*

Kewsong Lee<sup>2,3,4,5</sup>

*Lead Director  
Member and Managing Director of Warburg Pincus LLC  
and a Partner of Warburg Pincus & Co.*

Yiorgos Lillikas<sup>1,6</sup>

*Director  
Chief Executive Officer of BlueTree Consultants  
Former Minister of Foreign Affairs of the  
Republic of Cyprus (E.U.) and Former Minister of  
Commerce, Industry and Tourism of the Republic of Cyprus*

James J. Meenaghan<sup>1,2</sup>

*Director  
Former Chairman, President and Chief Executive Officer of  
Home Insurance Companies*

John M. Pasquesi<sup>3,4,5,6</sup>

*Vice Chairman  
Managing Member of Otter Capital LLC*

Brian S. Posner<sup>1,4,6</sup>

*Director  
President of Point Rider Group LLC*

John D. Vollaro<sup>4,6</sup>

*Director  
Senior Advisor*

Robert F. Works<sup>1,2</sup>

*Director  
Former Managing Director of Jones Lang LaSalle*

1 Audit Committee

2 Compensation Committee

3 Executive Committee

4 Finance and Investment Committee

5 Nominating Committee

6 Underwriting Oversight Committee

7 Executive Strategy Committee

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## SHAREHOLDER INFORMATION

### Corporate Address

Wessex House, 5<sup>th</sup> 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 listed on the NASDAQ Global Select Market under the symbol ACGL.

### Transfer Agent

American Stock Transfer & Trust Company, LLC  
6201 15th Avenue  
Brooklyn, New York 11219

### Shareholder Inquiries

Mark D. Lyons  
*Executive Vice President, Chief Financial Officer,  
Chief Risk Officer and Treasurer*  
(441) 278-9250  
(441) 278-9255 facsimile

Arch Capital Group Ltd.

Wessex House, 5<sup>th</sup> Floor

45 Reid Street

Hamilton HM 12

Bermuda

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